

## Federal Home Loan Bank of Des Moines Monthly Price Report

The Federal Home Loan Bank of Des Moines (Bank) is providing estimated valuations for specific Convertible, Amortizing and Non-Amortizing advances set forth below for members' information and convenience only. The estimated valuations are generated by models used for the Bank's own asset/liability management purposes. The models use specific assumptions, for example, market volatility and discount curve adjusted for the Bank's spread, to estimate the value of the advance. **The valuations represent theoretical market prices only and should not be construed as a liquidation price for the specific advance.**

It is expressly understood that in providing these valuations to members, the Bank is not performing any advisory service. The valuations are provided without representation or warranty and the member is solely responsible for any decision it makes or actions it takes based on the valuations provided. It is recommended that members maintain independent capabilities to value their asset/liability positions, including Convertible, Amortizing and Non-Amortizing advances. You should consult with your own tax, legal, accounting, credit and financial advisors with respect to the transaction structure and information detailed herein.

The table depicts valuation estimates resulting from immediate parallel interest-rate movements of plus/minus 400 basis points in 100 basis point increments. To identify your advance, locate the appropriate maturity date and verify the advance rate. The advances in report are grouped by advance type and then within each type sorted in ascending order by maturity date. Once the appropriate structure is located, read across to view the sensitivity analysis for that advance.

If you have any questions, contact the Money Desk at 800.544.3452, ext. 2122.

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 211006A00003 | 10/6/2021                           | 0.37 | 10/6/2022  | 10/6/2021  | 100.02256 | 100.0059201 | 99.98929201 | 99.97268064 | 99.95608592 | 99.93950782 | 99.92294631 | 99.90640136 | 99.88987295 |
| 211008A00004 | 10/8/2021                           | 0.38 | 10/3/2022  | 10/8/2021  | 100.0112  | 100.0028819 | 99.99456909 | 99.98626394 | 99.97796641 | 99.96967648 | 99.96139415 | 99.9531194  | 99.94485222 |
| 211025A00017 | 10/25/2021                          | 0.28 | 10/25/2022 | 10/25/2021 | 100.09255 | 100.0231279 | 99.95381685 | 99.88461221 | 99.81551379 | 99.74652133 | 99.6776346  | 99.60885336 | 99.54017735 |
| 211116A00007 | 11/16/2021                          | 0.51 | 11/14/2022 | 11/16/2021 | 100.15325 | 100.0283804 | 99.90383327 | 99.77961036 | 99.65571035 | 99.53213194 | 99.40887386 | 99.28593483 | 99.16331357 |
| 211117A00008 | 11/17/2021                          | 0.5  | 11/17/2022 | 11/17/2021 | 100.15868 | 100.0254747 | 99.8926343  | 99.76016047 | 99.62805164 | 99.49630627 | 99.36492284 | 99.23389983 | 99.10323573 |
| 211202A00024 | 12/2/2021                           | 0.61 | 12/2/2022  | 12/2/2021  | 100.19889 | 100.0240975 | 99.84991656 | 99.67634208 | 99.50337089 | 99.33099987 | 99.1592259  | 98.98804591 | 98.81745683 |
| 211231A00003 | 12/31/2021                          | 0.59 | 11/30/2022 | 12/31/2021 | 100.19419 | 100.0249385 | 99.85625583 | 99.68813776 | 99.52058145 | 99.35358412 | 99.18714303 | 99.02125544 | 98.85591863 |
| 220112A00011 | 1/12/2022                           | 0.79 | 1/12/2023  | 1/12/2022  | 100.26582 | 99.97764579 | 99.69113778 | 99.40627973 | 99.12305735 | 98.8414565  | 98.56146322 | 98.28306369 | 98.00624427 |
| 220114A00003 | 1/14/2022                           | 0.76 | 12/14/2022 | 1/14/2022  | 100.23801 | 100.0299674 | 99.82279954 | 99.61650202 | 99.41106932 | 99.20649594 | 99.00277644 | 98.79990542 | 98.59787753 |
| 220125A00011 | 1/25/2022                           | 0.75 | 10/25/2022 | 1/25/2022  | 100.12113 | 100.0517286 | 99.98243457 | 99.91324653 | 99.84416422 | 99.77518742 | 99.70631588 | 99.63754937 | 99.56888766 |
| 220125A00012 | 1/25/2022                           | 0.92 | 1/20/2023  | 1/25/2022  | 100.30758 | 99.99728043 | 99.68891049 | 99.3824487  | 99.07787733 | 98.77517886 | 98.47433601 | 98.17533168 | 97.878149   |
| 220225A00009 | 2/25/2022                           | 1.11 | 11/2/2022  | 2/25/2022  | 100.18831 | 100.0966657 | 100.005187  | 99.91387785 | 99.82273766 | 99.73176601 | 99.64096241 | 99.55032641 | 99.45985755 |
| 220311A00010 | 3/11/2022                           | 1.17 | 10/11/2022 | 3/11/2022  | 100.06613 | 100.0355939 | 100.0050879 | 99.97461668 | 99.94418029 | 99.91377861 | 99.88341159 | 99.85307915 | 99.82278125 |
| 220317A00002 | 3/17/2022                           | 1.49 | 1/17/2023  | 3/17/2022  | 100.47871 | 100.1763424 | 99.87580484 | 99.57707917 | 99.28014899 | 98.98499805 | 98.69161032 | 98.39996997 | 98.11006135 |
| 220322A00009 | 3/22/2022                           | 1.87 | 3/22/2023  | 3/22/2022  | 100.75351 | 100.2747392 | 99.80051576 | 99.33077475 | 98.86545271 | 98.40448743 | 97.94781788 | 97.49538413 | 97.04712739 |
| 220323A00007 | 3/23/2022                           | 1.58 | 12/23/2022 | 3/23/2022  | 100.43914 | 100.2058843 | 99.97372167 | 99.74264238 | 99.51263882 | 99.28370345 | 99.05582884 | 98.82900759 | 98.60323238 |
| 220324A00006 | 3/24/2022                           | 1.9  | 3/20/2023  | 3/24/2022  | 100.76296 | 100.2896421 | 99.82076517 | 99.35627151 | 98.89609973 | 98.44018963 | 97.98848211 | 97.54091918 | 97.09744388 |
| 220406A00004 | 4/6/2022                            | 1.57 | 11/7/2022  | 4/6/2022   | 100.25461 | 100.1490214 | 100.0436651 | 99.93854039 | 99.83364651 | 99.72898268 | 99.6245481  | 99.52034201 | 99.41636362 |
| 220419A00010 | 4/19/2022                           | 2.01 | 2/17/2023  | 4/19/2022  | 100.7306  | 100.342361  | 99.95711759 | 99.57483405 | 99.19547628 | 98.81901075 | 98.4454044  | 98.0746247  | 97.7066396  |
| 220425A00007 | 4/25/2022                           | 2.34 | 4/25/2023  | 4/25/2022  | 101.11716 | 100.5442396 | 99.97780454 | 99.41774095 | 98.86394175 | 98.31630227 | 97.77472013 | 97.23909524 | 96.70932968 |
| 220427A00017 | 4/27/2022                           | 1.86 | 12/23/2022 | 4/27/2022  | 100.50452 | 100.2711652 | 100.0388977 | 99.80771387 | 99.57760619 | 99.34856709 | 99.12058911 | 98.89366486 | 98.66778703 |
| 220428A00013 | 4/28/2022                           | 2.04 | 2/1/2023   | 4/28/2022  | 100.69893 | 100.3547528 | 100.0129244 | 99.67341664 | 99.33620607 | 99.00126945 | 98.66858391 | 98.33812686 | 98.00987602 |
| 220510A00013 | 5/10/2022                           | 2.03 | 1/10/2023  | 5/10/2022  | 100.61708 | 100.3337666 | 100.0520554 | 99.77193399 | 99.49338886 | 99.21640667 | 98.9409742  | 98.66707843 | 98.39470644 |
| 220511A00001 | 5/11/2022                           | 2.38 | 5/8/2023   | 5/11/2022  | 101.19681 | 100.5880855 | 99.98667972 | 99.39245701 | 98.80528911 | 98.22505083 | 97.65161994 | 97.08487705 | 96.52470557 |
| 220512A00011 | 5/12/2022                           | 1.8  | 12/12/2022 | 5/12/2022  | 100.44694 | 100.2441156 | 100.0421271 | 99.8409645  | 99.64062269 | 99.44109659 | 99.24238119 | 99.04447148 | 98.84736252 |
| 220516A00023 | 5/16/2022                           | 1.73 | 11/17/2022 | 5/16/2022  | 100.32283 | 100.1894304 | 100.0564011 | 99.92373882 | 99.791442   | 99.6595091  | 99.52793858 | 99.39672892 | 99.26587861 |
| 220518A00016 | 5/18/2022                           | 2.15 | 2/17/2023  | 5/18/2022  | 100.78507 | 100.3966979 | 100.0113255 | 99.62891375 | 99.24942851 | 98.87283622 | 98.49910382 | 98.12819879 | 97.76008905 |
| 220518A00017 | 5/18/2022                           | 2.47 | 5/18/2023  | 5/18/2022  | 101.29828 | 100.6618836 | 100.0334793 | 99.41291536 | 98.80004566 | 98.19472754 | 97.59682191 | 97.00619307 | 96.42270863 |
| 220524A00011 | 5/24/2022                           | 2.14 | 2/24/2023  | 5/24/2022  | 100.80209 | 100.39445   | 99.99010349 | 99.58900874 | 99.19112662 | 98.79641864 | 98.40484696 | 98.01637432 | 97.63096404 |
| 220531A00018 | 5/31/2022                           | 1.95 | 12/30/2022 | 5/31/2022  | 100.55619 | 100.3033799 | 100.0518353 | 99.80154778 | 99.55250816 | 99.30470712 | 99.05813549 | 98.81278417 | 98.56864417 |
| 220531A00022 | 5/31/2022                           | 2.12 | 2/28/2023  | 5/31/2022  | 100.80567 | 100.3870457 | 99.97188992 | 99.56015505 | 99.15179906 | 98.74678057 | 98.34505889 | 97.94659396 | 97.55134639 |
| 220601A00021 | 6/1/2022                            | 2.48 | 6/1/2023   | 6/1/2022   | 101.36997 | 100.6950979 | 100.0291913 | 99.37207028 | 98.72356181 | 98.08349752 | 97.45171337 | 96.82804952 | 96.21235025 |
| 220601A00027 | 6/1/2022                            | 2.16 | 3/1/2023   | 6/1/2022   | 100.82565 | 100.4042351 | 99.98633281 | 99.57189865 | 99.1608896  | 98.7532634  | 98.34897846 | 97.9479939  | 97.55026947 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 220602A00050 | 6/2/2022                            | 2.41 | 6/2/2023   | 6/2/2022   | 101.38754 | 100.7091017 | 100.0397179 | 99.37921286 | 98.72741096 | 98.084141   | 97.44923631 | 96.82253451 | 96.20387742 |
| 220608A00010 | 6/8/2022                            | 2.33 | 3/8/2023   | 6/8/2022   | 100.92316 | 100.4822831 | 100.0452625 | 99.61204341 | 99.18257629 | 98.75681247 | 98.33470413 | 97.91620425 | 97.50126664 |
| 220614A00010 | 6/14/2022                           | 3.46 | 6/14/2023  | 6/14/2022  | 102.12729 | 101.4139978 | 100.7106775 | 100.0171197 | 99.33312182 | 98.6584869  | 97.99302341 | 97.33654499 | 96.68887031 |
| 220615A00001 | 6/15/2022                           | 2.75 | 12/16/2022 | 6/15/2022  | 100.66614 | 100.4519148 | 100.2386104 | 100.0262245 | 99.81475129 | 99.60418476 | 99.39451903 | 99.18574828 | 98.97786672 |
| 220616A00037 | 6/16/2022                           | 3.24 | 4/14/2023  | 6/16/2022  | 101.5611  | 101.0168853 | 100.4785084 | 99.94587504 | 99.41889343 | 98.89747382 | 98.38152832 | 97.8709709  | 97.36571733 |
| 220617A00045 | 6/17/2022                           | 3.13 | 3/17/2023  | 6/17/2022  | 101.32959 | 100.8629199 | 100.4005547 | 99.94243523 | 99.48850294 | 99.0387005  | 98.5929716  | 98.15126094 | 97.71351425 |
| 220621A00021 | 6/21/2022                           | 3.31 | 6/21/2023  | 6/21/2022  | 102.06778 | 101.3356163 | 100.6139553 | 99.902575   | 99.20125672 | 98.50978784 | 97.82796174 | 97.15557753 | 96.4924399  |
| 220624A00026 | 6/24/2022                           | 2.81 | 1/17/2023  | 6/24/2022  | 100.87864 | 100.5754922 | 100.2741747 | 99.97467268 | 99.67696967 | 99.38104943 | 99.08689589 | 98.79449319 | 98.50382565 |
| 220624A00027 | 6/24/2022                           | 2.96 | 2/15/2023  | 6/24/2022  | 101.08967 | 100.7060796 | 100.3254075 | 99.94761824 | 99.57267899 | 99.20055753 | 98.8312221  | 98.46464143 | 98.10078471 |
| 220624A00028 | 6/24/2022                           | 3.05 | 3/15/2023  | 6/24/2022  | 101.28091 | 100.8198679 | 100.3630271 | 99.91033284 | 99.4617288  | 99.01715956 | 98.57657071 | 98.13990884 | 97.70712147 |
| 220624A00029 | 6/24/2022                           | 3.13 | 4/17/2023  | 6/24/2022  | 101.52032 | 100.9680097 | 100.421709  | 99.88132353 | 99.34675754 | 98.81791721 | 98.29471077 | 97.77704837 | 97.26484211 |
| 220624A00030 | 6/24/2022                           | 2.72 | 12/27/2022 | 6/24/2022  | 100.73143 | 100.4866271 | 100.2430181 | 100.0005922 | 99.7593409  | 99.51925571 | 99.28032817 | 99.04254993 | 98.80591272 |
| 220701A00031 | 7/1/2022                            | 2.87 | 2/1/2023   | 7/1/2022   | 100.98498 | 100.6401941 | 100.2977557 | 99.95764098 | 99.61982654 | 99.28428911 | 98.95100579 | 98.61995396 | 98.29111132 |
| 220701A00032 | 7/1/2022                            | 2.95 | 3/1/2023   | 7/1/2022   | 101.15931 | 100.7370539 | 100.3183156 | 99.90305049 | 99.49121552 | 99.08276838 | 98.67766743 | 98.27587174 | 97.87734101 |
| 220701A00034 | 7/1/2022                            | 3.04 | 3/31/2023  | 7/1/2022   | 101.36659 | 100.8613957 | 100.3612276 | 99.86600846 | 99.37566522 | 98.89012618 | 98.4093211  | 97.93318107 | 97.4616385  |
| 220715A00023 | 7/15/2022                           | 3.36 | 3/31/2023  | 7/15/2022  | 101.52836 | 101.0226961 | 100.5220572 | 100.0263706 | 99.53556318 | 99.0495633  | 98.56830062 | 98.09170621 | 97.61971245 |
| 220720A00031 | 7/20/2022                           | 3.4  | 3/20/2023  | 7/20/2022  | 101.47553 | 101.0002127 | 100.5293579 | 100.0628998 | 99.6007768  | 99.14292861 | 98.68929597 | 98.23982072 | 97.79444578 |
| 220721A00010 | 7/21/2022                           | 3.42 | 4/21/2023  | 7/21/2022  | 101.70928 | 101.1453874 | 100.5877536 | 100.0362722 | 99.49084168 | 98.9513627  | 98.41773811 | 97.88987287 | 97.36767398 |
| 220725A00012 | 7/25/2022                           | 3.34 | 3/24/2023  | 7/25/2022  | 101.47292 | 100.986632  | 100.5050053 | 100.0279749 | 99.5554751  | 99.08744162 | 98.62381123 | 98.16452194 | 97.70951292 |
| 220726A00056 | 7/26/2022                           | 3.37 | 4/26/2023  | 7/26/2022  | 101.71625 | 101.1386309 | 100.5675649 | 100.0029451 | 99.44466279 | 98.89261161 | 98.34668765 | 97.80678929 | 97.27281713 |
| 220726A00058 | 7/26/2022                           | 3.38 | 7/26/2023  | 7/26/2022  | 102.34994 | 101.5213282 | 100.7061347 | 99.90403364 | 99.11471133 | 98.33786395 | 97.57319727 | 96.82042627 | 96.07927475 |
| 220728A00069 | 7/28/2022                           | 3.25 | 7/24/2023  | 7/28/2022  | 102.23752 | 101.4147446 | 100.6052101 | 99.80859938 | 99.02460448 | 98.25292722 | 97.49327876 | 96.74537923 | 96.00895739 |
| 220811A00002 | 8/11/2022                           | 3.5  | 8/11/2023  | 8/11/2022  | 102.56086 | 101.6877916 | 100.8295986 | 99.98590264 | 99.15633835 | 98.34055238 | 97.53820315 | 96.74896029 | 95.97250419 |
| 220815A00005 | 8/15/2022                           | 3.52 | 8/15/2023  | 8/15/2022  | 102.60618 | 101.7220314 | 100.8531382 | 99.99910316 | 99.15954696 | 98.33410326 | 97.52241794 | 96.72414869 | 95.93896445 |
| 220823A00025 | 8/23/2022                           | 3.44 | 2/24/2023  | 8/23/2022  | 101.3331  | 100.9241539 | 100.5185044 | 100.1161144 | 99.71694473 | 99.32095677 | 98.92811261 | 98.53837493 | 98.15170698 |
| 220826A00030 | 8/26/2022                           | 3.49 | 3/27/2023  | 8/26/2022  | 101.56651 | 101.0717211 | 100.5817478 | 100.096524  | 99.61598069 | 99.14005051 | 98.6686672  | 98.20176581 | 97.7392826  |
| 220831A00035 | 8/31/2022                           | 3.65 | 3/31/2023  | 8/31/2022  | 101.67497 | 101.1688746 | 100.667809  | 100.1716987 | 99.68047071 | 99.19405318 | 98.71237581 | 98.23536962 | 97.76296695 |
| 220831A00084 | 8/31/2022                           | 3.84 | 8/30/2023  | 8/31/2022  | 103.00695 | 102.0801345 | 101.1700124 | 100.2761349 | 99.3980695  | 98.53539921 | 97.68772146 | 96.85464764 | 96.03580249 |
| 220928A00054 | 9/28/2022                           | 4.66 | 9/28/2023  | 9/28/2022  | 104.04032 | 103.0295997 | 102.0385818 | 101.0666969 | 100.1133941 | 99.17814327 | 98.26043458 | 97.3597771  | 96.47569809 |
| 220923A00020 | 9/23/2022                           | 4.54 | 8/23/2023  | 9/23/2022  | 103.58676 | 102.6760935 | 101.7814921 | 100.9025302 | 100.0387996 | 99.18990605 | 98.35546914 | 97.53512119 | 96.72850695 |
| 220926A00033 | 9/26/2022                           | 4.53 | 7/26/2023  | 9/26/2022  | 103.30374 | 102.4708114 | 101.6513443 | 100.8450181 | 100.0515181 | 99.27053964 | 98.50178762 | 97.74497617 | 96.99982826 |
| 220921A00045 | 9/21/2022                           | 4.47 | 9/21/2023  | 9/21/2022  | 103.78454 | 102.7941732 | 101.8227661 | 100.8697814 | 99.93469775 | 99.01701336 | 98.11624505 | 97.23192741 | 96.36361198 |
| 220921A00021 | 9/21/2022                           | 4.47 | 9/21/2023  | 9/21/2022  | 103.78454 | 102.7941732 | 101.8227661 | 100.8697814 | 99.93469775 | 99.01701336 | 98.11624505 | 97.23192741 | 96.36361198 |

|              | Parallel-Shift Sensitivity Analysis |      |           |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |           |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY  | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 220926A00032 | 9/26/2022                           | 4.49 | 6/26/2023 | 9/26/2022  | 102.98254 | 102.2329583 | 101.4943105 | 100.7663576 | 100.0488682 | 99.34161776 | 98.64438793 | 97.95696663 | 97.2791477  |
| 220901A00003 | 9/1/2022                            | 3.74 | 6/1/2023  | 9/1/2022   | 102.22336 | 101.5452603 | 100.8761571 | 100.2158694 | 99.56422378 | 98.92105142 | 98.28618782 | 97.6594727  | 97.0407499  |
| 220921A00025 | 9/21/2022                           | 4.47 | 9/21/2023 | 9/21/2022  | 103.78454 | 102.7941732 | 101.8227661 | 100.8697814 | 99.93469775 | 99.01701336 | 98.11624505 | 97.23192741 | 96.36361198 |
| 220923A00017 | 9/23/2022                           | 4.41 | 5/23/2023 | 9/23/2022  | 102.58713 | 101.932361  | 101.2859685 | 100.6477911 | 100.0176726 | 99.39546076 | 98.7810073  | 98.17416749 | 97.57480024 |
| 220912A00017 | 9/12/2022                           | 3.89 | 6/12/2023 | 9/12/2022  | 102.41722 | 101.708249  | 101.0091107 | 100.3195983 | 99.63951369 | 98.96866413 | 98.30686216 | 97.65392535 | 97.00967617 |
| 220926A00031 | 9/26/2022                           | 4.44 | 5/26/2023 | 9/26/2022  | 102.63702 | 101.97383   | 101.3192278 | 100.6730442 | 100.0351173 | 99.40528945 | 98.78340687 | 98.16931976 | 97.56288204 |
| 220929A00026 | 9/29/2022                           | 4.43 | 6/29/2023 | 9/29/2022  | 102.9674  | 102.2096715 | 101.4631086 | 100.7274677 | 100.0025103 | 99.28800461 | 98.58372574 | 97.88945509 | 97.2049803  |
| 220926A00034 | 9/26/2022                           | 4.58 | 8/28/2023 | 9/26/2022  | 103.67248 | 102.7477749 | 101.8396165 | 100.9475601 | 100.0711796 | 99.21006388 | 98.36381617 | 97.53205327 | 96.71440511 |
| 220914A00019 | 9/14/2022                           | 4.25 | 8/14/2023 | 9/14/2022  | 103.243   | 102.3585142 | 101.4892247 | 100.6347396 | 99.79468253 | 98.96868965 | 98.15640931 | 97.35750149 | 96.57163737 |
| 220921A00020 | 9/21/2022                           | 4.38 | 6/21/2023 | 9/21/2022  | 102.8517  | 102.1163526 | 101.3915396 | 100.6770393 | 99.97263221 | 99.27810533 | 98.59325149 | 97.91786932 | 97.25176298 |
| 220927A00037 | 9/27/2022                           | 4.32 | 3/31/2023 | 9/27/2022  | 102.01369 | 101.5065974 | 101.0045459 | 100.5074569 | 100.0152571 | 99.52787464 | 99.04523918 | 98.56728163 | 98.09393427 |
| 220926A00030 | 9/26/2022                           | 4.4  | 4/26/2023 | 9/26/2022  | 102.31117 | 101.7315914 | 101.1585818 | 100.5920342 | 100.0318396 | 99.47789147 | 98.9300857  | 98.38832045 | 97.85249611 |
| 220921A00093 | 9/21/2022                           | 4.44 | 9/21/2023 | 9/21/2022  | 103.86361 | 102.8712737 | 101.8979581 | 100.9431219 | 100.0062416 | 99.08681336 | 98.18435205 | 97.29839032 | 96.42847792 |
| 220923A00019 | 9/23/2022                           | 4.46 | 6/23/2023 | 9/23/2022  | 102.93025 | 102.1890971 | 101.4586443 | 100.7386577 | 100.0289131 | 99.32919292 | 98.63928547 | 97.95898509 | 97.28809185 |
| 220926A00036 | 9/26/2022                           | 4.68 | 9/26/2023 | 9/26/2022  | 104.04082 | 103.0355195 | 102.0497162 | 101.0828474 | 100.1343705 | 99.20376362 | 98.29052434 | 97.39416898 | 96.51423168 |
| 220927A00066 | 9/27/2022                           | 4.57 | 7/27/2023 | 9/27/2022  | 103.34697 | 102.5111057 | 101.6888009 | 100.8797228 | 100.0835538 | 99.29998627 | 98.52872249 | 97.76947389 | 97.02196092 |
| 220914A00052 | 9/14/2022                           | 4.29 | 9/11/2023 | 9/14/2022  | 103.52916 | 102.5671234 | 101.6230125 | 100.6963327 | 99.78660377 | 98.89336296 | 98.01616423 | 97.1545775  | 96.30818799 |
| 220908A00027 | 9/8/2022                            | 3.87 | 7/10/2023 | 9/8/2022   | 102.63443 | 101.848036  | 101.0737089 | 100.3111733 | 99.56016101 | 98.82041191 | 98.09167361 | 97.37370127 | 96.66625723 |
| 150601A00342 | 6/1/2015                            | 3.97 | 8/26/2033 | 6/1/2015   | 117.89572 | 112.1483873 | 106.810184  | 101.8467045 | 97.22676204 | 92.92206269 | 88.90691454 | 85.15796803 | 81.65398406 |
| 150601A00439 | 6/1/2015                            | 2.57 | 3/18/2024 | 6/1/2015   | 101.43831 | 100.7013028 | 99.97704904 | 99.26520047 | 98.56542118 | 97.87738782 | 97.20078901 | 96.5353248  | 95.88070611 |
| 150601A00440 | 6/1/2015                            | 3.27 | 3/16/2029 | 6/1/2015   | 108.58735 | 105.296572  | 102.1565267 | 99.15885618 | 96.29572792 | 93.5598013  | 90.94419326 | 88.44244659 | 86.04850069 |
| 150601A00450 | 6/1/2015                            | 3.28 | 4/27/2029 | 6/1/2015   | 108.77495 | 105.4245416 | 102.2298527 | 99.18212937 | 96.27317774 | 93.49532468 | 90.84138133 | 88.3046091  | 85.87868842 |
| 150601A00460 | 6/1/2015                            | 3.05 | 5/16/2029 | 6/1/2015   | 108.08967 | 104.7304496 | 101.528477  | 98.474859   | 95.56127231 | 92.77992575 | 90.12352255 | 87.58522558 | 85.15862518 |
| 150601A00506 | 6/1/2015                            | 3.14 | 7/6/2029  | 6/1/2015   | 108.57314 | 105.1319799 | 101.8548166 | 98.73221263 | 95.75535166 | 92.91598976 | 90.20641433 | 87.61940615 | 85.14820434 |
| 150601A00528 | 6/1/2015                            | 3.08 | 7/27/2029 | 6/1/2015   | 108.44099 | 104.9764324 | 101.6781353 | 98.53647485 | 95.54245997 | 92.68768673 | 89.96429585 | 87.36493364 | 84.88271596 |
| 150601A00559 | 6/1/2015                            | 3.06 | 8/31/2029 | 6/1/2015   | 108.49541 | 104.9821038 | 101.6394392 | 98.45743047 | 95.42675386 | 92.53870047 | 89.78513151 | 87.15843705 | 84.65149795 |
| 150601A00684 | 6/1/2015                            | 2.25 | 2/7/2025  | 6/1/2015   | 101.83125 | 100.6541671 | 99.50225107 | 98.37474897 | 97.27093727 | 96.19012013 | 95.13162813 | 94.09481698 | 93.0790664  |
| 160603A00015 | 6/3/2016                            | 1.95 | 6/5/2023  | 6/3/2016   | 101.01528 | 100.3376086 | 99.66906294 | 99.00945612 | 98.3586094  | 97.7163488  | 97.08250494 | 96.45691287 | 95.83941194 |
| 160608A00026 | 6/8/2016                            | 2.36 | 6/8/2026  | 6/8/2016   | 105.93966 | 102.5568723 | 99.30600212 | 96.18109946 | 93.17652331 | 90.2869209  | 87.50721097 | 84.83256818 | 82.25840855 |
| 160608A00031 | 6/8/2016                            | 2.36 | 6/8/2026  | 6/8/2016   | 105.93966 | 102.5568723 | 99.30600212 | 96.18109942 | 93.17652324 | 90.2869208  | 87.50721084 | 84.83256803 | 82.25840837 |
| 160608A00032 | 6/8/2016                            | 2.36 | 6/8/2026  | 6/8/2016   | 105.93966 | 102.5568723 | 99.30600212 | 96.18109944 | 93.17652328 | 90.28692086 | 87.50721092 | 84.83256813 | 82.25840849 |
| 160609A00075 | 6/9/2016                            | 1.94 | 6/9/2026  | 6/9/2016   | 102.46145 | 100.5436895 | 98.68280692 | 96.87664865 | 95.1231593  | 93.42037614 | 91.76642426 | 90.15951195 | 88.59792639 |
| 160628A00006 | 6/28/2016                           | 1.44 | 6/28/2023 | 6/28/2016  | 100.50334 | 100.0834958 | 99.66804257 | 99.25690155 | 98.84999809 | 98.44725941 | 98.04861445 | 97.65399389 | 97.26333004 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 161222A00035 | 12/22/2016                          | 2.29 | 12/22/2023 | 12/22/2016 | 101.18635 | 100.517814  | 99.86053852 | 99.21421112 | 98.57852826 | 97.95319816 | 97.33794028 | 96.73248474 | 96.13657183 |
| 161222A00036 | 12/22/2016                          | 2.69 | 12/22/2026 | 12/22/2016 | 104.43578 | 102.2690723 | 100.1728171 | 98.14412913 | 96.18026392 | 94.27860885 | 92.43667603 | 90.65209542 | 88.92260839 |
| 161222A00037 | 12/22/2016                          | 3.08 | 12/22/2031 | 12/22/2016 | 111.66137 | 106.8912374 | 102.4176052 | 98.21860177 | 94.27416415 | 90.5658714  | 87.07679795 | 83.79138118 | 80.69530163 |
| 170406A00031 | 4/6/2017                            | 3.01 | 4/6/2027   | 4/6/2017   | 110.24847 | 106.0717354 | 102.0877017 | 98.28634182 | 94.65820341 | 91.19437547 | 87.88645449 | 84.72651269 | 81.70706854 |
| 170921A00056 | 9/21/2017                           | 2.82 | 9/21/2027  | 9/21/2017  | 110.38433 | 105.83568   | 101.5144965 | 97.40804504 | 93.50437525 | 89.79226673 | 86.26118051 | 82.90121407 | 79.7030596  |
| 180302A00014 | 3/2/2018                            | 2.69 | 3/2/2023   | 3/2/2018   | 100.71647 | 100.4615084 | 100.2081042 | 99.95624454 | 99.70591387 | 99.45709678 | 99.20977812 | 98.96394294 | 98.71957648 |
| 180321A00015 | 3/21/2018                           | 3.02 | 3/21/2025  | 3/21/2018  | 103.53183 | 102.0206605 | 100.54584   | 99.10621017 | 97.70065856 | 96.32811652 | 94.98755698 | 93.67799253 | 92.39847362 |
| 180322A00030 | 3/22/2018                           | 2.79 | 3/24/2025  | 3/22/2018  | 102.92474 | 101.6213627 | 100.3468877 | 99.10043459 | 97.88115524 | 96.68823409 | 95.52088689 | 94.37835915 | 93.25992476 |
| 180329A00011 | 3/29/2018                           | 2.77 | 3/29/2023  | 3/29/2018  | 100.81792 | 100.5219654 | 100.2281305 | 99.93639358 | 99.64672965 | 99.35911429 | 99.07352346 | 98.7899335  | 98.50832113 |
| 180508A00038 | 5/8/2018                            | 3.57 | 5/9/2033   | 5/8/2018   | 116.81871 | 110.8649182 | 105.3390972 | 100.2052804 | 95.43084757 | 90.98618857 | 86.844403   | 82.98103186 | 79.37381754 |
| 180612A00012 | 6/12/2018                           | 2.94 | 6/12/2023  | 6/12/2018  | 101.12778 | 100.7102002 | 100.2969017 | 99.88780835 | 99.48284935 | 99.08195549 | 98.68505917 | 98.29209441 | 97.90299672 |
| 201119A00023 | 11/23/2020                          | 2.23 | 11/21/2030 | 11/23/2020 | 113.33931 | 105.2178767 | 97.74431001 | 90.86340457 | 84.52493031 | 78.68316313 | 73.29645889 | 68.32686976 | 63.73979841 |
| 220315A00037 | 3/17/2022                           | 2.63 | 3/16/2027  | 3/17/2022  | 109.42236 | 104.9410207 | 100.6705555 | 96.59994273 | 92.7187931  | 89.0173107  | 85.4862562  | 82.11691229 | 78.9010515  |
| 200318A00054 | 3/18/2020                           | 1.56 | 3/18/2025  | 3/18/2020  | 102.08794 | 99.66494315 | 97.31162717 | 95.02559968 | 92.80456071 | 90.64630292 | 88.54870735 | 86.50973923 | 84.52744415 |
| 200327A00054 | 3/27/2020                           | 0.9  | 3/27/2023  | 3/27/2020  | 100.28588 | 99.79477867 | 99.30846858 | 98.8268822  | 98.34995099 | 97.87760773 | 97.40978651 | 96.94642265 | 96.48745271 |
| 220915A00041 | 9/15/2022                           | 4.28 | 5/15/2024  | 9/15/2022  | 105.79659 | 104.1567931 | 102.5505563 | 100.9769142 | 99.43493814 | 97.92373452 | 96.44244336 | 94.99023654 | 93.56631633 |
| 210706A00014 | 7/6/2021                            | 1.15 | 6/26/2026  | 7/6/2021   | 102.05432 | 98.41634328 | 94.92635369 | 91.5774934  | 88.36326771 | 85.27752145 | 82.31441886 | 79.46842487 | 76.73428752 |
| 200325A00044 | 3/25/2020                           | 1.7  | 12/23/2024 | 3/25/2020  | 102.19782 | 100.0012974 | 97.86250661 | 95.7795045  | 93.75043343 | 91.77351373 | 89.8470396  | 87.96937537 | 86.13895191 |
| 200327A00068 | 6/25/2020                           | 0.93 | 6/26/2023  | 6/25/2020  | 100.3251  | 99.58648214 | 98.85868437 | 98.14147    | 97.43460963 | 96.73788047 | 96.05106605 | 95.37395606 | 94.70634606 |
| 200421A00020 | 4/24/2020                           | 0.83 | 3/15/2024  | 4/24/2020  | 100.10465 | 98.67433483 | 97.27135514 | 95.8949941  | 94.54456175 | 93.21939149 | 91.91883905 | 90.64228162 | 89.38911692 |
| 220512A00007 | 5/12/2022                           | 2.91 | 5/13/2024  | 5/12/2022  | 103.53962 | 101.9242325 | 100.3418874 | 98.79163394 | 97.27256005 | 95.78378791 | 94.32447254 | 92.8938002  | 91.49098695 |
| 220727A00001 | 7/27/2022                           | 3.39 | 7/27/2023  | 7/27/2022  | 102.36501 | 101.533618  | 100.7157248 | 99.91100829 | 99.11915166 | 98.33984832 | 97.57280133 | 96.81772304 | 96.07433477 |
| 200611A00021 | 6/11/2020                           | 0.72 | 6/11/2024  | 6/11/2020  | 99.974098 | 98.31255622 | 96.6862059  | 95.09399402 | 93.53490969 | 92.00798211 | 90.51227857 | 89.04690252 | 87.61099181 |
| 210201A00001 | 2/1/2021                            | 0.77 | 12/16/2025 | 2/1/2021   | 100.30387 | 97.19698217 | 94.20120938 | 91.31192035 | 88.52471249 | 85.83539454 | 83.23997482 | 80.73465028 | 78.31579622 |
| 211227A00005 | 12/27/2021                          | 1.61 | 12/18/2026 | 12/27/2021 | 104.50354 | 100.3640227 | 96.41080158 | 92.6344749  | 89.02617077 | 85.57751409 | 82.28059559 | 79.12794303 | 76.11249432 |
| 200327A00045 | 3/27/2020                           | 2.24 | 3/27/2034  | 3/27/2020  | 117.76595 | 106.2986605 | 96.07273585 | 86.94641264 | 78.7948111  | 71.50785015 | 64.98842633 | 59.15082486 | 53.91933207 |
| 210121A00018 | 1/25/2021                           | 0.5  | 8/25/2023  | 1/25/2021  | 99.920697 | 99.0227005  | 98.14073041 | 97.27436075 | 96.42318084 | 95.58679434 | 94.76481855 | 93.95688389 | 93.16263331 |
| 220525A00020 | 5/25/2022                           | 2.79 | 5/24/2024  | 5/25/2022  | 103.40877 | 101.7654121 | 100.1560625 | 98.57972859 | 97.0354578  | 95.52233413 | 94.03947644 | 92.58603675 | 91.16119864 |
| 220909A00017 | 9/9/2022                            | 3.85 | 9/9/2024   | 9/9/2022   | 106.12959 | 104.1711576 | 102.2589899 | 100.3917158 | 98.56800956 | 96.78659356 | 95.04623621 | 93.34574991 | 91.68398917 |
| 210929A00012 | 3/16/2022                           | 1.03 | 3/14/2025  | 3/16/2022  | 100.77238 | 98.37608809 | 96.0485341  | 93.78736523 | 91.59032057 | 89.45522996 | 87.38000966 | 85.36265846 | 83.40125378 |
| 220601A00023 | 6/1/2022                            | 2.9  | 6/3/2024   | 6/1/2022   | 103.65482 | 101.982635  | 100.3454325 | 98.74217656 | 97.17187434 | 95.63357195 | 94.12635233 | 92.64933352 | 91.2016669  |
| 200331A00018 | 3/31/2020                           | 0.82 | 3/31/2023  | 3/31/2020  | 100.24428 | 99.742374   | 99.2454724  | 98.75349637 | 98.2663731  | 97.78403121 | 97.30640068 | 96.8334129  | 96.36500054 |
| 201216A00004 | 12/16/2020                          | 0.74 | 9/8/2025   | 12/16/2020 | 100.10495 | 97.25711069 | 94.50413706 | 91.84237209 | 89.26831759 | 86.77862907 | 84.37010811 | 82.03969507 | 79.78446234 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 200826A00036 | 8/28/2020                           | 0.88 | 7/28/2023  | 8/28/2020  | 100.27613 | 99.45153734 | 98.64042282 | 97.84246119 | 97.05733483 | 96.28473628 | 95.5243678  | 94.77594105 | 94.03917666 |
| 210407A00013 | 4/7/2021                            | 1.23 | 4/7/2026   | 4/7/2021   | 102.10338 | 98.67307591 | 95.37571738 | 92.20544592 | 89.15669704 | 86.22418077 | 83.40286648 | 80.68796863 | 78.07493349 |
| 210914A00011 | 9/16/2021                           | 0.52 | 9/18/2023  | 9/16/2021  | 99.891846 | 98.93012485 | 97.98678615 | 97.06130728 | 96.15318522 | 95.26193566 | 94.38709214 | 93.5282053  | 92.684842   |
| 210928A00008 | 9/28/2021                           | 1.35 | 9/28/2026  | 9/28/2021  | 103.12065 | 99.21991764 | 95.48755878 | 91.91544225 | 88.49586895 | 85.22155024 | 82.08558384 | 79.08143126 | 76.20289664 |
| 220325A00019 | 3/28/2022                           | 2.86 | 3/23/2027  | 3/28/2022  | 110.49754 | 105.9740666 | 101.6639926 | 97.55612419 | 93.63991505 | 89.90542363 | 86.34327532 | 82.9446271  | 79.70113467 |
| 200415A00003 | 4/15/2020                           | 0.77 | 4/14/2023  | 4/15/2020  | 100.21658 | 99.67658536 | 99.14239589 | 98.61391774 | 98.09105957 | 97.57373204 | 97.06184767 | 96.5553208  | 96.05406761 |
| 200427A00018 | 4/27/2020                           | 1.51 | 4/27/2028  | 4/27/2020  | 105.67686 | 100.2205847 | 95.07826367 | 90.23022772 | 85.65814319 | 81.34491119 | 77.27457802 | 73.43225262 | 69.80403045 |
| 200826A00040 | 8/28/2020                           | 0.92 | 10/27/2023 | 8/28/2020  | 100.24493 | 99.17789134 | 98.13340709 | 97.11076527 | 96.10928702 | 95.12832131 | 94.16724357 | 93.22545435 | 92.30237807 |
| 200916A00023 | 9/16/2020                           | 0.42 | 9/16/2024  | 9/16/2020  | 99.638996 | 97.7227021  | 95.85248182 | 94.02694727 | 92.24476216 | 90.50463926 | 88.80533817 | 87.14566336 | 85.52446214 |
| 220518A00009 | 5/18/2022                           | 3.38 | 5/18/2028  | 5/18/2022  | 116.23585 | 110.4336138 | 104.9632079 | 99.80382933 | 94.93608845 | 90.34190692 | 86.00442198 | 81.90789827 | 78.0376465  |
| 200310A00040 | 3/10/2020                           | 1.36 | 3/10/2028  | 3/10/2020  | 104.72946 | 99.42233655 | 94.41468273 | 89.68811176 | 85.22545514 | 81.01067659 | 77.02879189 | 73.26579472 | 69.7085881  |
| 200320A00013 | 3/20/2020                           | 1.25 | 3/20/2024  | 3/20/2020  | 100.90545 | 99.4531193  | 98.02881397 | 96.6317979  | 95.26135673 | 93.91680057 | 92.59746292 | 91.30269968 | 90.03188824 |
| 200708A00011 | 7/10/2020                           | 2.87 | 7/10/2031  | 7/10/2020  | 119.60807 | 110.6321786 | 102.4154614 | 94.88930013 | 87.99163083 | 81.66628184 | 75.86238584 | 70.53385344 | 65.63890141 |
| 220722A00049 | 9/15/2022                           | 3.25 | 9/15/2025  | 9/15/2022  | 107.56729 | 104.5897364 | 101.711038  | 98.92737248 | 96.23508706 | 93.63069022 | 91.11084366 | 88.67235463 | 86.31216875 |
| 210611A00006 | 6/11/2021                           | 1.85 | 6/11/2031  | 6/11/2021  | 110.69856 | 102.1725872 | 94.37078927 | 87.22778153 | 80.68440493 | 74.68710229 | 69.18736104 | 64.14121402 | 59.50879207 |
| 211206A00008 | 12/6/2021                           | 1.24 | 12/6/2024  | 12/6/2021  | 101.14233 | 99.00180875 | 96.91670836 | 94.88519711 | 92.90552181 | 90.97600118 | 89.09502221 | 87.26103685 | 85.47255871 |
| 200305A00039 | 3/5/2020                            | 1.58 | 3/5/2030   | 3/5/2020   | 107.66102 | 100.4137974 | 93.70379568 | 87.48847499 | 81.72886168 | 76.3892368  | 71.43684929 | 66.84165569 | 62.57608389 |
| 210729A00006 | 7/29/2021                           | 1.87 | 11/30/2032 | 7/29/2021  | 111.66406 | 101.7756877 | 92.85166452 | 84.79263473 | 77.5099623  | 70.92452265 | 64.96563791 | 59.57013628 | 54.6815204  |
| 211117A00017 | 11/17/2021                          | 0.49 | 11/17/2022 | 11/17/2021 | 100.15735 | 100.0241417 | 99.89130286 | 99.75883056 | 99.62672326 | 99.49497942 | 99.36359751 | 99.23257602 | 99.10191343 |
| 211213A00011 | 12/13/2021                          | 1.32 | 12/13/2024 | 12/13/2021 | 101.32902 | 99.16829265 | 97.06386668 | 95.01387368 | 93.01651948 | 91.07008418 | 89.17291842 | 87.3234398  | 85.52012954 |
| 220331A00010 | 3/31/2022                           | 2.83 | 2/18/2026  | 3/31/2022  | 107.39555 | 104.0009315 | 100.7324441 | 97.58474479 | 94.55274605 | 91.63160153 | 88.81669331 | 86.10361989 | 83.48818487 |
| 220727A00009 | 7/27/2022                           | 3.31 | 7/28/2025  | 7/27/2022  | 107.37828 | 104.5339886 | 101.7802615 | 99.11372862 | 96.53116542 | 94.02948453 | 91.60572926 | 89.25706724 | 86.98078453 |
| 200324A00029 | 3/24/2020                           | 1.86 | 3/24/2025  | 3/24/2020  | 102.84829 | 100.4002844 | 98.02305205 | 95.71414783 | 93.47122234 | 91.29202145 | 89.17438181 | 87.11622665 | 85.1155617  |
| 210309A00004 | 3/11/2021                           | 0.87 | 11/25/2024 | 3/11/2021  | 100.32307 | 98.22050124 | 96.17185942 | 94.17538272 | 92.22938403 | 90.33224444 | 88.48240988 | 86.67838792 | 84.91874482 |
| 200220A00013 | 2/20/2020                           | 2.09 | 12/14/2029 | 2/20/2020  | 111.14912 | 103.9875809 | 97.33960036 | 91.16561115 | 85.42929549 | 80.09730155 | 75.13898624 | 70.52618163 | 66.23298273 |
| 201201A00002 | 12/1/2020                           | 0.54 | 12/1/2023  | 12/1/2020  | 99.744924 | 98.58894378 | 97.45950683 | 96.35570908 | 95.27668666 | 94.22161408 | 93.18970215 | 92.18019595 | 91.19237306 |
| 201210A00021 | 12/10/2020                          | 0.89 | 12/10/2027 | 12/10/2020 | 102.79335 | 97.74665822 | 92.97427557 | 88.45989002 | 84.18824403 | 80.14506349 | 76.31698878 | 72.69151116 | 69.25691383 |
| 210211A00005 | 2/11/2021                           | 0.45 | 6/15/2023  | 2/11/2021  | 99.979227 | 99.27175856 | 98.5742519  | 97.88649789 | 97.2082931  | 96.53943974 | 95.87974543 | 95.22902307 | 94.58709058 |
| 220317A00026 | 5/3/2022                            | 2.59 | 5/3/2027   | 5/3/2022   | 109.51931 | 104.9088249 | 100.5206241 | 96.34279934 | 92.36414746 | 88.57412228 | 84.96279237 | 81.52080183 | 78.23933376 |
| 200818A00018 | 3/31/2021                           | 0.57 | 4/1/2024   | 3/31/2021  | 99.717244 | 98.24587923 | 96.80345224 | 95.38918465 | 94.0023259  | 92.64215161 | 91.30796237 | 89.99908272 | 88.71486011 |
| 210208A00004 | 2/11/2021                           | 0.76 | 10/15/2025 | 2/11/2021  | 100.19689 | 97.25197292 | 94.40805155 | 91.66111085 | 89.00731618 | 86.44300729 | 83.96468926 | 81.56902402 | 79.25282228 |
| 210225A00006 | 2/25/2021                           | 0.98 | 2/25/2026  | 2/25/2021  | 101.13564 | 97.82762406 | 94.64425273 | 91.58019529 | 88.63037902 | 85.7899735  | 83.05437774 | 80.41920803 | 77.88028653 |
| 210907A00010 | 9/7/2021                            | 2.58 | 9/7/2040   | 9/7/2021   | 121.40679 | 104.6016337 | 90.44921018 | 78.50952637 | 68.4179798  | 59.87209455 | 52.62064645 | 46.45473771 | 41.2004636  |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 220408A00014 | 4/8/2022                            | 3.12 | 6/29/2026  | 4/8/2022   | 109.45193 | 105.6676643 | 102.0360902 | 98.55015412 | 95.20317463 | 91.98881927 | 88.90108389 | 85.93427336 | 83.08298355 |
| 220712A00006 | 7/12/2022                           | 3.36 | 7/12/2024  | 7/12/2022  | 104.73176 | 102.9442099 | 101.1958661 | 99.48556649 | 97.8121934  | 96.17467192 | 94.57196797 | 93.00308628 | 91.4670686  |
| 210420A00010 | 4/20/2021                           | 1.08 | 12/12/2025 | 4/20/2021  | 101.29422 | 98.18156445 | 95.17976427 | 92.2842238  | 89.49056545 | 86.7946209  | 84.19241959 | 81.68017788 | 79.2542889  |
| 200415A00020 | 4/15/2020                           | 0.86 | 4/15/2024  | 4/15/2020  | 100.17032 | 98.65763767 | 97.17509459 | 95.72186539 | 94.29715047 | 92.90017887 | 91.53020701 | 90.18651748 | 88.86841788 |
| 220601A00024 | 6/1/2022                            | 3.09 | 6/2/2025   | 6/1/2022   | 106.37687 | 103.6967307 | 101.0980906 | 98.57795376 | 96.13345572 | 93.76185725 | 91.46053783 | 89.22698953 | 87.05881134 |
| 220727A00049 | 7/27/2022                           | 3.31 | 7/25/2025  | 7/27/2022  | 107.35664 | 104.520576  | 101.7745894 | 99.11532132 | 96.53956148 | 94.04423706 | 91.62640598 | 89.28325059 | 87.0120716  |
| 200316A00019 | 3/16/2020                           | 1.11 | 3/16/2023  | 3/16/2020  | 100.38652 | 99.92518277 | 99.46808252 | 99.01516169 | 98.56636306 | 98.12163044 | 97.68090864 | 97.24414351 | 96.81128182 |
| 200310A00033 | 3/10/2020                           | 0.91 | 3/10/2025  | 3/10/2020  | 100.78989 | 98.39695495 | 96.07250181 | 93.81419133 | 91.6197767  | 89.48710102 | 87.41409308 | 85.39876346 | 83.43920074 |
| 200417A00008 | 4/17/2020                           | 0.96 | 4/17/2025  | 4/17/2020  | 100.62218 | 98.13924068 | 95.72972726 | 93.39103768 | 91.12067899 | 88.91626217 | 86.77549707 | 84.69618765 | 82.67622739 |
| 200415A00037 | 4/15/2020                           | 0.97 | 4/15/2025  | 4/15/2020  | 100.64582 | 98.16788974 | 95.76312359 | 93.42893609 | 91.16284727 | 88.96248033 | 86.82555664 | 84.74989095 | 82.73338697 |
| 200521A00016 | 5/21/2020                           | 2.18 | 5/21/2037  | 5/21/2020  | 115.94157 | 102.0504919 | 90.01644083 | 79.57899266 | 70.51555052 | 62.63568237 | 55.776328   | 49.79774071 | 44.58004805 |
| 220314A00009 | 3/14/2022                           | 2.38 | 7/28/2025  | 3/14/2022  | 104.73936 | 101.932761  | 99.21581655 | 96.58518739 | 94.03767703 | 91.5702252  | 89.17990117 | 86.86389754 | 84.61952433 |
| 220812A00014 | 8/12/2022                           | 3.54 | 8/12/2024  | 8/12/2022  | 105.28117 | 103.4064707 | 101.5745329 | 99.78412779 | 98.03407211 | 96.32322399 | 94.65048104 | 93.01477878 | 91.41508908 |
| 200311A00031 | 3/11/2020                           | 1.41 | 12/24/2027 | 3/11/2020  | 104.79883 | 99.68958438 | 94.85827774 | 90.28833238 | 85.9642505  | 81.87153715 | 77.99662958 | 74.32683199 | 70.85025531 |
| 201015A00003 | 10/15/2020                          | 0.75 | 10/15/2025 | 10/15/2020 | 100.16637 | 97.22191684 | 94.37845143 | 91.63195522 | 88.97859393 | 86.41470769 | 83.93680194 | 81.54153892 | 79.22572969 |
| 210324A00002 | 3/24/2021                           | 2.06 | 3/24/2031  | 3/24/2021  | 112.3023  | 103.9080573 | 96.20974685 | 89.14592338 | 82.66086566 | 76.70401488 | 71.22947238 | 66.19554857 | 61.5643576  |
| 220526A00011 | 5/26/2022                           | 3.29 | 5/24/2029  | 5/26/2022  | 118.38987 | 111.5193239 | 105.1028566 | 99.10791962 | 93.50446392 | 88.2647383  | 83.36310199 | 78.77585332 | 74.48107326 |
| 200324A00031 | 3/24/2020                           | 1.64 | 3/22/2024  | 3/24/2020  | 101.31439 | 99.85658054 | 98.4269508  | 97.02475769 | 95.64928154 | 94.29982737 | 92.97572379 | 91.67632201 | 90.40099492 |
| 220426A00004 | 4/26/2022                           | 3.41 | 4/26/2032  | 4/26/2022  | 125.94754 | 115.9310923 | 106.8227498 | 98.53453347 | 90.98744154 | 84.11049178 | 77.83986879 | 72.11816603 | 66.89371154 |
| 220825A00006 | 8/25/2022                           | 3.56 | 8/25/2027  | 8/25/2022  | 114.98594 | 109.9422092 | 105.1541019 | 100.6073086 | 96.28839535 | 92.18474361 | 88.28449695 | 84.57651109 | 81.05030763 |
| 201223A00013 | 12/23/2020                          | 0.9  | 12/11/2026 | 12/23/2020 | 101.49422 | 97.43550464 | 93.55952695 | 89.85708449 | 86.31948897 | 82.93853709 | 79.70648048 | 76.61599765 | 73.66016788 |
| 220224A00018 | 2/24/2022                           | 2.15 | 3/16/2026  | 2/24/2022  | 105.22978 | 101.8019215 | 98.50434951 | 95.33142913 | 92.27779722 | 89.33835048 | 86.50823139 | 83.78281497 | 81.1576964  |
| 220420A00037 | 6/15/2022                           | 3.3  | 6/15/2027  | 6/15/2022  | 113.13696 | 108.3281975 | 103.7550765 | 99.40473991 | 95.26510296 | 91.32480491 | 87.57316143 | 84.00012027 | 80.59622018 |
| 210304A00006 | 3/4/2021                            | 1.02 | 3/4/2026   | 3/4/2021   | 101.28941 | 97.96018976 | 94.75706257 | 91.67460739 | 88.7076664  | 85.85132954 | 83.10092128 | 80.45198813 | 77.90028688 |
| 220114A00010 | 1/14/2022                           | 1.86 | 1/13/2027  | 1/14/2022  | 105.67987 | 101.4485672 | 97.41015644 | 93.55482611 | 89.8733149  | 86.35688102 | 82.99726998 | 79.78668457 | 76.71775697 |
| 200402A00044 | 4/2/2020                            | 1.65 | 4/2/2030   | 4/2/2020   | 108.22738 | 100.8905619 | 94.10229315 | 87.81873982 | 81.99978149 | 76.60867938 | 71.61177536 | 66.97821926 | 62.67972154 |
| 200415A00027 | 4/15/2020                           | 0.86 | 4/15/2024  | 4/15/2020  | 100.17032 | 98.65763767 | 97.17509459 | 95.72186539 | 94.29715047 | 92.90017887 | 91.53020701 | 90.18651748 | 88.86841788 |
| 200528A00021 | 5/28/2020                           | 0.63 | 5/26/2023  | 5/28/2020  | 100.11983 | 99.46596417 | 98.82059554 | 98.18356076 | 97.5546993  | 96.93385471 | 96.32087456 | 95.71561022 | 95.1179168  |
| 210917A00003 | 9/17/2021                           | 0.8  | 9/17/2024  | 9/17/2021  | 100.13987 | 98.22059612 | 96.34741979 | 94.51895716 | 92.73387163 | 90.99087562 | 89.28872841 | 87.6262341  | 86.00223964 |
| 220907A00023 | 9/7/2022                            | 3.76 | 9/8/2026   | 9/7/2022   | 112.55312 | 108.5195955 | 104.6557021 | 100.953402  | 97.40508246 | 94.0035295  | 90.74190497 | 87.61372489 | 84.61283923 |
| 200406A00053 | 4/6/2020                            | 1.13 | 4/7/2025   | 4/6/2020   | 101.0432  | 98.58143764 | 96.19189592 | 93.87204057 | 91.61944069 | 89.43176557 | 87.30677989 | 85.2423392  | 83.23638554 |
| 220929A00043 | 9/29/2022                           | 4.44 | 9/28/2029  | 9/29/2022  | 127.23557 | 119.7234791 | 112.7254739 | 106.2033371 | 100.1218906 | 94.44873913 | 89.15403619 | 84.21027104 | 79.59207447 |
| 200302A00056 | 3/2/2020                            | 1.2  | 3/2/2023   | 3/2/2020   | 100.42073 | 99.99759665 | 99.57801921 | 99.1619506  | 98.74934699 | 98.34016528 | 97.93436308 | 97.5318987  | 97.13273112 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 200330A00037 | 3/30/2020                           | 1.09 | 3/28/2025  | 3/30/2020  | 100.93059 | 98.49656545 | 96.13336677 | 93.83853367 | 91.60970341 | 89.44460956 | 87.34107743 | 85.29701973 | 83.3104325  |
| 201015A00024 | 10/19/2020                          | 1.53 | 10/18/2027 | 10/19/2020 | 105.21999 | 100.2730294 | 95.58705686 | 91.14696792 | 86.93861024 | 82.94871843 | 79.16485381 | 75.57534857 | 72.16925401 |
| 210208A00006 | 2/9/2021                            | 0.46 | 8/15/2023  | 2/9/2021   | 99.899122 | 99.02799853 | 98.17196782 | 97.33064032 | 96.50363997 | 95.6906034  | 94.89117946 | 94.10502868 | 93.33182281 |
| 220217A00011 | 2/17/2022                           | 2.08 | 2/14/2025  | 2/17/2022  | 103.25188 | 100.9011604 | 98.61566739 | 96.39323928 | 94.23179538 | 92.12933564 | 90.08393713 | 88.09375056 | 86.15699707 |
| 220527A00014 | 5/27/2022                           | 2.99 | 5/27/2026  | 5/27/2022  | 108.70011 | 105.0194129 | 101.4843358 | 98.08829337 | 94.82503782 | 91.68863975 | 88.67346999 | 85.77418248 | 82.98569815 |
| 210305A00006 | 3/8/2021                            | 1.02 | 8/11/2025  | 3/8/2021   | 100.89593 | 98.10842672 | 95.41148042 | 92.80168202 | 90.27577049 | 87.83062434 | 85.46325492 | 83.17080003 | 80.95051784 |
| 210624A00025 | 6/24/2021                           | 1.43 | 6/24/2027  | 6/24/2021  | 104.37527 | 99.74697278 | 95.34928088 | 91.16947503 | 87.19560825 | 83.41645571 | 79.82146674 | 76.40072037 | 73.14488398 |
| 220510A00015 | 5/13/2022                           | 3.13 | 11/3/2025  | 5/13/2022  | 107.57275 | 104.4642949 | 101.4627296 | 98.56375983 | 95.76329363 | 93.05742754 | 90.44243681 | 87.91476602 | 85.47102025 |
| 220916A00045 | 9/16/2022                           | 4.1  | 9/16/2032  | 9/16/2022  | 135.04687 | 124.1427895 | 114.2553602 | 105.2830426 | 97.13498051 | 89.72982341 | 82.99468544 | 76.86422402 | 71.27982261 |
| 211214A00014 | 12/14/2021                          | 1.31 | 12/13/2024 | 12/14/2021 | 101.30684 | 99.14635706 | 97.04217621 | 94.99242333 | 92.99530439 | 91.04909965 | 89.15215985 | 87.30290274 | 85.49980967 |
| 210224A00002 | 2/25/2021                           | 0.88 | 11/3/2025  | 2/25/2021  | 100.58866 | 97.58899363 | 94.69341359 | 91.89772768 | 89.1979345  | 86.59021756 | 84.07093549 | 81.63661285 | 79.28393147 |
| 220603A00024 | 6/3/2022                            | 2.94 | 6/3/2024   | 6/3/2022   | 103.72243 | 102.0496623 | 100.4118809 | 98.80805629 | 97.23719553 | 95.69834441 | 94.19058561 | 92.7130369  | 91.26484942 |
| 200309A00007 | 3/9/2020                            | 1.11 | 3/9/2027   | 3/9/2020   | 102.63191 | 98.31838965 | 94.20897049 | 90.29297723 | 86.56034773 | 83.00159374 | 79.60776535 | 76.37041758 | 73.28157943 |
| 200327A00042 | 3/27/2020                           | 0.83 | 3/27/2024  | 3/27/2020  | 100.28633 | 98.82060479 | 97.38351649 | 95.97430289 | 94.592226   | 93.2365734  | 91.9066571  | 90.60181249 | 89.32139738 |
| 201118A00021 | 11/20/2020                          | 0.97 | 11/20/2023 | 11/20/2020 | 100.26779 | 99.13743346 | 98.03237903 | 96.95178427 | 95.89484473 | 94.8607909  | 93.8488863  | 92.85842576 | 91.88873375 |
| 220315A00018 | 3/15/2022                           | 2.43 | 3/15/2027  | 3/15/2022  | 108.52511 | 104.0662067 | 99.8172641  | 95.76730354 | 91.90598049 | 88.22354122 | 84.71078602 | 81.35903484 | 78.16009527 |
| 200330A00006 | 3/30/2020                           | 0.9  | 3/28/2025  | 3/30/2020  | 100.77523 | 98.33632999 | 95.96854767 | 93.66940497 | 91.43652545 | 89.26762973 | 87.16053086 | 85.11312995 | 83.12341207 |
| 211028A00019 | 10/28/2021                          | 1.1  | 10/28/2024 | 10/28/2021 | 100.78463 | 98.75159838 | 96.76937229 | 94.8363452  | 92.95097427 | 91.11177666 | 89.31732666 | 87.56625306 | 85.8572366  |
| 220425A00027 | 4/29/2022                           | 3.15 | 8/20/2026  | 4/29/2022  | 109.99003 | 106.057728  | 102.2893327 | 98.67715947 | 95.2139261  | 91.89272743 | 88.70701375 | 85.6505707  | 82.71750033 |
| 200427A00017 | 4/27/2020                           | 1.02 | 4/25/2025  | 4/27/2020  | 100.78467 | 98.27837796 | 95.84662409 | 93.4867529  | 91.19621686 | 88.97257558 | 86.81349053 | 84.71672007 | 82.68011473 |
| 220304A00004 | 3/4/2022                            | 2.12 | 12/29/2028 | 3/4/2022   | 110.08183 | 103.8634089 | 98.03799429 | 92.57865271 | 87.46043597 | 82.66022676 | 78.15659439 | 73.92966278 | 69.96098948 |
| 220915A00025 | 9/15/2022                           | 4.34 | 9/15/2023  | 9/15/2022  | 103.60303 | 102.6298878 | 101.6750834 | 100.7381004 | 99.81844245 | 98.91563138 | 98.02920656 | 97.15872403 | 96.30375576 |
| 210616A00008 | 5/2/2022                            | 0.95 | 5/2/2025   | 5/2/2022   | 100.60988 | 98.08746378 | 95.64048126 | 93.26622289 | 90.96209558 | 88.72561611 | 86.55440572 | 84.44618487 | 82.39876848 |
| 200310A00015 | 3/10/2020                           | 1.37 | 3/11/2030  | 3/10/2020  | 106.11768 | 98.91159809 | 92.24199745 | 86.06625594 | 80.34533899 | 75.04348097 | 70.12789627 | 65.56851732 | 61.3377568  |
| 201117A00016 | 11/17/2020                          | 0.52 | 11/18/2024 | 11/17/2020 | 99.838884 | 97.75490777 | 95.72416126 | 93.74491865 | 91.81552366 | 89.93438651 | 88.0999806  | 86.31083947 | 84.56555391 |
| 210104A00007 | 11/23/2021                          | 0.88 | 11/23/2026 | 11/23/2021 | 101.37024 | 97.36024598 | 93.5290547  | 89.86775224 | 86.36791649 | 83.02159024 | 79.82125271 | 76.75979301 | 73.8304854  |
| 220419A00016 | 4/19/2022                           | 3.21 | 4/19/2027  | 4/19/2022  | 112.29167 | 107.6549104 | 103.2394001 | 99.03338493 | 95.025802   | 91.20623167 | 87.56485679 | 84.09242453 | 80.78021087 |
| 200305A00030 | 3/5/2020                            | 1.58 | 3/5/2030   | 3/5/2020   | 107.66102 | 100.4137974 | 93.70379568 | 87.48847499 | 81.72886168 | 76.3892368  | 71.43684929 | 66.84165569 | 62.57608389 |
| 200414A00014 | 4/14/2020                           | 0.76 | 4/12/2024  | 4/14/2020  | 100.19485 | 98.68699475 | 97.20914567 | 95.76048103 | 94.3402075  | 92.94756011 | 91.58180093 | 90.24221789 | 88.92812366 |
| 201029A00002 | 10/29/2020                          | 0.59 | 10/29/2025 | 10/29/2020 | 100.07883 | 97.09058391 | 94.20596097 | 91.42078989 | 88.73109303 | 86.13307611 | 83.62311856 | 81.19776443 | 78.8537138  |
| 210629A00012 | 6/29/2021                           | 1.14 | 12/29/2025 | 6/29/2021  | 101.52409 | 98.3643039  | 95.31834836 | 92.38144535 | 89.54904711 | 86.81682648 | 84.18066452 | 81.63663894 | 79.18101321 |
| 220412A00017 | 4/12/2022                           | 3.09 | 3/19/2027  | 4/12/2022  | 111.49563 | 106.9605297 | 102.6386029 | 98.51870136 | 94.59031957 | 90.84355257 | 87.26905872 | 83.85802467 | 80.60213276 |
| 220418A00015 | 4/22/2022                           | 3.03 | 7/28/2025  | 4/22/2022  | 106.58377 | 103.7508233 | 101.0081705 | 98.35244739 | 95.78043773 | 93.28906237 | 90.87537241 | 88.53654303 | 86.26986748 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 220425A00026 | 4/25/2022                           | 3.13 | 2/25/2026  | 4/25/2022  | 108.47522 | 105.0418605 | 101.7366038 | 98.55399471 | 95.48884227 | 92.53620305 | 89.69136782 | 86.94984924 | 84.30737018 |
| 210224A00004 | 2/26/2021                           | 0.91 | 12/18/2025 | 2/26/2021  | 100.75792 | 97.63862021 | 94.6309567  | 91.73027963 | 88.93216051 | 86.23238371 | 83.62693467 | 81.11198883 | 78.68390123 |
| 220311A00008 | 3/11/2022                           | 2.07 | 3/11/2024  | 3/11/2022  | 101.91334 | 100.4796291 | 99.07309819 | 97.6930434  | 96.33878276 | 95.00965727 | 93.70502991 | 92.42428473 | 91.16682596 |
| 200305A00032 | 3/5/2020                            | 1.58 | 3/5/2030   | 3/5/2020   | 107.66102 | 100.4137974 | 93.70379568 | 87.48847499 | 81.72886168 | 76.3892368  | 71.43684929 | 66.84165569 | 62.57608389 |
| 200403A00018 | 4/3/2020                            | 0.91 | 4/3/2024   | 4/3/2020   | 100.23534 | 98.75449887 | 97.30282448 | 95.8795336  | 94.48386709 | 93.11509239 | 91.77250232 | 90.455414   | 89.1631678  |
| 200225A00034 | 10/5/2020                           | 1.5  | 10/5/2023  | 10/5/2020  | 100.86534 | 99.8531233  | 98.86111361 | 97.88871524 | 96.93535136 | 96.00046752 | 95.08353066 | 94.184028   | 93.30146615 |
| 200317A00027 | 3/17/2020                           | 1.29 | 3/17/2025  | 3/17/2020  | 101.41763 | 99.0055928  | 96.66291152 | 94.38720106 | 92.17617398 | 90.02763492 | 87.93947629 | 85.90967418 | 83.93628452 |
| 220412A00016 | 4/12/2022                           | 3.09 | 3/19/2027  | 4/12/2022  | 111.49563 | 106.9605297 | 102.6386029 | 98.51870136 | 94.59031957 | 90.84355257 | 87.26905872 | 83.85802467 | 80.60213276 |
| 200429A00054 | 4/29/2020                           | 1.04 | 4/29/2025  | 4/29/2020  | 100.84098 | 98.32332286 | 95.88076425 | 93.51061405 | 91.21029741 | 88.97734824 | 86.80940381 | 84.7041997  | 82.65956495 |
| 211213A00010 | 12/13/2021                          | 1.02 | 12/13/2023 | 12/13/2021 | 100.3045  | 99.11347032 | 97.95051831 | 96.81465928 | 95.7049558  | 94.6205132  | 93.5604772  | 92.52403165 | 91.51039642 |
| 220421A00016 | 4/21/2022                           | 3.31 | 4/21/2026  | 4/21/2022  | 109.55973 | 105.9596523 | 102.4988477 | 99.17116147 | 95.97074343 | 92.89203404 | 89.9297483  | 87.07886049 | 84.33458994 |
| 200406A00060 | 4/6/2020                            | 1.03 | 4/5/2024   | 4/6/2020   | 100.4209  | 98.93318423 | 97.47482885 | 96.04503727 | 94.64304295 | 93.26810628 | 91.9195134  | 90.59657507 | 89.29862563 |
| 210907A00015 | 9/9/2021                            | 2.21 | 9/9/2026   | 9/9/2021   | 106.44698 | 102.5307172 | 98.78060976 | 95.18874814 | 91.74764255 | 88.45019674 | 85.28968518 | 82.25973171 | 79.35428957 |
| 211209A00007 | 12/9/2021                           | 1.61 | 12/8/2026  | 12/9/2021  | 104.46288 | 100.349907  | 96.42103567 | 92.66702767 | 89.07916118 | 85.64919979 | 82.36936243 | 79.23229533 | 76.23104603 |
| 220112A00008 | 1/12/2022                           | 1.47 | 11/20/2024 | 1/12/2022  | 101.61287 | 99.50947813 | 97.45971081 | 95.4618291  | 93.51416483 | 91.61511681 | 89.76314751 | 87.95678002 | 86.1945951  |
| 220706A00032 | 7/6/2022                            | 3.15 | 7/6/2027   | 7/6/2022   | 113.30112 | 108.4096444 | 103.7609919 | 99.34176611 | 95.13938579 | 91.14203021 | 87.3385886  | 83.71861343 | 80.2722769  |
| 220711A00021 | 7/11/2022                           | 3.27 | 7/11/2025  | 7/11/2022  | 107.51373 | 104.7041934 | 101.9829734 | 99.34675782 | 96.7923782  | 94.31680592 | 91.91714493 | 89.59062495 | 87.33459505 |
| 220812A00002 | 8/12/2022                           | 3.17 | 8/12/2027  | 8/12/2022  | 113.69591 | 108.695671  | 103.9482509 | 99.43954972 | 95.15632415 | 91.08613177 | 87.21727847 | 83.53876976 | 80.04026553 |
| 210330A00021 | 3/30/2021                           | 2.16 | 3/28/2031  | 3/30/2021  | 113.15232 | 104.7133361 | 96.97397632 | 89.87243463 | 83.35266763 | 77.36382831 | 71.85976003 | 66.79854207 | 62.14208131 |
| 220420A00061 | 6/15/2022                           | 3.3  | 6/15/2027  | 6/15/2022  | 113.13696 | 108.3281975 | 103.7550765 | 99.40473991 | 95.26510296 | 91.32480491 | 87.57316143 | 84.00012027 | 80.59622018 |
| 220308A00011 | 3/8/2022                            | 2.07 | 1/10/2025  | 3/8/2022   | 103.09231 | 100.8386001 | 98.64514088 | 96.50991677 | 94.43099572 | 92.40652485 | 90.43472651 | 88.51389457 | 86.64239089 |
| 220314A00006 | 3/14/2022                           | 2.36 | 3/14/2025  | 3/14/2022  | 104.05353 | 101.6162671 | 99.2486474  | 96.94828466 | 94.71289182 | 92.54027346 | 90.42832161 | 88.3750117  | 86.37839871 |
| 200310A00038 | 3/10/2020                           | 1.41 | 3/11/2030  | 3/10/2020  | 106.41344 | 99.19664571 | 92.51689753 | 86.33153526 | 80.60149168 | 75.29097078 | 70.36715866 | 65.79996143 | 61.56176723 |
| 200413A00003 | 4/13/2020                           | 0.64 | 4/13/2023  | 4/13/2020  | 100.1945  | 99.65671508 | 99.12468802 | 98.59832834 | 98.07754572 | 97.56225178 | 97.05236    | 96.54778567 | 96.04844584 |
| 210706A00006 | 7/6/2021                            | 1.15 | 7/6/2026   | 7/6/2021   | 102.08287 | 98.41854239 | 94.90422233 | 91.53294246 | 88.29810042 | 85.19343842 | 82.21302294 | 79.35122588 | 76.60270679 |
| 211014A00018 | 10/14/2021                          | 0.8  | 10/11/2024 | 10/14/2021 | 100.4118  | 98.42174194 | 96.48083377 | 94.58754951 | 92.74042029 | 90.93803316 | 89.17902843 | 87.46209735 | 85.78597973 |
| 220614A00011 | 6/14/2022                           | 3.71 | 6/14/2024  | 6/14/2022  | 105.1203  | 103.4050735 | 101.7261633 | 100.0824847 | 98.47299173 | 96.89668008 | 95.35258506 | 93.8397795  | 92.35737192 |
| 220711A00009 | 7/11/2022                           | 3.36 | 7/11/2023  | 7/11/2022  | 102.24071 | 101.4532902 | 100.6780062 | 99.91457691 | 99.16273173 | 98.42220812 | 97.69275145 | 96.97411468 | 96.2660581  |
| 201028A00013 | 10/28/2020                          | 0.68 | 10/28/2024 | 10/28/2020 | 99.905638 | 97.88198442 | 95.9089489  | 93.98493075 | 92.1083923  | 90.2778557  | 88.49190001 | 86.74915865 | 85.04831681 |
| 200318A00037 | 3/18/2020                           | 1.35 | 3/18/2024  | 3/18/2020  | 100.87497 | 99.4309611  | 98.01467877 | 96.62539709 | 95.26241254 | 93.92504556 | 92.61263951 | 91.32455969 | 90.06019247 |
| 220209A00013 | 2/9/2022                            | 1.98 | 7/29/2025  | 2/9/2022   | 103.60793 | 100.8149051 | 98.11129969 | 95.49378709 | 92.95917826 | 90.50441982 | 88.12658742 | 85.82287957 | 83.5906118  |
| 220317A00010 | 3/17/2022                           | 2.04 | 9/15/2023  | 3/17/2022  | 101.37156 | 100.4100887 | 99.46679854 | 98.54117878 | 97.63273625 | 96.74099607 | 95.86550069 | 95.00580917 | 94.16149639 |
| 220317A00023 | 5/3/2022                            | 2.52 | 5/2/2025   | 5/3/2022   | 104.69287 | 102.1168341 | 99.61745382 | 97.19197836 | 94.83777824 | 92.55233537 | 90.33323741 | 88.17817257 | 86.08492471 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 200304A00019 | 3/4/2020                            | 1.04 | 3/6/2023   | 3/4/2020   | 100.35309 | 99.91918459 | 99.48902669 | 99.06256553 | 98.63975358 | 98.22054412 | 97.80489122 | 97.39274972 | 96.98407525 |
| 200327A00035 | 3/27/2020                           | 0.83 | 3/27/2024  | 3/27/2020  | 100.28633 | 98.82060479 | 97.38351649 | 95.97430289 | 94.592226   | 93.2365734  | 91.9066571  | 90.60181249 | 89.32139738 |
| 200415A00023 | 4/15/2020                           | 1.71 | 4/15/2030  | 4/15/2020  | 108.70533 | 101.3176083 | 94.48411007 | 88.16038686 | 82.30577453 | 76.88304892 | 71.85811856 | 67.19974625 | 62.87929666 |
| 220412A00010 | 4/12/2022                           | 3.09 | 3/15/2027  | 4/12/2022  | 111.46442 | 106.9405527 | 102.6288537 | 98.51825387 | 94.59831955 | 90.85921222 | 87.29165157 | 83.88688087 | 80.63663475 |
| 201021A00012 | 10/21/2020                          | 1.85 | 10/19/2035 | 10/21/2020 | 111.62206 | 99.28814987 | 88.45528607 | 78.93196128 | 70.55202449 | 63.17120777 | 56.66414703 | 50.92182117 | 45.849349   |
| 200304A00022 | 3/4/2020                            | 0.86 | 3/6/2023   | 3/4/2020   | 100.31354 | 99.8792877  | 99.44878662 | 99.02199107 | 98.59885332 | 98.17932643 | 97.76336427 | 97.35092149 | 96.94195352 |
| 210729A00003 | 7/29/2021                           | 1.11 | 7/29/2026  | 7/29/2021  | 101.9923  | 98.27113709 | 94.70460023 | 91.28549551 | 88.00700257 | 84.86265096 | 81.84630038 | 78.95212214 | 76.17458177 |
| 220325A00010 | 3/28/2022                           | 2.78 | 3/21/2025  | 3/28/2022  | 105.12704 | 102.6581059 | 100.2601404 | 97.93069743 | 95.66743088 | 93.4680893  | 91.33051165 | 89.252623   | 87.23243059 |
| 200220A00014 | 2/20/2020                           | 2.09 | 12/21/2029 | 2/20/2020  | 111.1714  | 103.9913512 | 97.32736501 | 91.13958812 | 85.39145115 | 80.04937813 | 75.08252627 | 70.46254973 | 66.16338496 |
| 200302A00002 | 3/2/2020                            | 1.12 | 3/3/2025   | 3/2/2020   | 101.29844 | 98.9171813  | 96.60352832 | 94.35518813 | 92.16995938 | 90.04572809 | 87.98046358 | 85.9722147  | 84.0191062  |
| 200306A00055 | 3/6/2020                            | 0.82 | 3/6/2025   | 3/6/2020   | 100.56715 | 98.18723857 | 95.87516973 | 93.62863414 | 91.44541507 | 89.32338408 | 87.26049692 | 85.25478968 | 83.30437512 |
| 200521A00013 | 5/21/2020                           | 2.09 | 5/21/2035  | 5/21/2020  | 114.63258 | 102.4550718 | 91.71196988 | 82.2256516  | 73.84136021 | 66.42415934 | 59.85630475 | 54.03497595 | 48.87031704 |
| 210518A00023 | 5/18/2021                           | 1.17 | 5/18/2026  | 5/18/2021  | 102.01225 | 98.47674356 | 95.08163976 | 91.82059191 | 88.68758161 | 85.67689621 | 82.78311126 | 80.00107421 | 77.32588902 |
| 220420A00034 | 6/15/2022                           | 3.3  | 6/15/2027  | 6/15/2022  | 113.13696 | 108.3281975 | 103.7550765 | 99.40473991 | 95.26510296 | 91.32480491 | 87.57316143 | 84.00012027 | 80.59622018 |
| 200415A00036 | 4/15/2020                           | 0.91 | 10/15/2024 | 4/15/2020  | 100.37847 | 98.38340478 | 96.43768807 | 94.53978319 | 92.68821137 | 90.88155028 | 89.11843145 | 87.39753784 | 85.71760145 |
| 200402A00041 | 4/2/2020                            | 1.03 | 4/2/2025   | 4/2/2020   | 100.78425 | 98.33910316 | 95.96544613 | 93.66078102 | 91.42271154 | 89.24893964 | 87.1372608  | 85.0855596  | 83.09180552 |
| 200327A00055 | 3/27/2020                           | 1.01 | 3/27/2024  | 3/27/2020  | 100.38007 | 98.91654898 | 97.48157468 | 96.07438936 | 94.69425829 | 93.34047213 | 92.01234581 | 90.70921749 | 89.43044764 |
| 200306A00013 | 3/6/2020                            | 1.01 | 3/6/2025   | 3/6/2020   | 100.71897 | 98.34377121 | 96.03614109 | 93.79378472 | 91.61449809 | 89.49616477 | 87.43675188 | 85.43430629 | 83.48695098 |
| 201223A00012 | 12/23/2020                          | 0.91 | 12/18/2026 | 12/23/2020 | 101.55137 | 97.47374221 | 93.5803975  | 89.86201448 | 86.30979969 | 82.91545273 | 79.67113545 | 76.56944335 | 73.60337893 |
| 220106A00010 | 1/6/2022                            | 2.64 | 1/6/2037   | 1/6/2022   | 122.23    | 108.2154165 | 96.01678864 | 85.38617395 | 76.11078025 | 68.00782109 | 60.92014478 | 54.71251933 | 49.26847206 |
| 220714A00034 | 7/14/2022                           | 3.62 | 1/16/2024  | 7/14/2022  | 103.70558 | 102.4058771 | 101.1331765 | 99.88664197 | 98.66547083 | 97.46889338 | 96.29617125 | 95.1465958  | 94.01948662 |
| 210201A00003 | 2/2/2021                            | 0.74 | 10/15/2025 | 2/2/2021   | 100.13585 | 97.19186076 | 94.34885132 | 91.60279958 | 88.94987168 | 86.3864081  | 83.90891461 | 81.51405382 | 79.1986371  |
| 201117A00017 | 11/17/2020                          | 0.39 | 11/17/2023 | 11/17/2020 | 99.731431 | 98.6103728  | 97.51428734 | 96.44234841 | 95.39376602 | 94.36778425 | 93.36367951 | 92.38075877 | 91.41835799 |
| 220823A00034 | 8/23/2022                           | 3.61 | 8/23/2024  | 8/23/2022  | 105.5206  | 103.6140492 | 101.7515847 | 99.93192097 | 98.15382188 | 96.41609489 | 94.71758944 | 93.05719508 | 91.43383986 |
| 200429A00066 | 4/29/2020                           | 0.8  | 4/28/2023  | 4/29/2020  | 100.23167 | 99.65348578 | 99.08194472 | 98.5169283  | 97.95832542 | 97.40602748 | 96.85992831 | 96.31992411 | 95.7859134  |
| 210224A00003 | 2/26/2021                           | 0.9  | 12/3/2025  | 2/26/2021  | 100.70256 | 97.62233629 | 94.65121703 | 91.7847039  | 89.01851436 | 86.34856906 | 83.77098071 | 81.28204364 | 78.8782241  |
| 210624A00026 | 6/24/2021                           | 1.6  | 6/23/2028  | 6/24/2021  | 106.34446 | 100.7228797 | 95.4321718  | 90.45112823 | 85.76001728 | 81.3404687  | 77.17537222 | 73.24878427 | 69.54584214 |
| 210916A00008 | 9/16/2021                           | 1.48 | 9/15/2028  | 9/16/2021  | 105.85598 | 100.0345449 | 94.56849847 | 89.43436847 | 84.61034342 | 80.07615081 | 75.81294096 | 71.80318043 | 68.03055372 |
| 220707A00041 | 7/7/2022                            | 3.41 | 7/7/2025   | 7/7/2022   | 107.50482 | 104.7142852 | 102.0109988 | 99.39168862 | 96.85322481 | 94.39261641 | 92.00700418 | 89.69365375 | 87.44994915 |
| 220920A00026 | 9/20/2022                           | 4.1  | 9/20/2027  | 9/20/2022  | 117.89309 | 112.7069358 | 107.7862176 | 103.115903  | 98.68188848 | 94.47093781 | 90.47062437 | 86.66927744 | 83.05593236 |
| 200305A00006 | 3/5/2020                            | 0.99 | 3/6/2023   | 3/5/2020   | 100.33128 | 99.89743032 | 99.46732875 | 99.04092359 | 98.61816728 | 98.19901311 | 97.78341515 | 97.37132827 | 96.96270807 |
| 201117A00005 | 11/17/2020                          | 0.5  | 11/17/2022 | 11/17/2020 | 100.15868 | 100.0254747 | 99.8926343  | 99.76016047 | 99.62805164 | 99.49630627 | 99.36492284 | 99.23389983 | 99.10323573 |
| 220217A00016 | 2/17/2022                           | 2.24 | 9/15/2026  | 2/17/2022  | 106.60107 | 102.6657568 | 98.89803922 | 95.28991062 | 91.83378771 | 88.52248732 | 85.34920313 | 82.30748382 | 79.39121273 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 220425A00028 | 4/29/2022                           | 3.16 | 4/23/2027  | 4/29/2022  | 112.05025 | 107.4093902 | 102.9904343 | 98.78157495 | 94.7716962  | 90.95032982 | 87.30761408 | 83.83425523 | 80.52149176 |
| 200402A00030 | 4/2/2020                            | 0.8  | 4/3/2023   | 4/2/2020   | 100.23389 | 99.72383957 | 99.21895426 | 98.71916056 | 98.22438182 | 97.73454288 | 97.24957012 | 96.76939135 | 96.29393579 |
| 201105A00016 | 11/9/2020                           | 2.18 | 11/8/2027  | 11/9/2020  | 108.59885 | 103.51248   | 98.69565106 | 94.13266112 | 89.80880423 | 85.71030364 | 81.82424808 | 78.13853274 | 74.64180463 |
| 201119A00021 | 11/23/2020                          | 2.22 | 11/21/2030 | 11/23/2020 | 113.2586  | 105.1403481 | 97.66978533 | 90.7917153  | 84.45591915 | 78.6166832  | 73.23237292 | 68.26504938 | 63.68012353 |
| 220915A00033 | 9/15/2022                           | 4.3  | 3/15/2024  | 9/15/2022  | 105.2086  | 103.7391908 | 102.2977897 | 100.8836665 | 99.4961132  | 98.13444608 | 96.79800425 | 95.4861489  | 94.19826235 |
| 200302A00016 | 3/2/2020                            | 1.36 | 3/3/2025   | 3/2/2020   | 101.5704  | 99.1923625  | 96.88168938 | 94.63610226 | 92.45341146 | 90.331514   | 88.26838963 | 86.26209705 | 84.31077034 |
| 200305A00014 | 3/10/2020                           | 1    | 2/15/2023  | 3/10/2020  | 100.33801 | 99.95619637 | 99.57728396 | 99.20124441 | 98.82804509 | 98.45765384 | 98.09003901 | 97.72516941 | 97.36301432 |
| 210211A00007 | 2/11/2021                           | 0.47 | 9/15/2023  | 2/11/2021  | 99.848342 | 98.89483442 | 97.95940408 | 97.04154096 | 96.1407542  | 95.2565711  | 94.38853625 | 93.53621077 | 92.69917152 |
| 210624A00002 | 6/24/2021                           | 0.57 | 6/23/2023  | 6/24/2021  | 100.05876 | 99.32935221 | 98.61051712 | 97.90203001 | 97.2036688  | 96.51521774 | 95.83646713 | 95.16721319 | 94.50725779 |
| 220214A00010 | 2/14/2022                           | 2.46 | 12/21/2029 | 2/14/2022  | 113.82819 | 106.5546522 | 99.80195725 | 93.52995988 | 87.70181889 | 82.28370507 | 77.24453965 | 72.55575668 | 68.19108723 |
| 220325A00015 | 3/28/2022                           | 2.86 | 3/23/2027  | 3/28/2022  | 110.49754 | 105.9740666 | 101.6639926 | 97.55612419 | 93.63991505 | 89.90542363 | 86.34327532 | 82.9446271  | 79.70113467 |
| 220823A00015 | 8/23/2022                           | 3.78 | 8/30/2032  | 8/23/2022  | 130.2211  | 119.6730494 | 110.1063796 | 101.4234501 | 93.53684107 | 86.36823724 | 79.84743637 | 73.91147027 | 68.50382497 |
| 200318A00047 | 3/18/2020                           | 1.29 | 3/18/2025  | 3/18/2020  | 101.73769 | 99.31233039 | 96.95688453 | 94.66894293 | 92.44619387 | 90.28641902 | 88.18748896 | 86.1473591  | 84.16406571 |
| 200421A00024 | 4/24/2020                           | 0.8  | 10/16/2023 | 4/24/2020  | 100.13108 | 99.09378716 | 98.07783251 | 97.08256549 | 96.10735965 | 95.1516136  | 94.21474981 | 93.29621334 | 92.39547085 |
| 220722A00051 | 9/15/2022                           | 3.23 | 9/15/2027  | 9/15/2022  | 113.53456 | 108.469102  | 103.663703  | 99.10363226 | 94.77506795 | 90.66503744 | 86.76136082 | 83.05259838 | 79.52800194 |
| 200327A00027 | 3/27/2020                           | 0.9  | 3/27/2023  | 3/27/2020  | 100.28588 | 99.79477867 | 99.30846858 | 98.8268822  | 98.34995099 | 97.87760773 | 97.40978651 | 96.94642265 | 96.48745271 |
| 200417A00013 | 4/17/2020                           | 0.74 | 4/17/2023  | 4/17/2020  | 100.19948 | 99.65136808 | 99.10923367 | 98.5729821  | 98.04251794 | 97.51774783 | 96.99858037 | 96.48492615 | 95.97669763 |
| 210104A00006 | 11/22/2021                          | 0.88 | 11/20/2026 | 11/22/2021 | 101.36292 | 97.36092206 | 93.53708327 | 89.88253269 | 86.38889171 | 83.04824337 | 79.85310414 | 76.79639764 | 73.87143007 |
| 210112A00003 | 1/12/2021                           | 0.53 | 9/15/2023  | 1/12/2021  | 99.906554 | 98.95274222 | 98.01701151 | 97.09885196 | 96.19777262 | 95.31330072 | 94.44498076 | 93.59237376 | 92.75505655 |
| 211028A00012 | 10/28/2021                          | 1.64 | 10/15/2027 | 10/28/2021 | 105.76447 | 100.8116143 | 96.11952029 | 91.67311737 | 87.45828756 | 83.46179631 | 79.67123253 | 76.07495313 | 72.66203149 |
| 220124A00009 | 1/24/2022                           | 0.86 | 1/24/2023  | 1/24/2022  | 100.29032 | 99.96904198 | 99.6498239  | 99.33264618 | 99.01748929 | 98.70433393 | 98.39316105 | 98.08395186 | 97.77668779 |
| 220428A00016 | 5/2/2022                            | 3.09 | 10/15/2024 | 5/2/2022   | 104.86333 | 102.8211762 | 100.8293006 | 98.88614056 | 96.99019166 | 95.14000694 | 93.33419422 | 91.57141358 | 89.85037502 |
| 220628A00034 | 6/28/2022                           | 3.61 | 6/28/2027  | 6/28/2022  | 114.71633 | 109.8347925 | 105.1935481 | 100.7794089 | 96.57998787 | 92.58364496 | 88.77943769 | 85.15707504 | 81.70687471 |
| 200402A00038 | 4/2/2020                            | 0.84 | 4/2/2025   | 4/2/2020   | 100.62779 | 98.17773747 | 95.7994703  | 93.49047209 | 91.24833263 | 89.07074073 | 86.95547942 | 84.90042151 | 82.90352534 |
| 200415A00031 | 4/15/2020                           | 0.97 | 4/15/2025  | 4/15/2020  | 100.64582 | 98.16788974 | 95.76312359 | 93.42893609 | 91.16284727 | 88.96248033 | 86.82555664 | 84.74989095 | 82.73338697 |
| 220315A00021 | 3/15/2022                           | 2.15 | 3/15/2024  | 3/15/2022  | 102.04621 | 100.6010236 | 99.18342823 | 97.79270232 | 96.42814905 | 95.08909525 | 93.77489037 | 92.48490549 | 91.21853247 |
| 200326A00011 | 3/30/2020                           | 1.54 | 3/31/2025  | 3/30/2020  | 102.0638  | 99.60771548 | 97.22322063 | 94.90781979 | 92.65911898 | 90.47482212 | 88.35272631 | 86.29071748 | 84.28676621 |
| 200421A00031 | 4/21/2020                           | 0.84 | 4/19/2024  | 4/21/2020  | 100.1427  | 98.61945497 | 97.12668475 | 95.66354197 | 94.22921335 | 92.82291501 | 91.4438911  | 90.09141256 | 88.76477594 |
| 210225A00007 | 2/25/2021                           | 1.79 | 8/23/2030  | 2/25/2021  | 109.59562 | 101.8481596 | 94.70528984 | 88.11670575 | 82.03653022 | 76.42289999 | 71.23759611 | 66.44571007 | 62.01534204 |
| 210319A00003 | 3/19/2021                           | 0.95 | 3/19/2025  | 3/19/2021  | 100.57675 | 98.17014489 | 95.83295456 | 93.56278634 | 91.35734526 | 89.21442899 | 87.13192341 | 85.10779858 | 83.1401048  |
| 211117A00009 | 11/17/2021                          | 0.84 | 11/17/2023 | 11/17/2021 | 100.12318 | 99.00159206 | 97.90493889 | 96.83239999 | 95.78318749 | 94.7565475  | 93.75175828 | 92.76812859 | 91.80499604 |
| 220921A00069 | 9/21/2022                           | 3.98 | 9/21/2027  | 9/21/2022  | 118.05624 | 112.839718  | 107.8909442 | 103.1947202 | 98.73678573 | 94.50375987 | 90.48308206 | 86.66295768 | 83.03230735 |
| 200527A00013 | 5/27/2020                           | 1.13 | 11/25/2026 | 5/27/2020  | 102.41387 | 98.37707285 | 94.52020791 | 90.8342954  | 87.31085751 | 83.94188478 | 80.71980739 | 77.63746837 | 74.68809866 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 201119A00003 | 11/19/2020                          | 0.56 | 11/17/2023 | 11/19/2020 | 99.802906 | 98.68326116 | 97.58852441 | 96.51787261 | 95.47051864 | 94.44570933 | 93.44272364 | 92.46087099 | 91.49948966 |
| 210914A00015 | 9/14/2021                           | 0.81 | 9/15/2025  | 9/14/2021  | 100.69845 | 97.81453108 | 95.0273987  | 92.33329269 | 89.72861702 | 87.20993505 | 84.77396149 | 82.41755485 | 80.13771027 |
| 220629A00003 | 6/29/2022                           | 3.59 | 6/29/2027  | 6/29/2022  | 114.63089 | 109.7485967 | 105.1067848 | 100.692246  | 96.49257712 | 92.49612347 | 88.69192914 | 85.06969084 | 81.6197151  |
| 220502A00025 | 5/2/2022                            | 3.21 | 5/2/2025   | 5/2/2022   | 106.4873  | 103.8877038 | 101.3652953 | 98.91731038 | 96.54110374 | 94.23414192 | 91.99399783 | 89.8183455  | 87.70495516 |
| 210623A00026 | 6/23/2021                           | 0.78 | 6/24/2024  | 6/23/2021  | 100.08614 | 98.38874659 | 96.72786785 | 95.10239237 | 93.51125297 | 91.95342574 | 90.42792775 | 88.93381503 | 87.47018054 |
| 200304A00035 | 3/4/2020                            | 1.17 | 3/4/2025   | 3/4/2020   | 101.10831 | 98.73341414 | 96.42590141 | 94.18349089 | 92.0039895  | 89.88529112 | 87.82537259 | 85.8222899  | 83.87417464 |
| 220201A00011 | 2/1/2022                            | 1.86 | 4/20/2026  | 2/1/2022   | 104.38827 | 100.8829269 | 97.5140502  | 94.27559125 | 91.16180281 | 88.16722361 | 85.28666236 | 82.51518279 | 79.84808965 |
| 220217A00018 | 2/17/2022                           | 2.28 | 2/17/2027  | 2/17/2022  | 107.6991  | 103.3289271 | 99.16160736 | 95.18669799 | 91.39434341 | 87.77524218 | 84.32061306 | 81.02216328 | 77.87205894 |
| 220412A00018 | 4/12/2022                           | 3.09 | 3/15/2027  | 4/12/2022  | 111.46442 | 106.9405527 | 102.6288537 | 98.51825387 | 94.59831955 | 90.85921222 | 87.29165157 | 83.88688087 | 80.63663475 |
| 200429A00004 | 5/1/2020                            | 0.74 | 5/1/2023   | 5/1/2020   | 100.19603 | 99.60980378 | 99.03040283 | 98.45770736 | 97.89160163 | 97.33197257 | 96.77870967 | 96.23170491 | 95.6908527  |
| 220224A00010 | 2/24/2022                           | 2.04 | 3/10/2025  | 2/24/2022  | 103.2508  | 100.8339143 | 98.48586008 | 96.20429529 | 93.98696777 | 91.83171521 | 89.73646104 | 87.69921049 | 85.71804682 |
| 210208A00002 | 2/10/2021                           | 0.45 | 6/15/2023  | 2/10/2021  | 99.979227 | 99.27175856 | 98.5742519  | 97.88649789 | 97.2082931  | 96.53943974 | 95.87974543 | 95.22902307 | 94.58709058 |
| 220419A00015 | 4/19/2022                           | 3.14 | 4/17/2026  | 4/19/2022  | 108.92038 | 105.3426178 | 101.9030581 | 98.59560256 | 95.41445726 | 92.35411537 | 89.40934131 | 86.57515571 | 83.84682141 |
| 200114A00021 | 1/11/2021                           | 1.93 | 1/11/2024  | 1/11/2021  | 101.48694 | 100.2143104 | 98.96959062 | 97.75185889 | 96.56023781 | 95.3938881  | 94.25200648 | 93.13382377 | 92.03860307 |
| 200402A00014 | 4/2/2020                            | 0.84 | 4/2/2025   | 4/2/2020   | 100.62779 | 98.17773747 | 95.7994703  | 93.49047209 | 91.24833263 | 89.07074073 | 86.95547942 | 84.90042151 | 82.90352534 |
| 200413A00012 | 4/13/2020                           | 0.64 | 4/13/2023  | 4/13/2020  | 100.1945  | 99.65671508 | 99.12468802 | 98.59832834 | 98.07754572 | 97.56225178 | 97.05236    | 96.54778567 | 96.04844584 |
| 220915A00039 | 9/15/2022                           | 4.29 | 4/15/2024  | 9/15/2022  | 105.50736 | 103.951585  | 102.4267159 | 100.9318983 | 99.46631258 | 98.02916847 | 96.61970381 | 95.23718328 | 93.88089719 |
| 200916A00017 | 9/16/2020                           | 0.54 | 9/15/2023  | 9/16/2020  | 99.916256 | 98.96239352 | 98.02661275 | 97.10840379 | 96.20727569 | 95.32275566 | 94.45438817 | 93.60173426 | 92.76437072 |
| 220314A00005 | 3/14/2022                           | 2.36 | 3/14/2025  | 3/14/2022  | 104.05353 | 101.6162671 | 99.2486474  | 96.94828466 | 94.71289182 | 92.54027346 | 90.42832161 | 88.3750117  | 86.37839871 |
| 200417A00006 | 4/17/2020                           | 0.74 | 4/17/2023  | 4/17/2020  | 100.19948 | 99.65136808 | 99.10923367 | 98.5729821  | 98.04251794 | 97.51774783 | 96.99858037 | 96.48492615 | 95.97669763 |
| 211015A00029 | 10/15/2021                          | 0.98 | 10/15/2024 | 10/15/2021 | 100.52248 | 98.52590203 | 96.57870315 | 94.67934513 | 92.82634835 | 91.01828971 | 89.25379998 | 87.53156137 | 85.85030519 |
| 220131A00011 | 1/31/2022                           | 1.52 | 1/31/2024  | 1/31/2022  | 100.9989  | 99.68187834 | 98.38810705 | 97.11702033 | 95.86807396 | 94.64074065 | 93.4345094  | 92.24888484 | 91.08338668 |
| 200218A00026 | 2/21/2020                           | 1.73 | 3/25/2024  | 2/21/2020  | 101.4571  | 99.9903663  | 98.55213108 | 97.14163673 | 95.75815203 | 94.40097097 | 93.06941162 | 91.76281515 | 90.48054482 |
| 200330A00064 | 3/30/2020                           | 0.83 | 3/30/2023  | 3/30/2020  | 100.24982 | 99.75062823 | 99.25638926 | 98.76702509 | 98.28246398 | 97.80263559 | 97.32747097 | 96.85690247 | 96.39086375 |
| 210225A00013 | 3/1/2021                            | 0.93 | 10/6/2025  | 3/1/2021   | 100.7031  | 97.77342401 | 94.9435806  | 92.20962393 | 89.56778755 | 87.01447495 | 84.54625081 | 82.15983282 | 79.85208389 |
| 220308A00016 | 3/8/2022                            | 2.37 | 3/8/2029   | 3/8/2022   | 111.96403 | 105.5026471 | 99.46013975 | 93.80716021 | 88.51655959 | 83.56321378 | 78.92386273 | 74.57696327 | 70.50255423 |
| 200316A00072 | 3/16/2020                           | 1.18 | 3/16/2023  | 3/16/2020  | 100.419   | 99.95757016 | 99.50038144 | 99.04737274 | 98.59848681 | 98.15366746 | 97.71285951 | 97.27600878 | 96.84306205 |
| 220317A00028 | 5/3/2022                            | 2.59 | 5/3/2027   | 5/3/2022   | 109.51931 | 104.9088249 | 100.5206241 | 96.34279934 | 92.36414746 | 88.57412228 | 84.96279237 | 81.52080183 | 78.23933376 |
| 200228A00091 | 2/28/2020                           | 1.72 | 12/7/2029  | 2/28/2020  | 108.48389 | 101.4333983 | 94.88925751 | 88.81247152 | 83.1672398  | 77.92068232 | 73.04258668 | 68.50517845 | 64.28291244 |
| 200916A00019 | 9/16/2020                           | 0.42 | 9/16/2024  | 9/16/2020  | 99.638996 | 97.7227021  | 95.85248182 | 94.02694727 | 92.24476216 | 90.50463926 | 88.80533817 | 87.14566336 | 85.52446214 |
| 210129A00002 | 2/3/2021                            | 0.59 | 7/25/2024  | 2/3/2021   | 99.732941 | 97.95826109 | 96.22333257 | 94.52701535 | 92.86821046 | 91.24585796 | 89.65893524 | 88.10645543 | 86.58746586 |
| 200221A00023 | 2/21/2020                           | 2.05 | 12/7/2029  | 2/21/2020  | 110.84112 | 103.7081022 | 97.08563676 | 90.93447097 | 85.21856639 | 79.90482131 | 74.96281666 | 70.3645852  | 66.08440182 |
| 200331A00022 | 4/1/2020                            | 1.07 | 4/1/2025   | 4/1/2020   | 100.88376 | 98.44000249 | 96.0676376  | 93.76416774 | 91.52720228 | 89.35444846 | 87.24370672 | 85.19286629 | 83.19990105 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 200909A00001 | 9/9/2020                            | 0.98 | 9/8/2028   | 9/9/2020   | 103.71056 | 97.93914889 | 92.52105364 | 87.43292446 | 82.65306338 | 78.16130294 | 73.9388909  | 69.96838418 | 66.23355127 |
| 200922A00015 | 9/24/2020                           | 1.09 | 9/24/2025  | 9/24/2020  | 101.16602 | 98.26042198 | 95.45287619 | 92.73954362 | 90.11675997 | 87.58102447 | 85.12899151 | 82.7574629  | 80.46338049 |
| 201019A00007 | 10/19/2020                          | 0.64 | 10/21/2024 | 10/19/2020 | 99.822507 | 97.81779516 | 95.86294584 | 93.95639395 | 92.09663561 | 90.28222485 | 88.51177094 | 86.78393579 | 85.0974316  |
| 220526A00010 | 5/26/2022                           | 3    | 5/26/2026  | 5/26/2022  | 108.72897 | 105.0503801 | 101.5172404 | 98.12297265 | 94.86134019 | 91.72642401 | 88.71260459 | 85.81454479 | 83.0271739  |
| 200317A00045 | 3/19/2020                           | 1.43 | 3/19/2025  | 3/19/2020  | 101.76747 | 99.34591893 | 96.99411311 | 94.7096486  | 92.49022083 | 90.3336182  | 88.23771769 | 86.2004808  | 84.2199496  |
| 210729A00004 | 7/29/2021                           | 1.74 | 7/29/2031  | 7/29/2021  | 109.82431 | 101.2170402 | 93.35167788 | 86.16040868 | 79.58193158 | 73.56080749 | 68.04687239 | 62.99471172 | 58.36318948 |
| 200302A00005 | 3/2/2020                            | 1.31 | 3/3/2025   | 3/2/2020   | 101.44855 | 99.07201472 | 96.76281212 | 94.51866377 | 92.33738094 | 90.21686156 | 88.15508626 | 86.15011459 | 84.20008145 |
| 200327A00043 | 3/27/2020                           | 1.48 | 3/27/2028  | 3/27/2020  | 106.20229 | 100.7857719 | 95.67748123 | 90.85831781 | 86.31046258 | 82.01728288 | 77.96324755 | 74.13384852 | 70.51552837 |
| 200330A00028 | 3/30/2020                           | 1.09 | 3/28/2025  | 3/30/2020  | 100.93059 | 98.49656545 | 96.13336677 | 93.83853367 | 91.60970341 | 89.44460956 | 87.34107743 | 85.29701973 | 83.3104325  |
| 201123A00010 | 11/25/2020                          | 1.48 | 11/24/2025 | 11/25/2020 | 102.5209  | 99.43528674 | 96.45802942 | 93.58469413 | 90.81105897 | 88.13310064 | 85.54698369 | 83.04905042 | 80.63581147 |
| 210311A00007 | 3/11/2021                           | 1.06 | 3/11/2026  | 3/11/2021  | 101.44178 | 98.09221823 | 94.87015454 | 91.77008186 | 88.78675863 | 85.91519653 | 83.15064681 | 80.4885875  | 77.92471131 |
| 211221A00023 | 12/21/2021                          | 1.53 | 6/19/2026  | 12/21/2021 | 103.44783 | 99.80240033 | 96.30432354 | 92.94680962 | 89.7234253  | 86.62807166 | 83.65496451 | 80.79861598 | 78.05381739 |
| 211222A00035 | 12/22/2021                          | 2.15 | 12/22/2033 | 12/22/2021 | 114.99218 | 104.0030449 | 94.17879253 | 85.38912561 | 77.51896315 | 70.46659488 | 64.14206564 | 58.46576235 | 53.36717712 |
| 220106A00007 | 1/6/2022                            | 2.42 | 1/6/2034   | 1/6/2022   | 117.98485 | 106.7997919 | 96.79921386 | 87.85051624 | 79.8366117  | 72.65403488 | 66.21129398 | 60.42742927 | 55.23075169 |
| 220302A00010 | 3/2/2022                            | 2.14 | 1/13/2027  | 3/2/2022   | 106.8805  | 102.6236143 | 98.56046843 | 94.68121213 | 90.97655088 | 87.43771129 | 84.05640877 | 80.82481749 | 77.73554232 |
| 220324A00015 | 3/24/2022                           | 2.79 | 3/3/2026   | 3/24/2022  | 107.35856 | 103.9277514 | 100.6257303 | 97.44698207 | 94.38626172 | 91.4385755  | 88.59916751 | 85.8635071  | 83.22727692 |
| 220630A00044 | 6/30/2022                           | 3.34 | 6/30/2025  | 6/30/2022  | 107.25913 | 104.4905666 | 101.8080682 | 99.20839203 | 96.68844139 | 94.24525903 | 91.87601968 | 89.57802301 | 87.34868712 |
| 220802A00009 | 8/2/2022                            | 3    | 8/2/2027   | 8/2/2022   | 112.0805  | 107.1681154 | 102.5027587 | 98.07074011 | 93.859192   | 89.85601981 | 86.04985179 | 82.42999222 | 78.98637803 |
| 200306A00031 | 3/6/2020                            | 1.01 | 3/6/2025   | 3/6/2020   | 100.71897 | 98.34377121 | 96.03614109 | 93.79378472 | 91.61449809 | 89.49616477 | 87.43675188 | 85.43430629 | 83.48695098 |
| 200316A00041 | 3/16/2020                           | 1.16 | 3/16/2023  | 3/16/2020  | 100.40972 | 99.94831662 | 99.49115318 | 99.03816958 | 98.5893086  | 98.14451403 | 97.70373069 | 97.26690441 | 96.83398199 |
| 200423A00027 | 4/28/2020                           | 0.88 | 4/15/2024  | 4/28/2020  | 100.20144 | 98.68850617 | 97.20571629 | 95.7522446  | 94.32729136 | 92.93008551 | 91.55988337 | 90.21596743 | 88.89764516 |
| 200428A00003 | 4/29/2020                           | 1.01 | 4/29/2025  | 4/29/2020  | 100.76321 | 98.24656742 | 95.80500391 | 93.43582644 | 91.13646083 | 88.90444167 | 86.73740686 | 84.63309258 | 82.58932847 |
| 210609A00003 | 6/9/2021                            | 0.47 | 6/9/2023   | 6/9/2021   | 100       | 99.30867207 | 98.62685329 | 97.95434937 | 97.29097046 | 96.63653186 | 95.99085382 | 95.35376138 | 94.72508421 |
| 211123A00012 | 11/23/2021                          | 2.27 | 11/23/2033 | 11/23/2021 | 116.27328 | 105.2848781 | 95.45203948 | 86.64640335 | 78.75450638 | 71.67598138 | 65.32198512 | 59.61382198 | 54.48173812 |
| 200309A00038 | 3/9/2020                            | 1.26 | 3/11/2030  | 3/9/2020   | 105.30435 | 98.12771714 | 91.48602226 | 85.3367378  | 79.64091907 | 74.36288399 | 69.46992471 | 64.93204604 | 60.72172812 |
| 200326A00009 | 3/27/2020                           | 1.54 | 3/27/2025  | 3/27/2020  | 102.05598 | 99.6102668  | 97.2355477  | 94.92936094 | 92.68934181 | 90.51322183 | 88.39882422 | 86.34405959 | 84.34692183 |
| 201021A00011 | 10/21/2020                          | 1.11 | 10/21/2027 | 10/21/2020 | 103.10858 | 98.2066775  | 93.56451806 | 89.16702388 | 85.00007326 | 81.05043153 | 77.30569064 | 73.75421327 | 70.38508096 |
| 200228A00070 | 5/18/2020                           | 1.35 | 5/18/2023  | 5/18/2020  | 100.58313 | 99.94931017 | 99.32345742 | 98.7054224  | 98.09505923 | 97.49222561 | 96.89678278 | 96.30859536 | 95.72753126 |
| 210217A00009 | 2/18/2021                           | 0.68 | 11/15/2024 | 2/18/2021  | 99.908814 | 97.83743492 | 95.81871906 | 93.85096692 | 91.93254762 | 90.06189531 | 88.23750605 | 86.45793478 | 84.72179254 |
| 210219A00004 | 2/19/2021                           | 0.91 | 2/19/2026  | 2/19/2021  | 100.88036 | 97.59359908 | 94.43012942 | 91.38470793 | 88.45233859 | 85.6282629  | 82.90794722 | 80.28707104 | 77.76151573 |
| 200306A00077 | 3/6/2020                            | 1.06 | 3/6/2025   | 3/6/2020   | 100.84123 | 98.46451811 | 96.15540773 | 93.91160313 | 91.73089933 | 89.61117899 | 87.55040834 | 85.54663339 | 83.5979763  |
| 220106A00011 | 1/6/2022                            | 2.7  | 1/6/2038   | 1/6/2022   | 123.52866 | 108.6050172 | 95.72845732 | 84.60316935 | 74.9776733  | 66.63796764 | 59.40176818 | 53.11365764 | 47.64099817 |
| 200224A00006 | 2/24/2020                           | 1.58 | 11/15/2024 | 2/24/2020  | 101.83666 | 99.74424985 | 97.70492514 | 95.71697649 | 93.77876119 | 91.88870202 | 90.04528408 | 88.24705176 | 86.49260595 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 211207A00011 | 12/7/2021                           | 1.62 | 12/1/2026  | 12/7/2021  | 104.47613 | 100.3808789 | 96.46822839 | 92.72905274 | 89.15473333 | 85.73712901 | 82.46854673 | 79.34171412 | 76.349754   |
| 220217A00013 | 2/17/2022                           | 2.08 | 2/14/2025  | 2/17/2022  | 103.25188 | 100.9011604 | 98.61566739 | 96.39323928 | 94.23179538 | 92.12933564 | 90.08393713 | 88.09375056 | 86.15699707 |
| 200305A00015 | 3/5/2020                            | 0.99 | 3/6/2023   | 3/5/2020   | 100.33128 | 99.89743032 | 99.46732875 | 99.04092359 | 98.61816728 | 98.19901311 | 97.78341515 | 97.37132827 | 96.96270807 |
| 200326A00016 | 3/26/2020                           | 1.54 | 3/25/2025  | 3/26/2020  | 102.05207 | 99.61154043 | 97.24171041 | 94.9401326  | 92.70445683 | 90.53242836 | 88.42188342 | 86.3707449  | 84.3770183  |
| 200605A00005 | 6/5/2020                            | 0.99 | 6/5/2025   | 6/5/2020   | 100.7416  | 98.12982657 | 95.59822933 | 93.14383935 | 90.76382264 | 88.45546969 | 86.21618903 | 84.04350115 | 81.93503274 |
| 210224A00006 | 2/26/2021                           | 0.88 | 10/21/2025 | 2/26/2021  | 100.57083 | 97.6048629  | 94.74095239 | 91.97502412 | 89.30318864 | 86.72173427 | 84.22711779 | 81.81595575 | 79.48501625 |
| 200325A00016 | 3/30/2020                           | 1.67 | 3/31/2025  | 3/30/2020  | 102.39054 | 99.93030475 | 97.54175034 | 95.22237939 | 92.96979521 | 90.78169912 | 88.6558857  | 86.59023848 | 84.58272572 |
| 201116A00024 | 11/18/2020                          | 2.36 | 11/15/2034 | 11/18/2020 | 117.7465  | 105.823674  | 95.24882395 | 85.8612325  | 77.52014563 | 70.10220347 | 63.49921078 | 57.616203   | 52.36976749 |
| 201123A00009 | 11/25/2020                          | 1.02 | 11/25/2024 | 11/25/2020 | 100.64848 | 98.54231756 | 96.49015592 | 94.49023033 | 92.54085163 | 90.64039896 | 88.78731633 | 86.98010951 | 85.21734299 |
| 210104A00009 | 12/20/2021                          | 0.89 | 12/18/2026 | 12/20/2021 | 101.46702 | 97.39116277 | 93.49952881 | 89.78280132 | 86.23218909 | 82.83939384 | 79.59657945 | 76.49634336 | 73.53168991 |
| 211028A00013 | 10/28/2021                          | 1.65 | 10/22/2027 | 10/28/2021 | 105.83833 | 100.8657079 | 96.15564714 | 91.69293361 | 87.46331344 | 83.45342741 | 79.65075009 | 76.04353342 | 72.62075448 |
| 220727A00010 | 7/27/2022                           | 3.38 | 7/24/2024  | 7/27/2022  | 104.83901 | 103.0189292 | 101.2393868 | 99.49921646 | 97.79729546 | 96.1325413  | 94.50390984 | 92.91039367 | 91.35102053 |
| 200330A00008 | 3/30/2020                           | 1.09 | 3/28/2025  | 3/30/2020  | 100.93059 | 98.49656545 | 96.13336677 | 93.83853367 | 91.60970341 | 89.44460956 | 87.34107743 | 85.29701973 | 83.3104325  |
| 210616A00006 | 2/11/2022                           | 0.86 | 2/11/2025  | 2/11/2022  | 100.33184 | 98.02501559 | 95.78220932 | 93.60129855 | 91.48024567 | 89.41709181 | 87.40995337 | 85.45701864 | 83.55654464 |
| 200529A00022 | 6/1/2020                            | 0.98 | 6/1/2026   | 6/1/2020   | 101.35339 | 97.79414637 | 94.37755283 | 91.09710639 | 87.94664006 | 84.92030329 | 82.01254362 | 79.21808961 | 76.53193478 |
| 201030A00016 | 10/30/2020                          | 1.14 | 10/8/2027  | 10/30/2020 | 103.23429 | 98.36212171 | 93.74662992 | 89.37299744 | 85.22734149 | 81.29664616 | 77.56870377 | 74.0320606  | 70.67596644 |
| 201203A00005 | 12/3/2020                           | 0.78 | 12/3/2026  | 12/3/2020  | 101.51464 | 97.46010394 | 93.58771052 | 89.8883097  | 86.35326317 | 82.97441326 | 79.74405323 | 76.6548996  | 73.70006633 |
| 210616A00012 | 3/18/2022                           | 0.9  | 3/18/2025  | 3/18/2022  | 100.45251 | 98.05001004 | 95.71674755 | 93.45033591 | 91.24848831 | 89.1090101  | 87.02979451 | 85.00881852 | 83.04413899 |
| 210709A00006 | 7/13/2021                           | 2.4  | 7/11/2031  | 7/13/2021  | 115.53118 | 106.7255658 | 98.66907634 | 91.29379415 | 84.53829635 | 78.34700314 | 72.66959403 | 67.46048516 | 62.67836101 |
| 211123A00010 | 11/23/2021                          | 0.94 | 11/24/2023 | 11/23/2021 | 100.22744 | 99.08682134 | 97.97196922 | 96.8820174  | 95.81613974 | 94.77354628 | 93.75348125 | 92.7552213  | 91.7780737  |
| 200302A00013 | 3/2/2020                            | 1.25 | 3/4/2024   | 3/2/2020   | 100.70539 | 99.29906256 | 97.91907668 | 96.56476096 | 95.23546244 | 93.93054981 | 92.64941256 | 91.39146007 | 90.15612086 |
| 200423A00006 | 4/23/2020                           | 0.82 | 4/23/2025  | 4/23/2020  | 100.59674 | 98.09105683 | 95.6599464  | 93.30074676 | 91.01090916 | 88.78799204 | 86.6296557  | 84.53365737 | 82.49784648 |
| 210914A00018 | 9/14/2021                           | 1.43 | 9/14/2029  | 9/14/2021  | 107.26329 | 100.4277774 | 94.07170275 | 88.15903386 | 82.65661696 | 77.5339351  | 72.76288604 | 68.31757987 | 64.17415456 |
| 220325A00012 | 3/28/2022                           | 2.85 | 3/23/2026  | 3/28/2022  | 107.70463 | 104.2155948 | 100.8594215 | 97.63033851 | 94.52285777 | 91.53175829 | 88.65207172 | 85.87906861 | 83.20824568 |
| 201030A00018 | 10/30/2020                          | 1.15 | 10/22/2027 | 10/30/2020 | 103.31254 | 98.40301939 | 93.75367674 | 89.34940804 | 85.17606427 | 81.22038543 | 77.46994004 | 73.91306906 | 70.53883389 |
| 210330A00015 | 3/30/2021                           | 0.47 | 3/30/2023  | 3/30/2021  | 100.06882 | 99.57015803 | 99.07644294 | 98.58759891 | 98.10355425 | 97.62423868 | 97.14958325 | 96.67952039 | 96.21398379 |
| 200401A00001 | 4/1/2020                            | 1.01 | 4/1/2025   | 4/1/2020   | 100.73279 | 98.29095571 | 95.92046848 | 93.6188349  | 91.38366556 | 89.21266892 | 87.10364658 | 85.0544889  | 83.06317081 |
| 200527A00012 | 5/27/2020                           | 1.2  | 5/27/2027  | 5/27/2020  | 103.20963 | 98.6816454  | 94.37646498 | 90.28196659 | 86.38675113 | 82.68009818 | 79.15192167 | 75.79272879 | 72.5935817  |
| 220311A00013 | 3/15/2022                           | 2.35 | 3/15/2027  | 3/15/2022  | 108.16883 | 103.7178012 | 99.47646537 | 95.43385502 | 91.57963636 | 87.90406594 | 84.39795383 | 81.05262926 | 77.85990867 |
| 200304A00032 | 3/4/2020                            | 1.6  | 12/15/2028 | 3/4/2020   | 106.81152 | 100.7284647 | 95.02961375 | 89.68870863 | 84.68142276 | 79.98520764 | 75.57915353 | 71.44386175 | 67.5613277  |
| 200330A00043 | 3/30/2020                           | 0.86 | 3/30/2023  | 3/30/2020  | 100.2649  | 99.76566741 | 99.27138478 | 98.78197727 | 98.29737312 | 97.817502   | 97.34229495 | 96.87168431 | 96.40560375 |
| 210907A00006 | 9/7/2021                            | 2.1  | 9/7/2034   | 9/7/2021   | 114.63503 | 103.0520933 | 92.76650052 | 83.62528572 | 75.49425811 | 68.25561608 | 61.80587213 | 56.05404947 | 50.92011351 |
| 220126A00003 | 1/26/2022                           | 1.9  | 12/18/2026 | 1/26/2022  | 105.72658 | 101.5614246 | 97.58339756 | 93.78306565 | 90.1515245  | 86.68036808 | 83.36165765 | 80.1878929  | 77.15198498 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 220217A00015 | 2/17/2022                           | 2.28 | 2/16/2027  | 2/17/2022  | 107.69238 | 103.325231  | 99.16067219 | 95.18827917 | 91.39821487 | 87.78119495 | 84.32845402 | 81.03171396 | 77.88315443 |
| 220721A00017 | 7/21/2022                           | 3.51 | 1/22/2024  | 7/21/2022  | 103.61113 | 102.2975008 | 101.0094827 | 99.74634909 | 98.50739629 | 97.2919474  | 96.09935094 | 94.92897964 | 93.78022931 |
| 220722A00044 | 9/1/2022                            | 3.23 | 9/1/2027   | 9/1/2022   | 113.4252  | 108.4005841 | 103.6320563 | 99.10521757 | 94.80655182 | 90.72336683 | 86.84374005 | 83.15646808 | 79.65101965 |
| 200413A00026 | 4/13/2020                           | 0.82 | 4/13/2023  | 4/13/2020  | 100.24383 | 99.7064765  | 99.17486951 | 98.64891742 | 98.12853028 | 97.61362004 | 97.10410051 | 96.59988728 | 96.10089773 |
| 210127A00009 | 1/27/2021                           | 1.3  | 7/27/2029  | 1/27/2021  | 105.31485 | 98.70813777 | 92.55656134 | 86.82652629 | 81.48707718 | 76.50967707 | 71.86800731 | 67.53778484 | 63.4965954  |
| 210420A00009 | 4/20/2021                           | 1.08 | 12/5/2025  | 4/20/2021  | 101.28002 | 98.18546496 | 95.20058993 | 92.32086785 | 89.54198902 | 86.85984851 | 84.27053495 | 81.77032001 | 79.35564855 |
| 220325A00018 | 3/28/2022                           | 2.85 | 9/10/2026  | 3/28/2022  | 108.97999 | 105.0112444 | 101.2104125 | 97.56951352 | 94.08098535 | 90.7376631  | 87.5327561  | 84.45982634 | 81.51276832 |
| 220628A00044 | 8/15/2022                           | 3.6  | 8/13/2027  | 8/15/2022  | 115.07636 | 110.0626856 | 105.3015431 | 100.7788836 | 96.48151012 | 92.39702192 | 88.51376266 | 84.82077194 | 81.30774041 |
| 210208A00015 | 2/10/2021                           | 0.46 | 8/25/2023  | 2/10/2021  | 99.884205 | 98.98638952 | 98.10459748 | 97.23840366 | 96.38739743 | 95.5511825  | 94.7293762  | 93.92160901 | 93.12752391 |
| 210929A00011 | 3/16/2022                           | 1.03 | 3/14/2025  | 3/16/2022  | 100.77238 | 98.37608809 | 96.0485341  | 93.78736523 | 91.59032057 | 89.45522996 | 87.38000966 | 85.36265846 | 83.40125378 |
| 220609A00035 | 8/30/2022                           | 3.11 | 9/29/2023  | 8/30/2022  | 102.48639 | 101.4813582 | 100.4960255 | 99.52981251 | 98.58216655 | 97.65255612 | 96.74046986 | 95.84541556 | 94.9669193  |
| 220701A00050 | 7/1/2022                            | 3.26 | 7/1/2027   | 7/1/2022   | 113.08302 | 108.2316824 | 103.6200291 | 99.23487779 | 95.06384521 | 91.09529621 | 87.3182939  | 83.72255354 | 80.2983998  |
| 220823A00002 | 8/23/2022                           | 3.38 | 8/23/2027  | 8/23/2022  | 114.81456 | 109.7575857 | 104.9573483 | 100.3994595 | 96.07041136 | 91.95751692 | 88.04885612 | 84.33322567 | 80.80009234 |
| 200310A00041 | 3/10/2020                           | 1.39 | 3/12/2029  | 3/10/2020  | 105.68957 | 99.41587555 | 93.55320388 | 88.07258139 | 82.94721344 | 78.1523126  | 73.66493871 | 69.46385254 | 65.52938168 |
| 200327A00022 | 3/27/2020                           | 0.9  | 3/27/2023  | 3/27/2020  | 100.28588 | 99.79477867 | 99.30846858 | 98.8268822  | 98.34995099 | 97.87760773 | 97.40978651 | 96.94642265 | 96.48745271 |
| 200331A00008 | 3/31/2020                           | 0.64 | 3/31/2023  | 3/31/2020  | 100.19821 | 99.69590201 | 99.19860571 | 98.70624612 | 98.21875013 | 97.73604606 | 97.25806363 | 96.78473394 | 96.31598941 |
| 210928A00007 | 9/28/2021                           | 0.88 | 9/27/2024  | 9/28/2021  | 100.30589 | 98.35837825 | 96.45826622 | 94.60410874 | 92.79451363 | 91.02814052 | 89.3036985  | 87.61994395 | 85.97567845 |
| 200826A00019 | 8/26/2020                           | 0.98 | 8/26/2026  | 8/26/2020  | 101.55907 | 97.77502143 | 94.15113664 | 90.67983645 | 87.35394203 | 84.1666487  | 81.11150455 | 78.18239023 | 75.3735002  |
| 201015A00032 | 10/19/2020                          | 2.33 | 10/19/2026 | 10/19/2020 | 107.16693 | 103.1306192 | 99.26950114 | 95.57504076 | 92.03916284 | 88.65422751 | 85.41300433 | 82.30864795 | 79.33467551 |
| 201215A00001 | 12/15/2020                          | 0.76 | 12/15/2025 | 12/15/2020 | 100.2705  | 97.16669144 | 94.17381447 | 91.28725005 | 88.50260581 | 85.8157     | 83.22254985 | 80.71936065 | 78.30251549 |
| 211206A00009 | 12/6/2021                           | 1.43 | 12/5/2025  | 12/6/2021  | 102.39687 | 99.28444815 | 96.28217471 | 93.38550668 | 90.59011894 | 87.89189177 | 85.28689964 | 82.77140061 | 80.34182655 |
| 200310A00021 | 3/10/2020                           | 1.1  | 3/10/2025  | 3/10/2020  | 100.94206 | 98.55386781 | 96.23388666 | 93.97978583 | 91.7893314  | 89.66037864 | 87.59086791 | 85.57882071 | 83.62233598 |
| 220715A00001 | 7/15/2022                           | 3.44 | 7/15/2027  | 7/15/2022  | 114.05516 | 109.1435567 | 104.4760469 | 100.0391787 | 95.82031073 | 91.80756218 | 87.98976315 | 84.35640802 | 80.89761237 |
| 220930A00049 | 9/30/2022                           | 4.55 | 6/28/2024  | 9/30/2022  | 106.72034 | 104.9521693 | 103.2220232 | 101.52874   | 99.87120516 | 98.24834986 | 96.65914809 | 95.10261471 | 93.57780328 |
| 220915A00036 | 9/15/2022                           | 4.23 | 9/16/2024  | 9/15/2022  | 106.92362 | 104.9383693 | 103.0004268 | 101.1083684 | 99.26082669 | 97.45648437 | 95.69407202 | 93.97236604 | 92.29018664 |
| 220831A00078 | 8/31/2022                           | 3.81 | 8/30/2024  | 8/31/2022  | 105.96338 | 104.0339051 | 102.1494081 | 100.3085726 | 98.5101268  | 96.75284431 | 95.03554226 | 93.3570794  | 91.71635442 |
| 200310A00062 | 3/10/2020                           | 1.05 | 3/8/2024   | 3/10/2020  | 100.42125 | 99.00667358 | 97.61878987 | 96.25691162 | 94.92037276 | 93.60852947 | 92.32075925 | 91.05646008 | 89.81504956 |
| 200311A00050 | 3/2/2021                            | 1.46 | 3/2/2026   | 3/2/2021   | 102.79335 | 99.44341367 | 96.21990199 | 93.11739422 | 90.13073117 | 87.25500099 | 84.48552593 | 81.81784993 | 79.24772689 |
| 200331A00024 | 3/31/2020                           | 0.64 | 3/31/2023  | 3/31/2020  | 100.19821 | 99.69590201 | 99.19860571 | 98.70624612 | 98.21875013 | 97.73604606 | 97.25806363 | 96.78473394 | 96.31598941 |
| 200824A00020 | 8/26/2020                           | 1.57 | 8/26/2025  | 8/26/2020  | 102.51728 | 99.6676831  | 96.91163422 | 94.2455747  | 91.6660975  | 89.16994331 | 86.75399335 | 84.41526246 | 82.15089267 |
| 220121A00013 | 1/21/2022                           | 1.78 | 11/3/2025  | 1/21/2022  | 103.3823  | 100.3391141 | 97.40113998 | 94.56414054 | 91.82407816 | 89.17710155 | 86.61953602 | 84.14787412 | 81.75876698 |
| 220728A00070 | 7/28/2022                           | 3.19 | 1/29/2024  | 7/28/2022  | 103.23867 | 101.9106619 | 100.6066306 | 99.32596615 | 98.06808329 | 96.83241604 | 95.61841694 | 94.42555627 | 93.25332134 |
| 220816A00009 | 8/16/2022                           | 3.33 | 8/16/2027  | 8/16/2022  | 113.78778 | 108.7971059 | 104.0586184 | 99.55825275 | 95.2828007  | 91.21985279 | 87.35774589 | 83.68551465 | 80.19284636 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 220913A00018 | 9/13/2022                           | 3.91 | 9/13/2027  | 9/13/2022  | 116.88218 | 111.740236  | 106.8608387 | 102.2291641 | 97.8313018  | 93.65419406 | 89.68557908 | 85.91393844 | 82.32844825 |
| 220919A00033 | 9/19/2022                           | 4    | 9/17/2027  | 9/19/2022  | 117.36691 | 112.2019985 | 107.3012018 | 102.6495768 | 98.23310663 | 94.03863519 | 90.05380998 | 86.26702883 | 82.66739052 |
| 211026A00012 | 10/26/2021                          | 1.52 | 10/26/2026 | 10/26/2021 | 103.91023 | 99.92163867 | 96.10758395 | 92.45950878 | 88.96932381 | 85.62937817 | 82.4324331  | 79.3716375  | 76.4405049  |
| 200331A00016 | 3/31/2020                           | 1.11 | 3/31/2026  | 3/31/2020  | 102.11289 | 98.68920701 | 95.39793502 | 92.23325289 | 89.18963195 | 86.26181536 | 83.44480315 | 80.73383822 | 78.12439313 |
| 200826A00028 | 8/28/2020                           | 1.08 | 8/28/2024  | 8/28/2020  | 100.68788 | 98.81573629 | 96.98734567 | 95.20142729 | 93.45674585 | 91.75211002 | 90.0863706  | 88.4584187  | 86.86718408 |
| 200327A00040 | 3/27/2020                           | 0.72 | 3/27/2023  | 3/27/2020  | 100.24087 | 99.7493661  | 99.26266964 | 98.78070763 | 98.30341126 | 97.83071304 | 97.36254677 | 96.89884753 | 96.43955163 |
| 200417A00019 | 4/17/2020                           | 0.77 | 4/17/2025  | 4/17/2020  | 100.46299 | 97.97503905 | 95.56081761 | 93.21770612 | 90.94319709 | 88.73488778 | 86.59047507 | 84.50775063 | 82.48459636 |
| 201218A00014 | 12/18/2020                          | 0.57 | 12/18/2025 | 12/18/2020 | 100.07252 | 96.95412368 | 93.94766177 | 91.04845894 | 88.2520656  | 85.55424652 | 82.95096886 | 80.43839101 | 78.01285213 |
| 220317A00027 | 5/3/2022                            | 2.59 | 5/3/2027   | 5/3/2022   | 109.51931 | 104.9088249 | 100.5206241 | 96.34279934 | 92.36414746 | 88.57412228 | 84.96279237 | 81.52080183 | 78.23933376 |
| 220930A00046 | 9/30/2022                           | 4.55 | 8/30/2024  | 9/30/2022  | 107.39276 | 105.4491463 | 103.5507877 | 101.6963534 | 99.8845641  | 98.11418646 | 96.38403074 | 94.69294918 | 93.03983413 |
| 200218A00025 | 2/21/2020                           | 1.71 | 2/24/2023  | 2/21/2020  | 100.62644 | 100.2192402 | 99.81532472 | 99.4146584  | 99.01720216 | 98.62291757 | 98.23176679 | 97.84371258 | 97.4587183  |
| 200312A00009 | 3/12/2020                           | 1.46 | 3/12/2027  | 3/12/2020  | 104.19507 | 99.83950064 | 95.68991352 | 91.73552984 | 87.96618849 | 84.37230869 | 80.94485377 | 77.67529755 | 74.55559287 |
| 201221A00014 | 12/21/2020                          | 0.76 | 12/19/2025 | 12/21/2020 | 100.27514 | 97.16109945 | 94.15866565 | 91.26317685 | 88.47020163 | 85.77552181 | 83.1751206  | 80.66517152 | 78.24202795 |
| 210225A00003 | 3/1/2021                            | 0.93 | 9/24/2025  | 3/1/2021   | 100.68677 | 97.78838608 | 94.9878721  | 92.28139668 | 89.66530127 | 87.13609061 | 84.69042441 | 82.32510955 | 80.03709274 |
| 210302A00005 | 3/5/2021                            | 0.92 | 9/10/2025  | 3/5/2021   | 100.63884 | 97.7778388  | 95.01224611 | 92.33837816 | 89.75271156 | 87.251878   | 84.83265654 | 82.49196629 | 80.2268595  |
| 210826A00013 | 8/26/2021                           | 1.97 | 2/28/2033  | 8/26/2021  | 112.77787 | 102.6139199 | 93.461459   | 85.21420157 | 77.77753844 | 71.06720082 | 65.00808381 | 59.53320878 | 54.58280777 |
| 220804A00037 | 8/4/2022                            | 3.35 | 8/4/2025   | 8/4/2022   | 107.54371 | 104.678534  | 101.9051155 | 99.22003009 | 96.62000341 | 94.1019001  | 91.66271723 | 89.29957792 | 87.0097254  |
| 220722A00050 | 9/15/2022                           | 3.25 | 9/15/2025  | 9/15/2022  | 107.56729 | 104.5897364 | 101.711038  | 98.92737248 | 96.23508706 | 93.63069022 | 91.11084366 | 88.67235463 | 86.31216875 |
| 200312A00037 | 3/12/2020                           | 1.3  | 3/12/2025  | 3/12/2020  | 101.43588 | 99.03642596 | 96.70560444 | 94.44106872 | 92.2405668  | 90.10193683 | 88.02310287 | 86.00207098 | 84.03692542 |
| 200730A00013 | 7/30/2020                           | 0.74 | 1/30/2025  | 7/30/2020  | 100.03692 | 97.76745453 | 95.56014914 | 93.41296478 | 91.32394505 | 89.29120837 | 87.31294468 | 85.38741231 | 83.51293498 |
| 201028A00011 | 10/28/2020                          | 0.91 | 4/28/2026  | 10/28/2020 | 101.02467 | 97.55812273 | 94.22779682 | 91.02761419 | 87.95179904 | 84.99486493 | 82.15159848 | 79.4170442  | 76.78649009 |
| 220203A00009 | 2/3/2022                            | 1.99 | 2/2/2027   | 2/3/2022   | 106.33903 | 102.0414029 | 97.94177105 | 94.03002772 | 90.2966287  | 86.73256154 | 83.32931336 | 80.07884064 | 76.97354109 |
| 220420A00032 | 4/20/2022                           | 3.26 | 10/16/2026 | 4/20/2022  | 110.9117  | 106.8078136 | 102.8808832 | 99.12232367 | 95.52400975 | 92.07825283 | 88.777775   | 85.61568477 | 82.58545442 |
| 220516A00034 | 5/16/2022                           | 2.72 | 11/16/2023 | 5/16/2022  | 102.27017 | 101.1381809 | 100.0312196 | 98.94845775 | 97.88910797 | 96.85241661 | 95.8376621  | 94.84415322 | 93.87122756 |
| 200306A00028 | 3/6/2020                            | 1.01 | 3/6/2025   | 3/6/2020   | 100.71897 | 98.34377121 | 96.03614109 | 93.79378472 | 91.61449809 | 89.49616477 | 87.43675188 | 85.43430629 | 83.48695098 |
| 200916A00016 | 9/16/2020                           | 0.6  | 9/16/2024  | 9/16/2020  | 99.743752 | 97.83113528 | 95.96441676 | 94.1422164  | 92.36320512 | 90.62610253 | 88.92967473 | 87.27273235 | 85.65412861 |
| 200504A00007 | 5/4/2020                            | 1.47 | 5/4/2028   | 5/4/2020   | 105.47294 | 100.004271  | 94.85125854 | 89.99407274 | 85.41423024 | 81.09449627 | 77.01879373 | 73.17211956 | 69.54046749 |
| 220408A00013 | 4/8/2022                            | 3.15 | 1/14/2027  | 4/8/2022   | 111.21947 | 106.8674926 | 102.7125359 | 98.74461188 | 94.95429314 | 91.33267984 | 87.87136687 | 84.56241359 | 81.39831547 |
| 200316A00048 | 3/16/2020                           | 1.11 | 3/16/2023  | 3/16/2020  | 100.38652 | 99.92518277 | 99.46808252 | 99.01516169 | 98.56636306 | 98.12163044 | 97.68090864 | 97.24414351 | 96.81128182 |
| 200430A00030 | 4/30/2020                           | 0.96 | 4/30/2025  | 4/30/2020  | 100.63453 | 98.11692558 | 95.67449064 | 93.3045323  | 91.00447083 | 88.77183558 | 86.60425956 | 84.49947434 | 82.45530528 |
| 210730A00009 | 7/30/2021                           | 0.74 | 7/31/2024  | 7/30/2021  | 100.00913 | 98.21631495 | 96.46395529 | 94.75091213 | 93.0760824  | 91.4384007  | 89.83683784 | 88.27039934 | 86.73812406 |
| 220502A00030 | 5/4/2022                            | 3.24 | 6/20/2025  | 5/4/2022   | 106.91037 | 104.1738888 | 101.5218169 | 98.95100027 | 96.45842668 | 94.04121805 | 91.69662349 | 89.42201257 | 87.21486905 |
| 220726A00032 | 7/26/2022                           | 3.36 | 7/26/2023  | 7/26/2022  | 102.33335 | 101.5048154 | 100.6896963 | 99.8876687  | 99.09841904 | 98.3216435  | 97.55704787 | 96.80434714 | 96.06326513 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 210826A00008 | 8/26/2021                           | 0.89 | 2/26/2025  | 8/26/2021  | 100.42197 | 98.07142734 | 95.78720673 | 93.56707324 | 91.4088815  | 89.31057058 | 87.27016016 | 85.28574691 | 83.35550094 |
| 220209A00011 | 2/9/2022                            | 2.14 | 1/11/2027  | 2/9/2022   | 106.8697  | 102.6182354 | 98.560046   | 94.68530788 | 90.98475198 | 87.44962937 | 84.07167893 | 80.84309732 | 77.75651092 |
| 220314A00008 | 3/14/2022                           | 2.38 | 7/28/2025  | 3/14/2022  | 104.73936 | 101.932761  | 99.21581655 | 96.58518739 | 94.03767703 | 91.5702252  | 89.17990117 | 86.86389754 | 84.61952433 |
| 200421A00029 | 4/24/2020                           | 0.72 | 12/15/2022 | 4/24/2020  | 100.23063 | 100.0198323 | 99.80993298 | 99.60092693 | 99.39280836 | 99.1855716  | 98.97921098 | 98.77372089 | 98.56909578 |
| 210624A00003 | 6/24/2021                           | 0.78 | 6/24/2024  | 6/24/2021  | 100.08614 | 98.38874659 | 96.72786785 | 95.10239237 | 93.51125297 | 91.95342574 | 90.42792775 | 88.93381503 | 87.47018054 |
| 210916A00003 | 9/16/2021                           | 0.75 | 9/16/2024  | 9/16/2021  | 100.04044 | 98.12482263 | 96.25516098 | 94.43007392 | 92.64823081 | 90.90834971 | 89.20919528 | 87.54957672 | 85.92834588 |
| 220301A00014 | 3/1/2022                            | 1.85 | 1/10/2025  | 3/1/2022   | 102.58739 | 100.3395669 | 98.15186682 | 96.02228205 | 93.94888403 | 91.92982328 | 89.96332542 | 88.04768743 | 86.1812742  |
| 200319A00025 | 3/19/2020                           | 1.39 | 3/21/2024  | 3/19/2020  | 100.93993 | 99.48762445 | 98.06334743 | 96.66636313 | 95.2959569  | 93.95143851 | 92.63214115 | 91.33742042 | 90.06665338 |
| 210225A00016 | 3/1/2021                            | 0.88 | 7/15/2025  | 3/1/2021   | 100.47524 | 97.76272432 | 95.13636422 | 92.5929226  | 90.12930682 | 87.74255962 | 85.42985225 | 83.18847797 | 81.0158459  |
| 211220A00006 | 12/20/2021                          | 1.21 | 12/20/2024 | 12/20/2021 | 101.09362 | 98.91745032 | 96.79838358 | 94.73450416 | 92.72397922 | 90.76505255 | 88.85604056 | 86.99532868 | 85.18136778 |
| 200521A00015 | 5/21/2020                           | 2.14 | 5/21/2036  | 5/21/2020  | 115.34387 | 102.2961589 | 90.88988259 | 80.90822589 | 72.16409172 | 64.49589035 | 57.76394672 | 51.84742913 | 46.64172176 |
| 220331A00004 | 3/31/2022                           | 2.66 | 5/20/2024  | 3/31/2022  | 103.17034 | 101.5395839 | 99.94244124 | 98.37793404 | 96.84512566 | 95.34311521 | 93.87103585 | 92.42805315 | 91.01336359 |
| 200310A00051 | 3/10/2020                           | 1.41 | 3/8/2030   | 3/10/2020  | 106.41011 | 99.20075587 | 92.52735283 | 86.34737027 | 80.62185675 | 75.31511891 | 70.394434   | 65.8297889  | 61.5936434  |
| 200327A00031 | 3/27/2020                           | 1.18 | 3/27/2025  | 3/27/2020  | 101.15509 | 98.72077282 | 96.357202   | 94.0619186  | 91.83256532 | 89.66688081 | 87.56269513 | 85.51792548 | 83.53057211 |
| 200417A00002 | 4/17/2020                           | 0.96 | 4/17/2025  | 4/17/2020  | 100.62218 | 98.13924068 | 95.72972726 | 93.39103768 | 91.12067899 | 88.91626217 | 86.77549707 | 84.69618765 | 82.67622739 |
| 200511A00006 | 5/11/2020                           | 1.65 | 5/13/2030  | 5/11/2020  | 108.31343 | 100.8693403 | 93.98887677 | 87.62644668 | 81.74037234 | 76.29253196 | 71.2480391  | 66.57495259 | 62.24401386 |
| 220617A00027 | 6/17/2022                           | 3.45 | 6/17/2024  | 6/17/2022  | 104.69706 | 102.977355  | 101.2942059 | 99.6465136  | 98.03322091 | 96.45331312 | 94.90581563 | 93.38979195 | 91.90434186 |
| 220701A00049 | 7/1/2022                            | 3.19 | 7/1/2025   | 7/1/2022   | 106.85182 | 104.0862762 | 101.4068242 | 98.81021768 | 96.29335976 | 93.85329266 | 91.48719044 | 89.19235193 | 86.96619418 |
| 200413A00011 | 4/13/2020                           | 0.94 | 4/12/2024  | 4/13/2020  | 100.29136 | 98.7857886  | 97.3101295  | 95.86356428 | 94.44530314 | 93.05458441 | 91.69067333 | 90.35286082 | 89.0404624  |
| 200415A00026 | 4/15/2020                           | 0.77 | 4/14/2023  | 4/15/2020  | 100.21658 | 99.67658536 | 99.14239589 | 98.61391774 | 98.09105957 | 97.57373204 | 97.06184767 | 96.5553208  | 96.05406761 |
| 220315A00014 | 3/15/2022                           | 2.78 | 3/15/2032  | 3/15/2022  | 119.83742 | 110.2098915 | 101.4529006 | 93.48261767 | 86.22370635 | 79.60842032 | 73.57580304 | 68.0709758  | 63.04450343 |
| 200327A00061 | 3/31/2020                           | 1.18 | 3/31/2025  | 3/31/2020  | 101.15898 | 98.71439136 | 96.34113836 | 94.03673166 | 91.7987848  | 89.62500889 | 87.51320799 | 85.46127471 | 83.46718604 |
| 200415A00038 | 4/15/2020                           | 1.37 | 4/15/2027  | 4/15/2020  | 103.86254 | 99.42789975 | 95.20689378 | 91.18813056 | 87.36088905 | 83.71507246 | 80.24116855 | 76.93021262 | 73.77375315 |
| 200428A00002 | 4/28/2020                           | 1.47 | 4/26/2030  | 4/28/2020  | 108.00428 | 100.5671673 | 93.69219641 | 87.3340113  | 81.45113552 | 76.00562124 | 70.96273221 | 66.29065671 | 61.96024757 |
| 201116A00009 | 11/16/2020                          | 0.51 | 11/14/2022 | 11/16/2020 | 100.15325 | 100.0283804 | 99.90383327 | 99.77961036 | 99.65571035 | 99.53213194 | 99.40887386 | 99.28593483 | 99.16331357 |
| 210526A00014 | 5/26/2021                           | 1.01 | 12/19/2025 | 5/26/2021  | 101.0824  | 97.95529542 | 94.94014327 | 92.03226974 | 89.22723196 | 86.52080076 | 83.90894884 | 81.38783965 | 78.95381688 |
| 200310A00020 | 3/10/2020                           | 1.1  | 3/10/2025  | 3/10/2020  | 100.94206 | 98.55386781 | 96.23388666 | 93.97978583 | 91.7893314  | 89.66037864 | 87.59086791 | 85.57882071 | 83.62233598 |
| 220329A00007 | 3/29/2022                           | 2.94 | 3/29/2029  | 3/29/2022  | 115.73768 | 109.1027368 | 102.899231  | 97.09675955 | 91.66721819 | 86.58461282 | 81.82489083 | 77.36578657 | 73.18667995 |
| 220729A00045 | 7/29/2022                           | 3.03 | 7/29/2027  | 7/29/2022  | 112.1964  | 107.291827  | 102.6333575 | 98.20736531 | 94.00105044 | 90.00238115 | 86.20004423 | 82.58339856 | 79.14243184 |
| 200325A00048 | 3/25/2020                           | 1.34 | 12/27/2022 | 3/25/2020  | 100.39383 | 100.1495816 | 99.90652792 | 99.6646553  | 99.42395518 | 99.18441906 | 98.94603853 | 98.70880524 | 98.47271095 |
| 200527A00015 | 5/27/2020                           | 0.99 | 11/26/2025 | 5/27/2020  | 100.97594 | 97.90954658 | 94.95120387 | 92.09648049 | 89.34115665 | 86.68121148 | 84.1128123  | 81.63230444 | 79.23620178 |
| 210714A00020 | 7/14/2021                           | 0.9  | 3/14/2025  | 7/14/2021  | 100.45167 | 98.05937886 | 95.73574108 | 93.47840318 | 91.28510684 | 89.15368435 | 87.08205436 | 85.06821791 | 83.11025465 |
| 220121A00014 | 1/21/2022                           | 1.78 | 11/3/2025  | 1/21/2022  | 103.3823  | 100.3391141 | 97.40113998 | 94.56414054 | 91.82407816 | 89.17710155 | 86.61953602 | 84.14787412 | 81.75876698 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 200327A00066 | 6/25/2020                           | 0.93 | 6/26/2023  | 6/25/2020  | 100.3251  | 99.58648214 | 98.85868437 | 98.14147    | 97.43460963 | 96.73788047 | 96.05106605 | 95.37395606 | 94.70634606 |
| 211123A00011 | 11/23/2021                          | 1.69 | 11/23/2026 | 11/23/2021 | 104.73137 | 100.6520043 | 96.75367823 | 93.02738016 | 89.46460214 | 86.05730517 | 82.79789056 | 79.67917315 | 76.69435637 |
| 220915A00035 | 9/15/2022                           | 4.2  | 3/17/2025  | 9/15/2022  | 108.62049 | 106.1182365 | 103.6873263 | 101.325311  | 99.02984531 | 96.79867812 | 94.62964825 | 92.52068022 | 90.46978032 |
| 200302A00003 | 3/2/2020                            | 1.2  | 3/2/2023   | 3/2/2020   | 100.42073 | 99.99759665 | 99.57801921 | 99.1619506  | 98.74934699 | 98.34016528 | 97.93436308 | 97.5318987  | 97.13273112 |
| 210104A00012 | 12/20/2021                          | 0.89 | 12/18/2026 | 12/20/2021 | 101.46702 | 97.39116277 | 93.49952881 | 89.78280132 | 86.23218909 | 82.83939384 | 79.59657945 | 76.49634336 | 73.53168991 |
| 210305A00005 | 3/9/2021                            | 0.54 | 8/11/2023  | 3/9/2021   | 99.974979 | 99.11420685 | 98.26816229 | 97.43647032 | 96.6187683  | 95.81470574 | 95.02394376 | 94.24615465 | 93.48102135 |
| 220217A00020 | 2/17/2022                           | 2.08 | 2/13/2025  | 2/17/2022  | 103.24739 | 100.8996037 | 98.6168919  | 96.39709873 | 94.2381506  | 92.13805425 | 90.09489317 | 88.10682417 | 86.17207413 |
| 220331A00003 | 3/31/2022                           | 2.66 | 5/17/2024  | 3/31/2022  | 103.15365 | 101.5309644 | 99.9416126  | 98.38463679 | 96.85911155 | 95.3641466  | 93.89888515 | 92.46250231 | 91.05420356 |
| 201030A00017 | 10/30/2020                          | 1.14 | 10/15/2027 | 10/30/2020 | 103.24815 | 98.35794012 | 93.7261239  | 89.33774904 | 85.17880107 | 81.23614336 | 77.49745759 | 73.95118853 | 70.58649285 |
| 200304A00012 | 3/4/2020                            | 0.98 | 3/4/2025   | 3/4/2020   | 100.95748 | 98.57786221 | 96.26590691 | 94.01931254 | 91.8358734  | 89.71347142 | 87.65007211 | 85.64372073 | 83.69253871 |
| 200402A00036 | 4/2/2020                            | 0.71 | 4/2/2024   | 4/2/2020   | 100.10893 | 98.62880099 | 97.17784938 | 95.7552872  | 94.36035543 | 92.99232163 | 91.65047872 | 90.33414395 | 89.04265779 |
| 210616A00009 | 2/11/2022                           | 0.86 | 2/11/2025  | 2/11/2022  | 100.33184 | 98.02501559 | 95.78220932 | 93.60129855 | 91.48024567 | 89.41709181 | 87.40995337 | 85.45701864 | 83.55654464 |
| 210624A00004 | 6/24/2021                           | 1.01 | 6/24/2025  | 6/24/2021  | 100.81808 | 98.1549818  | 95.57492615 | 93.07478448 | 90.651573   | 88.30244174 | 86.02466748 | 83.815647   | 81.67289082 |
| 220301A00013 | 3/1/2022                            | 2.01 | 2/16/2027  | 3/1/2022   | 106.50972 | 102.1682922 | 98.02859268 | 94.08023155 | 90.31340621 | 86.7188651  | 83.28787399 | 80.01218442 | 76.8840043  |
| 220325A00017 | 3/28/2022                           | 2.86 | 3/23/2027  | 3/28/2022  | 110.49754 | 105.9740666 | 101.6639926 | 97.55612419 | 93.63991505 | 89.90542363 | 86.34327532 | 82.9446271  | 79.70113467 |
| 220613A00030 | 6/13/2022                           | 3.08 | 6/13/2023  | 6/13/2022  | 101.8501  | 101.1406389 | 100.4410606 | 99.75116013 | 99.07073755 | 98.39959826 | 97.73755302 | 97.08441767 | 96.44001303 |
| 200302A00060 | 3/2/2021                            | 1.44 | 3/3/2025   | 3/2/2021   | 101.76536 | 99.38491895 | 97.071893   | 94.82400385 | 92.6390603  | 90.51495791 | 88.44967502 | 86.44126897 | 84.48787256 |
| 201015A00025 | 10/19/2020                          | 1.54 | 10/18/2027 | 10/19/2020 | 105.2704  | 100.3221801 | 95.63499828 | 91.19374521 | 86.9842665  | 82.99329482 | 79.2083896  | 75.61788128 | 72.21081947 |
| 210330A00024 | 3/30/2021                           | 0.68 | 3/29/2024  | 3/30/2021  | 99.883775 | 98.41896166 | 96.98282877 | 95.57460957 | 94.1935637  | 92.83897646 | 91.51015768 | 90.20644068 | 88.92718128 |
| 210917A00012 | 9/17/2021                           | 1.2  | 9/11/2026  | 9/17/2021  | 102.46783 | 98.62454252 | 94.94543862 | 91.42267201 | 88.04881335 | 84.81682474 | 81.72003704 | 78.75212855 | 75.90710513 |
| 220422A00014 | 4/22/2022                           | 3.36 | 9/29/2026  | 4/22/2022  | 111.16468 | 107.1011199 | 103.2111665 | 99.48646683 | 95.91911848 | 92.50163944 | 89.22694333 | 86.08831636 | 83.07939566 |
| 200330A00007 | 3/30/2020                           | 0.93 | 4/1/2024   | 3/30/2020  | 100.26357 | 98.78789498 | 97.34123734 | 95.92281235 | 94.53186748 | 93.1676764  | 91.82953789 | 90.5167747  | 89.22873257 |
| 211214A00015 | 12/14/2021                          | 1.49 | 12/12/2025 | 12/14/2021 | 102.61033 | 99.47649523 | 96.4540754  | 93.53845383 | 90.72523449 | 88.01023141 | 85.3894571  | 82.8591117  | 80.41557279 |
| 220324A00007 | 3/24/2022                           | 2.72 | 3/24/2025  | 3/24/2022  | 104.99339 | 102.5183215 | 100.1146243 | 97.77983536 | 95.51158776 | 93.3076105  | 91.16572404 | 89.083836   | 87.05993711 |
| 210121A00014 | 1/22/2021                           | 0.64 | 10/25/2024 | 1/22/2021  | 99.822174 | 97.8071476  | 95.84240455 | 93.9263597  | 92.05749021 | 90.23433217 | 88.45547791 | 86.71957334 | 85.0253155  |
| 211206A00017 | 12/6/2021                           | 1.56 | 12/4/2026  | 12/6/2021  | 104.23765 | 100.1396364 | 96.2247133  | 92.48370944 | 88.90796815 | 85.48931329 | 82.22001964 | 79.09278524 | 76.10070569 |
| 220808A00025 | 8/8/2022                            | 3.25 | 8/6/2027   | 8/8/2022   | 113.31986 | 108.3671414 | 103.663576  | 99.19533703 | 94.94943222 | 90.91365093 | 87.07651342 | 83.42722345 | 79.95562428 |
| 200316A00071 | 3/16/2020                           | 1.18 | 3/16/2023  | 3/16/2020  | 100.419   | 99.95757016 | 99.50038144 | 99.04737274 | 98.59848681 | 98.15366746 | 97.71285951 | 97.27600878 | 96.84306205 |
| 210907A00007 | 9/7/2021                            | 2.35 | 9/4/2037   | 9/7/2021   | 118.38221 | 104.0930804 | 91.74022577 | 81.04806918 | 71.78166031 | 63.74050335 | 56.75334872 | 50.67379406 | 45.37656557 |
| 200414A00015 | 4/14/2020                           | 0.64 | 4/14/2023  | 4/14/2020  | 100.19422 | 99.65370231 | 99.11900598 | 98.59003417 | 98.06669523 | 97.54889943 | 97.03655895 | 96.52958783 | 96.02790191 |
| 210122A00005 | 1/26/2021                           | 0.6  | 7/15/2024  | 1/26/2021  | 99.770647 | 98.02117484 | 96.31038449 | 94.63713726 | 93.00033738 | 91.39893039 | 89.83190118 | 88.29827216 | 86.79710153 |
| 220124A00007 | 1/24/2022                           | 1.88 | 1/22/2027  | 1/24/2022  | 105.80788 | 101.5506254 | 97.48840959 | 93.61129783 | 89.90991182 | 86.37539714 | 82.9993913  | 79.77399366 | 76.69173757 |
| 220125A00008 | 1/25/2022                           | 1.31 | 1/26/2024  | 1/25/2022  | 100.70436 | 99.40137769 | 98.12275217 | 96.86783019 | 95.63598413 | 94.42660851 | 93.23911898 | 92.07295144 | 90.92756112 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 220506A00016 | 5/6/2022                            | 3.35 | 5/6/2027   | 5/6/2022   | 113.02971 | 108.3313923 | 103.858846  | 99.59999457 | 95.5434691  | 91.67856759 | 87.99521195 | 84.48390811 | 81.13570897 |
| 220920A00024 | 9/20/2022                           | 4.25 | 9/19/2025  | 9/20/2022  | 110.57948 | 107.5459478 | 104.6131154 | 101.7770768 | 99.03410418 | 96.380635   | 93.81326344 | 91.32873264 | 88.92392731 |
| 200331A00014 | 3/31/2020                           | 0.72 | 3/29/2024  | 3/31/2020  | 100.12158 | 98.65195005 | 97.21113858 | 95.79837132 | 94.41290342 | 93.05401593 | 91.72101459 | 90.41322888 | 89.13001089 |
| 200218A00030 | 2/21/2020                           | 1.71 | 2/24/2023  | 2/21/2020  | 100.62644 | 100.2192402 | 99.81532472 | 99.4146584  | 99.01720216 | 98.62291757 | 98.23176679 | 97.84371258 | 97.4587183  |
| 200225A00023 | 2/25/2020                           | 1.62 | 2/25/2025  | 2/25/2020  | 102.1878  | 99.81844908 | 97.51573788 | 95.27742358 | 93.10135443 | 90.98546326 | 88.92776368 | 86.92634636 | 84.9793756  |
| 200305A00045 | 3/5/2020                            | 0.99 | 3/6/2023   | 3/5/2020   | 100.33128 | 99.89743032 | 99.46732875 | 99.04092359 | 98.61816728 | 98.19901311 | 97.78341515 | 97.37132827 | 96.96270807 |
| 200310A00028 | 3/10/2020                           | 1.1  | 3/10/2025  | 3/10/2020  | 100.94206 | 98.55386781 | 96.23388666 | 93.97978583 | 91.7893314  | 89.66037864 | 87.59086791 | 85.57882071 | 83.62233598 |
| 210218A00010 | 2/18/2021                           | 1.72 | 2/18/2031  | 2/18/2021  | 109.38835 | 101.1989623 | 93.68435136 | 86.78542347 | 80.44854182 | 74.6249943  | 69.270519   | 64.34487757 | 59.81147136 |
| 211015A00031 | 10/15/2021                          | 1.22 | 10/15/2025 | 10/15/2021 | 101.60099 | 98.63455256 | 95.76965689 | 93.00226999 | 90.32853965 | 87.74478877 | 85.24750629 | 82.8333386  | 80.49908156 |
| 200304A00033 | 3/4/2020                            | 1.17 | 3/4/2025   | 3/4/2020   | 101.10831 | 98.73341414 | 96.42590142 | 94.18349089 | 92.0039895  | 89.88529112 | 87.82537259 | 85.8222899  | 83.87417464 |
| 220126A00002 | 1/26/2022                           | 1.9  | 12/18/2026 | 1/26/2022  | 105.72658 | 101.5614246 | 97.58339756 | 93.78306565 | 90.1515245  | 86.68036808 | 83.36165765 | 80.1878929  | 77.15198498 |
| 220331A00012 | 3/31/2022                           | 2.81 | 3/17/2025  | 3/31/2022  | 105.17995 | 102.7207882 | 100.3320216 | 98.01123099 | 95.75609852 | 93.56439976 | 91.4339991  | 89.36284572 | 87.34896961 |
| 220511A00015 | 5/11/2022                           | 3.29 | 5/11/2027  | 5/11/2022  | 112.79579 | 108.0894503 | 103.6098928 | 99.34494745 | 95.2831676  | 91.4137798  | 87.72664032 | 84.21219483 | 80.86144087 |
| 200403A00017 | 4/3/2020                            | 0.81 | 4/3/2023   | 4/3/2020   | 100.23903 | 99.72896286 | 99.22406235 | 98.72425357 | 98.22945985 | 97.73960605 | 97.25461853 | 96.7744251  | 96.29895499 |
| 210226A00004 | 3/1/2021                            | 1.04 | 12/5/2025  | 3/1/2021   | 101.15238 | 98.05986688 | 95.07698024 | 92.19919484 | 89.42220274 | 86.74190071 | 84.15437898 | 81.65591079 | 79.2429425  |
| 200316A00049 | 3/16/2020                           | 1.25 | 3/14/2025  | 3/16/2020  | 101.31513 | 98.91205756 | 96.57787615 | 94.31022408 | 92.10683612 | 89.9655379  | 87.88424172 | 85.86094245 | 83.89371384 |
| 210121A00012 | 1/22/2021                           | 0.64 | 10/15/2024 | 1/22/2021  | 99.823007 | 97.83377254 | 95.89377275 | 94.00147288 | 92.1553973  | 90.35412674 | 88.59629569 | 86.88058992 | 85.20574418 |
| 220222A00018 | 2/22/2022                           | 2.5  | 12/19/2031 | 2/22/2022  | 116.94542 | 107.67071   | 99.21854205 | 91.51125507 | 84.47890876 | 78.05848195 | 72.19315462 | 66.83166788 | 61.92775305 |
| 220224A00023 | 2/24/2022                           | 2.15 | 3/16/2026  | 2/24/2022  | 105.22978 | 101.8019215 | 98.50434951 | 95.33142913 | 92.27779722 | 89.33835048 | 86.50823139 | 83.78281497 | 81.1576964  |
| 220225A00015 | 2/25/2022                           | 2.26 | 2/25/2027  | 2/25/2022  | 107.66478 | 103.2723317 | 99.08479398 | 95.09156598 | 91.28264598 | 87.64859742 | 84.18051415 | 80.86998787 | 77.70907782 |
| 220428A00019 | 4/28/2022                           | 3.27 | 4/28/2027  | 4/28/2022  | 112.59517 | 107.9282356 | 103.4848346 | 99.25304523 | 95.22164896 | 91.38008264 | 87.71839651 | 84.22721518 | 80.89770136 |
| 220812A00001 | 8/12/2022                           | 3.17 | 8/12/2027  | 8/12/2022  | 113.69591 | 108.695671  | 103.9482509 | 99.43954972 | 95.15632415 | 91.08613177 | 87.21727847 | 83.53876976 | 80.04026553 |
| 200225A00029 | 2/25/2020                           | 1.89 | 12/28/2029 | 2/25/2020  | 109.75383 | 102.6060865 | 95.97430132 | 89.8185039  | 84.10202054 | 78.79118842 | 73.8550931  | 69.26533024 | 64.99578922 |
| 200407A00019 | 4/7/2020                            | 1.06 | 4/8/2024   | 4/7/2020   | 100.47118 | 98.97496843 | 97.50836289 | 96.07056198 | 94.66078882 | 93.27829401 | 91.92235441 | 90.59227194 | 89.28737256 |
| 200629A00020 | 6/29/2020                           | 1.4  | 6/28/2030  | 6/29/2020  | 106.48345 | 98.99213864 | 92.07781625 | 85.69308451 | 79.79467455 | 74.34306553 | 69.30214134 | 64.63888062 | 60.32307644 |
| 200108A00016 | 12/18/2020                          | 1.98 | 12/18/2023 | 12/18/2020 | 101.48116 | 100.2693548 | 99.08637647 | 97.93120185 | 96.80285957 | 95.70042304 | 94.62300788 | 93.56976959 | 92.53990126 |
| 200312A00015 | 3/12/2020                           | 1.23 | 3/10/2025  | 3/12/2020  | 101.26135 | 98.86919339 | 96.5453298  | 94.28743076 | 92.09325983 | 89.96066987 | 87.88759888 | 85.87206611 | 83.91216833 |
| 200916A00015 | 9/16/2020                           | 0.72 | 9/16/2025  | 9/16/2020  | 100.05184 | 97.18388994 | 94.4121793  | 91.73296346 | 89.14266862 | 86.63787925 | 84.21533012 | 81.87189886 | 79.60459879 |
| 220617A00026 | 6/17/2022                           | 3.36 | 12/18/2023 | 6/17/2022  | 103.17737 | 101.9545556 | 100.7607464 | 99.59491817 | 98.45609459 | 97.34334445 | 96.25577891 | 95.19254913 | 94.15284411 |
| 220826A00015 | 8/26/2022                           | 3.64 | 8/25/2023  | 8/26/2022  | 102.78526 | 101.8731123 | 100.9771655 | 100.0969923 | 99.23217831 | 98.38232377 | 97.54704261 | 96.72596197 | 95.91872161 |
| 210721A00009 | 7/21/2021                           | 1.7  | 7/21/2031  | 7/21/2021  | 109.46518 | 100.892528  | 93.0575477  | 85.89291059 | 79.33775223 | 73.33702276 | 67.84090477 | 62.80429203 | 58.18632253 |
| 220106A00009 | 1/6/2022                            | 2.57 | 1/4/2036   | 1/6/2022   | 120.83763 | 107.7567584 | 96.26907125 | 86.16997872 | 77.2822168  | 69.4520712  | 62.54613897 | 56.44854992 | 51.05858038 |
| 220630A00057 | 6/30/2022                           | 3.34 | 6/30/2025  | 6/30/2022  | 107.25913 | 104.4905666 | 101.8080682 | 99.20839203 | 96.68844139 | 94.24525903 | 91.87601968 | 89.57802301 | 87.34868712 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 200316A00050 | 3/16/2020                           | 1.54 | 3/16/2027  | 3/16/2020  | 104.56508 | 100.1911655 | 96.02446613 | 92.05411689 | 88.26987594 | 84.66208769 | 81.22164621 | 77.93996107 | 74.80892555 |
| 200324A00012 | 3/25/2020                           | 1.78 | 3/25/2025  | 3/25/2020  | 102.65136 | 100.2032592 | 97.82602806 | 95.51721152 | 93.27445446 | 91.09549745 | 88.97817215 | 86.92039709 | 84.92017358 |
| 200417A00014 | 4/17/2020                           | 0.96 | 4/17/2025  | 4/17/2020  | 100.62218 | 98.13924068 | 95.72972726 | 93.39103768 | 91.12067899 | 88.91626217 | 86.77549707 | 84.69618765 | 82.67622739 |
| 200504A00006 | 5/4/2020                            | 0.94 | 5/5/2025   | 5/4/2020   | 100.58574 | 98.05594585 | 95.6019815  | 93.22111712 | 90.91073941 | 88.66834615 | 86.49154072 | 84.3780268  | 82.32560347 |
| 210907A00014 | 9/9/2021                            | 2.45 | 9/9/2026   | 9/9/2021   | 107.39401 | 103.4591314 | 99.69098533 | 96.08163722 | 92.62357588 | 89.30968461 | 86.13321838 | 83.08778244 | 80.16731224 |
| 220527A00011 | 5/27/2022                           | 2.75 | 5/24/2024  | 5/27/2022  | 103.34225 | 101.6994636 | 100.090675  | 98.51489217 | 96.97116272 | 95.45857094 | 93.97623595 | 92.52331    | 91.09897692 |
| 210920A00015 | 9/9/2022                            | 1.28 | 9/9/2026   | 9/9/2022   | 102.77725 | 98.93311203 | 95.25290441 | 91.72880294 | 88.35340091 | 85.11968126 | 82.02099401 | 79.05103514 | 76.20382674 |
| 210826A00009 | 8/26/2021                           | 1.18 | 8/26/2026  | 8/26/2021  | 102.34066 | 98.54139335 | 94.90275714 | 91.41715361 | 88.07738665 | 84.87663511 | 81.80843133 | 78.86664097 | 76.0454441  |
| 200225A00035 | 10/5/2020                           | 1.5  | 10/5/2023  | 10/5/2020  | 100.86534 | 99.8531233  | 98.86111361 | 97.88871524 | 96.93535136 | 96.00046752 | 95.08353066 | 94.184028   | 93.30146615 |
| 200324A00066 | 3/26/2020                           | 1.81 | 3/26/2025  | 3/26/2020  | 102.72896 | 100.2773055 | 97.89668709 | 95.58464405 | 93.33881341 | 91.15692827 | 89.03681322 | 86.97638008 | 84.97362382 |
| 200330A00017 | 3/30/2020                           | 0.86 | 3/30/2023  | 3/30/2020  | 100.2649  | 99.76566741 | 99.27138478 | 98.78197727 | 98.29737312 | 97.817502   | 97.34229495 | 96.87168431 | 96.40560375 |
| 200826A00029 | 8/28/2020                           | 1.16 | 11/27/2024 | 8/28/2020  | 100.95523 | 98.84033712 | 96.77974608 | 94.77168257 | 92.81444465 | 90.90639935 | 89.04597925 | 87.23167929 | 85.46205368 |
| 210104A00010 | 11/22/2021                          | 0.88 | 11/20/2026 | 11/22/2021 | 101.36292 | 97.36092206 | 93.53708327 | 89.88253269 | 86.38889171 | 83.04824337 | 79.85310414 | 76.79639764 | 73.87143007 |
| 211026A00013 | 10/26/2021                          | 1.52 | 10/26/2026 | 10/26/2021 | 103.91023 | 99.92163867 | 96.10758395 | 92.45950878 | 88.96932381 | 85.62937817 | 82.4324331  | 79.3716375  | 76.4405049  |
| 200318A00038 | 3/18/2020                           | 1.48 | 3/18/2025  | 3/18/2020  | 101.88971 | 99.46919368 | 97.11830842 | 94.83465862 | 92.61594587 | 90.4599644  | 88.3645967  | 86.32780945 | 84.34764958 |
| 211129A00011 | 11/29/2021                          | 1.53 | 11/20/2026 | 11/29/2021 | 104.05482 | 99.99737714 | 96.11986921 | 92.4133569  | 88.86939318 | 85.47999589 | 82.23761938 | 79.13512805 | 76.16577165 |
| 220106A00013 | 1/6/2022                            | 2.75 | 1/6/2039   | 1/6/2022   | 124.37235 | 108.5907962 | 95.09269772 | 83.53006936 | 73.60985473 | 65.08500186 | 57.74702436 | 51.4197978  | 45.95438101 |
| 220323A00017 | 6/2/2022                            | 2.78 | 6/2/2025   | 6/2/2022   | 105.54449 | 102.8756262 | 100.2879965 | 97.77861666 | 95.34463018 | 92.98330539 | 90.69202908 | 88.46830034 | 86.3097249  |
| 200226A00004 | 2/26/2020                           | 1.58 | 2/26/2025  | 2/26/2020  | 102.0941  | 99.72303675 | 97.41874089 | 95.17896411 | 93.00154812 | 90.88441958 | 88.82558626 | 86.8231333  | 84.87521978 |
| 200304A00018 | 3/4/2020                            | 0.98 | 3/4/2025   | 3/4/2020   | 100.95748 | 98.57786221 | 96.26590691 | 94.01931254 | 91.8358734  | 89.71347142 | 87.65007211 | 85.64372073 | 83.69253871 |
| 200327A00041 | 3/27/2020                           | 0.9  | 3/27/2023  | 3/27/2020  | 100.28588 | 99.79477867 | 99.30846858 | 98.8268822  | 98.34995099 | 97.87760773 | 97.40978651 | 96.94642265 | 96.48745271 |
| 200928A00009 | 9/28/2020                           | 1.51 | 9/28/2032  | 9/28/2020  | 108.04999 | 98.48793421 | 89.84958747 | 82.04086867 | 74.97772235 | 68.58500292 | 62.79549023 | 57.5490183  | 52.79170359 |
| 220315A00015 | 3/15/2022                           | 3.18 | 3/13/2037  | 3/15/2022  | 129.8213  | 115.1399146 | 102.3635697 | 91.23067661 | 81.51699754 | 73.03013751 | 65.60487118 | 59.09917592 | 53.39086154 |
| 220819A00034 | 8/19/2022                           | 3.73 | 8/19/2032  | 8/19/2022  | 129.66744 | 119.1747064 | 109.6562216 | 101.0152766 | 93.16526279 | 86.02857022 | 79.53560951 | 73.62394532 | 68.23752698 |
| 200320A00049 | 3/25/2020                           | 1.47 | 3/25/2025  | 3/25/2020  | 101.87728 | 99.4389558  | 97.07128443 | 94.77181792 | 92.53820752 | 90.36819988 | 88.25963255 | 86.21042967 | 84.21859801 |
| 200424A00014 | 4/28/2020                           | 1.01 | 4/23/2025  | 4/28/2020  | 100.75669 | 98.25606616 | 95.82971276 | 93.47498006 | 91.1893341  | 88.97034732 | 86.81569322 | 84.7231415  | 82.69055339 |
| 200826A00021 | 8/26/2020                           | 0.83 | 8/26/2025  | 8/26/2020  | 100.35912 | 97.54117022 | 94.81599586 | 92.18005864 | 89.62997592 | 87.16251186 | 84.77457017 | 82.46318733 | 80.2255261  |
| 201019A00005 | 10/19/2020                          | 0.79 | 10/20/2025 | 10/19/2020 | 100.29362 | 97.33446854 | 94.47711622 | 91.71749732 | 89.05173429 | 86.47612664 | 83.98714173 | 81.58140611 | 79.25569728 |
| 210304A00002 | 3/5/2021                            | 0.93 | 7/10/2025  | 3/5/2021   | 100.61167 | 97.91000705 | 95.29377013 | 92.75974067 | 90.30484643 | 87.92615103 | 85.62084694 | 83.38624884 | 81.21978735 |
| 210610A00012 | 6/11/2021                           | 1.9  | 6/10/2026  | 6/11/2021  | 104.77967 | 101.1335405 | 97.63368367 | 94.27341106 | 91.04637728 | 87.9465643  | 84.96826237 | 82.10605224 | 79.3547884  |
| 211210A00016 | 12/10/2021                          | 1.76 | 12/10/2027 | 12/10/2021 | 106.57776 | 101.4584462 | 96.61517225 | 92.03159516 | 87.69243162 | 83.58337985 | 79.69105101 | 76.00290585 | 72.50719611 |
| 220314A00007 | 3/14/2022                           | 2.44 | 3/12/2027  | 3/14/2022  | 108.55153 | 104.0998375 | 99.85739789 | 95.81328945 | 91.95721955 | 88.27948232 | 84.77092216 | 81.42289975 | 78.22726025 |
| 200316A00009 | 3/16/2020                           | 1.25 | 3/14/2025  | 3/16/2020  | 101.31513 | 98.91205756 | 96.57787615 | 94.31022408 | 92.10683612 | 89.9655379  | 87.88424172 | 85.86094245 | 83.89371384 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 210218A00009 | 2/19/2021                           | 0.62 | 7/15/2024  | 2/19/2021  | 99.806759 | 98.05695104 | 96.34583174 | 94.6722616  | 93.03514469 | 91.43342638 | 89.8660914  | 88.33216203 | 86.83069631 |
| 210225A00015 | 3/1/2021                            | 0.7  | 8/26/2024  | 3/1/2021   | 99.955766 | 98.09600059 | 96.27962193 | 94.50536281 | 92.77200107 | 91.07835794 | 89.42329618 | 87.80571838 | 86.22456524 |
| 220715A00047 | 7/15/2022                           | 3.44 | 7/15/2027  | 7/15/2022  | 114.05516 | 109.1435567 | 104.4760469 | 100.0391787 | 95.82031073 | 91.80756218 | 87.98976315 | 84.35640802 | 80.89761237 |
| 200402A00048 | 4/2/2020                            | 0.71 | 4/2/2024   | 4/2/2020   | 100.10893 | 98.62880099 | 97.17784938 | 95.7552872  | 94.36035543 | 92.99232163 | 91.65047872 | 90.33414395 | 89.04265779 |
| 201216A00013 | 12/16/2020                          | 0.59 | 12/16/2025 | 12/16/2020 | 100.1351  | 97.02078803 | 94.01810245 | 91.12238465 | 88.32920383 | 85.63434219 | 83.03378319 | 80.52370041 | 78.10044719 |
| 220427A00011 | 4/29/2022                           | 3.15 | 4/29/2027  | 4/29/2022  | 112.05491 | 107.3974929 | 102.9634168 | 98.74076555 | 94.71832125 | 90.88552166 | 87.23241833 | 83.74963757 | 80.42834403 |
| 220519A00010 | 5/19/2022                           | 3.15 | 11/19/2026 | 5/19/2022  | 110.75527 | 106.562547  | 102.5539684 | 98.72043014 | 95.05332963 | 91.54453612 | 88.18636204 | 84.97153613 | 81.8931785  |
| 220714A00035 | 7/14/2022                           | 3.62 | 7/15/2024  | 7/14/2022  | 105.22346 | 103.4233811 | 101.6629197 | 99.94091365 | 98.25624181 | 96.60782535 | 94.99462571 | 93.41564271 | 91.86991277 |
| 220908A00029 | 9/8/2022                            | 3.88 | 3/8/2024   | 9/8/2022   | 104.52945 | 103.0837841 | 101.6653531 | 100.27345   | 98.90739453 | 97.56652917 | 96.25021827 | 94.95784714 | 93.68882114 |
| 200327A00056 | 3/27/2020                           | 1.18 | 3/27/2025  | 3/27/2020  | 101.15509 | 98.72077282 | 96.357202   | 94.0619186  | 91.83256532 | 89.66688081 | 87.56269513 | 85.51792548 | 83.53057211 |
| 200330A00036 | 3/30/2020                           | 0.86 | 3/30/2023  | 3/30/2020  | 100.2649  | 99.76566741 | 99.27138478 | 98.78197727 | 98.29737312 | 97.817502   | 97.34229495 | 96.87168431 | 96.40560375 |
| 210526A00017 | 5/26/2021                           | 2.13 | 5/26/2033  | 5/26/2021  | 114.53456 | 104.0730414 | 94.67080869 | 86.21452729 | 78.60354277 | 71.74840528 | 65.56957037 | 59.99625635 | 54.96543866 |
| 210610A00014 | 6/11/2021                           | 2.03 | 6/10/2026  | 6/11/2021  | 105.26053 | 101.6055203 | 98.09704749 | 94.72840959 | 91.49325184 | 88.3855473  | 85.39957771 | 82.52991564 | 79.77140784 |
| 211210A00014 | 12/10/2021                          | 1.54 | 12/10/2025 | 12/10/2021 | 102.76427 | 99.63310703 | 96.61308361 | 93.69960461 | 90.88829131 | 88.17497388 | 85.55567981 | 83.02662323 | 80.58419472 |
| 220411A00002 | 4/11/2022                           | 3.18 | 4/9/2027   | 4/11/2022  | 112.02302 | 107.4212198 | 103.0379682 | 98.86171753 | 94.88158789 | 91.08732899 | 87.46928009 | 84.01833294 | 80.72589726 |
| 200306A00040 | 3/6/2020                            | 1.01 | 3/6/2025   | 3/6/2020   | 100.71897 | 98.34377121 | 96.03614109 | 93.79378472 | 91.61449809 | 89.49616477 | 87.43675188 | 85.43430629 | 83.48695098 |
| 200325A00042 | 3/25/2020                           | 1.58 | 3/25/2024  | 3/25/2020  | 101.23235 | 99.76736629 | 98.33085153 | 96.92204796 | 95.54022518 | 94.18467794 | 92.85472507 | 91.54970846 | 90.26899204 |
| 220921A00014 | 9/21/2022                           | 4.08 | 9/21/2027  | 9/21/2022  | 117.80391 | 112.6171649 | 107.6960597 | 103.0255385 | 98.59147924 | 94.38062885 | 90.38054541 | 86.57954425 | 82.96664801 |
| 200305A00038 | 3/5/2020                            | 1.51 | 3/5/2029   | 3/5/2020   | 106.44665 | 100.1664934 | 94.29619567 | 88.8069617  | 83.67215493 | 78.8671278  | 74.36906386 | 70.15683308 | 66.21085938 |
| 201015A00030 | 10/19/2020                          | 2.39 | 10/18/2027 | 10/19/2020 | 109.55503 | 104.4999937 | 99.71001881 | 95.16981428 | 90.86504886 | 86.78228776 | 82.90893189 | 79.23316145 | 75.74388375 |
| 210119A00007 | 1/20/2021                           | 0.51 | 8/25/2023  | 1/20/2021  | 99.929819 | 99.03177824 | 98.14976364 | 97.28335002 | 96.43212669 | 95.5956973  | 94.77367913 | 93.96570261 | 93.17141066 |
| 210629A00005 | 6/29/2021                           | 1.25 | 6/29/2026  | 6/29/2021  | 102.43852 | 98.78545827 | 95.28119767 | 91.91883081 | 88.69181697 | 85.59395806 | 82.61937829 | 79.76250519 | 77.01805187 |
| 210803A00005 | 8/5/2021                            | 2.06 | 8/4/2026   | 8/5/2021   | 105.66404 | 101.8571669 | 98.20828179 | 94.71003354 | 91.35545104 | 88.13792083 | 85.05116693 | 82.08923187 | 79.24645897 |
| 200429A00065 | 4/29/2020                           | 0.74 | 10/28/2022 | 4/29/2020  | 100.13489 | 100.0571582 | 99.97955285 | 99.90207258 | 99.82471714 | 99.74748624 | 99.6703796  | 99.59339693 | 99.51653793 |
| 200518A00019 | 5/19/2020                           | 0.9  | 5/19/2025  | 5/19/2020  | 100.48858 | 97.92419296 | 95.43750686 | 93.02569206 | 90.68603967 | 88.41595771 | 86.21296514 | 84.07468628 | 81.99884554 |
| 220204A00005 | 2/4/2022                            | 1.83 | 1/10/2025  | 2/4/2022   | 102.54149 | 100.2942002 | 98.10702373 | 95.97795162 | 93.90505569 | 91.88648678 | 89.92047078 | 88.00530496 | 86.1393545  |
| 220920A00025 | 9/20/2022                           | 4.23 | 9/18/2026  | 9/20/2022  | 114.51999 | 110.4200834 | 106.4933116 | 102.7314241 | 99.12661037 | 95.67147196 | 92.35899805 | 89.18254324 | 86.13580648 |
| 220622A00006 | 6/22/2022                           | 3.58 | 6/22/2027  | 6/22/2022  | 114.51851 | 109.658195  | 105.0364631 | 100.6402597 | 96.45731932 | 92.47611376 | 88.68580342 | 85.07619199 | 81.63768452 |
| 220920A00015 | 9/20/2022                           | 4.33 | 10/21/2024 | 9/20/2022  | 107.47442 | 105.3887612 | 103.3545734 | 101.370243  | 99.43422172 | 97.54502108 | 95.70120925 | 93.90140862 | 92.14429327 |
| 200327A00051 | 3/27/2020                           | 0.99 | 3/27/2025  | 3/27/2020  | 101.00028 | 98.56108388 | 96.1929263  | 93.89332984 | 91.65992352 | 89.49043307 | 87.38267633 | 85.33455893 | 83.34407017 |
| 200330A00011 | 3/30/2020                           | 0.93 | 4/1/2024   | 3/30/2020  | 100.26357 | 98.78789498 | 97.34123734 | 95.92281235 | 94.53186748 | 93.1676764  | 91.82953789 | 90.5167747  | 89.22873257 |
| 210407A00012 | 4/7/2021                            | 0.94 | 4/7/2025   | 4/7/2021   | 100.56203 | 98.10642704 | 95.72290776 | 93.40894151 | 91.16210145 | 88.98006077 | 86.8605879  | 84.80154197 | 82.80086851 |
| 220404A00014 | 4/4/2022                            | 2.94 | 4/5/2027   | 4/4/2022   | 110.95387 | 106.3855759 | 102.0341716 | 97.88820337 | 93.93688479 | 90.17005268 | 86.57812749 | 83.15207676 | 79.88338093 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 220824A00011 | 8/24/2022                           | 3.7  | 8/22/2025  | 8/24/2022  | 108.69552 | 105.7659256 | 102.9314469 | 100.1884849 | 97.53359753 | 94.96349134 | 92.47501417 | 90.06514827 | 87.73100382 |
| 220929A00063 | 9/29/2022                           | 4.38 | 9/29/2027  | 9/29/2022  | 119.3816  | 114.1337129 | 109.1551762 | 104.4306812 | 99.94586571 | 95.68725467 | 91.6422007  | 87.79882896 | 84.14598602 |
| 200318A00044 | 3/18/2020                           | 1.17 | 3/18/2024  | 3/18/2020  | 100.78328 | 99.33709861 | 97.91873474 | 96.52745449 | 95.16255126 | 93.82334254 | 92.50916889 | 91.21939299 | 89.95339867 |
| 200331A00011 | 3/31/2020                           | 1.09 | 3/31/2025  | 3/31/2020  | 100.93277 | 98.49106033 | 96.12061779 | 93.81895963 | 91.58370125 | 89.41255558 | 87.30332841 | 85.25391402 | 83.262291   |
| 200408A00013 | 4/13/2020                           | 0.87 | 4/14/2023  | 4/13/2020  | 100.27101 | 99.73084851 | 99.19648952 | 98.66784313 | 98.14481803 | 97.62732483 | 97.11527603 | 96.60858599 | 96.10717083 |
| 200421A00028 | 4/21/2020                           | 0.56 | 4/21/2023  | 4/21/2020  | 100.14711 | 99.58765332 | 99.03442606 | 98.4873261  | 97.94625204 | 97.41110467 | 96.88178699 | 96.35820408 | 95.84026308 |
| 201216A00003 | 12/16/2020                          | 0.59 | 7/1/2024   | 12/16/2020 | 99.755016 | 98.04195429 | 96.36607094 | 94.72622669 | 93.12132948 | 91.55033167 | 90.01222779 | 88.50605233 | 87.03087775 |
| 210310A00015 | 3/11/2021                           | 0.51 | 5/15/2023  | 3/11/2021  | 100.0491  | 99.42534804 | 98.80934152 | 98.20093899 | 97.60000023 | 97.0063885  | 96.41997035 | 95.84061558 | 95.2681971  |
| 210315A00003 | 3/15/2021                           | 1.13 | 3/13/2026  | 3/15/2021  | 101.68809 | 98.32920448 | 95.09831996 | 91.98989859 | 88.99867141 | 86.11962437 | 83.34798465 | 80.67920764 | 78.10896483 |
| 210907A00008 | 9/7/2021                            | 2.42 | 9/7/2038   | 9/7/2021   | 119.37629 | 104.2250524 | 91.24288274 | 80.10368339 | 70.53208156 | 62.29530988 | 55.19642061 | 49.06860921 | 43.77046151 |
| 200327A00048 | 3/27/2020                           | 1.18 | 3/24/2025  | 3/27/2020  | 101.15217 | 98.72555744 | 96.36925074 | 94.0808135  | 91.85791015 | 89.69829987 | 87.59983214 | 85.56044252 | 83.57814859 |
| 200402A00035 | 4/2/2020                            | 0.62 | 4/3/2023   | 4/2/2020   | 100.18707 | 99.67660615 | 99.17132052 | 98.67113794 | 98.17598144 | 97.68577557 | 97.20044641 | 96.7199215  | 96.24412979 |
| 200403A00025 | 4/3/2020                            | 0.91 | 4/3/2024   | 4/3/2020   | 100.23534 | 98.75449887 | 97.30282448 | 95.8795336  | 94.48386709 | 93.11509239 | 91.77250232 | 90.455414   | 89.1631678  |
| 210707A00008 | 7/9/2021                            | 2.44 | 7/7/2031   | 7/9/2021   | 115.86579 | 107.0559892 | 98.99449255 | 91.61352874 | 84.85180793 | 78.65386644 | 72.96948485 | 67.75316692 | 62.96367281 |
| 220131A00003 | 1/31/2022                           | 1.98 | 2/1/2027   | 1/31/2022  | 106.2897  | 101.9960014 | 97.90000571 | 93.99162767 | 90.26134242 | 86.70015546 | 83.29957053 | 80.05155957 | 76.9485346  |
| 210629A00014 | 6/29/2021                           | 1.78 | 12/28/2029 | 6/29/2021  | 108.96192 | 101.8421101 | 95.23682989 | 89.10619339 | 83.41360841 | 78.1254881  | 73.21098885 | 68.64177232 | 64.3917895  |
| 211028A00021 | 10/28/2021                          | 2.28 | 10/28/2033 | 10/28/2021 | 116.34147 | 105.4130578 | 95.62735041 | 86.8581136  | 78.99368119 | 71.93520668 | 65.59513251 | 59.89584901 | 54.76851855 |
| 220512A00013 | 5/12/2022                           | 3.18 | 5/12/2027  | 5/12/2022  | 112.29704 | 107.59944   | 103.128454  | 98.8719177  | 94.81838385 | 90.95707882 | 87.27785921 | 83.77117143 | 80.42801406 |
| 201030A00012 | 10/30/2020                          | 0.63 | 10/30/2025 | 10/30/2020 | 100.20364 | 97.21089522 | 94.32197799 | 91.53270626 | 88.83909223 | 86.23733209 | 83.72379632 | 81.29502053 | 78.94769687 |
| 211214A00012 | 12/14/2021                          | 0.64 | 12/14/2022 | 12/14/2021 | 100.21299 | 100.0049841 | 99.79785371 | 99.5915935  | 99.38619798 | 99.18166165 | 98.97797909 | 98.77514488 | 98.57315369 |
| 220315A00036 | 3/17/2022                           | 2.63 | 3/16/2027  | 3/17/2022  | 109.42236 | 104.9410207 | 100.6705555 | 96.59994273 | 92.7187931  | 89.0173107  | 85.4862562  | 82.11691229 | 78.9010515  |
| 220715A00027 | 7/15/2022                           | 3.44 | 7/15/2027  | 7/15/2022  | 114.05516 | 109.1435567 | 104.4760469 | 100.0391787 | 95.82031073 | 91.80756218 | 87.98976315 | 84.35640802 | 80.89761237 |
| 200306A00066 | 3/6/2020                            | 1.2  | 3/8/2027   | 3/6/2020   | 103.02859 | 98.70885683 | 94.59328685 | 90.67120814 | 86.93256383 | 83.36787027 | 79.96818138 | 76.72505549 | 73.63052433 |
| 200527A00014 | 5/27/2020                           | 1.06 | 5/27/2026  | 5/27/2020  | 101.63461 | 98.08302529 | 94.67330724 | 91.39900567 | 88.25400658 | 85.23250849 | 82.32900451 | 79.53826546 | 76.85532409 |
| 201119A00002 | 11/19/2020                          | 0.5  | 11/18/2022 | 11/19/2020 | 100.15915 | 100.0231853 | 99.88760031 | 99.75239605 | 99.61757088 | 99.48312317 | 99.34905132 | 99.21535372 | 99.08202879 |
| 210719A00009 | 7/19/2021                           | 1.04 | 7/17/2026  | 7/19/2021  | 101.69493 | 98.00993335 | 94.47694794 | 91.08890854 | 87.83911667 | 84.72122061 | 81.72919534 | 78.85732386 | 76.10017963 |
| 210914A00012 | 9/14/2021                           | 1.18 | 9/14/2027  | 9/14/2021  | 104.0794  | 99.22563847 | 94.62486762 | 90.26264142 | 86.12540942 | 82.20045813 | 78.47585509 | 74.94039701 | 71.58356156 |
| 200228A00047 | 5/18/2020                           | 1.35 | 5/18/2023  | 5/18/2020  | 100.58313 | 99.94931017 | 99.32345742 | 98.7054224  | 98.09505923 | 97.49222561 | 96.89678278 | 96.30859536 | 95.72753126 |
| 210121A00017 | 1/25/2021                           | 0.48 | 5/25/2023  | 1/25/2021  | 100.02159 | 99.37079895 | 98.72843448 | 98.09433375 | 97.46833816 | 96.85029317 | 96.24004812 | 95.63745615 | 95.04237404 |
| 220217A00017 | 2/17/2022                           | 2.27 | 1/29/2027  | 2/17/2022  | 107.52998 | 103.2176256 | 99.10315306 | 95.17647827 | 91.42808487 | 87.84898619 | 84.43069319 | 81.16518438 | 78.04487774 |
| 201216A00001 | 12/16/2020                          | 0.49 | 7/14/2023  | 12/16/2020 | 99.975637 | 99.18996169 | 98.41656484 | 97.65516061 | 96.90547182 | 96.16722974 | 95.44017384 | 94.72405141 | 94.01861735 |
| 220216A00003 | 2/16/2022                           | 2.49 | 12/14/2029 | 2/16/2022  | 114.01385 | 106.7517574 | 100.0083564 | 93.74376367 | 87.92137022 | 82.50755299 | 77.47141607 | 72.78455573 | 68.42084692 |
| 200312A00014 | 3/12/2020                           | 1.04 | 3/12/2025  | 3/12/2020  | 101.11158 | 98.70949462 | 96.37627531 | 94.10956023 | 91.90708577 | 89.76667909 | 87.6862539  | 85.66380645 | 83.69741174 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 220727A00027 | 7/27/2022                           | 3.23 | 7/27/2027  | 7/27/2022  | 113.14495 | 108.2230363 | 103.5475302 | 99.10480571 | 94.8820602  | 90.86725972 | 87.04908895 | 83.41690468 | 79.96069252 |
| 220811A00021 | 8/11/2022                           | 3.47 | 8/11/2025  | 8/11/2022  | 107.94123 | 105.0517847 | 102.2553753 | 99.54851295 | 96.92785919 | 94.39021827 | 91.9325302  | 89.55186427 | 87.24541287 |
| 220825A00022 | 8/25/2022                           | 3.68 | 8/25/2025  | 8/25/2022  | 108.66258 | 105.7255045 | 102.8840292 | 100.1345286 | 97.47353475 | 94.89772989 | 92.4039389  | 89.98912243 | 87.65037029 |
| 220929A00041 | 9/29/2022                           | 4.38 | 9/29/2027  | 9/29/2022  | 119.3816  | 114.1337129 | 109.1551762 | 104.4306812 | 99.94586571 | 95.68725467 | 91.6422007  | 87.79882896 | 84.14598602 |
| 210218A00011 | 2/22/2021                           | 0.85 | 10/24/2025 | 2/22/2021  | 100.48235 | 97.51009324 | 94.64031664 | 91.86892055 | 89.19199147 | 86.60579516 | 84.10676736 | 81.69150488 | 79.35675732 |
| 200114A00017 | 1/11/2021                           | 1.93 | 1/11/2024  | 1/11/2021  | 101.48694 | 100.2143104 | 98.96959062 | 97.75185889 | 96.56023781 | 95.3938881  | 94.25200648 | 93.13382377 | 92.03860307 |
| 210629A00009 | 6/29/2021                           | 1.14 | 12/31/2025 | 6/29/2021  | 101.52847 | 98.36350523 | 95.31271324 | 92.37129526 | 89.53468359 | 86.79853249 | 84.15870566 | 81.61126462 | 79.1524577  |
| 220114A00009 | 1/14/2022                           | 1.74 | 4/21/2026  | 1/14/2022  | 103.96563 | 100.4651302 | 97.1010729  | 93.86739943 | 90.75835898 | 87.76848711 | 84.89258977 | 82.12572828 | 79.46320527 |
| 220419A00012 | 4/19/2022                           | 2.21 | 4/19/2023  | 4/19/2022  | 101.01952 | 100.463327  | 99.91325421 | 99.36920011 | 98.83106619 | 98.29875609 | 97.77217554 | 97.25123232 | 96.73583615 |
| 200306A00087 | 3/8/2021                            | 1.26 | 3/7/2025   | 3/8/2021   | 101.33146 | 98.94611914 | 96.62865521 | 94.37676253 | 92.18822525 | 90.06091568 | 87.99279021 | 85.9818855  | 84.02631475 |
| 200402A00013 | 4/2/2020                            | 0.89 | 4/2/2024   | 4/2/2020   | 100.20387 | 98.72597482 | 97.27716205 | 95.85665117 | 94.46368652 | 93.09753881 | 91.757504   | 90.44290217 | 89.15307653 |
| 200225A00041 | 10/30/2020                          | 1.48 | 10/30/2023 | 10/30/2020 | 100.85423 | 99.77571522 | 98.72013294 | 97.68675936 | 96.67489987 | 95.68388856 | 94.71308671 | 93.76188147 | 92.82968451 |
| 200826A00035 | 8/28/2020                           | 0.78 | 8/28/2023  | 8/28/2020  | 100.17431 | 99.26702815 | 98.37606651 | 97.50099206 | 96.64138327 | 95.79683338 | 94.96694978 | 94.15135341 | 93.34967815 |
| 210217A00008 | 2/18/2021                           | 0.63 | 8/15/2024  | 2/18/2021  | 99.803886 | 97.97431719 | 96.1868461  | 94.44026015 | 92.73338946 | 91.06510509 | 89.43431724 | 87.83997369 | 86.28105827 |
| 220421A00014 | 4/21/2022                           | 3.24 | 5/30/2025  | 4/21/2022  | 106.75822 | 104.0810262 | 101.4850045 | 98.96718303 | 96.52471668 | 94.15488414 | 91.85508163 | 89.62281692 | 87.45570367 |
| 200316A00042 | 3/16/2020                           | 1.23 | 3/15/2024  | 3/16/2020  | 100.693   | 99.2581799  | 97.85077123 | 96.47005719 | 95.11534578 | 93.78596838 | 92.48127884 | 91.20065249 | 89.94348527 |
| 220913A00005 | 9/13/2022                           | 4.09 | 9/13/2024  | 9/13/2022  | 106.63803 | 104.6635242 | 102.7358971 | 100.8537471 | 99.01572411 | 97.22052724 | 95.46690283 | 93.75364219 | 92.07957977 |
| 200108A00015 | 12/18/2020                          | 1.98 | 12/18/2023 | 12/18/2020 | 101.48116 | 100.2693548 | 99.08637647 | 97.93120185 | 96.80285957 | 95.70042304 | 94.62300788 | 93.56976959 | 92.53990126 |
| 200429A00061 | 4/29/2020                           | 1.66 | 10/29/2029 | 4/29/2020  | 107.96542 | 101.0328978 | 94.59217221 | 88.60582752 | 83.03947816 | 77.86150842 | 73.04283589 | 68.55669625 | 64.37844745 |
| 220901A00033 | 9/1/2022                            | 3.72 | 9/1/2027   | 9/1/2022   | 115.83278 | 110.7496186 | 105.9247053 | 101.3435441 | 96.99252544 | 92.85886884 | 88.93056808 | 85.19634035 | 81.64557913 |
| 211207A00017 | 12/7/2021                           | 1.3  | 11/15/2024 | 12/7/2021  | 101.23689 | 99.15101854 | 97.11810547 | 95.13644018 | 93.20438364 | 91.32036216 | 89.48286425 | 87.69043759 | 85.94168622 |
| 220421A00012 | 4/21/2022                           | 3.31 | 4/21/2026  | 4/21/2022  | 109.55973 | 105.9596523 | 102.4988477 | 99.17116147 | 95.97074343 | 92.89203404 | 89.9297483  | 87.07886049 | 84.33458994 |
| 200325A00046 | 3/25/2020                           | 1.76 | 3/25/2025  | 3/25/2020  | 102.60142 | 100.1539493 | 97.77733493 | 95.46912161 | 93.22695466 | 91.04857502 | 88.93181475 | 86.87459274 | 84.87491064 |
| 200325A00009 | 3/27/2020                           | 1.67 | 3/27/2025  | 3/27/2020  | 102.38131 | 99.93147296 | 97.55272809 | 95.24260401 | 92.99873332 | 90.81884498 | 88.70075973 | 86.64238579 | 84.64171478 |
| 210318A00007 | 3/22/2021                           | 1.41 | 3/21/2024  | 3/22/2021  | 100.96968 | 99.51714135 | 98.09263811 | 96.69543149 | 95.32480672 | 93.98007349 | 92.66056486 | 91.36563636 | 90.09466495 |
| 210624A00005 | 6/24/2021                           | 1.22 | 6/24/2026  | 6/24/2021  | 102.3098  | 98.6723287  | 95.18258354 | 91.83373089 | 88.61929645 | 85.53314383 | 82.5694546  | 79.72270962 | 76.98767167 |
| 220623A00005 | 6/23/2022                           | 3.45 | 6/23/2027  | 6/23/2022  | 113.91371 | 109.0647882 | 104.4541993 | 100.0688916 | 95.89660179 | 91.92580429 | 88.14566257 | 84.54598373 | 81.11717644 |
| 200423A00022 | 4/28/2020                           | 0.76 | 2/15/2023  | 4/28/2020  | 100.24598 | 99.86437394 | 99.48567699 | 99.1098517  | 98.73686543 | 98.36668605 | 97.9992819  | 97.63462182 | 97.27267508 |
| 201123A00011 | 11/25/2020                          | 1.41 | 11/24/2025 | 11/25/2020 | 102.29962 | 99.21751695 | 96.24367626 | 93.37366936 | 90.60327733 | 87.92847975 | 85.34544391 | 82.85051476 | 80.44020546 |
| 200306A00080 | 11/6/2020                           | 1.12 | 11/6/2023  | 11/6/2020  | 100.45394 | 99.35930342 | 98.28835901 | 97.24034914 | 96.2145438  | 95.21024364 | 94.2267784  | 93.26350543 | 92.31980825 |
| 200406A00059 | 4/6/2020                            | 0.92 | 4/6/2023   | 4/6/2020   | 100.29629 | 99.77785986 | 99.26477641 | 98.75695346 | 98.25431039 | 97.75676825 | 97.26424968 | 96.77667887 | 96.29398154 |
| 220509A00013 | 7/15/2022                           | 3.37 | 7/15/2027  | 7/15/2022  | 113.72033 | 108.8166557 | 104.1567929 | 99.72729814 | 95.5155421  | 91.50965555 | 87.69847947 | 84.07151858 | 80.61889832 |
| 220624A00003 | 6/24/2022                           | 3.5  | 6/24/2027  | 6/24/2022  | 114.15896 | 109.3015408 | 104.6829143 | 100.2900008 | 96.11050934 | 92.13288874 | 88.34627862 | 84.74046397 | 81.3058329  |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 200327A00073 | 3/27/2020                           | 0.99 | 3/27/2025  | 3/27/2020  | 101.00028 | 98.56108388 | 96.1929263  | 93.89332984 | 91.65992352 | 89.49043307 | 87.38267633 | 85.33455893 | 83.34407017 |
| 220624A00049 | 6/24/2022                           | 3.29 | 6/24/2024  | 6/24/2022  | 104.68425 | 102.9417561 | 101.2366713 | 99.56786044 | 97.93423053 | 96.33473288 | 94.76836082 | 93.23414757 | 91.73116421 |
| 220705A00011 | 7/5/2022                            | 3.14 | 7/7/2025   | 7/5/2022   | 106.75412 | 103.9740949 | 101.2810734 | 98.67178629 | 96.14311135 | 93.69206503 | 91.31579517 | 89.01157422 | 86.77679275 |
| 220823A00006 | 8/23/2022                           | 3.66 | 2/23/2024  | 8/23/2022  | 104.09161 | 102.6874264 | 101.3090524 | 99.9558386  | 98.6271551  | 97.32239246 | 96.04096104 | 94.78229012 | 93.54582719 |
| 220831A00079 | 8/31/2022                           | 3.79 | 8/29/2025  | 8/31/2022  | 109.01785 | 106.0649374 | 103.2084209 | 100.4446309 | 97.7700602  | 95.18135415 | 92.67530271 | 90.24883356 | 87.8990054  |
| 200305A00016 | 3/5/2020                            | 0.99 | 3/6/2023   | 3/5/2020   | 100.33128 | 99.89743032 | 99.46732875 | 99.04092359 | 98.61816728 | 98.19901311 | 97.78341515 | 97.37132827 | 96.96270807 |
| 200417A00004 | 4/17/2020                           | 0.86 | 4/17/2024  | 4/17/2020  | 100.17218 | 98.65408829 | 97.16630596 | 95.70799622 | 94.27835255 | 92.87659749 | 91.5019813  | 90.15378069 | 88.83129768 |
| 200305A00037 | 3/5/2020                            | 1.43 | 3/6/2028   | 3/5/2020   | 105.10041 | 99.79339568 | 94.78512834 | 90.05729995 | 85.59281821 | 81.37571572 | 77.39107037 | 73.62493189 | 70.06425389 |
| 200407A00004 | 4/7/2020                            | 0.99 | 4/7/2025   | 4/7/2020   | 101.01319 | 98.54484953 | 96.14906168 | 93.82327595 | 91.56504622 | 89.3720274  | 87.24197056 | 85.17271831 | 83.16220049 |
| 210127A00010 | 1/27/2021                           | 1.41 | 7/26/2030  | 1/27/2021  | 106.58944 | 99.02577221 | 92.04975041 | 85.61277713 | 79.67050376 | 74.18243739 | 69.11158797 | 64.42414937 | 60.08921088 |
| 200429A00049 | 4/29/2020                           | 1.25 | 4/29/2026  | 4/29/2020  | 102.24587 | 98.75482564 | 95.40081458 | 92.17772149 | 89.07973745 | 86.10134464 | 83.23729992 | 80.48261954 | 77.83256473 |
| 210709A00005 | 7/9/2021                            | 1.69 | 7/9/2031   | 7/9/2021   | 109.36355 | 100.8242117 | 93.01733989 | 85.87624875 | 79.34065085 | 73.3560087  | 67.8729592  | 62.84679842 | 58.23702008 |
| 211207A00012 | 12/7/2021                           | 1.62 | 12/4/2026  | 12/7/2021  | 104.48841 | 100.3851887 | 96.4652231  | 92.71933835 | 89.13887125 | 85.71563946 | 82.44191183 | 79.31038078 | 76.31413655 |
| 220404A00013 | 4/4/2022                            | 2.1  | 4/4/2023   | 4/4/2022   | 100.90542 | 100.3906305 | 99.88107877 | 99.37668899 | 98.87738297 | 98.38308415 | 97.89371748 | 97.40920941 | 96.92948784 |
| 200318A00013 | 3/18/2020                           | 1.5  | 3/18/2025  | 3/18/2020  | 101.93927 | 99.51813105 | 97.16663811 | 94.88239388 | 92.66309958 | 90.50654903 | 88.41062436 | 86.37329189 | 84.39259822 |
| 200331A00007 | 3/31/2020                           | 0.72 | 3/29/2024  | 3/31/2020  | 100.12158 | 98.65195005 | 97.21113858 | 95.79837132 | 94.41290342 | 93.05401593 | 91.72101459 | 90.41322888 | 89.13001089 |
| 211227A00009 | 12/27/2021                          | 1.6  | 12/23/2026 | 12/27/2021 | 104.48156 | 100.3296643 | 96.36513721 | 92.57849647 | 88.96079567 | 85.50359095 | 82.19890955 | 79.03922053 | 76.01740759 |
| 220615A00010 | 6/15/2022                           | 3.86 | 6/15/2027  | 6/15/2022  | 115.77009 | 110.8999688 | 106.2676746 | 101.8602521 | 97.6655252  | 93.67204642 | 89.86904912 | 86.24640289 | 82.79457222 |
| 220630A00036 | 6/30/2022                           | 3.42 | 6/30/2027  | 6/30/2022  | 113.83391 | 108.9675927 | 104.3413366 | 99.94194854 | 95.75703455 | 91.77494922 | 87.98474596 | 84.3761308  | 80.93941962 |
| 220829A00057 | 8/29/2022                           | 3.67 | 8/31/2026  | 8/29/2022  | 112.11955 | 108.1165158 | 104.2810231 | 100.6051762 | 97.08149282 | 93.7028805  | 90.4626141  | 87.35431493 | 84.37193109 |
| 200304A00002 | 3/4/2020                            | 0.98 | 3/4/2025   | 3/4/2020   | 100.95748 | 98.57786221 | 96.26590691 | 94.01931254 | 91.8358734  | 89.71347142 | 87.65007211 | 85.64372073 | 83.69253871 |
| 200327A00047 | 3/27/2020                           | 0.99 | 3/27/2025  | 3/27/2020  | 101.00028 | 98.56108388 | 96.1929263  | 93.89332984 | 91.65992352 | 89.49043307 | 87.38267633 | 85.33455893 | 83.34407017 |
| 200310A00003 | 3/10/2020                           | 1.1  | 3/10/2025  | 3/10/2020  | 100.94206 | 98.55386781 | 96.23388666 | 93.97978583 | 91.7893314  | 89.66037864 | 87.59086791 | 85.57882071 | 83.62233598 |
| 200330A00044 | 3/30/2020                           | 1.09 | 3/28/2025  | 3/30/2020  | 100.93059 | 98.49656545 | 96.13336677 | 93.83853367 | 91.60970341 | 89.44460956 | 87.34107743 | 85.29701973 | 83.3104325  |
| 210616A00011 | 5/2/2022                            | 0.95 | 5/2/2025   | 5/2/2022   | 100.60988 | 98.08746378 | 95.64048126 | 93.26622289 | 90.96209558 | 88.72561611 | 86.55440572 | 84.44618487 | 82.39876848 |
| 220217A00012 | 2/17/2022                           | 2.28 | 2/16/2027  | 2/17/2022  | 107.69238 | 103.325231  | 99.16067219 | 95.18827917 | 91.39821487 | 87.78119495 | 84.32845402 | 81.03171396 | 77.88315443 |
| 220325A00011 | 3/28/2022                           | 2.79 | 4/25/2025  | 3/28/2022  | 105.35402 | 102.7881352 | 100.2981431 | 97.88133941 | 95.53513664 | 93.2570559  | 91.04472166 | 88.89585669 | 86.80827729 |
| 220701A00024 | 7/1/2022                            | 3.08 | 7/1/2025   | 7/1/2022   | 106.54777 | 103.7864637 | 101.1111454 | 98.51857567 | 96.00566052 | 93.56944522 | 91.20710665 | 88.91594635 | 86.69338401 |
| 220729A00047 | 7/29/2022                           | 3.06 | 1/29/2027  | 7/29/2022  | 110.95176 | 106.5658012 | 102.3801673 | 98.38467814 | 94.56972041 | 90.92621517 | 87.44558557 | 84.11972653 | 80.94097644 |
| 220907A00010 | 9/7/2022                            | 3.9  | 9/9/2032   | 9/7/2022   | 133.02286 | 122.2351365 | 112.4538653 | 103.5785748 | 95.51935248 | 88.19568365 | 81.53542394 | 75.47388907 | 69.95304766 |
| 200306A00022 | 3/6/2020                            | 1.2  | 3/8/2027   | 3/6/2020   | 103.02859 | 98.70885683 | 94.59328685 | 90.67120814 | 86.93256383 | 83.36787027 | 79.96818138 | 76.72505549 | 73.63052433 |
| 200327A00030 | 3/27/2020                           | 1.01 | 3/27/2024  | 3/27/2020  | 100.38007 | 98.91654898 | 97.48157468 | 96.07438936 | 94.69425829 | 93.34047213 | 92.01234581 | 90.70921749 | 89.43044764 |
| 200330A00038 | 3/30/2020                           | 1.79 | 3/29/2030  | 3/30/2020  | 109.26135 | 101.8969118 | 95.0815447  | 88.77146674 | 82.92659433 | 77.5102165  | 72.48869524 | 67.83119387 | 63.5094307  |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 210201A00007 | 2/3/2021                            | 0.57 | 8/15/2024  | 2/3/2021   | 99.690467 | 97.86199738 | 96.07560468 | 94.3300769  | 92.62424474 | 90.95697977 | 89.32719274 | 87.73383192 | 86.17588163 |
| 210616A00007 | 3/18/2022                           | 0.9  | 3/18/2025  | 3/18/2022  | 100.45251 | 98.05001004 | 95.71674755 | 93.45033591 | 91.24848831 | 89.1090101  | 87.02979451 | 85.00881852 | 83.04413899 |
| 200302A00018 | 3/2/2020                            | 1.25 | 3/2/2023   | 3/2/2020   | 100.44198 | 100.0187991 | 99.59916805 | 99.18304617 | 98.77038961 | 98.36115528 | 97.95530077 | 97.5527844  | 97.15356514 |
| 200316A00037 | 3/16/2020                           | 1.06 | 3/14/2025  | 3/16/2020  | 101.16287 | 98.755006   | 96.41631273 | 94.14441421 | 91.93703214 | 89.79197978 | 87.70715768 | 85.68054966 | 83.71021892 |
| 200611A00023 | 6/11/2020                           | 0.64 | 6/12/2023  | 6/11/2020  | 100.11709 | 99.41718617 | 98.72702415 | 98.04640018 | 97.37511757 | 96.71298503 | 96.05981645 | 95.41543077 | 94.77965174 |
| 201001A00011 | 10/1/2020                           | 0.71 | 6/17/2025  | 10/1/2020  | 99.991963 | 97.3587399  | 94.80723699 | 92.33439663 | 89.93729852 | 87.6131524  | 85.35929123 | 83.17316466 | 81.05233303 |
| 201030A00019 | 10/30/2020                          | 1.15 | 10/29/2027 | 10/30/2020 | 103.3266  | 98.39903133 | 93.73338165 | 89.31439855 | 85.12779971 | 81.16020306 | 77.39906521 | 73.83262453 | 70.44984835 |
| 220214A00012 | 2/14/2022                           | 2.47 | 12/28/2029 | 2/14/2022  | 113.92938 | 106.6343262 | 99.86278707 | 93.57432295 | 87.73182995 | 82.30124461 | 77.25127914 | 72.55318108 | 68.18051502 |
| 210127A00008 | 1/27/2021                           | 0.93 | 1/27/2027  | 1/27/2021  | 101.7217  | 97.53935201 | 93.55026893 | 89.74457324 | 86.11293837 | 82.64655857 | 79.33711709 | 76.17675664 | 73.1580516  |
| 211028A00020 | 10/28/2021                          | 2.05 | 1/28/2031  | 10/28/2021 | 112.06187 | 103.8209254 | 96.25183836 | 89.29627254 | 82.90123334 | 77.01855603 | 71.60444345 | 66.61905012 | 62.02610767 |
| 200826A00038 | 8/28/2020                           | 1.11 | 8/28/2024  | 8/28/2020  | 100.74566 | 98.87294968 | 97.04400011 | 95.25753336 | 93.51231382 | 91.80714991 | 90.14089211 | 88.5124313  | 86.92069699 |
| 210312A00008 | 3/12/2021                           | 1.13 | 3/12/2026  | 3/12/2021  | 101.68575 | 98.3294381  | 95.10093641 | 91.99471768 | 89.00552464 | 86.12835422 | 83.3584438  | 80.69125835 | 78.12247831 |
| 210330A00022 | 3/30/2021                           | 1.27 | 3/30/2026  | 3/30/2021  | 102.21837 | 98.80713411 | 95.52743234 | 92.37350651 | 89.33987784 | 86.42133615 | 83.61292523 | 80.90992896 | 78.30785835 |
| 210907A00009 | 9/7/2021                            | 2.5  | 9/7/2039   | 9/7/2021   | 120.31128 | 104.3298146 | 90.75520129 | 79.20674219 | 69.36598694 | 60.96627079 | 53.78405548 | 47.63175453 | 42.35178252 |
| 210914A00017 | 9/14/2021                           | 1.32 | 9/14/2028  | 9/14/2021  | 105.74659 | 99.90000772 | 94.41122433 | 89.25656391 | 84.41403037 | 79.86318201 | 75.58501416 | 71.56185122 | 67.7772474  |
| 220131A00006 | 1/31/2022                           | 1.83 | 2/1/2027   | 1/31/2022  | 106.21175 | 101.9028539 | 97.79282638 | 93.87149826 | 90.12927127 | 86.55708259 | 83.14637236 | 79.8890533  | 76.77748223 |
| 220628A00052 | 8/15/2022                           | 3.6  | 8/13/2027  | 8/15/2022  | 115.07636 | 110.0626856 | 105.3015431 | 100.7788836 | 96.48151012 | 92.39702192 | 88.51376266 | 84.82077194 | 81.30774041 |
| 220829A00048 | 8/29/2022                           | 3.75 | 2/25/2025  | 8/29/2022  | 107.34378 | 104.9112199 | 102.5466714 | 100.2478493 | 98.01256229 | 95.8387049  | 93.72425401 | 91.66726496 | 89.66586801 |
| 200316A00055 | 3/16/2020                           | 1.06 | 3/14/2025  | 3/16/2020  | 101.16287 | 98.755006   | 96.41631273 | 94.14441421 | 91.93703214 | 89.79197978 | 87.70715768 | 85.68054966 | 83.71021892 |
| 220630A00019 | 6/30/2022                           | 3.25 | 12/29/2023 | 6/30/2022  | 103.10234 | 101.8507415 | 100.6295329 | 99.43761336 | 98.27393808 | 97.13751131 | 96.02738365 | 94.94264937 | 93.88244392 |
| 220719A00004 | 7/19/2022                           | 3.46 | 7/19/2027  | 7/19/2022  | 114.18475 | 109.2593931 | 104.5792712 | 100.1308597 | 95.9014481  | 91.87908966 | 88.05255194 | 84.41127014 | 80.94530384 |
| 220906A00046 | 9/6/2022                            | 3.79 | 9/7/2027   | 9/6/2022   | 116.23269 | 111.1232193 | 106.274025  | 101.670456  | 97.29875777 | 93.14601621 | 89.20010212 | 85.44961939 | 81.88385708 |
| 220908A00030 | 9/8/2022                            | 3.85 | 9/9/2024   | 9/8/2022   | 106.12959 | 104.1711576 | 102.2589899 | 100.3917158 | 98.56800956 | 96.78659356 | 95.04623621 | 93.34574991 | 91.68398917 |
| 200423A00017 | 4/23/2020                           | 1.82 | 4/23/2035  | 4/23/2020  | 113.08824 | 100.9536006 | 90.25010804 | 80.80071637 | 72.45113193 | 65.06678619 | 58.53022605 | 52.73886082 | 47.60301535 |
| 200429A00057 | 4/29/2020                           | 1.4  | 4/29/2027  | 4/29/2020  | 104.04942 | 99.57361811 | 95.31483674 | 91.26143416 | 87.40245194 | 83.7275744  | 80.22708733 | 76.89183962 | 73.7132076  |
| 201118A00009 | 11/18/2020                          | 0.61 | 11/18/2025 | 11/18/2020 | 100.16626 | 97.1239751  | 94.18862728 | 91.35585237 | 88.62148781 | 85.98156633 | 83.43230543 | 80.97009753 | 78.59150066 |
| 210216A00011 | 2/17/2021                           | 0.83 | 12/15/2025 | 2/17/2021  | 100.49577 | 97.38832967 | 94.39191481 | 91.50190509 | 88.71390494 | 86.02372959 | 83.42739335 | 80.92109871 | 78.50122608 |
| 211119A00009 | 11/19/2021                          | 1.68 | 11/19/2027 | 11/19/2021 | 106.09019 | 101.0379723 | 96.25578604 | 91.72779149 | 87.4391633  | 83.3760188  | 79.52535292 | 75.87497801 | 72.41346805 |
| 220325A00020 | 3/28/2022                           | 2.86 | 3/23/2027  | 3/28/2022  | 110.49754 | 105.9740666 | 101.6639926 | 97.55612419 | 93.63991505 | 89.90542363 | 86.34327532 | 82.9446271  | 79.70113467 |
| 220624A00033 | 6/24/2022                           | 3.5  | 6/24/2027  | 6/24/2022  | 114.15896 | 109.3015408 | 104.6829143 | 100.2900008 | 96.11050934 | 92.13288874 | 88.34627862 | 84.74046397 | 81.3058329  |
| 200401A00023 | 4/1/2020                            | 0.82 | 4/1/2025   | 4/1/2020   | 100.5764  | 98.12967741 | 95.75458909 | 93.44863077 | 91.20939918 | 89.03458965 | 86.9219914  | 84.86948304 | 82.87502841 |
| 200413A00027 | 4/13/2020                           | 0.94 | 4/12/2024  | 4/13/2020  | 100.29136 | 98.7857886  | 97.3101295  | 95.86356428 | 94.44530314 | 93.05458441 | 91.69067333 | 90.35286082 | 89.0404624  |
| 210224A00007 | 2/26/2021                           | 0.68 | 10/21/2024 | 2/26/2021  | 99.905454 | 97.89986525 | 95.9441559  | 94.03676088 | 92.17617584 | 90.36095435 | 88.58970523 | 86.86108997 | 85.17382034 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 211214A00013 | 12/14/2021                          | 1.02 | 12/14/2023 | 12/14/2021 | 100.30383 | 99.11018376 | 97.9447326  | 96.80649172 | 95.69451757 | 94.60790976 | 93.54580865 | 92.50739302 | 91.49187799 |
| 220329A00009 | 3/29/2022                           | 2.94 | 3/29/2029  | 3/29/2022  | 115.73768 | 109.1027368 | 102.899231  | 97.09675955 | 91.66721819 | 86.58461282 | 81.82489083 | 77.36578657 | 73.18667995 |
| 220419A00014 | 4/19/2022                           | 3.06 | 4/18/2025  | 4/19/2022  | 106.00431 | 103.4490211 | 100.9688612 | 98.56117121 | 96.22340498 | 93.95312266 | 91.74798534 | 89.60575013 | 87.52426562 |
| 220617A00040 | 6/17/2022                           | 3.23 | 6/16/2023  | 6/17/2022  | 101.97636 | 101.2582095 | 100.550175  | 99.85204526 | 99.16361308 | 98.48467724 | 97.81504199 | 97.15451694 | 96.50291687 |
| 210226A00002 | 2/26/2021                           | 0.86 | 2/26/2025  | 2/26/2021  | 100.34927 | 97.99961823 | 95.71627046 | 93.49699103 | 91.33963512 | 89.24214236 | 87.20253294 | 85.21890402 | 83.28942621 |
| 210629A00015 | 6/29/2021                           | 1.89 | 6/27/2031  | 6/29/2021  | 111.07714 | 102.4947525 | 94.64423639 | 87.45923427 | 80.87973725 | 74.8514433  | 69.32518679 | 64.25642798 | 59.60479566 |
| 210719A00004 | 7/19/2021                           | 1    | 4/20/2026  | 7/19/2021  | 101.32632 | 97.87544271 | 94.55948309 | 91.37244634 | 88.30863959 | 85.36265354 | 82.5293466  | 79.80383006 | 77.18145414 |
| 210907A00004 | 9/7/2021                            | 2.01 | 9/7/2033   | 9/7/2021   | 113.37017 | 102.7198627 | 93.17545086 | 84.6158282  | 76.93373399 | 70.03410609 | 63.8326389  | 58.254518   | 53.23330913 |
| 220216A00002 | 2/16/2022                           | 2.09 | 2/14/2025  | 2/16/2022  | 103.27579 | 100.9247771 | 98.63900062 | 96.41629517 | 94.25457979 | 92.15185427 | 90.1061955  | 88.11575405 | 86.17875087 |
| 220418A00016 | 4/22/2022                           | 3.11 | 9/15/2026  | 4/22/2022  | 110.04822 | 106.0448781 | 102.2112431 | 98.53922134 | 95.02115087 | 91.64977338 | 88.41821087 | 85.31994363 | 82.3487897  |
| 200311A00055 | 3/11/2020                           | 1.66 | 12/17/2027 | 3/11/2020  | 106.08185 | 100.9573639 | 96.11026329 | 91.52406808 | 87.18337017 | 83.0737546  | 79.18172983 | 75.49466343 | 72.00072261 |
| 210623A00028 | 6/23/2021                           | 1.22 | 6/23/2026  | 6/23/2021  | 102.30656 | 98.6717849  | 95.18453521 | 91.83799016 | 88.62568822 | 85.54150488 | 82.57963272 | 79.73456287 | 77.00106762 |
| 200818A00016 | 3/31/2021                           | 0.57 | 4/1/2024   | 3/31/2021  | 99.717244 | 98.24587923 | 96.80345224 | 95.38918465 | 94.0023259  | 92.64215161 | 91.30796237 | 89.99908272 | 88.71486011 |
| 220511A00002 | 5/11/2022                           | 3.18 | 5/12/2025  | 5/11/2022  | 106.47654 | 103.8506436 | 101.3033149 | 98.83171559 | 96.43313084 | 94.10496187 | 91.84472016 | 89.65002195 | 87.51858303 |
| 220817A00047 | 8/17/2022                           | 3.29 | 8/17/2027  | 8/17/2022  | 114.32284 | 109.2939842 | 104.519827  | 99.98613499 | 95.67954042 | 91.58748583 | 87.69817069 | 84.00050205 | 80.48404866 |
| 200305A00001 | 3/5/2020                            | 1.14 | 3/5/2025   | 3/5/2020   | 101.03598 | 98.65941928 | 96.35036549 | 94.10653171 | 91.92571843 | 89.80581346 | 87.74478791 | 85.74069234 | 83.79165322 |
| 200323A00011 | 3/23/2020                           | 1.37 | 3/23/2023  | 3/23/2020  | 100.51423 | 100.0333983 | 99.5571622  | 99.08545376 | 98.61820856 | 98.15536341 | 97.69685634 | 97.24262653 | 96.79261428 |
| 210309A00002 | 3/11/2021                           | 0.77 | 7/25/2024  | 3/11/2021  | 100.06284 | 98.28506052 | 96.5470853  | 94.84777769 | 93.18603716 | 91.56080228 | 89.97104898 | 88.41578899 | 86.89406831 |
| 220209A00010 | 2/9/2022                            | 2.14 | 1/11/2027  | 2/9/2022   | 106.8697  | 102.6182354 | 98.560046   | 94.68530788 | 90.98475198 | 87.44962937 | 84.07167893 | 80.84309732 | 77.75651092 |
| 220419A00013 | 4/19/2022                           | 2.84 | 4/19/2024  | 4/19/2022  | 103.27663 | 101.7279196 | 100.2101338 | 98.72241226 | 97.26392992 | 95.83389142 | 94.4315299  | 93.05610569 | 91.70690512 |
| 201221A00015 | 12/21/2020                          | 0.88 | 12/4/2026  | 12/21/2020 | 101.39566 | 97.35671042 | 93.49893555 | 89.81324847 | 86.29106636 | 82.92428343 | 79.70524146 | 76.62670236 | 73.68182259 |
| 211209A00006 | 12/9/2021                           | 1.61 | 12/8/2026  | 12/9/2021  | 104.46288 | 100.349907  | 96.42103567 | 92.66702767 | 89.07916118 | 85.64919979 | 82.36936243 | 79.23229533 | 76.23104603 |
| 220705A00005 | 7/5/2022                            | 3.15 | 1/5/2024   | 7/5/2022   | 103.02325 | 101.7547139 | 100.5156517 | 99.30503499 | 98.12188548 | 96.96526943 | 95.83429524 | 94.72811107 | 93.64590261 |
| 200402A00009 | 4/2/2020                            | 1.03 | 4/2/2025   | 4/2/2020   | 100.78425 | 98.33910316 | 95.96544613 | 93.66078102 | 91.42271154 | 89.24893964 | 87.1372608  | 85.0855596  | 83.09180552 |
| 201001A00012 | 10/1/2020                           | 0.74 | 9/16/2025  | 10/1/2020  | 100.11131 | 97.2424721  | 94.4698948  | 91.78983373 | 89.19871437 | 86.6931205  | 84.26978627 | 81.92558867 | 79.65754044 |
| 220218A00003 | 2/18/2022                           | 2.16 | 9/4/2026   | 2/18/2022  | 106.221   | 102.3225205 | 98.58893313 | 95.01241966 | 91.58556999 | 88.30136193 | 85.15313888 | 82.13458883 | 79.23972478 |
| 220408A00012 | 4/8/2022                            | 3.12 | 6/29/2026  | 4/8/2022   | 109.45193 | 105.6676643 | 102.0360902 | 98.55015412 | 95.20317463 | 91.98881927 | 88.90108389 | 85.93427336 | 83.08298355 |
| 200316A00043 | 3/16/2020                           | 1.3  | 3/14/2025  | 3/16/2020  | 101.43848 | 99.0338688  | 96.69818116 | 94.42905564 | 92.22422601 | 90.08151698 | 87.99883991 | 85.97418881 | 84.00563658 |
| 200402A00010 | 4/2/2020                            | 0.89 | 4/2/2024   | 4/2/2020   | 100.20387 | 98.72597482 | 97.27716205 | 95.85665117 | 94.46368652 | 93.09753881 | 91.757504   | 90.44290217 | 89.15307653 |
| 211115A00032 | 11/15/2021                          | 1.75 | 11/12/2027 | 11/15/2021 | 106.42224 | 101.3801303 | 96.60653194 | 92.08574413 | 87.80307131 | 83.74474916 | 79.89788051 | 76.25037605 | 72.79089946 |
| 220209A00012 | 2/9/2022                            | 1.98 | 7/29/2025  | 2/9/2022   | 103.60793 | 100.8149051 | 98.11129969 | 95.49378709 | 92.95917826 | 90.50441982 | 88.12658742 | 85.82287957 | 83.5906118  |
| 220317A00011 | 3/17/2022                           | 2.48 | 3/17/2025  | 3/17/2022  | 104.36313 | 101.9141997 | 99.53543852 | 97.22443502 | 94.97887806 | 92.7965495  | 90.67531981 | 88.613144   | 86.60805772 |
| 200327A00058 | 3/27/2020                           | 0.9  | 3/27/2023  | 3/27/2020  | 100.28588 | 99.79477867 | 99.30846858 | 98.8268822  | 98.34995099 | 97.87760773 | 97.40978651 | 96.94642265 | 96.48745271 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 220301A00015 | 3/1/2022                            | 2    | 1/4/2027   | 3/1/2022   | 106.23501 | 102.0151649 | 97.98656081 | 94.13947927 | 90.46475596 | 86.95374255 | 83.59827441 | 80.39064052 | 77.3235555  |
| 200310A00054 | 3/10/2020                           | 1.1  | 3/10/2025  | 3/10/2020  | 100.94206 | 98.55386781 | 96.23388666 | 93.97978583 | 91.7893314  | 89.66037864 | 87.59086791 | 85.57882071 | 83.62233598 |
| 200611A00020 | 6/11/2020                           | 0.81 | 6/11/2025  | 6/11/2020  | 100.26068 | 97.63960287 | 95.09943408 | 92.63716635 | 90.24992373 | 87.93495745 | 85.68963934 | 83.51145548 | 81.39800037 |
| 211221A00025 | 12/21/2021                          | 1.59 | 12/21/2026 | 12/21/2021 | 104.43123 | 100.2855237 | 96.32671906 | 92.54536488 | 88.93254617 | 85.47984812 | 82.17932483 | 79.02347023 | 76.00519102 |
| 220309A00010 | 3/9/2022                            | 2.27 | 3/8/2027   | 3/9/2022   | 107.77351 | 103.3493397 | 99.13287226 | 95.1132881  | 91.28038788 | 87.62455255 | 84.13670725 | 80.80828778 | 77.63120928 |
| 220913A00017 | 9/13/2022                           | 3.98 | 9/14/2026  | 9/13/2022  | 113.48469 | 109.4162947 | 105.5194765 | 101.7860758 | 98.20836713 | 94.77903168 | 91.49113314 | 88.3380959  | 85.31368428 |
| 200330A00066 | 3/30/2020                           | 1.08 | 3/31/2025  | 3/30/2020  | 100.90764 | 98.46624577 | 96.09611551 | 93.79476274 | 91.55980308 | 89.38894966 | 87.28000846 | 85.23087394 | 83.23952488 |
| 220823A00009 | 8/23/2022                           | 3.52 | 8/23/2027  | 8/23/2022  | 114.77303 | 109.7398252 | 104.9615199 | 100.4238623 | 96.11346669 | 92.0177594  | 88.12492524 | 84.42385813 | 80.90411499 |
| 200312A00006 | 3/12/2020                           | 1.23 | 3/12/2025  | 3/12/2020  | 101.26357 | 98.86626275 | 96.53754086 | 94.27505915 | 92.07656699 | 89.93990384 | 87.86299504 | 85.84384786 | 83.88054773 |
| 201116A00021 | 11/16/2020                          | 0.53 | 11/15/2024 | 11/16/2020 | 99.859964 | 97.78377229 | 95.76046416 | 93.78833075 | 91.86573176 | 89.99109245 | 88.16290044 | 86.37970268 | 84.64010261 |
| 211220A00005 | 12/20/2021                          | 0.97 | 12/20/2023 | 12/20/2021 | 100.23812 | 99.0291427  | 97.84910046 | 96.69696799 | 95.57176512 | 94.47255708 | 93.39845193 | 92.34859807 | 91.32218205 |
| 220420A00033 | 4/20/2022                           | 3.29 | 4/20/2027  | 4/20/2022  | 112.66433 | 108.0164132 | 103.590271  | 99.37412324 | 95.35687822 | 91.52808939 | 87.87791445 | 84.39707709 | 81.07683135 |
| 200225A00040 | 10/30/2020                          | 1.48 | 10/30/2023 | 10/30/2020 | 100.85423 | 99.77571522 | 98.72013294 | 97.68675936 | 96.67489987 | 95.68388856 | 94.71308671 | 93.76188147 | 92.82968451 |
| 210219A00008 | 2/22/2021                           | 0.86 | 12/1/2025  | 2/22/2021  | 100.57227 | 97.49922233 | 94.53488715 | 91.67479316 | 88.9146788  | 86.25048428 | 83.67834067 | 81.1945595  | 78.79562313 |
| 220509A00014 | 7/15/2022                           | 3.37 | 7/15/2027  | 7/15/2022  | 113.72033 | 108.8166557 | 104.1567929 | 99.72729814 | 95.5155421  | 91.50965555 | 87.69847947 | 84.07151858 | 80.61889832 |
| 220509A00016 | 7/15/2022                           | 3.37 | 7/15/2027  | 7/15/2022  | 113.72033 | 108.8166557 | 104.1567929 | 99.72729814 | 95.5155421  | 91.50965555 | 87.69847947 | 84.07151858 | 80.61889832 |
| 200327A00060 | 3/27/2020                           | 1.18 | 3/27/2025  | 3/27/2020  | 101.15509 | 98.72077282 | 96.357202   | 94.0619186  | 91.83256532 | 89.66688081 | 87.56269513 | 85.51792548 | 83.53057211 |
| 200320A00052 | 3/25/2020                           | 1.47 | 3/25/2025  | 3/25/2020  | 101.87728 | 99.4389558  | 97.07128443 | 94.77181792 | 92.53820752 | 90.36819988 | 88.25963255 | 86.21042967 | 84.21859801 |
| 220929A00034 | 9/29/2022                           | 4.67 | 5/31/2024  | 9/29/2022  | 106.61272 | 104.9230736 | 103.2685682 | 101.6481749 | 100.0609013 | 98.5057934  | 96.98193402 | 95.48844076 | 94.02446445 |
| 200304A00005 | 3/4/2020                            | 0.98 | 3/4/2025   | 3/4/2020   | 100.95748 | 98.57786221 | 96.26590691 | 94.01931254 | 91.8358734  | 89.71347142 | 87.65007211 | 85.64372073 | 83.69253871 |
| 200327A00046 | 3/27/2020                           | 1.23 | 3/27/2025  | 3/27/2020  | 101.28021 | 98.84431365 | 96.47919446 | 94.1823967  | 91.95156206 | 89.78442817 | 87.67882417 | 85.63266633 | 83.64395401 |
| 210707A00002 | 7/7/2021                            | 1.12 | 6/26/2026  | 7/7/2021   | 101.94205 | 98.30616902 | 94.81821338 | 91.47132731 | 88.25901837 | 85.17513353 | 82.21383908 | 79.36960188 | 76.63717185 |
| 210712A00010 | 6/27/2022                           | 1.05 | 6/27/2025  | 6/27/2022  | 100.93178 | 98.25916924 | 95.67009307 | 93.16139462 | 90.73006505 | 88.37323092 | 86.08814694 | 83.87218915 | 81.7228486  |
| 210701A00007 | 7/1/2021                            | 1.22 | 7/1/2026   | 7/1/2021   | 102.33215 | 98.67589756 | 95.16878272 | 91.80388312 | 88.5746381  | 85.47483064 | 82.49856704 | 79.64025786 | 76.89460017 |
| 211210A00015 | 12/10/2021                          | 1.63 | 12/10/2026 | 12/10/2021 | 104.55493 | 100.4348924 | 96.49945573 | 92.73934212 | 89.14579771 | 85.71055636 | 82.42580944 | 79.28417768 | 76.27868496 |
| 220111A00002 | 1/11/2022                           | 1.75 | 1/16/2026  | 1/11/2022  | 103.5806  | 100.3408074 | 97.21895755 | 94.21011179 | 91.30956387 | 88.5128316  | 85.81564464 | 83.21393317 | 80.70381721 |
| 220209A00004 | 2/9/2022                            | 1.21 | 2/9/2023   | 2/9/2022   | 100.41611 | 100.0505777 | 99.68770291 | 99.32746025 | 98.96982107 | 98.61475719 | 98.26224081 | 97.91224454 | 97.56474139 |
| 200402A00003 | 4/2/2020                            | 0.8  | 4/3/2023   | 4/2/2020   | 100.23389 | 99.72383957 | 99.21895426 | 98.71916056 | 98.22438182 | 97.73454288 | 97.24957012 | 96.76939135 | 96.29393579 |
| 200527A00016 | 5/27/2020                           | 0.92 | 5/27/2025  | 5/27/2020  | 100.54607 | 97.96042486 | 95.45359741 | 93.0226971  | 90.66495856 | 88.37773672 | 86.15850064 | 84.00482773 | 81.91439822 |
| 220204A00003 | 2/4/2022                            | 1.15 | 2/3/2023   | 2/4/2022   | 100.39267 | 100.0436601 | 99.69707086 | 99.35287672 | 99.01105295 | 98.67157515 | 98.33441927 | 97.99956157 | 97.66697863 |
| 220624A00044 | 6/24/2022                           | 3.43 | 6/24/2025  | 6/24/2022  | 107.46097 | 104.7059762 | 102.0361828 | 99.44839939 | 96.93957589 | 94.50679881 | 92.14728382 | 89.85836904 | 87.63750857 |
| 200401A00013 | 4/1/2020                            | 1.01 | 4/1/2025   | 4/1/2020   | 100.73279 | 98.29095571 | 95.92046848 | 93.6188349  | 91.38366556 | 89.21266892 | 87.10364658 | 85.0544889  | 83.06317081 |
| 200826A00039 | 8/28/2020                           | 1.03 | 7/29/2024  | 8/28/2020  | 100.5434  | 98.75070681 | 96.99834658 | 95.28517495 | 93.61008727 | 91.97201713 | 90.3699348  | 88.80284572 | 87.26978903 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 210208A00008 | 2/11/2021                           | 0.78 | 11/17/2025 | 2/11/2021  | 100.29817 | 97.26619494 | 94.34049892 | 91.51674799 | 88.79081563 | 86.15876843 | 83.61685568 | 81.16149965 | 78.78928645 |
| 210706A00015 | 7/6/2021                            | 1.06 | 12/31/2025 | 7/6/2021   | 101.26754 | 98.10683719 | 95.06019479 | 92.12281673 | 89.29013909 | 86.55781977 | 83.92172594 | 81.37792245 | 78.92266084 |
| 200305A00019 | 3/5/2020                            | 0.81 | 3/6/2023   | 3/5/2020   | 100.29173 | 99.85752845 | 99.42708377 | 99.00034428 | 98.57726222 | 98.15779069 | 97.74188353 | 97.32949543 | 96.92058179 |
| 200403A00010 | 4/6/2020                            | 0.8  | 4/6/2023   | 4/6/2020   | 100.23363 | 99.71538872 | 99.20249336 | 98.69485711 | 98.19239936 | 97.69504119 | 97.20270525 | 96.71531574 | 96.23279841 |
| 220302A00011 | 3/2/2022                            | 2.14 | 1/13/2027  | 3/2/2022   | 106.8805  | 102.6236143 | 98.56046843 | 94.68121213 | 90.97655088 | 87.43771129 | 84.05640877 | 80.82481749 | 77.73554232 |
| 200220A00034 | 2/25/2020                           | 1.71 | 3/27/2023  | 2/25/2020  | 100.68639 | 100.1941313 | 99.7066756  | 99.22395163 | 98.74589078 | 98.27242574 | 97.80349051 | 97.33902032 | 96.87895163 |
| 200302A00017 | 3/2/2020                            | 1.3  | 3/4/2024   | 3/2/2020   | 100.77743 | 99.37055525 | 97.99003762 | 96.63519923 | 95.30538687 | 93.99996901 | 92.71833488 | 91.45989366 | 90.22407365 |
| 200330A00054 | 3/30/2021                           | 1.19 | 3/30/2026  | 3/30/2021  | 101.9381  | 98.53177118 | 95.25683876 | 92.10754922 | 89.07842854 | 86.16427115 | 83.3601252  | 80.66127878 | 78.06324691 |
| 200331A00017 | 3/31/2020                           | 0.9  | 3/31/2025  | 3/31/2020  | 100.77688 | 98.33027739 | 95.95523208 | 93.64924717 | 91.40992423 | 89.23496309 | 87.12215717 | 85.06938904 | 83.07462622 |
| 200325A00047 | 3/25/2020                           | 1.68 | 9/25/2024  | 3/25/2020  | 101.90642 | 99.94784159 | 98.03672498 | 96.17163012 | 94.35116716 | 92.57399779 | 90.83883296 | 89.1444307  | 87.48959409 |
| 200415A00024 | 4/15/2020                           | 2.2  | 4/16/2035  | 4/15/2020  | 115.9621  | 103.7859206 | 93.03198372 | 83.52545197 | 75.11384726 | 67.66408729 | 61.05993043 | 55.19976834 | 49.9947175  |
| 220404A00010 | 4/4/2022                            | 2.93 | 4/2/2027   | 4/4/2022   | 110.88534 | 106.3267855 | 101.9843641 | 97.8466757  | 93.90298595 | 90.14317952 | 86.55772112 | 83.13761919 | 79.87439202 |
| 220627A00055 | 6/27/2022                           | 3.55 | 6/26/2026  | 6/27/2022  | 111.03594 | 107.2302837 | 103.5775787 | 100.0707803 | 96.70321442 | 93.4685547  | 90.36080183 | 87.37426443 | 84.50354114 |
| 210308A00009 | 3/8/2021                            | 0.62 | 3/8/2024   | 3/8/2021   | 99.797039 | 98.3871833  | 97.00394104 | 95.64662487 | 94.31457086 | 93.00713729 | 91.72370364 | 90.46366983 | 89.22645529 |
| 220628A00053 | 8/15/2022                           | 3.6  | 8/13/2027  | 8/15/2022  | 115.07636 | 110.0626856 | 105.3015431 | 100.7788836 | 96.48151012 | 92.39702192 | 88.51376266 | 84.82077194 | 81.30774041 |
| 200417A00012 | 4/22/2020                           | 0.71 | 12/15/2022 | 4/22/2020  | 100.22852 | 100.0177226 | 99.80782651 | 99.59882363 | 99.39070824 | 99.18347463 | 98.97711715 | 98.7716302  | 98.56700821 |
| 210104A00011 | 11/23/2021                          | 0.88 | 11/23/2026 | 11/23/2021 | 101.37024 | 97.36024598 | 93.5290547  | 89.86775224 | 86.36791649 | 83.02159024 | 79.82125271 | 76.75979301 | 73.8304854  |
| 210122A00006 | 1/25/2021                           | 0.61 | 8/15/2024  | 1/25/2021  | 99.76608  | 97.93687725 | 96.14976563 | 94.4035324  | 92.69700789 | 91.02906332 | 89.39860907 | 87.8045931  | 86.24599939 |
| 210303A00006 | 3/4/2021                            | 0.97 | 10/10/2025 | 3/4/2021   | 100.8303  | 97.88845392 | 95.04709797 | 92.30224591 | 89.65009669 | 87.08702136 | 84.60955416 | 82.21438419 | 79.89834752 |
| 210916A00009 | 9/16/2021                           | 2.25 | 9/16/2036  | 9/16/2021  | 116.83484 | 103.4287643 | 91.74045339 | 81.5386935  | 72.62455028 | 64.82671607 | 57.99754906 | 52.00969704 | 46.75321729 |
| 220124A00008 | 1/24/2022                           | 1.88 | 1/22/2027  | 1/24/2022  | 105.80788 | 101.5506254 | 97.48840959 | 93.61129783 | 89.90991182 | 86.37539714 | 82.9993913  | 79.77399366 | 76.69173757 |
| 200311A00052 | 3/2/2021                            | 1.43 | 2/28/2025  | 3/2/2021   | 101.73603 | 99.36365577 | 97.05825924 | 94.81758184 | 92.6394535  | 90.52178981 | 88.46258804 | 86.45992346 | 84.51194583 |
| 200207A00013 | 2/12/2020                           | 1.73 | 2/10/2023  | 2/12/2020  | 100.60872 | 100.2400011 | 99.87398434 | 99.51064206 | 99.14994491 | 98.79186402 | 98.43637096 | 98.08343768 | 97.73303656 |
| 200306A00064 | 3/6/2020                            | 1.2  | 3/8/2027   | 3/6/2020   | 103.02859 | 98.70885683 | 94.59328685 | 90.67120814 | 86.93256383 | 83.36787027 | 79.96818138 | 76.72505549 | 73.63052433 |
| 200421A00032 | 4/21/2020                           | 1.31 | 4/21/2027  | 4/21/2020  | 103.65637 | 99.20916166 | 94.97691395 | 90.94813298 | 87.11199878 | 83.45832358 | 79.97751132 | 76.66052018 | 73.49882755 |
| 200629A00023 | 6/29/2020                           | 0.95 | 6/29/2026  | 6/29/2020  | 101.31337 | 97.68136105 | 94.19752508 | 90.85498216 | 87.64721414 | 84.5680445  | 81.61161804 | 78.77238195 | 76.04506818 |
| 210928A00009 | 9/28/2021                           | 2.18 | 9/28/2033  | 9/28/2021  | 115.21973 | 104.4220565 | 94.74807422 | 86.07429743 | 78.29141466 | 71.30259611 | 65.02201171 | 59.37353158 | 54.2895857  |
| 220629A00002 | 6/29/2022                           | 3.48 | 6/28/2024  | 6/29/2022  | 104.83824 | 103.0871033 | 101.3736819 | 99.69681947 | 98.05540996 | 96.44839258 | 94.87474917 | 93.33350208 | 91.82371213 |
| 220727A00004 | 7/27/2022                           | 3.23 | 7/27/2027  | 7/27/2022  | 113.14495 | 108.2230363 | 103.5475302 | 99.10480571 | 94.8820602  | 90.86725972 | 87.04908895 | 83.41690468 | 79.96069252 |
| 201204A00015 | 12/8/2020                           | 1.07 | 12/8/2025  | 12/8/2020  | 101.25412 | 98.15231409 | 95.16068354 | 92.27466657 | 89.4899249  | 86.80232693 | 84.20793637 | 81.70300165 | 79.28394589 |
| 200327A00088 | 3/27/2020                           | 1.22 | 3/27/2025  | 3/27/2020  | 101.25519 | 98.81960549 | 96.45479596 | 94.15830108 | 91.92776271 | 89.7609187  | 87.65559836 | 85.60971816 | 83.62127763 |
| 210525A00004 | 5/25/2021                           | 1.02 | 12/19/2025 | 5/25/2021  | 101.11469 | 97.98706326 | 94.97140238 | 92.06303346 | 89.25751317 | 86.55061191 | 83.93830197 | 81.41674637 | 78.98228844 |
| 210907A00011 | 9/7/2021                            | 2.65 | 9/6/2041   | 9/7/2021   | 122.80905 | 105.1708108 | 90.44027668 | 78.11333595 | 67.77612634 | 59.08845932 | 51.77035714 | 45.59110711 | 40.36035228 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 211019A00009 | 10/19/2021                          | 1.48 | 10/9/2026  | 10/19/2021 | 103.68243 | 99.74212516 | 95.97278677 | 92.36611161 | 88.91424004 | 85.60973421 | 82.44555306 | 79.415029   | 76.51184603 |
| 220729A00043 | 7/29/2022                           | 3.04 | 7/29/2027  | 7/29/2022  | 112.24461 | 107.338889  | 102.6793102 | 98.25224874 | 94.04490275 | 90.04523881 | 86.24194213 | 82.62437005 | 79.18250884 |
| 220915A00040 | 9/15/2022                           | 4.16 | 9/15/2025  | 9/15/2022  | 110.27074 | 107.2528224 | 104.3347617 | 101.5127058 | 98.78296989 | 96.14203197 | 93.58652439 | 91.11322624 | 88.71905609 |
| 200331A00015 | 3/31/2020                           | 0.64 | 3/31/2023  | 3/31/2020  | 100.19821 | 99.69590201 | 99.19860571 | 98.70624612 | 98.21875013 | 97.73604606 | 97.25806363 | 96.78473394 | 96.31598941 |
| 210119A00005 | 1/20/2021                           | 0.52 | 9/25/2023  | 1/20/2021  | 99.880169 | 98.89988246 | 97.9386879  | 96.9960325  | 96.07138458 | 95.16423258 | 94.27408418 | 93.40046532 | 92.54291945 |
| 200304A00030 | 3/4/2020                            | 1.6  | 12/22/2028 | 3/4/2020   | 106.82859 | 100.7273648 | 95.01250855 | 89.65754667 | 84.63795643 | 79.93101248 | 75.5156455  | 71.37231287 | 67.48288005 |
| 200629A00021 | 6/29/2020                           | 1.21 | 6/29/2028  | 6/29/2020  | 104.12785 | 98.55317553 | 93.30850372 | 88.37260164 | 83.72571234 | 79.34944707 | 75.22668293 | 71.34146885 | 67.67893907 |
| 200324A00051 | 3/24/2020                           | 1.73 | 11/1/2024  | 3/24/2020  | 102.11489 | 100.057145  | 98.05092518 | 96.09459456 | 94.18658276 | 92.3253808  | 90.50953816 | 88.73766003 | 87.00840472 |
| 210914A00014 | 9/14/2021                           | 0.97 | 9/14/2026  | 9/14/2021  | 102.07832 | 98.22053584 | 94.52832774 | 90.99375312 | 87.60928997 | 84.36781422 | 81.26257659 | 78.28718089 | 75.43556362 |
| 220331A00011 | 3/31/2022                           | 2.73 | 10/15/2024 | 3/31/2022  | 104.12271 | 102.0883332 | 100.1040802 | 98.16839347 | 96.2797729  | 94.43677556 | 92.63801321 | 90.8821497  | 89.16789865 |
| 220712A00016 | 7/15/2022                           | 3.35 | 1/15/2026  | 7/15/2022  | 108.86051 | 105.5359748 | 102.3315512 | 99.2422242  | 96.26321567 | 93.3899748  | 90.61816572 | 87.94365601 | 85.36250583 |
| 200225A00028 | 2/25/2020                           | 1.89 | 12/21/2029 | 2/25/2020  | 109.73529 | 102.6057831 | 95.98974758 | 89.84749528 | 84.14260373 | 78.84163383 | 73.91387039 | 69.33108652 | 65.06732967 |
| 200310A00034 | 3/10/2020                           | 1.41 | 3/11/2030  | 3/10/2020  | 106.41344 | 99.19664571 | 92.51689753 | 86.33153526 | 80.60149168 | 75.29097078 | 70.36715866 | 65.79996143 | 61.56176723 |
| 201214A00002 | 12/14/2020                          | 0.45 | 12/14/2022 | 12/14/2020 | 100.17337 | 99.96542731 | 99.75835614 | 99.552155   | 99.34681835 | 99.1423407  | 98.93871662 | 98.7359407  | 98.5340076  |
| 211019A00011 | 10/19/2021                          | 1.48 | 10/16/2026 | 10/19/2021 | 103.70914 | 99.7503059  | 95.96386427 | 92.34140607 | 88.87497918 | 85.55706004 | 82.38052805 | 79.33864183 | 76.42501685 |
| 200316A00046 | 3/16/2020                           | 1.18 | 3/18/2024  | 3/16/2020  | 100.62352 | 99.1814472  | 97.76706745 | 96.37965566 | 95.01850921 | 93.68294937 | 92.37232033 | 91.08598819 | 89.82334008 |
| 200611A00019 | 6/11/2020                           | 0.88 | 12/11/2025 | 6/11/2020  | 100.65073 | 97.5509739  | 94.56163259 | 91.67813045 | 88.89610857 | 86.2114163  | 83.62009982 | 81.11839128 | 78.70269883 |
| 210310A00003 | 3/15/2021                           | 0.79 | 8/26/2024  | 3/15/2021  | 100.12862 | 98.267157   | 96.44911055 | 94.67321516 | 92.93824778 | 91.24302879 | 89.58642015 | 87.96732366 | 86.38467926 |
| 220225A00014 | 2/25/2022                           | 2.42 | 2/23/2029  | 2/25/2022  | 112.22264 | 105.7878582 | 99.7678852  | 94.13381084 | 88.85888477 | 83.9183409  | 79.28924072 | 74.95032984 | 70.88190639 |
| 220901A00035 | 9/1/2022                            | 3.82 | 9/1/2028   | 9/1/2022   | 119.63511 | 113.4493229 | 107.6318087 | 102.1586242 | 97.00750237 | 92.15772824 | 87.59002286 | 83.28643691 | 79.23025253 |
| 200324A00013 | 3/25/2020                           | 1.78 | 3/25/2025  | 3/25/2020  | 102.65136 | 100.2032592 | 97.82602806 | 95.51721152 | 93.27445446 | 91.09549745 | 88.97817215 | 86.92039709 | 84.92017358 |
| 201014A00002 | 10/14/2020                          | 0.61 | 10/15/2024 | 10/14/2020 | 99.761289 | 97.7727023  | 95.83333772 | 93.94166062 | 92.09619573 | 90.29552413 | 88.53828061 | 86.82315127 | 85.14887115 |
| 220314A00004 | 3/14/2022                           | 2.44 | 3/12/2027  | 3/14/2022  | 108.55153 | 104.0998375 | 99.85739789 | 95.81328945 | 91.95721955 | 88.27948232 | 84.77092216 | 81.42289975 | 78.22726025 |
| 200415A00033 | 4/15/2020                           | 0.82 | 10/13/2023 | 4/15/2020  | 100.15653 | 99.12702619 | 98.11854214 | 97.13043778 | 96.16210063 | 95.2129425  | 94.28239838 | 93.36992521 | 92.4750009  |
| 220912A00033 | 9/12/2022                           | 3.9  | 10/7/2024  | 9/12/2022  | 106.45905 | 104.4215055 | 102.4337183 | 100.4941575 | 98.60134753 | 96.75386851 | 94.95035376 | 93.18948736 | 91.47000182 |
| 200422A00015 | 4/27/2020                           | 0.73 | 12/22/2022 | 4/27/2020  | 100.23966 | 100.0094886 | 99.78038615 | 99.55234169 | 99.3253479  | 99.09939751 | 98.87448331 | 98.65059814 | 98.42773493 |
| 201105A00003 | 11/6/2020                           | 2.24 | 11/4/2030  | 11/6/2020  | 113.36147 | 105.2833213 | 97.84633086 | 90.99612369 | 84.68320892 | 78.86251369 | 73.49296761 | 68.53712824 | 63.96084343 |
| 210907A00013 | 9/9/2021                            | 2.14 | 9/9/2025   | 9/9/2021   | 104.24206 | 101.3301637 | 98.51482925 | 95.79233975 | 93.15913938 | 90.61182851 | 88.14715598 | 85.76201168 | 83.45341968 |
| 210920A00014 | 9/9/2022                            | 1.28 | 9/9/2026   | 9/9/2022   | 102.77725 | 98.93311203 | 95.25290441 | 91.72880294 | 88.35340091 | 85.11968126 | 82.02099401 | 79.05103514 | 76.20382674 |
| 200317A00023 | 3/17/2020                           | 1.1  | 3/17/2025  | 3/17/2020  | 101.26501 | 98.84815669 | 96.50094069 | 94.22096302 | 92.00592301 | 89.85361279 | 87.76191293 | 85.72878831 | 83.75228424 |
| 201015A00002 | 10/15/2020                          | 0.61 | 10/15/2024 | 10/15/2020 | 99.761289 | 97.7727023  | 95.83333772 | 93.94166062 | 92.09619573 | 90.29552413 | 88.53828061 | 86.82315127 | 85.14887115 |
| 220114A00007 | 1/14/2022                           | 1.7  | 1/27/2026  | 1/14/2022  | 103.45685 | 100.1907546 | 97.04455076 | 94.01321566 | 91.0919681  | 88.27625142 | 85.5617217  | 82.94423665 | 80.41984516 |
| 220119A00009 | 1/19/2022                           | 1.35 | 1/19/2024  | 1/19/2022  | 100.74159 | 99.4550953  | 98.19456469 | 96.95922486 | 95.74833167 | 94.56117049 | 93.39705474 | 92.25532447 | 91.13534511 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 220804A00023 | 8/4/2022                            | 3.19 | 8/4/2027   | 8/4/2022   | 113.01395 | 108.073892  | 103.3822035 | 98.92510765 | 94.68966279 | 90.66370539 | 86.83579926 | 83.19518855 | 79.73175396 |
| 200730A00011 | 7/30/2020                           | 1.15 | 7/28/2028  | 7/30/2020  | 103.82508 | 98.18650255 | 92.88600661 | 87.90167724 | 83.21312391 | 78.8013678  | 74.64873743 | 70.73877237 | 67.05613462 |
| 210928A00010 | 9/28/2021                           | 1.12 | 9/26/2025  | 9/28/2021  | 101.25953 | 98.34727921 | 95.53346252 | 92.81422369 | 90.18587785 | 87.64490482 | 85.18794082 | 82.81177051 | 80.5133196  |
| 200228A00071 | 2/28/2020                           | 1.74 | 12/14/2029 | 2/28/2020  | 108.64248 | 101.5689266 | 95.00443882 | 88.90972769 | 83.24873011 | 77.98833155 | 73.09811014 | 68.55010429 | 64.31860157 |
| 200304A00020 | 3/4/2020                            | 0.98 | 3/4/2025   | 3/4/2020   | 100.95748 | 98.57786221 | 96.26590691 | 94.01931254 | 91.8358734  | 89.71347142 | 87.65007211 | 85.64372073 | 83.69253871 |
| 200325A00043 | 3/25/2020                           | 1.62 | 6/25/2024  | 3/25/2020  | 101.55749 | 99.84414823 | 98.16767071 | 96.52692945 | 94.92084639 | 93.3483872  | 91.80855904 | 90.30040843 | 88.82301926 |
| 200409A00011 | 4/9/2020                            | 0.7  | 4/7/2023   | 4/9/2020   | 100.22772 | 99.7062058  | 99.19010625 | 98.67933468 | 98.17380886 | 97.67344823 | 97.17817389 | 96.68790853 | 96.20257641 |
| 210108A00008 | 1/11/2021                           | 0.51 | 8/15/2023  | 1/11/2021  | 99.943355 | 99.07201867 | 98.21577779 | 97.37424266 | 96.54703714 | 95.73379784 | 94.93417355 | 94.14782476 | 93.37442316 |
| 210917A00004 | 9/17/2021                           | 1.03 | 9/17/2025  | 9/17/2021  | 100.97522 | 98.09084968 | 95.30323441 | 92.60861054 | 90.00338375 | 87.48411901 | 85.04753257 | 82.69048444 | 80.40997116 |
| 220921A00050 | 9/21/2022                           | 4.51 | 4/29/2024  | 9/21/2022  | 106.00292 | 104.4043758 | 102.8379999 | 101.3028889 | 99.79817208 | 98.32301058 | 96.87659626 | 95.4581501  | 94.06692095 |
| 200323A00018 | 3/23/2020                           | 1.37 | 3/23/2023  | 3/23/2020  | 100.51423 | 100.0333983 | 99.5571622  | 99.08545376 | 98.61820856 | 98.15536341 | 97.69685634 | 97.24262653 | 96.79261428 |
| 200401A00012 | 4/2/2020                            | 1    | 4/2/2025   | 4/2/2020   | 100.70869 | 98.26450005 | 95.89178388 | 93.58803885 | 91.35086933 | 89.17797787 | 87.06716052 | 85.01630243 | 83.02337362 |
| 200423A00026 | 4/28/2020                           | 0.85 | 12/15/2023 | 4/28/2020  | 100.09562 | 98.90068551 | 97.73405287 | 96.59472649 | 95.48175729 | 94.39423971 | 93.33130926 | 92.29214018 | 91.27594331 |
| 210324A00003 | 3/24/2021                           | 1.18 | 3/24/2026  | 3/24/2021  | 101.88821 | 98.49795731 | 95.23792259 | 92.10242255 | 89.08605538 | 86.18368293 | 83.39041634 | 80.70160256 | 78.1128116  |
| 210526A00018 | 5/26/2021                           | 1.11 | 5/26/2026  | 5/26/2021  | 101.81503 | 98.2627012  | 94.85214671 | 91.57692815 | 88.43093951 | 85.40838676 | 82.5037698  | 79.71186568 | 77.02771293 |
| 220824A00008 | 8/24/2022                           | 3.62 | 8/24/2023  | 8/24/2022  | 102.75978 | 101.8504669 | 100.957262  | 100.0797379 | 99.21748411 | 98.37010408 | 97.53721504 | 96.71844721 | 95.91344332 |
| 200221A00011 | 2/21/2020                           | 1.69 | 8/21/2024  | 2/21/2020  | 101.84315 | 99.97783994 | 98.15569966 | 96.37547493 | 94.63595743 | 92.93598146 | 91.27442213 | 89.6501937  | 88.0622479  |
| 200221A00024 | 2/21/2020                           | 2.05 | 12/28/2029 | 2/21/2020  | 110.90571 | 103.7173251 | 97.04698705 | 90.85459191 | 85.10334727 | 79.75947978 | 74.79197201 | 70.17232357 | 65.87433427 |
| 200306A00003 | 3/6/2020                            | 0.7  | 3/6/2023   | 3/6/2020   | 100.24373 | 99.80965808 | 99.3793375  | 98.95272132 | 98.52976181 | 98.11041205 | 97.69462592 | 97.28235809 | 96.87356399 |
| 200309A00030 | 3/9/2020                            | 1.11 | 3/9/2027   | 3/9/2020   | 102.63191 | 98.31838965 | 94.20897049 | 90.29297723 | 86.56034773 | 83.00159374 | 79.60776535 | 76.37041758 | 73.28157943 |
| 200415A00021 | 4/15/2020                           | 1.37 | 4/15/2027  | 4/15/2020  | 103.86254 | 99.42789975 | 95.20689378 | 91.18813056 | 87.36088905 | 83.71507246 | 80.24116855 | 76.93021262 | 73.77375315 |
| 200521A00017 | 5/21/2020                           | 2.22 | 5/21/2038  | 5/21/2020  | 116.45582 | 101.7475753 | 89.11963894 | 78.26352635 | 68.91807238 | 60.86195814 | 53.90745135 | 47.8951567  | 42.68960898 |
| 210218A00006 | 2/18/2021                           | 0.5  | 2/20/2024  | 2/18/2021  | 99.625366 | 98.2624776  | 96.92454786 | 95.61095116 | 94.32108262 | 93.05435691 | 91.81020749 | 90.58808586 | 89.38746085 |
| 201117A00006 | 11/17/2020                          | 0.57 | 11/17/2023 | 11/17/2020 | 99.814344 | 98.69463012 | 97.59982492 | 96.52910573 | 95.48168538 | 94.45681069 | 93.45376059 | 92.47184448 | 91.5104006  |
| 210712A00008 | 6/27/2022                           | 1.05 | 6/27/2025  | 6/27/2022  | 100.93178 | 98.25916924 | 95.67009307 | 93.16139462 | 90.73006505 | 88.37323092 | 86.08814694 | 83.87218915 | 81.7228486  |
| 211129A00012 | 11/29/2021                          | 1.53 | 11/25/2026 | 11/29/2021 | 104.07585 | 100.0047164 | 96.1146146  | 92.39652542 | 88.84192847 | 85.4427737  | 82.19145266 | 79.08077153 | 76.10392614 |
| 220106A00008 | 1/6/2022                            | 2.5  | 1/5/2035   | 1/6/2022   | 119.4747  | 107.3318777 | 96.57231635 | 87.0296984  | 78.55854861 | 71.03152429 | 64.33707069 | 58.37739011 | 53.06668132 |
| 220323A00016 | 6/2/2022                            | 2.78 | 6/2/2025   | 6/2/2022   | 105.54449 | 102.8756262 | 100.2879965 | 97.77861666 | 95.34463018 | 92.98330539 | 90.69202908 | 88.46830034 | 86.3097249  |
| 200327A00059 | 3/27/2020                           | 1.01 | 3/27/2024  | 3/27/2020  | 100.38007 | 98.91654898 | 97.48157468 | 96.07438936 | 94.69425829 | 93.34047213 | 92.01234581 | 90.70921749 | 89.43044764 |
| 201116A00025 | 11/18/2020                          | 1.96 | 11/15/2032 | 11/18/2020 | 112.5434  | 102.6491846 | 93.71522826 | 85.64300277 | 78.34456985 | 71.74139171 | 65.76328276 | 60.34748283 | 55.43783763 |
| 211221A00010 | 12/21/2021                          | 1.31 | 12/20/2024 | 12/21/2021 | 101.31739 | 99.13867664 | 97.0171176  | 94.95079698 | 92.93788045 | 90.97661035 | 89.06530174 | 87.20233869 | 85.38617083 |
| 220510A00016 | 5/13/2022                           | 3.23 | 5/5/2027   | 5/13/2022  | 112.47032 | 107.7874003 | 103.3295795 | 99.08480945 | 95.04175665 | 91.18975222 | 87.51874903 | 84.01928204 | 80.68243137 |
| 220527A00015 | 5/27/2022                           | 3.03 | 5/27/2027  | 5/27/2022  | 111.72005 | 106.9958719 | 102.5014235 | 98.22427373 | 94.15273606 | 90.27581725 | 86.58317219 | 83.06506196 | 79.71231488 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 200310A00005 | 3/10/2020                           | 1.41 | 3/8/2030   | 3/10/2020  | 106.41011 | 99.20075587 | 92.52735283 | 86.34737027 | 80.62185675 | 75.31511891 | 70.394434   | 65.8297889  | 61.5936434  |
| 200327A00037 | 3/27/2020                           | 1.18 | 3/27/2026  | 3/27/2020  | 102.34756 | 98.9299811  | 95.64414457 | 92.4842799  | 89.4449025  | 86.52079661 | 83.7070005  | 80.99879269 | 78.39167896 |
| 200406A00049 | 4/6/2020                            | 0.92 | 4/6/2023   | 4/6/2020   | 100.29629 | 99.77785986 | 99.26477641 | 98.75695346 | 98.25431039 | 97.75676825 | 97.26424968 | 96.77667887 | 96.29398154 |
| 200429A00021 | 5/4/2020                            | 0.97 | 4/29/2025  | 5/4/2020   | 100.65951 | 98.14422683 | 95.70399013 | 93.33610962 | 91.03801207 | 88.80723292 | 86.64141093 | 84.5382831  | 82.49567984 |
| 201019A00006 | 10/19/2020                          | 0.57 | 10/19/2023 | 10/19/2020 | 99.881873 | 98.8380613  | 97.81589535 | 96.81470803 | 95.83385926 | 94.87273478 | 93.93074481 | 93.0073229  | 92.10192473 |
| 210225A00012 | 3/1/2021                            | 0.91 | 8/25/2025  | 3/1/2021   | 100.59158 | 97.77277026 | 95.04665826 | 92.40971205 | 89.85855497 | 87.38995672 | 85.00082622 | 82.68820477 | 80.44925966 |
| 220204A00004 | 2/4/2022                            | 2.08 | 1/8/2027   | 2/4/2022   | 106.59704 | 102.359152  | 98.31366677 | 94.45080436 | 90.76134075 | 87.2365703  | 83.86827338 | 80.64868635 | 77.57047353 |
| 220823A00032 | 8/23/2022                           | 3.6  | 8/23/2023  | 8/23/2022  | 102.73441 | 101.8279313 | 100.9374676 | 100.0625922 | 99.20289824 | 98.35799252 | 97.52749548 | 96.71104047 | 95.90827316 |
| 220921A00074 | 9/21/2022                           | 3.98 | 9/21/2027  | 9/21/2022  | 118.05624 | 112.839718  | 107.8909442 | 103.1947202 | 98.73678573 | 94.50375987 | 90.48308206 | 86.66295768 | 83.03230735 |
| 211117A00010 | 11/17/2021                          | 1.18 | 11/18/2024 | 11/17/2021 | 100.98456 | 98.89341802 | 96.85552431 | 94.86915771 | 92.93266469 | 91.04445792 | 89.20301307 | 87.40686571 | 85.65460847 |
| 201105A00002 | 11/5/2020                           | 0.49 | 11/7/2022  | 11/5/2020  | 100.14051 | 100.035037  | 99.92979596 | 99.82478632 | 99.72000726 | 99.61545801 | 99.51113779 | 99.40704581 | 99.30318132 |
| 200605A00014 | 6/5/2020                            | 1.02 | 6/5/2025   | 6/5/2020   | 100.79169 | 98.28460052 | 95.85360637 | 93.4959043  | 91.20881831 | 88.98978956 | 86.83637035 | 84.74621839 | 82.71709141 |
| 200605A00016 | 6/5/2020                            | 1.02 | 6/5/2025   | 6/5/2020   | 100.79169 | 98.28460052 | 95.85360637 | 93.4959043  | 91.20881831 | 88.98978956 | 86.83637035 | 84.74621839 | 82.71709141 |
| 200605A00017 | 6/5/2020                            | 1.02 | 6/5/2025   | 6/5/2020   | 100.79169 | 98.28460054 | 95.8536064  | 93.49590435 | 91.20881837 | 88.98978964 | 86.83637045 | 84.7462185  | 82.71709153 |
| 200709A00021 | 7/9/2020                            | 0.83 | 7/9/2025   | 7/9/2020   | 100.32037 | 97.74073313 | 95.24163657 | 92.82006226 | 90.47312748 | 88.19807691 | 85.99227602 | 83.85320477 | 81.77845183 |
| 200709A00025 | 7/9/2020                            | 1.37 | 7/9/2030   | 7/9/2020   | 105.5325  | 98.89747299 | 92.75389797 | 87.06218946 | 81.78617004 | 76.89275689 | 72.35168106 | 68.13523371 | 64.21803639 |
| 200813A00019 | 8/13/2020                           | 1.44 | 8/13/2030  | 8/13/2020  | 106.04867 | 99.31965242 | 93.09410901 | 87.33113308 | 81.99335605 | 77.04662678 | 72.45971882 | 68.20406563 | 64.2535211  |
| 200813A00020 | 8/13/2020                           | 1.44 | 8/13/2030  | 8/13/2020  | 106.04867 | 99.31965242 | 93.09410911 | 87.33113328 | 81.99335634 | 77.04662715 | 72.45971927 | 68.20406615 | 64.25352169 |
| 200813A00023 | 8/13/2020                           | 0.86 | 10/14/2025 | 8/13/2020  | 100.47756 | 97.66834271 | 94.95403434 | 92.33088995 | 89.79533111 | 87.34394142 | 84.97345818 | 82.68076441 | 80.46288152 |
| 200911A00011 | 9/11/2020                           | 1.18 | 9/11/2030  | 9/11/2020  | 104.25145 | 97.55793944 | 91.37035696 | 85.64719167 | 80.3505648  | 75.44588979 | 70.90156983 | 66.68872472 | 62.78094386 |
| 200911A00012 | 9/11/2020                           | 1.18 | 9/11/2030  | 9/11/2020  | 104.25074 | 97.55834182 | 91.37175681 | 85.64948647 | 80.35366157 | 75.44970417 | 70.90602528 | 66.6937518  | 62.7864796  |
| 200911A00013 | 9/11/2020                           | 0.69 | 9/11/2025  | 9/11/2020  | 99.962648 | 97.24089404 | 94.60884103 | 92.06303855 | 89.60018896 | 87.21713954 | 84.91087529 | 82.67851205 | 80.51729011 |
| 201007A00008 | 10/7/2020                           | 1.22 | 10/7/2030  | 10/7/2020  | 104.38766 | 97.8670544  | 91.83609942 | 86.25462236 | 81.08597456 | 76.29670168 | 71.85624887 | 67.73669462 | 63.91251035 |
| 201007A00010 | 10/7/2020                           | 1.22 | 10/7/2030  | 10/7/2020  | 104.38766 | 97.8670544  | 91.83609942 | 86.25462236 | 81.08597456 | 76.29670168 | 71.85624887 | 67.73669462 | 63.91251035 |
| 201007A00014 | 10/7/2020                           | 0.8  | 10/7/2025  | 10/7/2020  | 100.29308 | 97.53585408 | 94.871063   | 92.29508209 | 89.80444737 | 87.39585068 | 85.06613167 | 82.81227028 | 80.63137964 |
| 201015A00020 | 10/15/2020                          | 0.94 | 10/15/2027 | 10/15/2020 | 102.01557 | 97.52877554 | 93.2732605  | 89.23580557 | 85.40401647 | 81.76626946 | 78.31165926 | 75.02995088 | 71.91153485 |
| 201109A00012 | 11/9/2020                           | 1.39 | 11/8/2030  | 11/9/2020  | 105.77667 | 98.89109609 | 92.53406653 | 86.66153178 | 81.2333514  | 76.21293042 | 71.56688809 | 67.26475927 | 63.27872496 |
| 201211A00001 | 12/11/2020                          | 0.95 | 12/11/2030 | 12/11/2020 | 103.32127 | 97.08165475 | 91.30862181 | 85.96368142 | 81.01175038 | 76.42083489 | 72.16174143 | 68.20781624 | 64.53471042 |
| 210107A00007 | 1/7/2021                            | 0.84 | 1/7/2026   | 1/7/2021   | 100.528   | 97.51865256 | 94.61695338 | 91.81840462 | 89.11873022 | 86.51385924 | 83.99991463 | 81.57320252 | 79.23020234 |
| 210201A00002 | 2/1/2021                            | 1.19 | 2/1/2036   | 2/1/2021   | 103.35586 | 96.82235238 | 90.8639044  | 85.42188233 | 80.44421481 | 75.88460605 | 71.70184868 | 67.85922304 | 64.32397159 |
| 210809A00010 | 8/9/2021                            | 1.06 | 8/7/2026   | 8/9/2021   | 101.67164 | 98.19140393 | 94.8534361  | 91.6511574  | 88.57832796 | 85.6290273  | 82.79763629 | 80.07882028 | 77.46751319 |
| 210915A00027 | 9/15/2021                           | 1.1  | 9/15/2026  | 9/15/2021  | 101.90759 | 98.33483185 | 94.91170634 | 91.63112099 | 88.48635841 | 85.47105402 | 82.57917555 | 79.80500388 | 77.14311512 |
| 210921A00006 | 9/21/2021                           | 1.43 | 9/21/2028  | 9/21/2021  | 105.05875 | 99.71979097 | 94.69847497 | 89.9740661  | 85.52729208 | 81.34023192 | 77.39621434 | 73.67972432 | 70.17631716 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 210921A00009 | 9/21/2021                           | 1.28 | 9/21/2028  | 9/21/2021  | 105.00294 | 99.64748785 | 94.61136615 | 89.87369072 | 85.41505238 | 81.21740529 | 77.26396435 | 73.53911075 | 70.02830506 |
| 211007A00006 | 10/7/2021                           | 1.28 | 10/7/2026  | 10/7/2021  | 102.63798 | 98.99564503 | 95.5078016  | 92.16702579 | 88.96629529 | 85.89896186 | 82.95872933 | 80.13963296 | 77.43602014 |
| 211014A00012 | 10/14/2021                          | 1.46 | 10/14/2031 | 10/14/2021 | 104.82459 | 100.2196296 | 95.90279564 | 91.85285512 | 88.05031941 | 84.47728854 | 81.11731025 | 77.95525246 | 74.97718785 |
| 211110A00012 | 11/10/2021                          | 1.44 | 11/10/2026 | 11/10/2021 | 103.3522  | 99.61441818 | 96.03785791 | 92.61464361 | 89.33732587 | 86.19886005 | 83.19258183 | 80.31218444 | 77.55169735 |
| 211110A00013 | 11/10/2021                          | 1.44 | 11/10/2026 | 11/10/2021 | 103.35221 | 99.61441819 | 96.0378577  | 92.6146432  | 89.33732527 | 86.19885927 | 83.19258088 | 80.31218333 | 77.55169609 |
| 211110A00014 | 11/10/2021                          | 1.44 | 11/10/2026 | 11/10/2021 | 103.3522  | 99.61441818 | 96.03785841 | 92.61464457 | 89.33732728 | 86.19886187 | 83.19258405 | 80.31218703 | 77.55170028 |
| 211208A00012 | 12/8/2021                           | 1.62 | 12/8/2026  | 12/8/2021  | 104.15302 | 100.3292008 | 96.67269263 | 93.17519422 | 89.82886621 | 86.62630242 | 83.56050319 | 80.62485049 | 77.81308479 |
| 220111A00005 | 1/11/2022                           | 1.54 | 1/10/2025  | 1/11/2022  | 101.80938 | 99.65345098 | 97.55470442 | 95.51123096 | 93.52120291 | 91.58286734 | 89.69454237 | 87.85461366 | 86.06153113 |
| 220411A00008 | 4/11/2022                           | 3.02 | 4/12/2027  | 4/11/2022  | 111.18453 | 106.8544311 | 102.726624  | 98.79049015 | 95.0360258  | 91.45380454 | 88.03494058 | 84.77105482 | 81.6542432  |
| 220520A00006 | 5/20/2022                           | 3.02 | 5/20/2027  | 5/20/2022  | 111.15369 | 106.8399634 | 102.729615  | 98.81182828 | 95.0764215  | 91.51381003 | 88.11496804 | 84.87139256 | 81.77507019 |
| 220617A00030 | 6/17/2022                           | 3.43 | 6/17/2025  | 6/17/2022  | 103.96527 | 102.5194621 | 101.1078317 | 99.7292828  | 98.38276852 | 97.06728359 | 95.78186249 | 94.52557752 | 93.29753703 |
| 220617A00061 | 6/17/2022                           | 3.26 | 6/17/2024  | 6/17/2022  | 102.44233 | 101.5141658 | 100.6030181 | 99.70840813 | 98.82987831 | 97.96698831 | 97.11931429 | 96.28644807 | 95.46799643 |
| 220916A00018 | 9/16/2022                           | 4.07 | 9/16/2027  | 9/16/2022  | 115.3923  | 110.8868699 | 106.6017122 | 102.5246554 | 98.64427337 | 94.94983133 | 91.43124037 | 88.07901512 | 84.88423442 |
| 220919A00036 | 9/19/2022                           | 4.11 | 9/19/2029  | 9/19/2022  | 123.25605 | 116.336589  | 109.880589  | 103.8540425 | 98.22562306 | 92.96645868 | 88.0499271  | 83.45146909 | 79.14841827 |
| 210603A00008 | 6/3/2021                            | 1.74 | 6/3/2036   | 6/3/2021   | 108.01589 | 101.2460277 | 95.07608206 | 89.44412648 | 84.29527179 | 79.58080542 | 75.25744485 | 71.28668654 | 67.63423773 |
| 220722A00036 | 7/22/2022                           | 3.34 | 7/22/2025  | 7/22/2022  | 103.88997 | 102.4245216 | 100.9942574 | 99.5980364  | 98.23476837 | 96.90340682 | 95.60294698 | 94.33242375 | 93.09090979 |
| 220916A00021 | 9/16/2022                           | 4.17 | 9/16/2027  | 9/16/2022  | 109.04645 | 106.4374342 | 103.9246371 | 101.5036633 | 99.17035131 | 96.92075922 | 94.75115174 | 92.65798785 | 90.63790936 |
| 180404A00037 | 4/6/2018                            | 2.51 | 4/6/2028   | 10/6/2022  | 114.01344 | 108.593484  | 104.1915253 | 101.150474  | 100.0220755 | 99.96581265 | 99.9493178  | 99.93283831 | 99.91637435 |
| 190104A00032 | 1/4/2019                            | 2.33 | 1/4/2024   | 10/4/2022  | 102.37281 | 101.2071854 | 100.3717462 | 100.0072545 | 99.97300635 | 99.96213519 | 99.9512723  | 99.94041752 | 99.92957101 |
| 191008A00020 | 10/8/2019                           | 1.58 | 10/8/2024  | 10/11/2022 | 102.63295 | 100.9932657 | 100.0922259 | 99.96982066 | 99.93956334 | 99.9093387  | 99.87914676 | 99.84898716 | 99.81886013 |
| 170130A00010 | 1/30/2017                           | 2.92 | 1/30/2025  | 1/30/2017  | 105.15922 | 102.8287463 | 100.561726  | 98.35608698 | 96.20983565 | 94.12105455 | 92.08789913 | 90.10859454 | 88.18143255 |
| 170203A00013 | 2/3/2017                            | 3.67 | 2/1/2036   | 2/3/2017   | 135.07244 | 121.0327692 | 108.6804939 | 97.80008064 | 88.20471488 | 79.73233794 | 72.24224774 | 65.61218137 | 59.73580902 |
| 190328A00033 | 4/25/2019                           | 2.56 | 4/25/2024  | 4/25/2019  | 102.87144 | 101.309652  | 99.77923351 | 98.27930797 | 96.80903073 | 95.36758807 | 93.95419574 | 92.56809755 | 91.20856422 |
| 190828A00009 | 8/28/2019                           | 1.71 | 8/28/2024  | 8/28/2019  | 101.90133 | 100.0172174 | 98.17708883 | 96.37965464 | 94.62367331 | 92.90794755 | 91.2313224  | 89.59268345 | 87.99095511 |
| 200429A00047 | 5/1/2020                            | 2.7  | 4/30/2025  | 5/1/2020   | 105.15014 | 102.5733632 | 100.0730974 | 97.64660949 | 95.29127976 | 93.00459913 | 90.78416367 | 88.62766943 | 86.53290755 |
| 201028A00006 | 10/30/2020                          | 1.56 | 2/15/2024  | 10/30/2020 | 101.09919 | 99.73946961 | 98.40441423 | 97.09341288 | 95.80587237 | 94.54121858 | 93.29889562 | 92.0783652  | 90.87910586 |
| 180810A00028 | 8/10/2018                           | 2.91 | 8/10/2023  | 8/10/2018  | 102.12663 | 101.2571436 | 100.4024571 | 99.56219076 | 98.73598171 | 97.92347907 | 97.12434355 | 96.33824702 | 95.56487201 |
| 190712A00009 | 7/12/2019                           | 2.19 | 7/12/2023  | 7/12/2019  | 101.31445 | 100.5284439 | 99.754606   | 98.99265814 | 98.24232771 | 97.50335035 | 96.77546971 | 96.05843708 | 95.35201115 |
| 200130A00028 | 1/30/2020                           | 1.54 | 2/7/2023   | 1/30/2020  | 100.56654 | 100.2057939 | 99.84763542 | 99.49203832 | 99.13897516 | 98.78841885 | 98.44034271 | 98.09472044 | 97.75152609 |
| 200925A00002 | 9/25/2020                           | 0.74 | 9/25/2025  | 9/25/2020  | 100.11846 | 97.22601558 | 94.43140477 | 91.73079001 | 89.12050985 | 86.59706647 | 84.15711729 | 81.79746717 | 79.51506106 |
| 171005A00006 | 10/5/2017                           | 2.32 | 10/7/2024  | 10/5/2017  | 103.50701 | 101.4951225 | 99.53260853 | 97.61793749 | 95.74964179 | 93.92630937 | 92.14658116 | 90.40914865 | 88.71275163 |
| 190108A00039 | 1/8/2019                            | 3.04 | 4/30/2024  | 1/8/2019   | 103.66605 | 102.0840576 | 100.5339779 | 99.01491248 | 97.52599604 | 96.06639516 | 94.63530688 | 93.23195725 | 91.85560006 |
| 191001A00023 | 10/1/2019                           | 1.85 | 9/27/2024  | 10/1/2019  | 102.25368 | 100.2861865 | 98.3664823  | 96.49311149 | 94.66467122 | 92.87981082 | 91.13722951 | 89.43567414 | 87.77393711 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 200207A00018 | 2/7/2020                            | 2.14 | 2/7/2030   | 2/7/2020   | 111.69109 | 104.3695119 | 97.58244514 | 91.28807906 | 85.44807319 | 80.02725332 | 74.99333536 | 70.3166746  | 65.97003789 |
| 200601A00006 | 6/1/2020                            | 0.6  | 6/1/2023   | 6/1/2020   | 100.09666 | 99.42660163 | 98.76546466 | 98.11306845 | 97.46924077 | 96.83381392 | 96.2066245  | 95.58751336 | 94.97632539 |
| 210312A00010 | 3/12/2021                           | 0.63 | 3/12/2024  | 3/12/2021  | 99.810936 | 98.3906301  | 96.99732669 | 95.63032348 | 94.2889423  | 92.97252777 | 91.68044641 | 90.41208568 | 89.16685314 |
| 060308A00014 | 3/8/2006                            | 5.44 | 3/16/2026  | 3/8/2006   | 116.63081 | 113.0053944 | 109.5157758 | 106.1561216 | 102.9208788 | 99.80476247 | 96.80274104 | 93.91002308 | 91.1220443  |
| 090226A00006 | 2/26/2009                           | 4.55 | 3/1/2024   | 2/26/2009  | 105.60123 | 104.1633304 | 102.7522078 | 101.3671812 | 100.0075884 | 98.67278891 | 97.3621636  | 96.07511336 | 94.81105851 |
| 150601A00930 | 6/1/2015                            | 7.1  | 8/30/2030  | 6/1/2015   | 150.49917 | 141.1634999 | 132.5220538 | 124.5184848 | 117.1013287 | 110.2235569 | 103.8421724 | 97.91784382 | 92.41457435 |
| 200302A00051 | 3/2/2020                            | 1.22 | 8/8/2023   | 3/2/2020   | 100.56721 | 99.71168722 | 98.87064797 | 98.04372889 | 97.23057677 | 96.43085011 | 95.6442186  | 94.87036271 | 94.10897321 |
| 210323A00007 | 3/23/2021                           | 0.51 | 3/25/2024  | 3/23/2021  | 99.804989 | 98.34821085 | 96.91980814 | 95.51902536 | 94.14513369 | 92.79742945 | 91.47523301 | 90.17788778 | 88.90475922 |
| 111024A00027 | 10/24/2011                          | 3.11 | 10/30/2023 | 10/24/2011 | 102.75749 | 101.6661146 | 100.5979065 | 99.55213051 | 98.52808524 | 97.52509844 | 96.5425253  | 95.5797471  | 94.63616991 |
| 121116A00021 | 11/16/2012                          | 2.35 | 11/17/2025 | 11/16/2012 | 105.64351 | 102.5173664 | 99.50024171 | 96.5877037  | 93.77552565 | 91.05967864 | 88.43632087 | 85.90178767 | 83.45258214 |
| 170530A00064 | 5/30/2017                           | 2.32 | 3/27/2023  | 5/30/2017  | 100.988   | 100.4948784 | 100.0065599 | 99.52297922 | 99.04406766 | 98.56975783 | 98.09998365 | 97.63468029 | 97.17378415 |
| 180622A00006 | 6/22/2018                           | 3.53 | 12/21/2029 | 6/22/2018  | 121.51134 | 113.9674416 | 106.9582105 | 100.4426566 | 94.3831526  | 88.74513704 | 83.49684862 | 78.60908487 | 74.05498301 |
| 180808A00009 | 8/8/2018                            | 3.12 | 8/7/2023   | 8/8/2018   | 102.20547 | 101.3449326 | 100.4988833 | 99.66695537 | 98.84879712 | 98.04406856 | 97.25244076 | 96.47359549 | 95.70722474 |
| 191121A00009 | 11/21/2019                          | 2.55 | 11/21/2036 | 11/21/2019 | 122.99553 | 108.8930634 | 96.61063786 | 85.90096515 | 76.55163761 | 68.38004659 | 61.22906395 | 54.96336823 | 49.46631665 |
| 120312A00009 | 3/12/2012                           | 2.72 | 3/15/2024  | 3/12/2012  | 103.06029 | 101.6044616 | 100.1764537 | 98.77554087 | 97.40101927 | 96.05220913 | 94.7284535  | 93.4291174  | 92.15358684 |
| 160329A00045 | 3/29/2016                           | 2.12 | 3/29/2024  | 3/29/2016  | 102.23662 | 100.7503839 | 99.29325404 | 97.86445094 | 96.46322202 | 95.08884092 | 93.74060631 | 92.41784077 | 91.11988982 |
| 160802A00003 | 8/2/2016                            | 2.53 | 8/1/2031   | 8/2/2016   | 118.04144 | 109.0137835 | 100.7585863 | 93.20543609 | 86.29067988 | 79.95674495 | 74.1515303  | 68.82786151 | 63.94300249 |
| 171011A00013 | 10/11/2017                          | 2.77 | 10/13/2026 | 10/11/2017 | 108.90703 | 104.8514211 | 100.9708915 | 97.25694105 | 93.70153261 | 90.29706069 | 87.03632559 | 83.91250957 | 80.91915443 |
| 190703A00017 | 7/3/2019                            | 2.33 | 5/4/2026   | 7/3/2019   | 106.14744 | 102.5733956 | 99.13931256 | 95.83894174 | 92.66634746 | 89.61589207 | 86.68221915 | 83.86023777 | 81.14510771 |
| 190923A00078 | 9/23/2019                           | 1.96 | 6/28/2024  | 9/23/2019  | 102.16459 | 100.4376638 | 98.74800087 | 97.09446511 | 95.47596258 | 93.89144393 | 92.3399021  | 90.82037012 | 89.3319191  |
| 191031A00041 | 10/31/2019                          | 1.72 | 10/31/2023 | 10/31/2019 | 101.23678 | 100.1516169 | 99.0895955  | 98.04998364 | 97.03207832 | 96.03520568 | 95.05871946 | 94.10199965 | 93.16445112 |
| 200210A00005 | 2/10/2020                           | 1.77 | 2/10/2027  | 2/10/2020  | 106.00238 | 101.6720933 | 97.54285258 | 93.60431866 | 89.84673552 | 86.26089467 | 82.83810161 | 79.57014457 | 76.44926534 |
| 200309A00021 | 3/9/2020                            | 1.05 | 3/9/2026   | 3/9/2020   | 101.40302 | 98.05918382 | 94.842452   | 91.74733587 | 88.7686178  | 85.90133182 | 83.1407501  | 80.48237022 | 77.92190318 |
| 200424A00006 | 4/24/2020                           | 0.6  | 4/24/2023  | 4/24/2020  | 100.16848 | 99.60077352 | 99.0394769  | 98.4844833  | 97.935687   | 97.39298464 | 96.85627516 | 96.32545971 | 95.80044162 |
| 141015A00025 | 10/15/2014                          | 2.48 | 10/17/2022 | 10/15/2014 | 100.16412 | 100.1168695 | 100.0696764 | 100.0225451 | 99.9754753  | 99.92846702 | 99.8815201  | 99.83463443 | 99.78780988 |
| 161109A00018 | 11/9/2016                           | 2.63 | 11/9/2026  | 11/9/2016  | 108.53124 | 104.4114134 | 100.4720759 | 96.70434004 | 93.09980568 | 89.65053116 | 86.34900539 | 83.18812206 | 80.1611554  |
| 170515A00010 | 5/15/2017                           | 2.58 | 5/15/2024  | 5/15/2017  | 103.01147 | 101.3952648 | 99.81219882 | 98.2613172  | 96.74170247 | 95.25247192 | 93.79277592 | 92.36179637 | 90.95874519 |
| 180412A00036 | 4/12/2018                           | 3.54 | 4/15/2038  | 4/12/2018  | 138.42875 | 122.0356864 | 107.8949208 | 95.67830512 | 85.10740275 | 75.94571356 | 67.99215133 | 61.07556478 | 55.05013089 |
| 180717A00076 | 7/17/2018                           | 3.03 | 7/17/2023  | 7/17/2018  | 102.00757 | 101.2049504 | 100.4149631 | 99.63730691 | 98.87169461 | 98.11784767 | 97.37549612 | 96.64437824 | 95.92424017 |
| 181016A00084 | 10/16/2018                          | 3.21 | 10/17/2022 | 10/16/2018 | 100.19863 | 100.1513416 | 100.1041199 | 100.0569599 | 100.0098615 | 99.96282472 | 99.9158493  | 99.86893517 | 99.82208219 |
| 210128A00008 | 1/28/2021                           | 0.54 | 4/9/2024   | 1/28/2021  | 99.672112 | 98.17958161 | 96.71663157 | 95.28245542 | 93.87627586 | 92.49734312 | 91.14493373 | 89.81834939 | 88.51691585 |
| 211222A00024 | 12/22/2021                          | 1.13 | 4/15/2024  | 12/22/2021 | 100.59044 | 99.07436238 | 97.58848752 | 96.1319846  | 94.70405244 | 93.30391857 | 91.93083795 | 90.58409176 | 89.26298622 |
| 150519A00013 | 5/19/2015                           | 2.98 | 5/19/2025  | 5/19/2015  | 105.99423 | 103.3562935 | 100.7977484 | 98.31571236 | 95.90742581 | 93.5702479  | 91.30165069 | 89.0992134  | 86.96061704 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 160706A00029 | 7/6/2016                            | 2.49 | 7/8/2030   | 7/6/2016   | 114.89867 | 107.0653395 | 99.83001754 | 93.14375899 | 86.96187426 | 81.24353586 | 75.95142554 | 71.0514155  | 66.51228    |
| 180925A00060 | 9/25/2018                           | 3.23 | 8/25/2023  | 9/25/2018  | 102.41123 | 101.5009248 | 100.606803  | 99.72843212 | 98.86539838 | 98.01730241 | 97.18375858 | 96.36439445 | 95.55885021 |
| 200123A00048 | 1/23/2020                           | 1.7  | 1/23/2025  | 1/23/2020  | 102.57569 | 100.2880502 | 98.062549   | 95.89713466 | 93.78983701 | 91.73876327 | 89.74209446 | 87.79808198 | 85.9050444  |
| 160119A00028 | 1/19/2016                           | 3.34 | 1/21/2031  | 1/19/2016  | 122.66485 | 114.014689  | 106.0582231 | 98.73576606 | 91.99306894 | 85.78079884 | 80.05406991 | 74.77202126 | 69.8974369  |
| 170313A00035 | 3/13/2017                           | 3.31 | 3/15/2027  | 3/13/2017  | 112.44419 | 107.898668  | 103.5660502 | 99.43523731 | 95.4957659  | 91.73776922 | 88.15194008 | 84.72949621 | 81.46214791 |
| 170322A00025 | 3/22/2017                           | 3.58 | 3/22/2033  | 3/22/2017  | 129.37048 | 118.3228383 | 108.3560056 | 99.35716358 | 91.22586033 | 83.87259692 | 77.21758089 | 71.1896273  | 65.72518918 |
| 180329A00003 | 3/29/2018                           | 3.08 | 3/29/2028  | 3/29/2018  | 115.01276 | 109.3522232 | 104.010183  | 98.96700356 | 94.20436489 | 89.7051632  | 85.45342419 | 81.43422271 | 77.63360864 |
| 181119A00018 | 11/19/2018                          | 3.28 | 11/17/2023 | 11/19/2018 | 102.91417 | 101.7756185 | 100.6622651 | 99.57328148 | 98.50787322 | 97.46528015 | 96.44477447 | 95.44565909 | 94.46726597 |
| 190215A00006 | 2/15/2019                           | 2.89 | 2/15/2024  | 2/15/2019  | 102.94952 | 101.5763339 | 100.2280454 | 98.90403528 | 97.6037042  | 96.32647212 | 95.07177749 | 93.83907653 | 92.62784255 |
| 201028A00004 | 10/30/2020                          | 1.55 | 12/29/2023 | 10/30/2020 | 100.96137 | 99.72398019 | 98.5167346  | 97.33854457 | 96.18837169 | 95.0652265  | 93.96816561 | 92.89628907 | 91.84873789 |
| 130606A00013 | 6/6/2013                            | 2.94 | 6/15/2023  | 6/6/2013   | 101.76215 | 101.0475808 | 100.3430443 | 99.64833005 | 98.9632334  | 98.28755544 | 97.6211027  | 96.96368699 | 96.31512521 |
| 150601A00531 | 6/1/2015                            | 3.28 | 7/24/2024  | 6/1/2015   | 104.5688  | 102.7512929 | 100.9742722 | 99.23657685 | 97.53708546 | 95.87471674 | 94.24842774 | 92.65721221 | 91.10009904 |
| 160129A00068 | 1/29/2016                           | 1.97 | 1/30/2023  | 1/29/2016  | 100.69878 | 100.3597783 | 100.023055  | 99.68858555 | 99.3563475  | 99.02631856 | 98.69847679 | 98.37280054 | 98.04926844 |
| 160701A00020 | 7/1/2016                            | 2.13 | 7/1/2026   | 7/1/2016   | 105.75003 | 102.0297485 | 98.46050545 | 95.03530685 | 91.74752324 | 88.59087191 | 85.5593964  | 82.64744732 | 79.8496644  |
| 160712A00023 | 7/12/2016                           | 1.79 | 7/12/2023  | 7/12/2016  | 100.99818 | 100.2135431 | 99.44106524 | 98.68046271 | 97.93146313 | 97.19380241 | 96.46722443 | 95.75148076 | 95.04633032 |
| 160830A00035 | 8/30/2016                           | 2.06 | 8/30/2024  | 8/30/2016  | 102.58311 | 100.687051  | 98.83533467 | 97.0266586  | 95.25976831 | 93.53345411 | 91.84654922 | 90.1979279  | 88.58650377 |
| 190919A00025 | 9/19/2019                           | 1.8  | 9/19/2024  | 9/19/2019  | 102.38305 | 100.4308731 | 98.52568883 | 96.66607932 | 94.85067714 | 93.07816527 | 91.34727483 | 89.65678302 | 88.00551109 |
| 200305A00035 | 3/5/2020                            | 1.25 | 3/5/2026   | 3/5/2020   | 102.08161 | 98.73625122 | 95.51754885 | 92.42006025 | 89.43860308 | 86.56824411 | 83.80428588 | 81.1422541  | 78.57788588 |
| 200709A00007 | 7/10/2020                           | 1.67 | 7/9/2027   | 7/10/2020  | 105.56687 | 100.871737  | 96.41194451 | 92.17445879 | 88.14703955 | 84.31818679 | 80.6770918  | 77.21359166 | 73.91812706 |
| 210312A00004 | 3/12/2021                           | 0.34 | 3/10/2023  | 3/12/2021  | 100.08023 | 99.63564408 | 99.1950043  | 98.75825763 | 98.32535257 | 97.89623848 | 97.47086562 | 97.04918515 | 96.63114905 |
| 130904A00036 | 9/4/2013                            | 3.57 | 9/15/2023  | 9/4/2013   | 102.96229 | 101.9909941 | 101.0380394 | 100.1029124 | 99.18511577 | 98.2841704  | 97.39961475 | 96.53100403 | 95.6779094  |
| 170111A00013 | 1/11/2017                           | 3.4  | 1/10/2031  | 1/11/2017  | 123.09262 | 114.4540501 | 106.5056117 | 99.18809677 | 92.44767912 | 86.23540203 | 80.50671383 | 75.22104982 | 70.34145602 |
| 181210A00015 | 12/10/2018                          | 3.12 | 12/11/2023 | 12/10/2018 | 102.8466  | 101.6445562 | 100.4706107 | 99.32378177 | 98.20313712 | 97.10778685 | 96.03688099 | 94.98960731 | 93.9651892  |
| 191007A00027 | 10/7/2019                           | 1.69 | 10/7/2022  | 10/7/2019  | 100.0522  | 100.0327617 | 100.0133393 | 99.99393692 | 99.97455455 | 99.95519214 | 99.93584966 | 99.91652708 | 99.89722437 |
| 191104A00022 | 11/4/2019                           | 2.17 | 8/4/2027   | 11/4/2019  | 108.07964 | 103.2577778 | 98.67997527 | 94.33265247 | 90.20305161 | 86.27918333 | 82.54977664 | 79.00423241 | 75.63258008 |
| 191126A00026 | 11/26/2019                          | 1.91 | 11/25/2026 | 11/26/2019 | 106.2034  | 102.0725916 | 98.1253252  | 94.35245317 | 90.74533393 | 87.2958034  | 83.99614572 | 80.83906593 | 77.81766447 |
| 191212A00027 | 12/13/2019                          | 1.93 | 10/17/2022 | 12/13/2019 | 100.13813 | 100.0908974 | 100.0437259 | 99.99661609 | 99.94956786 | 99.90258108 | 99.85565564 | 99.80879141 | 99.76198828 |
| 200130A00006 | 1/30/2020                           | 1.77 | 1/30/2025  | 1/30/2020  | 102.45709 | 100.1587988 | 97.92327947 | 95.74847665 | 93.6324163  | 91.57319991 | 89.56900114 | 87.61806263 | 85.71869301 |
| 200218A00004 | 2/18/2020                           | 1.73 | 2/21/2023  | 2/18/2020  | 100.62906 | 100.2300866 | 99.8342702  | 99.44157756 | 99.0519718  | 98.66541659 | 98.28187618 | 97.9013154  | 97.52369958 |
| 220902A00043 | 9/2/2022                            | 3.91 | 3/4/2024   | 9/2/2022   | 104.53759 | 103.1024734 | 101.6941986 | 100.3120771 | 98.95544253 | 97.62365111 | 96.31608011 | 95.0321272  | 93.77120959 |
| 171227A00018 | 12/27/2017                          | 2.83 | 12/27/2024 | 12/27/2017 | 104.75834 | 102.5220781 | 100.3446493 | 98.22406844 | 96.15843746 | 94.14593799 | 92.18482757 | 90.27343559 | 88.41015973 |
| 180904A00012 | 9/4/2018                            | 3.35 | 9/4/2030   | 9/4/2018   | 123.09855 | 114.7490744 | 107.0437255 | 99.92910144 | 93.35649233 | 87.28144937 | 81.66339174 | 76.46525167 | 71.65315375 |
| 190529A00089 | 5/29/2019                           | 2.38 | 5/29/2024  | 5/29/2019  | 102.7509  | 101.1000372 | 99.4835276  | 97.90036771 | 96.34958877 | 94.8302596  | 93.3414847  | 91.88240253 | 90.4521839  |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 200306A00065 | 3/6/2020                            | 1.38 | 3/6/2030   | 3/6/2020   | 106.18647 | 98.99008279 | 92.32849552 | 86.1592924  | 80.44362338 | 75.14588616 | 70.23343968 | 65.67634428 | 61.44712574 |
| 151223A00066 | 12/23/2015                          | 2.34 | 12/23/2022 | 12/23/2015 | 100.63737 | 100.4035705 | 100.1708688 | 99.93925523 | 99.70872211 | 99.47926184 | 99.25086689 | 99.02352982 | 98.79724324 |
| 171206A00040 | 12/6/2017                           | 2.23 | 12/6/2022  | 12/6/2017  | 100.51989 | 100.3334088 | 100.1476324 | 99.96255186 | 99.77816334 | 99.5944629  | 99.41144665 | 99.22911073 | 99.04745131 |
| 181114A00012 | 11/14/2018                          | 3.13 | 11/14/2022 | 11/14/2018 | 100.49094 | 100.3655593 | 100.2405689 | 100.1158713 | 99.99149883 | 99.86745015 | 99.74372399 | 99.62031903 | 99.497234   |
| 190529A00028 | 5/29/2019                           | 2.38 | 5/29/2024  | 5/29/2019  | 102.7509  | 101.1000372 | 99.4835276  | 97.90036771 | 96.34958877 | 94.8302596  | 93.3414847  | 91.88240253 | 90.4521839  |
| 200818A00006 | 8/18/2020                           | 1.18 | 8/18/2028  | 8/18/2020  | 104.03057 | 98.33348912 | 92.98094643 | 87.95042551 | 83.22098904 | 78.77316013 | 74.58881351 | 70.65107544 | 66.94423143 |
| 110824A00004 | 8/24/2011                           | 3.11 | 8/30/2023  | 8/24/2011  | 102.42287 | 101.4976858 | 100.5892034 | 99.69697052 | 98.82055392 | 97.95953577 | 97.11351281 | 96.28209577 | 95.46490873 |
| 160616A00027 | 6/16/2016                           | 2.27 | 6/16/2026  | 6/16/2016  | 106.18482 | 102.4966078 | 98.95664264 | 95.55811928 | 92.29458879 | 89.15993629 | 86.14836136 | 83.25435978 | 80.47270643 |
| 180702A00012 | 7/2/2018                            | 3.01 | 7/3/2023   | 7/2/2018   | 101.91886 | 101.1546012 | 100.4017919 | 99.66017587 | 98.92950487 | 98.20953784 | 97.50004077 | 96.80078646 | 96.1115542  |
| 190110A00004 | 1/10/2019                           | 3.09 | 1/10/2025  | 1/10/2019  | 105.43328 | 103.1522995 | 100.9321388 | 98.77076868 | 96.66624082 | 94.61668664 | 92.62031339 | 90.67540039 | 88.78029552 |
| 190514A00021 | 5/14/2019                           | 2.72 | 11/14/2025 | 5/14/2019  | 106.37373 | 103.2541249 | 100.2427716 | 97.335286   | 94.52748876 | 91.81539521 | 89.1952049  | 86.66329183 | 84.21619525 |
| 190812A00003 | 8/12/2019                           | 1.67 | 8/12/2024  | 8/12/2019  | 102.00371 | 100.1562062 | 98.35104236 | 96.58699976 | 94.86290464 | 93.17762422 | 91.53006502 | 89.91917118 | 88.34392293 |
| 200331A00060 | 3/31/2020                           | 1.09 | 3/31/2025  | 3/31/2020  | 100.93277 | 98.49106033 | 96.12061779 | 93.81895963 | 91.58370125 | 89.41255558 | 87.30332841 | 85.25391402 | 83.262291   |
| 200408A00021 | 4/8/2020                            | 0.99 | 4/4/2025   | 4/8/2020   | 101.00902 | 98.54875958 | 96.16065105 | 93.84216695 | 91.59088084 | 89.40446616 | 87.28069142 | 85.21741569 | 83.2125843  |
| 140815A00032 | 8/15/2014                           | 3.59 | 10/15/2029 | 8/15/2014  | 121.44781 | 114.0874792 | 107.2374089 | 100.8593129 | 94.91797469 | 89.38098561 | 84.21850685 | 79.40305317 | 74.9092957  |
| 171010A00038 | 10/10/2017                          | 2.23 | 10/11/2022 | 10/10/2017 | 100.09855 | 100.0679826 | 100.0374497 | 100.0069516 | 99.97648837 | 99.94605986 | 99.91566604 | 99.88530684 | 99.8549822  |
| 180817A00022 | 8/17/2018                           | 2.87 | 8/17/2023  | 8/17/2018  | 102.12982 | 101.2413343 | 100.3682943 | 99.51030284 | 98.66697301 | 97.83793102 | 97.02281575 | 96.22127812 | 95.43298067 |
| 190620A00045 | 6/20/2019                           | 2.14 | 6/20/2024  | 6/20/2019  | 102.44565 | 100.7378657 | 99.06657673 | 97.43067963 | 95.82911419 | 94.26086284 | 92.72494851 | 91.22043254 | 89.7464128  |
| 190807A00036 | 8/7/2019                            | 1.75 | 8/7/2023   | 8/7/2019   | 101.02376 | 100.1687797 | 99.32821724 | 98.50171162 | 97.68891248 | 96.88948101 | 96.10308952 | 95.32942091 | 94.56816834 |
| 200310A00065 | 3/13/2020                           | 1.1  | 3/13/2025  | 3/13/2020  | 100.94432 | 98.54843447 | 96.22119168 | 93.96024205 | 91.76333043 | 89.628292   | 87.55304813 | 85.53560236 | 83.57403663 |
| 130531A00021 | 5/31/2013                           | 3.22 | 5/30/2028  | 5/31/2013  | 116.26809 | 110.4037489 | 104.8773147 | 99.66745142 | 94.75428896 | 90.11931037 | 85.74525226 | 81.61601322 | 77.71656939 |
| 170327A00070 | 3/29/2017                           | 3.05 | 3/29/2027  | 3/29/2017  | 112.00499 | 107.4140062 | 103.040392  | 98.87269771 | 94.90013725 | 91.1125459  | 87.50034138 | 84.05448729 | 80.76645924 |
| 181004A00028 | 10/4/2018                           | 3.31 | 10/4/2023  | 10/4/2018  | 102.71587 | 101.6961613 | 100.6967009 | 99.71688722 | 98.75614473 | 97.81392029 | 96.88968195 | 95.98291798 | 95.09313589 |
| 200407A00002 | 4/8/2020                            | 1.82 | 4/8/2024   | 4/8/2020   | 101.63913 | 100.1335976 | 98.65783704 | 97.21104017 | 95.79242574 | 94.40124019 | 93.03675636 | 91.69827233 | 90.38511034 |
| 200508A00004 | 5/8/2020                            | 0.43 | 5/8/2023   | 5/8/2020   | 100.05992 | 99.45445922 | 98.85629338 | 98.26529415 | 97.68133328 | 97.10428559 | 96.53402884 | 95.97044365 | 95.41341345 |
| 201030A00001 | 11/2/2020                           | 2.54 | 10/29/2040 | 11/2/2020  | 120.72555 | 103.8746124 | 89.70375789 | 77.76527636 | 67.68870009 | 59.16712339 | 51.94600116 | 45.81396896 | 40.59531155 |
| 191115A00030 | 11/15/2019                          | 2.35 | 11/9/2029  | 11/15/2019 | 112.86827 | 105.7376241 | 99.11116096 | 92.95052654 | 87.22047438 | 81.88860114 | 76.92510317 | 72.30255518 | 67.99570888 |
| 200304A00052 | 3/6/2020                            | 2.11 | 3/8/2027   | 3/6/2020   | 107.06399 | 102.6554357 | 98.45405575 | 94.44905184 | 90.63024597 | 86.98803931 | 83.51337628 | 80.19771099 | 77.03297602 |
| 200310A00019 | 3/10/2020                           | 0.95 | 3/10/2023  | 3/10/2020  | 100.31321 | 99.86847424 | 99.42767667 | 98.99076634 | 98.55769191 | 98.12840295 | 97.70284991 | 97.28098409 | 96.86275766 |
| 220505A00026 | 5/9/2022                            | 2.69 | 8/22/2023  | 5/9/2022   | 101.90459 | 101.0048945 | 100.1210667 | 99.2526872  | 98.39935338 | 97.56067653 | 96.73628123 | 95.92580478 | 95.12889668 |
| 180820A00036 | 8/20/2018                           | 3    | 8/21/2023  | 8/20/2018  | 102.1793  | 101.2809671 | 100.398421  | 99.53124899 | 98.67905167 | 97.84144332 | 97.01805137 | 96.20851586 | 95.41248891 |
| 181227A00026 | 12/27/2018                          | 3.03 | 12/27/2023 | 12/27/2018 | 102.81554 | 101.5711561 | 100.3568746 | 99.17161098 | 98.01433372 | 96.88405984 | 95.77985185 | 94.70081528 | 93.64609615 |
| 200226A00014 | 2/26/2020                           | 1.53 | 2/27/2023  | 2/26/2020  | 100.5568  | 100.1415443 | 99.72970055 | 99.32123158 | 98.91609613 | 98.5142536  | 98.11566404 | 97.72028813 | 97.32808721 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 200720A00044 | 7/22/2020                           | 2.22 | 7/21/2026  | 7/22/2020  | 106.2007  | 102.4199332 | 98.79456387 | 95.31738482 | 91.98156548 | 88.78062723 | 85.70842324 | 82.75911961 | 79.9271777  |
| 200922A00038 | 9/24/2020                           | 2.33 | 9/25/2023  | 9/24/2020  | 101.68618 | 100.6962165 | 99.72547277 | 98.77339677 | 97.83945394 | 96.92312994 | 96.02392971 | 95.14137659 | 94.27501147 |
| 211217A00021 | 12/21/2021                          | 2.44 | 12/18/2026 | 12/21/2021 | 108.00397 | 103.7910696 | 99.76685214 | 95.92182084 | 92.24701076 | 88.73395826 | 85.37466976 | 82.16159265 | 79.08758829 |
| 180207A00003 | 2/7/2018                            | 3.28 | 2/7/2028   | 2/7/2018   | 114.90541 | 109.4143944 | 104.2241736 | 99.31668901 | 94.67505592 | 90.28348139 | 86.1271882  | 82.19234468 | 78.46599961 |
| 190528A00005 | 5/28/2019                           | 2.42 | 6/15/2023  | 5/28/2019  | 101.38981 | 100.6767263 | 99.97365795 | 99.28039723 | 98.59673985 | 97.9224871  | 97.25744576 | 96.60142786 | 95.95425051 |
| 200121A00009 | 1/24/2020                           | 1.94 | 1/24/2025  | 1/24/2020  | 102.83776 | 100.5505452 | 98.32539126 | 96.16025198 | 94.05316507 | 92.00224486 | 90.00567879 | 88.0617241  | 86.16870464 |
| 200303A00007 | 3/3/2020                            | 1.11 | 3/4/2024   | 3/3/2020   | 100.67368 | 99.26482015 | 97.88239122 | 96.52571812 | 95.19414482 | 93.88703713 | 92.60378176 | 91.3437855  | 90.10647434 |
| 200604A00004 | 6/4/2020                            | 0.76 | 6/4/2024   | 6/4/2020   | 100.03797 | 98.39464369 | 96.78582628 | 95.21049491 | 93.66766793 | 92.15640213 | 90.67579084 | 89.22496215 | 87.80307722 |
| 150601A00485 | 6/1/2015                            | 3.09 | 6/21/2024  | 6/1/2015   | 104.23443 | 102.5042446 | 100.8110853 | 99.15383189 | 97.53140663 | 95.94277523 | 94.38694466 | 92.86296106 | 91.36990775 |
| 151223A00077 | 12/23/2015                          | 3.57 | 12/24/2035 | 12/23/2015 | 135.69258 | 121.580083  | 109.1581322 | 98.21163045 | 88.55404505 | 80.0234725  | 72.47926581 | 65.79913918 | 59.87668043 |
| 161214A00023 | 12/14/2016                          | 3.3  | 12/15/2031 | 12/14/2016 | 125.6187  | 115.9008526 | 107.0370737 | 98.94708852 | 91.55858788 | 84.80639627 | 78.63173298 | 72.98155328 | 67.80796068 |
| 170809A00005 | 8/9/2017                            | 2.61 | 8/11/2025  | 8/9/2017   | 105.46819 | 102.6145243 | 99.85302852 | 97.1802376  | 94.5928403  | 92.08766693 | 89.66168255 | 87.3119805  | 85.03577625 |
| 190529A00032 | 5/29/2019                           | 2.38 | 5/29/2024  | 5/29/2019  | 102.7509  | 101.1000372 | 99.4835276  | 97.90036771 | 96.34958877 | 94.8302596  | 93.3414847  | 91.88240253 | 90.4521839  |
| 190613A00011 | 6/13/2019                           | 2.26 | 6/13/2024  | 6/13/2019  | 102.62068 | 100.9303368 | 99.27581014 | 97.65602661 | 96.06995542 | 94.51660676 | 92.99502975 | 91.50431048 | 90.04357021 |
| 190805A00050 | 8/5/2019                            | 1.91 | 8/5/2024   | 8/5/2019   | 102.18966 | 100.3630842 | 98.57791524 | 96.83297571 | 95.12712956 | 93.45927993 | 91.82836747 | 90.23336891 | 88.67329552 |
| 200501A00003 | 5/1/2020                            | 0.66 | 4/14/2023  | 5/1/2020   | 100.1567  | 99.61689589 | 99.08289291 | 98.5545998  | 98.03192527 | 97.51477998 | 97.00307646 | 96.4967291  | 95.99565406 |
| 210609A00013 | 6/11/2021                           | 1.64 | 6/11/2025  | 6/11/2021  | 102.50965 | 99.8578387  | 97.28765881 | 94.79607481 | 92.3801889  | 90.03723142 | 87.76455404 | 85.55962352 | 83.42001578 |
| 220819A00038 | 8/19/2022                           | 3.59 | 8/19/2024  | 8/19/2022  | 105.4503  | 103.5550485 | 101.7034044 | 99.8941059  | 98.12593587 | 96.39772009 | 94.70832538 | 93.05665789 | 91.44166148 |
| 150601A00495 | 6/1/2015                            | 2.99 | 6/27/2024  | 6/1/2015   | 104.10468 | 102.3592109 | 100.6513664 | 98.97999846 | 97.34400352 | 95.74232283 | 94.17394029 | 92.63788028 | 91.13320552 |
| 190110A00010 | 1/10/2019                           | 2.97 | 1/16/2024  | 1/10/2019  | 102.85487 | 101.561019  | 100.2940701 | 99.05319062 | 97.8375805  | 96.64647261 | 95.47913104 | 94.33484956 | 93.21295003 |
| 200317A00026 | 3/17/2020                           | 1.22 | 3/15/2024  | 3/17/2020  | 100.67829 | 99.24358377 | 97.83628582 | 96.45568062 | 95.10107618 | 93.77180396 | 92.46721785 | 91.18669322 | 89.92962606 |
| 210818A00005 | 8/18/2021                           | 0.6  | 8/19/2024  | 8/18/2021  | 99.988297 | 98.14214726 | 96.33876017 | 94.57689543 | 92.85535696 | 91.17299081 | 89.52868341 | 87.92135986 | 86.34998234 |
| 180823A00033 | 8/23/2018                           | 2.85 | 8/23/2023  | 8/23/2018  | 102.14429 | 101.2394694 | 100.3506595 | 99.47744236 | 98.61940995 | 97.77616855 | 96.94733791 | 96.13255072 | 95.33145206 |
| 181009A00035 | 10/9/2018                           | 3.12 | 10/11/2022 | 10/9/2018  | 100.12757 | 100.0969579 | 100.0663836 | 100.0358443 | 100.0053401 | 99.97487093 | 99.94443664 | 99.91403721 | 99.88367255 |
| 190114A00061 | 1/14/2019                           | 2.98 | 1/31/2024  | 1/14/2019  | 102.96991 | 101.63896   | 100.3314901 | 99.0469359  | 97.78474699 | 96.54438993 | 95.32534783 | 94.12711967 | 92.94921972 |
| 191009A00017 | 10/9/2019                           | 1.76 | 10/4/2024  | 10/9/2019  | 102.09438 | 100.1100276 | 98.17423754 | 96.28551113 | 94.44241126 | 92.64355482 | 90.88761024 | 89.17329521 | 87.49937447 |
| 191023A00006 | 10/23/2019                          | 1.95 | 10/23/2024 | 10/23/2019 | 102.54604 | 100.507287  | 98.5191812  | 96.58013039 | 94.68860536 | 92.84313597 | 91.04230834 | 89.28476226 | 87.56918872 |
| 200302A00045 | 3/4/2020                            | 1.31 | 3/4/2025   | 3/4/2020   | 101.44988 | 99.07076045 | 96.75912117 | 94.51267325 | 92.32922096 | 90.20665561 | 88.14295156 | 86.13616243 | 84.18441751 |
| 151106A00011 | 11/6/2015                           | 3.1  | 1/15/2026  | 11/6/2015  | 108.03492 | 104.7240324 | 101.5328956 | 98.456501   | 95.49008285 | 92.62910209 | 89.86923419 | 87.20635754 | 84.63654268 |
| 191009A00028 | 10/9/2019                           | 1.76 | 10/9/2024  | 10/9/2019  | 102.10927 | 100.1117067 | 98.16321918 | 96.26229366 | 94.40746967 | 92.59734201 | 90.83055824 | 89.10581627 | 87.42186216 |
| 210129A00008 | 1/29/2021                           | 0.62 | 10/8/2024  | 1/29/2021  | 99.78283  | 97.81208365 | 95.88983765 | 94.01459196 | 92.18490382 | 90.399385   | 88.65669934 | 86.95556039 | 85.29472917 |
| 211222A00003 | 12/22/2021                          | 1.33 | 1/15/2025  | 12/22/2021 | 101.40127 | 99.15432981 | 96.96788557 | 94.83992657 | 92.76852149 | 90.75181685 | 88.78803322 | 86.87546167 | 85.01246039 |
| 211222A00031 | 12/22/2021                          | 1.33 | 1/15/2025  | 12/22/2021 | 101.40127 | 99.15432981 | 96.96788557 | 94.83992657 | 92.76852149 | 90.75181685 | 88.78803322 | 86.87546167 | 85.01246039 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 170508A00010 | 5/8/2017                            | 2.43 | 5/8/2024   | 5/8/2017   | 102.92452 | 101.3242211 | 99.75654915 | 98.22057014 | 96.71538823 | 95.2401412  | 93.79399883 | 92.37616138 | 90.98585818 |
| 180531A00015 | 5/31/2018                           | 2.95 | 5/31/2023  | 5/31/2018  | 101.68251 | 101.0091889 | 100.3447687 | 99.68907286 | 99.04193056 | 98.40317531 | 97.77264492 | 97.15018137 | 96.53563065 |
| 190130A00020 | 1/30/2019                           | 2.97 | 4/17/2023  | 1/30/2019  | 101.4319  | 100.8798664 | 100.3338445 | 99.79373582 | 99.25944443 | 98.73087658 | 98.20794053 | 97.69054647 | 97.17860649 |
| 190327A00032 | 3/27/2019                           | 2.53 | 1/26/2024  | 3/27/2019  | 102.33461 | 101.0202027 | 99.73034914 | 98.46438834 | 97.2216875  | 96.0016361  | 94.803645   | 93.62714545 | 92.47158822 |
| 190528A00009 | 5/28/2019                           | 2.45 | 5/15/2024  | 5/28/2019  | 102.79849 | 101.1840891 | 99.60279501 | 98.05365389 | 96.53574915 | 95.04819889 | 93.59015429 | 92.160798   | 90.7593427  |
| 191226A00019 | 12/26/2019                          | 2.4  | 12/22/2028 | 12/26/2019 | 111.79225 | 105.5395584 | 99.68005624 | 94.1868946  | 89.03520323 | 84.20193063 | 79.66570131 | 75.406685   | 71.40647687 |
| 200505A00005 | 5/5/2020                            | 0.77 | 5/5/2025   | 5/5/2020   | 100.47574 | 97.94010928 | 95.48063882 | 93.09458099 | 90.7793067  | 88.53229883 | 86.35114668 | 84.23354061 | 82.17726712 |
| 181123A00016 | 11/23/2018                          | 3.19 | 11/23/2022 | 11/23/2018 | 100.57046 | 100.4201468 | 100.2702959 | 100.1209007 | 99.97195932 | 99.82346956 | 99.67542938 | 99.52783674 | 99.38068961 |
| 190530A00029 | 5/30/2019                           | 2.25 | 5/30/2024  | 5/30/2019  | 102.73756 | 101.0806994 | 99.45841466 | 97.86968713 | 96.31353956 | 94.78903266 | 93.29526326 | 91.83136257 | 90.3964945  |
| 191203A00004 | 12/4/2019                           | 1.87 | 12/4/2024  | 12/4/2019  | 102.52191 | 100.3711744 | 98.27592864 | 96.23434987 | 94.24468727 | 92.30526167 | 90.41446189 | 88.57074142 | 86.77261517 |
| 200207A00009 | 2/7/2020                            | 1.58 | 2/7/2025   | 2/7/2020   | 102.34017 | 100.0142822 | 97.75261392 | 95.55304879 | 93.41354976 | 91.33215825 | 89.30699072 | 87.33623531 | 85.41814867 |
| 200304A00054 | 3/6/2020                            | 2.35 | 3/8/2027   | 3/6/2020   | 108.12827 | 103.6962917 | 99.47228052 | 95.44540622 | 91.60545884 | 87.94280917 | 84.44837273 | 81.11357618 | 77.93032591 |
| 200604A00013 | 6/4/2020                            | 2.21 | 6/4/2035   | 6/4/2020   | 116.11499 | 103.8166874 | 92.96774599 | 83.38843243 | 74.92219551 | 67.43257    | 60.80050771 | 54.9220749  | 49.70646422 |
| 210527A00009 | 5/27/2021                           | 0.5  | 5/28/2024  | 5/27/2021  | 99.795545 | 98.16941967 | 96.57722731 | 95.01797106 | 93.49069348 | 91.99447428 | 90.52842846 | 89.09170462 | 87.68348332 |
| 210816A00003 | 8/16/2021                           | 0.71 | 8/16/2024  | 8/16/2021  | 99.973734 | 98.1395971  | 96.34771549 | 94.5968703  | 92.88588573 | 91.21362711 | 89.57899926 | 87.98094477 | 86.41844253 |
| 180530A00028 | 5/30/2018                           | 3.67 | 5/31/2033  | 5/30/2018  | 130.67217 | 119.3756056 | 109.1999029 | 100.0263697 | 91.74951875 | 84.27553116 | 77.52090906 | 71.41128978 | 65.88040199 |
| 190308A00007 | 3/8/2019                            | 2.8  | 3/8/2024   | 3/8/2019   | 102.96166 | 101.527855  | 100.1210816 | 98.74063677 | 97.38584559 | 96.05605578 | 94.75063674 | 93.46897858 | 92.21049135 |
| 200203A00004 | 2/3/2020                            | 1.7  | 2/3/2023   | 2/3/2020   | 100.58528 | 100.2358478 | 99.88884147 | 99.54423244 | 99.20199591 | 98.86210749 | 98.52454308 | 98.18927894 | 97.85629162 |
| 200326A00026 | 3/26/2020                           | 1.32 | 3/26/2024  | 3/26/2020  | 100.84452 | 99.37996288 | 97.94391915 | 96.53563064 | 95.15436465 | 93.79941374 | 92.47009468 | 91.16574736 | 89.88573387 |
| 170622A00036 | 6/22/2017                           | 3.23 | 6/22/2032  | 6/22/2017  | 124.52804 | 114.4282493 | 105.2588369 | 96.92832878 | 89.35472413 | 82.4644653  | 76.19152697 | 70.47660813 | 65.26641457 |
| 180706A00013 | 7/6/2018                            | 3.01 | 7/6/2023   | 7/6/2018   | 101.93613 | 101.1636361 | 100.4028395 | 99.65347843 | 98.91529645 | 98.18804456 | 97.4714812  | 96.76537183 | 96.06948877 |
| 190530A00024 | 5/30/2019                           | 2.25 | 5/30/2024  | 5/30/2019  | 102.73756 | 101.0806994 | 99.45841466 | 97.86968713 | 96.31353956 | 94.78903266 | 93.29526326 | 91.83136257 | 90.3964945  |
| 190606A00029 | 6/6/2019                            | 2.96 | 6/6/2034   | 6/6/2019   | 124.40065 | 112.4919571 | 101.8744625 | 92.39974718 | 83.93722091 | 76.37189961 | 69.60246613 | 63.5395808  | 58.10440866 |
| 190816A00033 | 8/16/2019                           | 1.77 | 8/16/2024  | 8/16/2019  | 101.98057 | 100.1269529 | 98.31596203 | 96.54636612 | 94.81697939 | 93.12665758 | 91.47429623 | 89.85882903 | 88.27922627 |
| 200306A00039 | 3/6/2020                            | 0.88 | 3/6/2023   | 3/6/2020   | 100.28329 | 99.84957092 | 99.41959331 | 98.99331131 | 98.57067741 | 98.15164488 | 97.73616781 | 97.32420107 | 96.91570028 |
| 200709A00003 | 7/10/2020                           | 1.63 | 7/10/2026  | 7/10/2020  | 103.90834 | 100.1994069 | 96.64231276 | 93.23001543 | 89.95583757 | 86.81344901 | 83.7968465  | 80.90033472 | 78.1185086  |
| 170502A00028 | 5/2/2017                            | 2.84 | 5/3/2027   | 5/2/2017   | 111.33551 | 106.6634564 | 102.2166476 | 97.98301048 | 93.95118418 | 90.1104747  | 86.45081221 | 82.96271107 | 79.63723277 |
| 190102A00050 | 1/2/2019                            | 3.38 | 1/3/2034   | 1/2/2019   | 130.30056 | 118.3641666 | 107.6756593 | 98.09624497 | 89.50330704 | 81.78844051 | 74.85573554 | 68.62027659 | 63.00682872 |
| 190809A00010 | 8/9/2019                            | 1.88 | 8/8/2024   | 8/9/2019   | 102.14367 | 100.3097031 | 98.51746718 | 96.76577568 | 95.05347916 | 93.379468   | 91.74267073 | 90.14205249 | 88.57661353 |
| 201006A00007 | 10/8/2020                           | 1.47 | 10/10/2023 | 10/8/2020  | 100.83632 | 99.81097125 | 98.80637292 | 97.82189755 | 96.85694533 | 95.91094008 | 94.98332812 | 94.07357713 | 93.18117518 |
| 211222A00019 | 12/22/2021                          | 0.97 | 10/16/2023 | 12/22/2021 | 100.31055 | 99.27224302 | 98.25528947 | 97.25903772 | 96.28286099 | 95.32615759 | 94.38834963 | 93.4688819  | 92.56722076 |
| 160401A00016 | 4/1/2016                            | 2.42 | 4/1/2025   | 4/1/2016   | 104.28052 | 101.7935551 | 99.37894259 | 97.0341567  | 94.75677851 | 92.54448809 | 90.39505978 | 88.30635769 | 86.27633151 |
| 160630A00011 | 6/30/2016                           | 1.8  | 6/30/2023  | 6/30/2016  | 100.98496 | 100.2327674 | 99.49173511 | 98.76161567 | 98.04216955 | 97.33316424 | 96.63437389 | 95.94557915 | 95.26656689 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 170215A00040 | 2/15/2017                           | 2.59 | 5/15/2023  | 2/15/2017  | 101.35995 | 100.7315339 | 100.1109021 | 99.49791497 | 98.89243167 | 98.29431484 | 97.7034305  | 97.11964785 | 96.54283927 |
| 181005A00011 | 10/5/2018                           | 3.2  | 10/5/2023  | 10/5/2018  | 102.7207  | 101.6966659 | 100.6930404 | 99.70922029 | 98.74462343 | 97.79869008 | 96.87088208 | 95.96068183 | 95.06759125 |
| 190816A00013 | 8/16/2019                           | 2.2  | 8/16/2029  | 8/16/2019  | 111.4959  | 104.6321365 | 98.24042112 | 92.28583489 | 86.73621163 | 81.56190633 | 76.73558583 | 72.23203775 | 68.02799613 |
| 191004A00004 | 10/4/2019                           | 1.54 | 10/4/2024  | 10/4/2019  | 101.90906 | 99.92167285 | 97.98301497 | 96.09158374 | 94.24593463 | 92.44467752 | 90.68647418 | 88.970036   | 87.29412175 |
| 191015A00013 | 10/15/2019                          | 1.72 | 10/15/2024 | 10/15/2019 | 102.30989 | 100.2894688 | 98.31901603 | 96.39696993 | 94.52183187 | 92.69216059 | 90.90656951 | 89.16372424 | 87.46234016 |
| 191021A00021 | 10/21/2019                          | 2.22 | 12/21/2027 | 10/21/2019 | 109.01456 | 103.8043061 | 98.87542056 | 94.21119211 | 89.79599656 | 85.61521744 | 81.65517517 | 77.90306172 | 74.34688017 |
| 091210A00005 | 12/10/2009                          | 5.08 | 12/16/2024 | 12/10/2009 | 109.70633 | 107.4430017 | 105.2382968 | 103.0902692 | 100.9970524 | 98.95685709 | 96.96796765 | 95.02873808 | 93.13758869 |
| 160706A00006 | 7/6/2016                            | 1.47 | 7/6/2023   | 7/6/2016   | 100.81285 | 100.0442299 | 99.28728236 | 98.54174627 | 97.80736504 | 97.08388976 | 96.37107888 | 95.66869792 | 94.97651927 |
| 191003A00033 | 10/3/2019                           | 1.54 | 10/3/2022  | 10/3/2019  | 100.02161 | 100.0132758 | 100.0049475 | 99.99662687 | 99.98831396 | 99.98000875 | 99.97171122 | 99.96342136 | 99.95513916 |
| 200305A00029 | 3/5/2020                            | 1.14 | 3/5/2025   | 3/5/2020   | 101.03598 | 98.65941928 | 96.35036549 | 94.10653171 | 91.92571843 | 89.80581346 | 87.74478791 | 85.74069234 | 83.79165322 |
| 210720A00035 | 7/22/2021                           | 2.27 | 7/21/2031  | 7/22/2021  | 114.42971 | 105.6459802 | 97.61275051 | 90.26176788 | 83.53132206 | 77.36558455 | 71.7140207  | 66.53086313 | 61.77464003 |
| 130314A00027 | 3/14/2013                           | 2.38 | 3/15/2023  | 3/14/2013  | 101.01323 | 100.5524246 | 100.095833  | 99.64339356 | 99.19504973 | 98.75074592 | 98.31042752 | 97.87404095 | 97.44153357 |
| 160330A00056 | 3/30/2016                           | 2.26 | 3/31/2025  | 3/30/2016  | 104.20079 | 101.7106014 | 99.29294145 | 96.94528246 | 94.66519743 | 92.45035876 | 90.29853349 | 88.2075788  | 86.17543777 |
| 180702A00034 | 7/2/2018                            | 2.86 | 7/3/2023   | 7/2/2018   | 101.87255 | 101.1075801 | 100.3540827 | 99.61180243 | 98.88049001 | 98.15990364 | 97.44980855 | 96.74997681 | 96.06018702 |
| 190115A00025 | 1/15/2019                           | 2.96 | 1/12/2024  | 1/15/2019  | 102.82769 | 101.543506  | 100.2871542 | 99.05772792 | 97.85436163 | 96.67622718 | 95.52253155 | 94.39251504 | 93.28544954 |
| 190827A00002 | 8/27/2019                           | 1.74 | 8/27/2024  | 8/27/2019  | 101.95617 | 100.0741193 | 98.23594996 | 96.44037486 | 94.68615697 | 92.97210323 | 91.2970627  | 89.6599248  | 88.05961759 |
| 191206A00013 | 12/6/2019                           | 3.05 | 12/6/2044  | 12/6/2019  | 135.1173  | 114.0112635 | 96.80567307 | 82.73642468 | 71.19425095 | 61.69254543 | 53.84201873 | 47.33070531 | 41.90816928 |
| 210609A00007 | 6/11/2021                           | 2.6  | 6/11/2029  | 6/11/2021  | 113.91536 | 107.1425796 | 100.8230449 | 94.92395701 | 89.41505844 | 84.26842515 | 79.45827465 | 74.96079068 | 70.75396331 |
| 210802A00002 | 8/2/2021                            | 0.7  | 8/1/2025   | 8/2/2021   | 100.33659 | 97.57432    | 94.90126521 | 92.31408626 | 89.80959055 | 87.38472114 | 85.03655023 | 82.76227305 | 80.55920193 |
| 211222A00011 | 12/22/2021                          | 0.97 | 10/16/2023 | 12/22/2021 | 100.31055 | 99.27224302 | 98.25528947 | 97.25903772 | 96.28286099 | 95.32615759 | 94.38834963 | 93.4688819  | 92.56722076 |
| 120127A00018 | 1/27/2012                           | 3.64 | 2/1/2027   | 1/27/2012  | 113.49329 | 109.044342  | 104.7982717 | 100.7447763 | 96.87412578 | 93.17713062 | 89.64510889 | 86.26985578 | 83.04361501 |
| 150319A00012 | 3/19/2015                           | 3.13 | 3/19/2029  | 3/19/2015  | 116.90359 | 110.2577966 | 104.0417874 | 98.22542028 | 92.78082056 | 87.68219704 | 82.90567632 | 78.42915081 | 74.23213962 |
| 150601A00648 | 6/1/2015                            | 2.71 | 12/30/2022 | 6/1/2015   | 100.73906 | 100.4859448 | 100.2340941 | 99.98350184 | 99.7341586  | 99.48605511 | 99.23918219 | 98.99353076 | 98.74909179 |
| 170831A00004 | 8/31/2017                           | 2    | 8/31/2023  | 8/31/2017  | 101.39742 | 100.4746758 | 99.56865689 | 98.67891533 | 97.80501572 | 96.94653809 | 96.10307717 | 95.27424178 | 94.45965422 |
| 180827A00020 | 8/27/2018                           | 3.21 | 8/27/2025  | 8/27/2018  | 107.30736 | 104.3848675 | 101.5578218 | 98.82259108 | 96.17570541 | 93.61384518 | 91.13383387 | 88.73263106 | 86.40732578 |
| 190625A00021 | 6/25/2019                           | 1.88 | 6/26/2023  | 6/25/2019  | 101.10081 | 100.3581165 | 99.62630103 | 98.90512591 | 98.19436041 | 97.49378043 | 96.80316824 | 96.12231227 | 95.45100691 |
| 190807A00022 | 8/7/2019                            | 1.76 | 1/17/2023  | 8/7/2019   | 100.56051 | 100.2579867 | 99.95728958 | 99.65840512 | 99.36131685 | 99.06600856 | 98.77246419 | 98.4806679  | 98.19060404 |
| 190809A00012 | 8/9/2019                            | 1.69 | 8/9/2024   | 8/9/2019   | 102.032   | 100.1920834 | 98.39416655 | 96.6370501  | 94.9195739  | 93.2406182  | 91.5991019  | 89.99398092 | 88.42424678 |
| 190829A00005 | 8/30/2019                           | 2.06 | 8/30/2023  | 8/30/2019  | 101.3585  | 100.439934  | 99.53795507 | 98.65211837 | 97.78199375 | 96.92716618 | 96.08723514 | 95.26181399 | 94.45052935 |
| 190904A00001 | 9/4/2019                            | 1.5  | 9/4/2024   | 9/4/2019   | 101.7442  | 99.83881573 | 97.97840469 | 96.16163415 | 94.38722124 | 92.65392931 | 90.960566   | 89.30598127 | 87.68906563 |
| 200511A00015 | 5/11/2020                           | 0.6  | 2/1/2023   | 5/11/2020  | 100.20264 | 99.85952926 | 99.51875926 | 99.18030454 | 98.84414164 | 98.51024739 | 98.17859896 | 97.84917381 | 97.5219497  |
| 200928A00003 | 9/28/2020                           | 0.55 | 9/26/2025  | 9/28/2020  | 99.931483 | 97.03019352 | 94.22733762 | 91.5190471  | 88.90162813 | 86.37155241 | 83.9254487  | 81.56009489 | 79.27241048 |
| 120112A00013 | 1/12/2012                           | 2.76 | 1/16/2024  | 1/12/2012  | 102.73571 | 101.4402432 | 100.1717515 | 98.9294007  | 97.71238759 | 96.51994208 | 95.35132546 | 94.20582882 | 93.08277155 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 130528A00028 | 5/28/2013                           | 2.63 | 5/30/2023  | 5/28/2013  | 101.46156 | 100.7918113 | 100.1308809 | 99.47859933 | 98.83479779 | 98.19931178 | 97.57198102 | 96.95264935 | 96.34116455 |
| 171130A00005 | 11/30/2017                          | 2.45 | 11/30/2022 | 11/30/2017 | 100.50963 | 100.3399842 | 100.1709028 | 100.0023871 | 99.83443425 | 99.66704149 | 99.50020605 | 99.33392521 | 99.16819622 |
| 190925A00011 | 9/25/2019                           | 1.89 | 9/25/2024  | 9/25/2019  | 102.32696 | 100.3640752 | 98.44873898 | 96.57950602 | 94.75498412 | 92.97383278 | 91.23476081 | 89.53652421 | 87.87792407 |
| 200124A00008 | 1/24/2020                           | 1.92 | 1/22/2027  | 1/24/2020  | 106.55072 | 102.2608321 | 98.16771642 | 94.26132948 | 90.53219776 | 86.97137782 | 83.57042377 | 80.32135694 | 77.21663753 |
| 171026A00011 | 10/26/2017                          | 2.94 | 10/26/2027 | 10/26/2017 | 112.3823  | 107.2356063 | 102.3586718 | 97.7359076  | 93.3527104  | 89.19539264 | 85.25112013 | 81.50785431 | 77.95429874 |
| 190130A00019 | 1/30/2019                           | 3.01 | 1/30/2024  | 1/30/2019  | 103.00353 | 101.6747666 | 100.3697166 | 99.08779607 | 97.82843736 | 96.59109107 | 95.37522531 | 94.18032498 | 93.00589114 |
| 190906A00005 | 9/6/2019                            | 1.77 | 9/6/2023   | 9/6/2019   | 101.10291 | 100.1668264 | 99.24801183 | 98.34598731 | 97.46029589 | 96.59049711 | 95.7361662  | 94.89689342 | 94.07228339 |
| 191115A00016 | 11/18/2019                          | 2.48 | 11/18/2024 | 11/18/2019 | 103.77989 | 101.6581421 | 99.59025898 | 97.57450421 | 95.60920705 | 93.69276355 | 91.82363338 | 90.0003367  | 88.22145132 |
| 200203A00006 | 2/3/2020                            | 1.76 | 2/3/2025   | 2/3/2020   | 102.44708 | 100.1376934 | 97.89165793 | 95.70689873 | 93.58141855 | 91.51329656 | 89.50068498 | 87.54180589 | 85.63494813 |
| 210916A00007 | 9/16/2021                           | 0.75 | 9/16/2024  | 9/16/2021  | 100.04044 | 98.12482263 | 96.25516098 | 94.43007392 | 92.64823081 | 90.90834971 | 89.20919528 | 87.54957672 | 85.92834588 |
| 211001A00001 | 10/1/2021                           | 0.59 | 10/2/2023  | 10/1/2021  | 99.938486 | 98.93929272 | 97.9599202  | 96.99978382 | 96.05832195 | 95.13499464 | 94.22928254 | 93.34068597 | 92.46872397 |
| 170803A00021 | 8/3/2017                            | 2.5  | 8/5/2024   | 8/3/2017   | 103.28879 | 101.45171   | 99.65623418 | 97.90117971 | 96.18540526 | 94.5078088  | 92.86732606 | 91.26292898 | 89.69362426 |
| 180118A00039 | 1/18/2018                           | 3.09 | 1/19/2027  | 1/18/2018  | 111.00192 | 106.6413404 | 102.4787881 | 98.50421696 | 94.70814149 | 91.08160595 | 87.61615157 | 84.30378628 | 81.13695641 |
| 181213A00031 | 12/13/2018                          | 2.97 | 12/13/2023 | 12/13/2018 | 102.80727 | 101.5981324 | 100.4174128 | 99.26412007 | 98.13730625 | 97.03606658 | 95.95953712 | 94.90689251 | 93.8773438  |
| 190719A00006 | 7/19/2019                           | 2.17 | 7/19/2024  | 7/19/2019  | 102.60398 | 100.8180325 | 99.07167597 | 97.36376172 | 95.69317975 | 94.05886098 | 92.45977533 | 90.89492996 | 89.36336761 |
| 200228A00059 | 2/28/2020                           | 1.79 | 2/28/2030  | 2/28/2020  | 109.19978 | 101.9093396 | 95.15720869 | 88.90087604 | 83.10139204 | 77.72305186 | 72.73311012 | 68.101522   | 63.80070808 |
| 200311A00058 | 3/16/2020                           | 1.1  | 10/14/2022 | 3/16/2020  | 100.08145 | 100.0425791 | 100.0037571 | 99.96498275 | 99.92625584 | 99.88757631 | 99.84894407 | 99.81035904 | 99.77182111 |
| 200812A00004 | 8/12/2020                           | 0.59 | 8/12/2025  | 8/12/2020  | 100.02626 | 97.24031698 | 94.54523674 | 91.93758767 | 89.41408804 | 86.97159699 | 84.60710772 | 82.31774101 | 80.10073909 |
| 211222A00023 | 12/22/2021                          | 1.13 | 4/15/2024  | 12/22/2021 | 100.59044 | 99.07436238 | 97.58848752 | 96.1319846  | 94.70405244 | 93.30391857 | 91.93083795 | 90.58409176 | 89.26298622 |
| 170216A00043 | 2/16/2017                           | 3.17 | 2/16/2027  | 2/16/2017  | 111.59078 | 107.1388439 | 102.8923417 | 98.84073245 | 94.97406563 | 91.28294892 | 87.75851414 | 84.39238541 | 81.17664929 |
| 180125A00022 | 1/25/2018                           | 2.69 | 1/25/2023  | 1/25/2018  | 100.88579 | 100.5605387 | 100.2373827 | 99.91630649 | 99.59728995 | 99.28031331 | 98.96535702 | 98.65240178 | 98.34142857 |
| 180529A00042 | 5/29/2018                           | 3.42 | 5/30/2028  | 5/29/2018  | 116.55351 | 110.7104113 | 105.2029634 | 100.0100288 | 95.11191283 | 90.49025916 | 86.1279516  | 82.0090236  | 78.11857494 |
| 180904A00004 | 9/4/2018                            | 2.89 | 9/5/2023   | 9/4/2018   | 102.2504  | 101.3098482 | 100.3865768 | 99.480116   | 98.59000957 | 97.7158177  | 96.85711624 | 96.01349596 | 95.18456197 |
| 190708A00011 | 7/8/2019                            | 2.2  | 7/8/2024   | 7/8/2019   | 102.62988 | 100.8722709 | 99.1530732  | 97.47113639 | 95.82535366 | 94.21466162 | 92.63803808 | 91.09450004 | 89.58310182 |
| 190815A00007 | 8/15/2019                           | 1.81 | 7/6/2023   | 8/15/2019  | 101.00717 | 100.2386359 | 99.48175733 | 98.73627277 | 98.00192637 | 97.27846989 | 96.56566246 | 95.86327024 | 95.17106621 |
| 200130A00025 | 1/30/2020                           | 1.54 | 1/30/2023  | 1/30/2020  | 100.55294 | 100.2142502 | 99.87783326 | 99.54366869 | 99.21173394 | 98.88200679 | 98.5544653  | 98.22908784 | 97.90585305 |
| 200605A00007 | 6/5/2020                            | 0.52 | 6/5/2023   | 6/5/2020   | 100.09972 | 99.41804215 | 98.74559774 | 98.08220297 | 97.42767617 | 96.78184055 | 96.14452397 | 95.5155588  | 94.89478179 |
| 210201A00004 | 2/3/2021                            | 1.15 | 2/3/2025   | 2/3/2021   | 101.00712 | 98.71495863 | 96.48578621 | 94.31753316 | 92.2082128  | 90.15591447 | 88.15880017 | 86.21510138 | 84.32311601 |
| 140911A00027 | 9/11/2014                           | 3.18 | 9/16/2024  | 9/11/2014  | 104.8468  | 102.8825578 | 100.9652173 | 99.09336576 | 97.2656469  | 95.48075408 | 93.73742817 | 92.03445547 | 90.37066572 |
| 170602A00026 | 6/2/2017                            | 2.25 | 6/3/2024   | 6/2/2017   | 102.75758 | 101.089708  | 99.45680804 | 97.85784127 | 96.29181387 | 94.7577709  | 93.25479442 | 91.78200164 | 90.33854321 |
| 180730A00081 | 7/30/2018                           | 3.5  | 7/28/2028  | 7/30/2018  | 117.47505 | 111.4458678 | 105.7713763 | 100.4288037 | 95.3969524  | 90.65608426 | 86.18781262 | 81.97500333 | 78.00168336 |
| 190122A00008 | 1/22/2019                           | 2.98 | 1/20/2023  | 1/22/2019  | 100.94888 | 100.6373044 | 100.3276598 | 100.0199294 | 99.71409523 | 99.4101399  | 99.108046   | 98.80779642 | 98.50937423 |
| 190523A00018 | 5/23/2019                           | 2.51 | 3/15/2024  | 5/23/2019  | 102.57573 | 101.1264841 | 99.70490271 | 98.3102591  | 96.94185467 | 95.59901446 | 94.28108618 | 92.98743927 | 91.71746399 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 190930A00069 | 9/30/2019                           | 1.9  | 9/29/2023  | 9/30/2019  | 101.26569 | 100.2672706 | 99.28845183 | 98.32866411 | 97.38735683 | 96.46400045 | 95.55808548 | 94.66912152 | 93.79663644 |
| 200224A00019 | 2/24/2020                           | 1.59 | 2/18/2025  | 2/24/2020  | 102.0931  | 99.74495236 | 97.46234688 | 95.2430934  | 93.08509133 | 90.986322   | 88.94484492 | 86.9587943  | 85.02637571 |
| 200803A00011 | 8/3/2020                            | 0.72 | 8/4/2025   | 8/3/2020   | 100.03087 | 97.27370494 | 94.60567416 | 92.02344614 | 89.52382785 | 87.10376205 | 84.7603208  | 82.49069925 | 80.29220983 |
| 210527A00008 | 5/27/2021                           | 0.32 | 5/30/2023  | 5/27/2021  | 99.969289 | 99.30436932 | 98.64824035 | 98.00072864 | 97.36166552 | 96.73088669 | 96.1082321  | 95.49354577 | 94.8866757  |
| 220429A00002 | 4/29/2022                           | 3.63 | 4/29/2032  | 4/29/2022  | 128.04346 | 117.9224399 | 108.7172466 | 100.3392184 | 92.70873708 | 85.75426462 | 79.41148418 | 73.62253624 | 68.33533919 |
| 171206A00010 | 12/6/2017                           | 2.45 | 12/6/2022  | 12/6/2017  | 100.54424 | 100.3579082 | 100.1722712 | 99.98732772 | 99.80307371 | 99.61950533 | 99.43661874 | 99.2544101  | 99.07287564 |
| 180914A00028 | 9/14/2018                           | 3.37 | 9/12/2025  | 9/14/2018  | 107.89995 | 104.9255754 | 102.049645  | 99.26836419 | 96.5781055  | 93.9754011  | 91.45693488 | 89.01953492 | 86.66016634 |
| 190805A00049 | 8/5/2019                            | 1.88 | 8/4/2023   | 8/5/2019   | 101.1286  | 100.281221  | 99.4479875  | 98.62855198 | 97.82257395 | 97.02972402 | 96.24968349 | 95.4821439  | 94.72680662 |
| 210414A00001 | 4/14/2021                           | 0.7  | 5/16/2024  | 4/14/2021  | 99.931637 | 98.33892336 | 96.77896997 | 95.25083151 | 93.75359923 | 92.28639889 | 90.84838907 | 89.43875963 | 88.05673023 |
| 220815A00004 | 8/15/2022                           | 3.54 | 2/15/2024  | 8/15/2022  | 103.85382 | 102.4740495 | 101.1192937 | 99.78892593 | 98.48234382 | 97.19896445 | 95.93822351 | 94.69957455 | 93.4824883  |
| 160628A00039 | 6/28/2016                           | 2.01 | 6/29/2026  | 6/28/2016  | 105.78279 | 102.0539037 | 98.47652362 | 95.04362645 | 91.74855537 | 88.58500244 | 85.5469878  | 82.62884039 | 79.82517987 |
| 170317A00059 | 3/17/2017                           | 2.47 | 3/17/2023  | 3/17/2017  | 101.06335 | 100.5969172 | 100.1347977 | 99.67692943 | 99.22325396 | 98.77371368 | 98.32825209 | 97.88681372 | 97.4493441  |
| 170622A00039 | 6/22/2017                           | 3.36 | 6/22/2035  | 6/22/2017  | 130.34705 | 117.1498894 | 105.4840513 | 95.16093233 | 86.01618009 | 77.90645938 | 70.70666276 | 64.30750404 | 58.61344055 |
| 190514A00024 | 5/14/2019                           | 2.34 | 5/14/2024  | 5/14/2019  | 102.80871 | 101.1935111 | 99.61145312 | 98.06158114 | 96.54297768 | 95.05476002 | 93.59607856 | 92.16611521 | 90.7640819  |
| 211222A00021 | 12/22/2021                          | 1.06 | 1/16/2024  | 12/22/2021 | 100.3551  | 99.07843569 | 97.82838817 | 96.60412588 | 95.40485661 | 94.2298208  | 93.07828983 | 91.94956444 | 90.84297327 |
| 100809A00029 | 8/9/2010                            | 4.23 | 8/15/2025  | 8/9/2010   | 110.16626 | 107.2339027 | 104.3960281 | 101.6490826 | 98.98966867 | 96.41453456 | 93.92056701 | 91.50478473 | 89.16433196 |
| 150601A00515 | 6/1/2015                            | 2.95 | 1/16/2024  | 6/1/2015   | 102.93133 | 101.6345104 | 100.3646962 | 99.12104514 | 97.90275341 | 96.70905032 | 95.53919659 | 94.39248277 | 93.2682277  |
| 160624A00011 | 6/24/2016                           | 1.83 | 6/26/2023  | 6/24/2016  | 100.99692 | 100.2555351 | 99.52499435 | 98.80506517 | 98.0955177  | 97.39612866 | 96.70668113 | 96.02696435 | 95.35677344 |
| 170120A00009 | 1/20/2017                           | 3.67 | 1/22/2035  | 1/20/2017  | 133.52489 | 120.5225527 | 108.9795077 | 98.72149634 | 89.59601338 | 81.46948785 | 74.22484138 | 67.75937236 | 61.98292099 |
| 180529A00044 | 5/29/2018                           | 3.11 | 5/29/2024  | 5/29/2018  | 103.9749  | 102.3134468 | 100.6865379 | 99.09316422 | 97.53235213 | 96.00316549 | 94.50470407 | 93.0361018  | 91.5965251  |
| 181005A00005 | 10/5/2018                           | 3.31 | 10/5/2023  | 10/5/2018  | 102.72129 | 101.6988652 | 100.696799  | 99.71448305 | 98.75133723 | 97.80680402 | 96.88034736 | 95.97145158 | 95.07962047 |
| 191003A00020 | 10/3/2019                           | 1.72 | 10/3/2022  | 10/3/2019  | 100.02238 | 100.0140482 | 100.0057262 | 99.99741174 | 99.98910494 | 99.98080576 | 99.97251419 | 99.9642302  | 99.95595379 |
| 191101A00002 | 11/1/2019                           | 1.85 | 11/1/2022  | 11/1/2019  | 100.25061 | 100.1616805 | 100.07291   | 99.98429709 | 99.89584141 | 99.80754251 | 99.71939999 | 99.63141346 | 99.5435825  |
| 191206A00008 | 12/6/2019                           | 2.44 | 12/6/2030  | 12/6/2019  | 115.09178 | 106.8624463 | 99.29088363 | 92.32087008 | 85.90127202 | 79.98555891 | 74.53136644 | 69.50010315 | 64.85659621 |
| 200127A00023 | 1/27/2020                           | 1.8  | 1/27/2025  | 1/27/2020  | 102.51934 | 100.2280981 | 97.99924077 | 95.83071742 | 93.72056084 | 91.66687989 | 89.66785602 | 87.72174002 | 85.82684899 |
| 160119A00027 | 1/19/2016                           | 3.25 | 1/18/2030  | 1/19/2016  | 119.67424 | 112.1212844 | 105.1099708 | 98.59840685 | 92.54815475 | 86.92392739 | 81.69331459 | 76.82653455 | 72.29620795 |
| 180829A00008 | 8/29/2018                           | 3.23 | 8/30/2027  | 8/29/2018  | 114.13604 | 109.0766858 | 104.2753262 | 99.71744771 | 95.38942622 | 91.27846867 | 87.37255829 | 83.66040357 | 80.13139087 |
| 181211A00031 | 12/11/2018                          | 2.95 | 12/11/2023 | 12/11/2018 | 102.77307 | 101.5694814 | 100.3940624 | 99.24582948 | 98.12384716 | 97.02722229 | 95.95510188 | 94.90667083 | 93.88114986 |
| 200106A00015 | 1/6/2020                            | 1.87 | 2/15/2024  | 1/6/2020   | 101.53047 | 100.1676109 | 98.82947112 | 97.51543765 | 96.22491588 | 94.95733031 | 93.71212373 | 92.48875656 | 91.28670614 |
| 200305A00007 | 3/5/2020                            | 1.14 | 3/5/2025   | 3/5/2020   | 101.03598 | 98.65941928 | 96.35036549 | 94.10653171 | 91.92571843 | 89.80581346 | 87.74478791 | 85.74069234 | 83.79165322 |
| 200818A00007 | 8/18/2020                           | 1.31 | 8/20/2029  | 8/18/2020  | 105.4125  | 98.74298003 | 92.53686229 | 86.75966414 | 81.37963374 | 76.36751835 | 71.6963561  | 67.34128605 | 63.27937488 |
| 081209A00008 | 12/9/2008                           | 4.87 | 12/15/2023 | 12/9/2008  | 105.0036  | 103.7769942 | 102.5792119 | 101.4092422 | 100.2661222 | 99.14893334 | 98.05679829 | 96.9888791  | 95.94437485 |
| 190603A00002 | 6/3/2019                            | 2.03 | 6/2/2023   | 6/3/2019   | 101.12903 | 100.4515734 | 99.78316272 | 99.12362166 | 98.47277465 | 97.8304507  | 97.19648325 | 96.57071008 | 95.95297314 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 190814A00015 | 8/14/2019                           | 1.84 | 8/14/2024  | 8/14/2019  | 102.08798 | 100.2388817 | 98.43218891 | 96.66667979 | 94.94117777 | 93.25454738 | 91.60569247 | 89.99355471 | 88.41711194 |
| 190826A00029 | 8/26/2019                           | 1.53 | 8/26/2024  | 8/26/2019  | 101.77758 | 99.89567506 | 98.05767317 | 96.26228607 | 94.50827571 | 92.79444815 | 91.11965158 | 89.48277465 | 87.88274466 |
| 200131A00047 | 1/31/2020                           | 1.68 | 1/31/2023  | 1/31/2020  | 100.57314 | 100.2319913 | 99.89314171 | 99.55657276 | 99.22226152 | 98.89018543 | 98.5603222  | 98.23264984 | 97.90714666 |
| 200303A00012 | 3/3/2020                            | 1.71 | 3/1/2030   | 3/3/2020   | 108.61252 | 101.3407912 | 94.60662859 | 88.36754756 | 82.5846241  | 77.22217892 | 72.24749192 | 67.63054313 | 63.34377749 |
| 200309A00027 | 3/9/2020                            | 0.97 | 3/10/2025  | 3/9/2020   | 100.62276 | 98.23854222 | 95.92244353 | 93.67214091 | 91.48540297 | 89.36008742 | 87.29413695 | 85.28557532 | 83.33250363 |
| 200720A00012 | 7/20/2020                           | 0.77 | 7/15/2025  | 7/20/2020  | 100.167   | 97.45883657 | 94.83672276 | 92.29742685 | 89.8378594  | 87.45506623 | 85.14622156 | 82.90862147 | 80.73967782 |
| 201030A00004 | 11/2/2020                           | 2.56 | 10/29/2040 | 11/2/2020  | 121.06359 | 104.1845758 | 89.98885862 | 78.02830257 | 67.93207878 | 59.39297145 | 52.15616879 | 46.01007655 | 40.77878117 |
| 130424A00005 | 4/24/2013                           | 3.07 | 4/24/2030  | 4/24/2013  | 120.0818  | 112.2043827 | 104.9121242 | 98.1582458  | 91.89994753 | 86.09804868 | 80.71666411 | 75.72291092 | 71.08664277 |
| 160524A00027 | 5/24/2016                           | 3.06 | 5/27/2031  | 5/24/2016  | 121.03231 | 112.1118138 | 103.935138  | 96.43589517 | 89.55396508 | 83.23487025 | 77.42921877 | 72.09220482 | 67.18316067 |
| 160610A00009 | 6/10/2016                           | 1.89 | 6/12/2023  | 6/10/2016  | 101.00175 | 100.2983642 | 99.60474975 | 98.92070715 | 98.24603915 | 97.58055391 | 96.9240648  | 96.27639023 | 95.63735345 |
| 191115A00028 | 11/15/2019                          | 2.34 | 9/28/2029  | 11/15/2019 | 112.62797 | 105.6141967 | 99.0897266  | 93.01782153 | 87.36467898 | 82.09918726 | 77.19269834 | 72.61882104 | 68.35323245 |
| 210901A00012 | 9/1/2021                            | 0.51 | 9/1/2023   | 9/1/2021   | 99.920032 | 99.0033196  | 98.10329761 | 97.2195142  | 96.35153364 | 95.49893564 | 94.66131467 | 93.83827937 | 93.02945187 |
| 170224A00020 | 2/24/2017                           | 3.08 | 2/24/2027  | 2/24/2017  | 111.26771 | 106.7993964 | 102.5383899 | 98.47399489 | 94.59612182 | 90.89525023 | 87.36239362 | 83.98906688 | 80.76725571 |
| 171026A00008 | 10/26/2017                          | 2.6  | 10/25/2024 | 10/26/2017 | 103.90805 | 101.84959   | 99.84227794 | 97.88450346 | 95.97471987 | 94.11144031 | 92.29323499 | 90.51872849 | 88.78659734 |
| 181001A00074 | 10/1/2018                           | 3.03 | 10/3/2022  | 10/1/2018  | 100.03404 | 100.025693  | 100.0173544 | 100.0090234 | 100.0007002 | 99.99238471 | 99.9840769  | 99.97577676 | 99.96748429 |
| 181107A00008 | 11/7/2018                           | 3.42 | 11/7/2023  | 11/7/2018  | 103.02052 | 101.9079997 | 100.8195175 | 99.75430386 | 98.71161788 | 97.69074984 | 96.69101956 | 95.7117749  | 94.75239033 |
| 190507A00027 | 5/7/2019                            | 2.59 | 5/7/2024   | 5/7/2019   | 102.98491 | 101.3900468 | 99.82761384 | 98.29668398 | 96.79636921 | 95.3258147  | 93.88419721 | 92.47072365 | 91.08462964 |
| 190812A00006 | 8/12/2019                           | 1.86 | 8/12/2024  | 8/12/2019  | 102.11924 | 100.2750576 | 98.473061   | 96.71203684 | 94.99081752 | 93.30827614 | 91.66332477 | 90.05491287 | 88.48202572 |
| 200317A00065 | 3/19/2020                           | 2.05 | 3/19/2025  | 3/19/2020  | 103.30548 | 100.8646271 | 98.4939429  | 96.19101236 | 93.95351844 | 91.77923759 | 89.6660353  | 87.61186201 | 85.61474914 |
| 200420A00047 | 4/20/2020                           | 0.77 | 4/20/2023  | 4/20/2020  | 100.21555 | 99.65920687 | 99.109026   | 98.56490156 | 98.02673391 | 97.4944256  | 96.96788129 | 96.44700771 | 95.93171359 |
| 200429A00056 | 5/1/2020                            | 1.54 | 4/30/2025  | 5/1/2020   | 102.13974 | 99.6024048  | 97.14069289 | 94.75189136 | 92.43340714 | 90.18275677 | 87.99756093 | 85.87553937 | 83.81450603 |
| 180216A00004 | 2/16/2018                           | 2.75 | 2/16/2023  | 2/16/2018  | 101.04832 | 100.6616812 | 100.2780074 | 99.89726455 | 99.51941899 | 99.14443764 | 98.77228793 | 98.40293779 | 98.03635561 |
| 180313A00026 | 3/13/2018                           | 3.34 | 3/13/2028  | 3/13/2018  | 115.504   | 109.9001485 | 104.6082377 | 99.60923306 | 94.88535644 | 90.41999839 | 86.19763565 | 82.2037547  | 78.42478108 |
| 190724A00023 | 7/24/2019                           | 2.13 | 7/24/2025  | 7/24/2019  | 104.38247 | 101.5830181 | 98.87289929 | 96.2487751  | 93.70745037 | 91.24586743 | 88.8610993  | 86.5503433  | 84.31091494 |
| 200207A00017 | 2/7/2020                            | 1.96 | 2/8/2027   | 2/7/2020   | 106.24388 | 101.9311289 | 97.81784458 | 93.89380706 | 90.14936676 | 86.5754138  | 83.16334523 | 79.90503421 | 76.7928014  |
| 200922A00029 | 9/24/2020                           | 2.73 | 9/25/2023  | 9/24/2020  | 102.0853  | 101.0931964 | 100.1203424 | 99.16618445 | 98.2301875  | 97.31183653 | 96.4106359  | 95.52610836 | 94.65779424 |
| 210212A00014 | 2/17/2021                           | 1.38 | 2/17/2026  | 2/17/2021  | 102.46918 | 99.16107778 | 95.97660435 | 92.91051069 | 89.95779965 | 87.11371114 | 84.37370953 | 81.73347194 | 79.18887708 |
| 191025A00005 | 10/28/2019                          | 1.98 | 10/28/2024 | 10/28/2019 | 102.62633 | 100.5736467 | 98.57216416 | 96.6202612  | 94.71638411 | 92.85903963 | 91.04679202 | 89.27826039 | 87.55211617 |
| 200506A00002 | 5/8/2020                            | 0.97 | 5/5/2025   | 5/8/2020   | 100.664   | 98.133179   | 95.6782072  | 93.29635812 | 90.98501774 | 88.7416832  | 86.56395721 | 84.44954282 | 82.39623853 |
| 150601A00667 | 6/1/2015                            | 3.88 | 1/16/2036  | 6/1/2015   | 137.00055 | 122.8787783 | 110.4454901 | 99.48585727 | 89.8135922  | 81.26701502 | 73.70568285 | 67.00749586 | 61.0662108  |
| 170111A00012 | 1/11/2017                           | 3.31 | 1/11/2030  | 1/11/2017  | 120.06538 | 112.5169557 | 105.5082908 | 98.99772554 | 92.94702791 | 87.32109694 | 82.08769043 | 77.21717788 | 72.68231595 |
| 190829A00029 | 8/29/2019                           | 1.75 | 7/14/2023  | 8/29/2019  | 100.97892 | 100.1888516 | 99.41111298 | 98.64541433 | 97.89147763 | 97.14903333 | 96.41782005 | 95.69758431 | 94.9880802  |
| 190919A00007 | 9/19/2019                           | 2.04 | 9/19/2024  | 9/19/2019  | 102.60376 | 100.6541491 | 98.75138118 | 96.89403927 | 95.08076268 | 93.31024078 | 91.58121077 | 89.8924556  | 88.24280199 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 191007A00020 | 10/7/2019                           | 1.69 | 10/7/2022  | 10/7/2019  | 100.0522  | 100.0327617 | 100.0133393 | 99.99393692 | 99.97455455 | 99.95519214 | 99.93584966 | 99.91652708 | 99.89722437 |
| 160815A00007 | 8/15/2016                           | 2.23 | 8/17/2026  | 8/15/2016  | 106.39255 | 102.5378278 | 98.8442445  | 95.30424658 | 91.91067155 | 88.65672746 | 85.53597176 | 82.54229156 | 79.66988507 |
| 170630A00027 | 6/30/2017                           | 2.35 | 6/28/2024  | 6/30/2017  | 103.06079 | 101.3220146 | 99.62079999 | 97.95599249 | 96.32648869 | 94.73123018 | 93.16920127 | 91.63942674 | 90.14096983 |
| 200227A00022 | 2/27/2020                           | 1.41 | 2/27/2023  | 2/27/2020  | 100.50679 | 100.0916537 | 99.67993441 | 99.27158914 | 98.86657665 | 98.46485634 | 98.06638827 | 97.67113314 | 97.27905227 |
| 200228A00039 | 2/28/2020                           | 1.33 | 4/28/2023  | 2/28/2020  | 100.54073 | 99.96152151 | 99.38896344 | 98.82293833 | 98.26333496 | 97.71004461 | 97.16296101 | 96.62198026 | 96.08700077 |
| 210125A00006 | 1/27/2021                           | 2.16 | 1/26/2027  | 1/27/2021  | 107.03717 | 102.7431954 | 98.64605987 | 94.73573258 | 91.00274956 | 87.43817448 | 84.03356646 | 80.78095002 | 77.67278708 |
| 210212A00008 | 2/12/2021                           | 0.95 | 10/13/2026 | 2/12/2021  | 101.55743 | 97.64955163 | 93.91210595 | 90.33677806 | 86.91570673 | 83.64145401 | 80.50698    | 77.50561939 | 74.63105941 |
| 130712A00005 | 7/12/2013                           | 3.25 | 7/17/2023  | 7/12/2013  | 102.26466 | 101.4598363 | 100.667684  | 99.8879067  | 99.12021573 | 98.36433132 | 97.61998231 | 96.88690578 | 96.16484676 |
| 170215A00043 | 2/15/2017                           | 2.7  | 8/28/2024  | 2/15/2017  | 103.80817 | 101.9052591 | 100.0466852 | 98.23115476 | 96.45741646 | 94.72426367 | 93.03053239 | 91.37509948 | 89.756881   |
| 171016A00021 | 10/16/2017                          | 2.2  | 10/17/2022 | 10/16/2017 | 100.15089 | 100.1036474 | 100.0564653 | 100.0093449 | 99.96228605 | 99.91528872 | 99.86835274 | 99.82147799 | 99.77466434 |
| 190327A00006 | 3/27/2019                           | 2.53 | 3/27/2024  | 3/27/2019  | 102.6659  | 101.1845069 | 99.73197793 | 98.3075411  | 96.9104534  | 95.53999757 | 94.1954809  | 92.87623423 | 91.58161093 |
| 190627A00010 | 6/27/2019                           | 1.97 | 6/27/2024  | 6/27/2019  | 102.38733 | 100.6573839 | 98.9647777  | 97.30837106 | 95.68706804 | 94.09981732 | 92.54560993 | 91.0234771  | 89.53248816 |
| 191021A00034 | 10/22/2019                          | 1.9  | 10/17/2022 | 10/22/2019 | 100.13671 | 100.0894808 | 100.0423104 | 99.99520178 | 99.94815472 | 99.90116912 | 99.85424485 | 99.80738179 | 99.76057983 |
| 200430A00017 | 4/30/2020                           | 0.94 | 4/30/2025  | 4/30/2020  | 100.58263 | 98.06570216 | 95.62393194 | 93.25462337 | 90.95519717 | 88.72318313 | 86.55621468 | 84.45202382 | 82.40843629 |
| 190806A00026 | 8/6/2019                            | 1.71 | 8/7/2023   | 8/6/2019   | 101.07443 | 100.2180464 | 99.37611742 | 98.54828375 | 97.73419369 | 96.93350714 | 96.14589516 | 95.37103948 | 94.60863209 |
| 190917A00028 | 9/17/2019                           | 2.02 | 3/1/2023   | 9/17/2019  | 100.76652 | 100.3452545 | 99.92750042 | 99.51321351 | 99.10235083 | 98.69487011 | 98.29072978 | 97.88988896 | 97.49230742 |
| 211222A00029 | 12/22/2021                          | 1.26 | 10/15/2024 | 12/22/2021 | 101.09852 | 99.09589102 | 97.14276348 | 95.23759286 | 93.37889628 | 91.56524745 | 89.7952741  | 88.0676555  | 86.38112015 |
| 160926A00004 | 9/26/2016                           | 1.66 | 9/26/2023  | 9/26/2016  | 101.12773 | 100.1365187 | 99.16465019 | 98.21156026 | 97.27670889 | 96.35957663 | 95.4596636  | 94.57648854 | 93.709588   |
| 181227A00019 | 12/28/2020                          | 3.1  | 12/29/2025 | 12/28/2020 | 107.90627 | 104.6423668 | 101.4950738 | 98.45950815 | 95.53102994 | 92.70522353 | 89.97788526 | 87.34501166 | 84.80278836 |
| 190820A00013 | 8/20/2019                           | 1.76 | 8/21/2023  | 8/20/2019  | 101.06177 | 100.1689031 | 99.29175358 | 98.4299121  | 97.58298055 | 96.75057454 | 95.93232278 | 95.12786655 | 94.33685917 |
| 191009A00027 | 10/9/2019                           | 1.74 | 10/6/2023  | 10/9/2019  | 101.11253 | 100.096286  | 99.10038314 | 98.12421273 | 97.16719292 | 96.22876452 | 95.30838994 | 94.40555212 | 93.5197536  |
| 191126A00023 | 11/26/2019                          | 1.81 | 5/27/2025  | 11/26/2019 | 103.26719 | 100.6373019 | 98.08745946 | 95.61472886 | 93.21630118 | 90.88948981 | 88.63172419 | 86.44054385 | 84.3135929  |
| 200214A00015 | 2/18/2020                           | 1.76 | 8/6/2024   | 2/18/2020  | 101.91319 | 100.0866499 | 98.30157672 | 96.55679217 | 94.85115701 | 93.18357135 | 91.55297299 | 89.95833593 | 88.39866888 |
| 200303A00002 | 3/3/2020                            | 1.06 | 3/3/2023   | 3/3/2020   | 100.39964 | 99.97337576 | 99.55072646 | 99.13164185 | 98.71607697 | 98.30398761 | 97.89533032 | 97.49006233 | 97.08814163 |
| 160307A00027 | 3/7/2016                            | 2.71 | 3/6/2026   | 3/7/2016   | 107.10405 | 103.6697853 | 100.3647645 | 97.18344506 | 94.12055092 | 91.17105938 | 88.33018762 | 85.59337983 | 82.95629525 |
| 180730A00023 | 7/30/2018                           | 3.13 | 7/30/2024  | 7/30/2018  | 104.6629  | 102.8242253 | 101.0268921 | 99.26973204 | 97.5516137  | 95.87144485 | 94.2281707  | 92.62077241 | 91.0482656  |
| 200204A00012 | 2/4/2020                            | 1.98 | 2/4/2027   | 2/4/2020   | 106.30743 | 102.0047486 | 97.90056054 | 93.98471348 | 90.24762809 | 86.68025953 | 83.27406493 | 80.02097305 | 76.91335596 |
| 181114A00014 | 11/14/2018                          | 3.17 | 11/14/2023 | 11/14/2018 | 102.89846 | 101.766137  | 100.6587361 | 99.57543705 | 98.51545879 | 97.47805361 | 96.46250549 | 95.46812845 | 94.49426495 |
| 190327A00013 | 3/27/2019                           | 2.53 | 3/27/2024  | 3/27/2019  | 102.6659  | 101.1845069 | 99.73197793 | 98.3075411  | 96.9104534  | 95.53999757 | 94.1954809  | 92.87623423 | 91.58161093 |
| 190701A00008 | 7/3/2019                            | 2.1  | 7/3/2023   | 7/3/2019   | 101.22195 | 100.4606284 | 99.71072859 | 98.97199149 | 98.24416933 | 97.5270216  | 96.82031482 | 96.12382226 | 95.43732372 |
| 190717A00007 | 7/17/2019                           | 2.18 | 10/14/2022 | 7/17/2019  | 100.12348 | 100.0845789 | 100.045722  | 100.0069128 | 99.96815107 | 99.92943676 | 99.89076978 | 99.85215005 | 99.81357747 |
| 200615A00019 | 6/17/2020                           | 1.34 | 6/16/2025  | 6/17/2020  | 101.70721 | 99.05307544 | 96.48106    | 93.9881003  | 91.57126709 | 89.22776133 | 86.95490735 | 84.75014641 | 82.61103058 |
| 200709A00014 | 7/13/2020                           | 0.57 | 1/20/2023  | 7/13/2020  | 100.19862 | 99.88853849 | 99.58038512 | 99.27413888 | 98.96978205 | 98.66729713 | 98.36666683 | 98.06787407 | 97.77090199 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 200720A00035 | 7/20/2020                           | 1.81 | 7/20/2035  | 7/20/2020  | 111.16512 | 99.06094232 | 88.40602136 | 79.01845845 | 70.7400501  | 63.43309799 | 56.9776607  | 51.2691856  | 46.21646649 |
| 220106A00019 | 1/10/2022                           | 3.17 | 1/7/2033   | 1/10/2022  | 124.83147 | 114.2047808 | 104.605     | 95.92644126 | 88.07484029 | 80.96606863 | 74.52499482 | 68.68447895 | 63.38448429 |
| 190813A00008 | 8/13/2019                           | 1.88 | 8/13/2024  | 8/13/2019  | 102.16018 | 100.3129951 | 98.50811359 | 96.7443201  | 95.02044231 | 93.33534874 | 91.68794713 | 90.07718276 | 88.50203698 |
| 190830A00012 | 8/30/2019                           | 1.76 | 8/30/2024  | 8/30/2019  | 102.00363 | 100.1133046 | 98.2672078  | 96.46404477 | 94.70256399 | 92.98155865 | 91.2998647  | 89.65635907 | 88.04995795 |
| 191216A00042 | 12/16/2019                          | 1.95 | 12/16/2022 | 12/16/2019 | 100.49489 | 100.2809238 | 100.06788   | 99.85575398 | 99.64453967 | 99.43423117 | 99.22482259 | 99.01630812 | 98.80868199 |
| 200129A00018 | 2/3/2020                            | 1.74 | 12/15/2022 | 2/3/2020   | 100.44614 | 100.2350179 | 100.0247934 | 99.81546312 | 99.60702148 | 99.39946272 | 99.19278118 | 98.98697126 | 98.78202738 |
| 200221A00031 | 2/21/2020                           | 1.69 | 2/21/2025  | 2/21/2020  | 102.34353 | 99.98374021 | 97.6900114  | 95.46013521 | 93.2919876  | 91.18352767 | 89.13279383 | 87.13790027 | 85.19703356 |
| 200417A00009 | 4/17/2020                           | 1.35 | 4/16/2027  | 4/17/2020  | 103.82092 | 99.38319285 | 95.15939688 | 91.13812272 | 87.30862755 | 83.66079449 | 80.18509275 | 76.87254053 | 73.71467051 |
| 211015A00028 | 10/15/2021                          | 0.73 | 10/16/2023 | 10/15/2021 | 100.05718 | 99.02030533 | 98.004762   | 97.00990045 | 96.03509438 | 95.07974255 | 94.14326753 | 93.22511452 | 92.3247503  |
| 120411A00013 | 4/11/2012                           | 3.59 | 4/15/2027  | 4/11/2012  | 113.93377 | 109.2724779 | 104.8326535 | 100.6025671 | 96.57117786 | 92.72808516 | 89.06348793 | 85.56814693 | 82.2333495  |
| 160830A00061 | 8/30/2018                           | 1.89 | 8/30/2023  | 8/30/2018  | 101.20107 | 100.2832856 | 99.38208442 | 98.49701567 | 97.62764944 | 96.77357089 | 95.9343797  | 95.10968942 | 94.29912686 |
| 181109A00027 | 11/13/2018                          | 3.48 | 4/15/2024  | 11/13/2018 | 104.24701 | 102.7014108 | 101.1865371 | 99.70154067 | 98.24560666 | 96.81794935 | 95.41781098 | 94.04446045 | 92.69719217 |
| 190625A00017 | 6/25/2019                           | 2.02 | 12/15/2022 | 6/25/2019  | 100.5053  | 100.2940885 | 100.0837746 | 99.8743554  | 99.66582507 | 99.45817793 | 99.2514083  | 99.04551058 | 98.84047919 |
| 190925A00019 | 9/27/2019                           | 1.93 | 9/27/2023  | 9/27/2019  | 101.29151 | 100.2983032 | 99.3244954  | 98.36952369 | 97.43284575 | 96.51393994 | 95.61230427 | 94.72745552 | 93.85892832 |
| 200108A00021 | 1/13/2020                           | 1.97 | 1/13/2025  | 1/13/2020  | 102.87243 | 100.6134662 | 98.41509308 | 96.27529532 | 94.19213572 | 92.16375571 | 90.1883714  | 88.26427002 | 86.38980646 |
| 200922A00037 | 9/24/2020                           | 2.76 | 9/23/2025  | 9/24/2020  | 106.16188 | 103.1837927 | 100.3054554 | 97.52298414 | 94.83266462 | 92.23094772 | 89.71444135 | 87.27990251 | 84.92422982 |
| 210429A00005 | 4/29/2021                           | 2.08 | 4/29/2031  | 4/29/2021  | 112.56884 | 104.0719262 | 96.28635008 | 89.14870267 | 82.60153998 | 76.59279111 | 71.07523025 | 66.00600313 | 61.34620193 |
| 190501A00017 | 5/1/2019                            | 2.61 | 5/1/2024   | 5/1/2019   | 102.9847  | 101.4056917 | 99.8585882  | 98.34248514 | 96.85651621 | 95.39984713 | 93.97167415 | 92.57122265 | 91.19774577 |
| 190626A00015 | 6/26/2019                           | 2.15 | 6/26/2024  | 6/26/2019  | 102.48986 | 100.7654019 | 99.07806513 | 97.42671208 | 95.81025612 | 94.22765481 | 92.67790756 | 91.16005351 | 89.67316949 |
| 190816A00016 | 8/16/2019                           | 2.2  | 8/16/2029  | 8/16/2019  | 111.4959  | 104.6321365 | 98.24042112 | 92.28583489 | 86.73621163 | 81.56190633 | 76.73558583 | 72.23203775 | 68.02799613 |
| 190926A00016 | 9/26/2019                           | 2.28 | 5/24/2030  | 9/26/2019  | 113.11625 | 105.4664464 | 98.39381918 | 91.85169441 | 85.79740912 | 80.19194409 | 74.9995948  | 70.18767364 | 65.7262404  |
| 191004A00003 | 10/4/2019                           | 1.89 | 10/5/2026  | 10/4/2019  | 105.31395 | 101.351301  | 97.55984518 | 93.93129099 | 90.45779243 | 87.13192329 | 83.94665238 | 80.89532033 | 77.97161791 |
| 191017A00026 | 10/17/2019                          | 2.3  | 7/17/2029  | 10/17/2019 | 112.06345 | 105.2575002 | 98.91421112 | 92.99968086 | 87.48266449 | 82.33434887 | 77.5281515  | 73.03953686 | 68.84584889 |
| 200115A00018 | 1/15/2020                           | 1.9  | 1/16/2024  | 1/15/2020  | 101.45447 | 100.1702524 | 98.91277184 | 97.68120147 | 96.47474565 | 95.29264149 | 94.13415717 | 92.99859036 | 91.88526671 |
| 220726A00060 | 7/26/2022                           | 3.32 | 7/26/2024  | 7/26/2022  | 104.74377 | 102.9192812 | 101.1355373 | 99.39137112 | 97.68565952 | 96.01731896 | 94.38530388 | 92.78860513 | 91.22624838 |
| 050902A00032 | 9/2/2005                            | 4.69 | 8/22/2025  | 9/2/2005   | 111.96518 | 108.9788758 | 106.0893302 | 103.2928867 | 100.5860434 | 97.96544958 | 95.42789873 | 92.97032106 | 90.58977704 |
| 180724A00075 | 7/24/2018                           | 2.98 | 7/24/2023  | 7/24/2018  | 102.08878 | 101.2656797 | 100.4558422 | 99.65895056 | 98.87469593 | 98.10277928 | 97.34291096 | 96.59481031 | 95.85820532 |
| 200922A00043 | 9/24/2020                           | 2.4  | 9/25/2023  | 9/24/2020  | 101.75603 | 100.765688  | 99.79457494 | 98.84213461 | 97.90783231 | 96.99115359 | 96.09160329 | 95.20870465 | 94.34199845 |
| 210624A00022 | 6/24/2021                           | 0.87 | 6/24/2025  | 6/24/2021  | 100.78523 | 98.11468883 | 95.52758666 | 93.02077351 | 90.59124646 | 88.23613756 | 85.95270657 | 83.73833423 | 81.59051589 |
| 220819A00037 | 8/19/2022                           | 3.61 | 2/20/2024  | 8/19/2022  | 103.9948  | 102.599826  | 101.2303657 | 99.88577386 | 98.56543108 | 97.26873792 | 95.99511434 | 94.74399878 | 93.51484754 |
| 150220A00022 | 2/20/2015                           | 2.8  | 2/20/2025  | 2/20/2015  | 105.01188 | 102.622412  | 100.2995622 | 98.04110119 | 95.84489186 | 93.70888055 | 91.63109332 | 89.6096324  | 87.64267272 |
| 170908A00017 | 9/9/2019                            | 2.32 | 9/9/2024   | 9/9/2019   | 103.13238 | 101.2039888 | 99.32128532 | 97.48291304 | 95.68756206 | 93.93396993 | 92.22091964 | 90.54723765 | 88.91179204 |
| 180629A00071 | 6/29/2018                           | 3.02 | 6/29/2023  | 6/29/2018  | 101.90317 | 101.1498705 | 100.407691  | 99.67638807 | 98.95572382 | 98.24546742 | 97.54539463 | 96.85528762 | 96.17493472 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 181016A00087 | 10/16/2018                          | 3.31 | 10/16/2023 | 10/16/2018 | 102.78089 | 101.7286355 | 100.6979323 | 99.6881261  | 98.69858546 | 97.7287042  | 96.77790013 | 95.84561386 | 94.93130768 |
| 200604A00009 | 6/4/2020                            | 0.7  | 6/4/2025   | 6/4/2020   | 100.3037  | 97.6928871  | 95.16234567 | 92.70910563 | 90.3303266  | 88.02329309 | 85.78540801 | 83.61418653 | 81.50725037 |
| 200814A00011 | 8/18/2020                           | 1.58 | 8/16/2030  | 8/18/2020  | 107.94006 | 100.2733201 | 93.2049967  | 86.68534588 | 80.66899507 | 75.11453591 | 69.98415988 | 65.24332908 | 60.86047854 |
| 210527A00019 | 5/27/2021                           | 1    | 5/27/2026  | 5/27/2021  | 101.88741 | 98.3186156  | 94.89261426 | 91.60291079 | 88.44334132 | 85.40805767 | 82.49150904 | 79.68842506 | 76.99379975 |
| 211222A00012 | 12/22/2021                          | 0.88 | 7/17/2023  | 12/22/2021 | 100.27786 | 99.48288394 | 98.70044973 | 97.93026352 | 97.17203947 | 96.42550058 | 95.69037836 | 94.96641249 | 94.2533505  |
| 170427A00046 | 4/27/2017                           | 3.1  | 4/27/2028  | 4/27/2017  | 114.51744 | 108.8187185 | 103.4438814 | 98.372766   | 93.58657124 | 89.06775734 | 84.7999547  | 80.76787975 | 76.9572573  |
| 180130A00084 | 1/30/2018                           | 2.59 | 1/30/2023  | 1/30/2018  | 100.90905 | 100.5696094 | 100.2324444 | 99.89753544 | 99.56486007 | 99.234396   | 98.90612127 | 98.58001421 | 98.25605342 |
| 181203A00053 | 12/4/2018                           | 3.23 | 12/1/2023  | 12/4/2018  | 102.92555 | 101.749665  | 100.6006373 | 99.47755765 | 98.37955416 | 97.30579351 | 96.25547896 | 95.22784835 | 94.22217225 |
| 190530A00045 | 5/30/2019                           | 2.44 | 5/30/2024  | 5/30/2019  | 102.85646 | 101.2020509 | 99.58210325 | 97.99560828 | 96.44159301 | 94.91912225 | 93.4272967  | 91.96525123 | 90.53215323 |
| 191121A00034 | 11/21/2019                          | 2.28 | 11/2/2029  | 11/21/2019 | 112.34524 | 105.2511832 | 98.6579046  | 92.52738275 | 86.82466947 | 81.51762972 | 76.57670139 | 71.97467672 | 67.68650337 |
| 200225A00017 | 2/25/2020                           | 1.94 | 2/25/2030  | 2/25/2020  | 110.29376 | 102.972176  | 96.18975179 | 89.90399194 | 84.07595322 | 78.66993163 | 73.65317786 | 68.99563914 | 64.66972484 |
| 200306A00046 | 3/6/2020                            | 1.01 | 3/3/2025   | 3/6/2020   | 100.71744 | 98.34992802 | 96.04954855 | 93.81403282 | 91.6411978  | 89.52894691 | 87.47526605 | 85.47821986 | 83.5359481  |
| 200326A00029 | 3/26/2020                           | 1.82 | 3/26/2027  | 3/26/2020  | 105.85638 | 101.4282932 | 97.21080813 | 93.19282372 | 89.3638833  | 85.71413204 | 82.23427915 | 78.9155626  | 75.74971637 |
| 200611A00011 | 6/11/2020                           | 1.2  | 6/9/2028   | 6/11/2020  | 104.0315  | 98.51132014 | 93.31519255 | 88.42244294 | 83.81382026 | 79.47139476 | 75.37846018 | 71.51944374 | 67.87982324 |
| 200722A00012 | 7/22/2020                           | 0.41 | 7/21/2023  | 7/22/2020  | 99.97407  | 99.16859194 | 98.37601381 | 97.59602797 | 96.82833632 | 96.07265011 | 95.32868955 | 94.59618351 | 93.87486914 |
| 210209A00029 | 2/12/2021                           | 0.8  | 12/15/2025 | 2/12/2021  | 100.39922 | 97.29334186 | 94.29844324 | 91.40991007 | 88.62334817 | 85.93457405 | 83.33960328 | 80.83463954 | 78.4160644  |
| 111024A00022 | 10/24/2011                          | 3.11 | 10/30/2023 | 10/24/2011 | 102.75749 | 101.6661146 | 100.5979065 | 99.55213051 | 98.52808524 | 97.52509844 | 96.5425253  | 95.5797471  | 94.63616991 |
| 150601A00916 | 6/1/2015                            | 7.27 | 4/5/2030   | 6/1/2015   | 149.38023 | 140.5324366 | 132.3137947 | 124.6753366 | 117.5721743 | 110.9631421 | 104.8104687 | 99.07947962 | 93.73832815 |
| 180103A00027 | 1/3/2018                            | 2.51 | 1/3/2023   | 1/3/2018   | 100.71861 | 100.4544556 | 100.1916854 | 99.93028929 | 99.67025669 | 99.4115769  | 99.15423939 | 98.89823374 | 98.64354963 |
| 180814A00010 | 8/14/2018                           | 3.1  | 8/14/2025  | 8/14/2018  | 107.27903 | 104.3825471 | 101.5798186 | 98.86731454 | 96.24165571 | 93.69960795 | 91.23807515 | 88.85409263 | 86.54482076 |
| 180912A00011 | 9/12/2018                           | 3.41 | 9/11/2026  | 9/12/2018  | 111.20037 | 107.1852226 | 103.3395661 | 99.65535064 | 96.1249486  | 92.74113303 | 89.49705439 | 86.38621882 | 83.4024678  |
| 190326A00004 | 3/26/2019                           | 2.58 | 9/26/2023  | 3/26/2019  | 101.93965 | 100.9456378 | 99.97097029 | 99.01508689 | 98.0774485  | 97.15753642 | 96.25485146 | 95.36891301 | 94.4992582  |
| 190618A00002 | 6/18/2019                           | 2.11 | 6/18/2025  | 6/18/2019  | 104.16788 | 101.4666667 | 98.8490791  | 96.31198403 | 93.85239297 | 91.46745065 | 89.15442804 | 86.9107157  | 84.73381753 |
| 191008A00031 | 10/8/2019                           | 1.52 | 10/8/2024  | 10/8/2019  | 101.87915 | 99.88159718 | 97.93318074 | 96.03238286 | 94.17774047 | 92.3678459  | 90.60134437 | 88.87693159 | 87.19335149 |
| 150319A00013 | 3/19/2015                           | 3.25 | 3/19/2030  | 3/19/2015  | 120.06639 | 112.334308  | 105.1682637 | 98.52361296 | 92.35946019 | 86.6383225  | 81.32582852 | 76.39044518 | 71.80322985 |
| 160113A00030 | 1/13/2016                           | 2.52 | 1/13/2025  | 1/13/2016  | 104.43902 | 102.1556771 | 99.93359033 | 97.77071514 | 95.66509147 | 93.61483891 | 91.61815277 | 89.67330036 | 87.77861758 |
| 170914A00039 | 9/14/2017                           | 2.23 | 9/16/2024  | 9/14/2017  | 103.22377 | 101.2711518 | 99.36531216 | 97.50484243 | 95.68838712 | 93.91464049 | 92.18234433 | 90.49028593 | 88.83729607 |
| 190211A00002 | 2/11/2019                           | 2.88 | 2/12/2024  | 2/11/2019  | 102.91547 | 101.5509979 | 100.2111348 | 98.89527041 | 97.60281545 | 96.33319947 | 95.0858701  | 93.86029237 | 92.65594799 |
| 190328A00003 | 3/28/2019                           | 2.64 | 9/30/2024  | 3/28/2019  | 103.85675 | 101.8647126 | 99.92117367 | 98.02464913 | 96.17371064 | 94.3669832  | 92.60314277 | 90.88091402 | 89.19906814 |
| 200302A00028 | 3/2/2020                            | 1.25 | 2/26/2024  | 3/2/2020   | 100.6925  | 99.30502773 | 97.94322896 | 96.6064496  | 95.29406093 | 94.00545483 | 92.74004292 | 91.4972558  | 90.27654225 |
| 200303A00018 | 3/3/2020                            | 1.27 | 3/3/2025   | 3/3/2020   | 101.35107 | 98.97573649 | 96.66771031 | 94.42471298 | 92.24455652 | 90.12513961 | 88.06444357 | 86.06052863 | 84.11153033 |
| 200511A00018 | 5/11/2020                           | 0.98 | 2/2/2026   | 5/11/2020  | 101.06874 | 97.82669675 | 94.70458811 | 91.69737881 | 88.80027246 | 86.00869734 | 83.31829479 | 80.72490807 | 78.22457206 |
| 210216A00007 | 2/16/2021                           | 1.3  | 2/16/2029  | 2/16/2021  | 105.96988 | 99.71556577 | 93.86796134 | 88.39861468 | 83.2812027  | 78.49135837 | 74.00651618 | 69.8057706  | 65.86974629 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 150601A00405 | 6/1/2015                            | 4.63 | 1/17/2034  | 6/1/2015   | 141.71189 | 129.2230297 | 118.0208825 | 107.963421  | 98.92509085 | 90.79481577 | 83.47425616 | 76.87628555 | 70.92365624 |
| 180205A00018 | 2/5/2018                            | 2.66 | 2/3/2023   | 2/5/2018   | 100.95249 | 100.6019034 | 100.2537548 | 99.90801433 | 99.56465694 | 99.22365808 | 98.8849935  | 98.54863929 | 98.21457184 |
| 210106A00007 | 1/8/2021                            | 0.49 | 7/25/2023  | 1/8/2021   | 99.954217 | 99.13915368 | 98.33729736 | 97.54832936 | 96.77194112 | 96.00783392 | 95.25571836 | 94.51531413 | 93.78634955 |
| 220531A00020 | 5/31/2022                           | 2.86 | 5/31/2024  | 5/31/2022  | 103.56794 | 101.904719  | 100.2761612 | 98.68125163 | 97.1190106  | 95.58849643 | 94.08880366 | 92.6190613  | 91.1784311  |
| 220823A00060 | 8/23/2022                           | 3.5  | 8/23/2024  | 8/23/2022  | 105.5414  | 103.6304016 | 101.7636618 | 99.93989025 | 98.15784399 | 96.41632417 | 94.71417414 | 93.0502777  | 91.4235574  |
| 141028A00012 | 10/28/2014                          | 2.73 | 10/28/2022 | 10/28/2014 | 100.28979 | 100.2119354 | 100.1342014 | 100.0565927 | 99.97910903 | 99.90175014 | 99.82451571 | 99.74740545 | 99.67041907 |
| 190828A00015 | 8/28/2019                           | 2.04 | 8/28/2029  | 8/28/2019  | 110.43978 | 103.5809155 | 97.19650606 | 91.25128276 | 85.71276588 | 80.55103347 | 75.73850798 | 71.24976161 | 67.06133875 |
| 200302A00008 | 3/2/2020                            | 1.2  | 3/9/2023   | 3/2/2020   | 100.4245  | 99.98220267 | 99.54379783 | 99.1092341  | 98.67846109 | 98.25142928 | 97.82809002 | 97.40839548 | 96.99229869 |
| 200722A00010 | 7/22/2020                           | 0.66 | 7/22/2024  | 7/22/2020  | 99.861258 | 98.09313691 | 96.36446145 | 94.67409192 | 93.02093003 | 91.4039172  | 89.82203279 | 88.27429245 | 86.75974654 |
| 200925A00003 | 9/25/2020                           | 0.59 | 9/25/2024  | 9/25/2020  | 99.723637 | 97.78739111 | 95.89817608 | 94.05455999 | 92.25516485 | 90.49866382 | 88.78377888 | 87.10927869 | 85.47397656 |
| 210514A00033 | 5/18/2021                           | 2.8  | 5/18/2028  | 5/18/2021  | 112.97809 | 107.2660813 | 101.8821784 | 96.80576185 | 92.01761889 | 87.49983779 | 83.23571293 | 79.20965718 | 75.40712117 |
| 170427A00047 | 4/27/2017                           | 3.18 | 4/27/2029  | 4/27/2017  | 117.48659 | 110.7170454 | 104.3912394 | 98.47762749 | 92.94707259 | 87.77264583 | 82.92944832 | 78.39444789 | 74.14632992 |
| 180530A00030 | 5/30/2018                           | 3.68 | 5/30/2034  | 5/30/2018  | 132.58725 | 120.2418447 | 109.2192195 | 99.36838958 | 90.55642367 | 82.66619556 | 75.59442809 | 69.24998808 | 63.55239912 |
| 180823A00013 | 8/23/2018                           | 2.97 | 8/23/2023  | 8/23/2018  | 102.16315 | 101.2594823 | 100.3717915 | 99.49965508 | 98.64266651 | 97.80043344 | 96.97257697 | 96.15873105 | 95.358542   |
| 200304A00010 | 3/4/2020                            | 1.2  | 3/4/2027   | 3/4/2020   | 103.59539 | 99.2559666  | 95.12145037 | 91.18114328 | 87.42495979 | 83.84338872 | 80.42745758 | 77.16869937 | 74.05912147 |
| 190529A00011 | 5/29/2019                           | 2.36 | 5/30/2023  | 5/29/2019  | 101.28019 | 100.6111175 | 99.95086099 | 99.29924707 | 98.65610698 | 98.02127633 | 97.39459494 | 96.77590675 | 96.16505962 |
| 190814A00009 | 8/14/2019                           | 1.84 | 8/14/2024  | 8/14/2019  | 102.08798 | 100.2388817 | 98.43218891 | 96.66667979 | 94.94117777 | 93.25454738 | 91.60569247 | 89.99355471 | 88.41711194 |
| 190930A00071 | 9/30/2019                           | 2.05 | 9/29/2025  | 9/30/2019  | 104.06329 | 101.1007892 | 98.23831662 | 95.47194816 | 92.79793564 | 90.21269878 | 87.71281664 | 85.29501958 | 82.95618161 |
| 210603A00015 | 6/7/2021                            | 2.71 | 6/7/2028   | 6/7/2021   | 112.59057 | 106.836288  | 101.4154526 | 96.30693219 | 91.49104927 | 86.94947076 | 82.6651086  | 78.62202849 | 74.80536589 |
| 180102A00020 | 1/2/2018                            | 2.5  | 1/3/2023   | 1/2/2018   | 100.71597 | 100.4518193 | 100.1890537 | 99.92766219 | 99.66763416 | 99.40895892 | 99.15162594 | 98.89562481 | 98.64094519 |
| 200429A00035 | 5/1/2020                            | 1.41 | 4/30/2024  | 5/1/2020   | 101.06268 | 99.50221117 | 97.97327032 | 96.47497223 | 95.00646169 | 93.56691504 | 92.15553868 | 90.77156771 | 89.41426461 |
| 170915A00001 | 9/15/2017                           | 2.43 | 9/16/2024  | 9/15/2017  | 103.36335 | 101.414121  | 99.5114962  | 97.65407815 | 95.84051848 | 94.06951817 | 92.33982543 | 90.65023363 | 88.99957935 |
| 171103A00017 | 11/3/2017                           | 2.09 | 11/3/2022  | 11/3/2017  | 100.29006 | 100.1954891 | 100.1010966 | 100.0068866 | 99.91285846 | 99.81901175 | 99.7253459  | 99.63186039 | 99.53855467 |
| 181128A00031 | 11/28/2018                          | 3.29 | 11/28/2023 | 11/28/2018 | 102.98086 | 101.8126121 | 100.6708709 | 99.55474028 | 98.46336528 | 97.39592854 | 96.35164839 | 95.32977685 | 94.32959786 |
| 190523A00017 | 5/23/2019                           | 2.51 | 3/15/2024  | 5/23/2019  | 102.57573 | 101.1264841 | 99.70490271 | 98.3102591  | 96.94185467 | 95.59901446 | 94.28108618 | 92.98743927 | 91.71746399 |
| 190820A00020 | 8/20/2019                           | 1.76 | 8/20/2024  | 8/20/2019  | 101.97363 | 100.1096573 | 98.28875865 | 96.50968985 | 94.77124653 | 93.07226678 | 91.41162935 | 89.78825193 | 88.20108953 |
| 190923A00020 | 9/23/2019                           | 2.05 | 9/24/2029  | 9/23/2019  | 111.61094 | 104.6010964 | 98.08170346 | 92.0158763  | 86.36968532 | 81.11190451 | 76.21378301 | 71.64883721 | 67.39266116 |
| 200227A00052 | 2/27/2020                           | 1.41 | 2/27/2023  | 2/27/2020  | 100.50679 | 100.0916537 | 99.67993441 | 99.27158914 | 98.86657665 | 98.46485634 | 98.06638827 | 97.67113314 | 97.27905227 |
| 200403A00006 | 4/3/2020                            | 1.05 | 4/3/2025   | 4/3/2020   | 100.83582 | 98.38735709 | 96.01052788 | 93.70282906 | 91.46185746 | 89.28530851 | 87.17097155 | 85.11672537 | 83.12053399 |
| 171205A00014 | 12/5/2017                           | 2.49 | 12/5/2022  | 12/5/2017  | 100.54581 | 100.3622502 | 100.1793618 | 99.99714521 | 99.8155967  | 99.63471256 | 99.45448915 | 99.27492281 | 99.09600994 |
| 190213A00023 | 2/13/2019                           | 2.93 | 2/13/2024  | 2/13/2019  | 102.99147 | 101.6236235 | 100.2804911 | 98.9614583  | 97.66593222 | 96.39333905 | 95.14312317 | 93.91474648 | 92.70768773 |
| 190214A00008 | 2/14/2019                           | 2.64 | 2/14/2023  | 2/14/2019  | 100.99654 | 100.6155306 | 100.2374053 | 99.86212832 | 99.48966756 | 99.11999126 | 98.7530682  | 98.38886761 | 98.02735916 |
| 200611A00013 | 6/11/2020                           | 0.59 | 6/12/2023  | 6/11/2020  | 100.0817  | 99.38193905 | 98.69191513 | 98.0114279  | 97.3402807  | 96.67828227 | 96.02524652 | 95.38099239 | 94.74534368 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 150317A00013 | 3/17/2015                           | 2.58 | 3/17/2025  | 3/17/2015  | 104.93433 | 102.4714404 | 100.0791997 | 97.75518099 | 95.49705378 | 93.30258173 | 91.16961796 | 89.09610097 | 87.08005065 |
| 180828A00032 | 8/28/2018                           | 3.49 | 8/29/2033  | 8/28/2018  | 130.8958  | 119.2612088 | 108.8089397 | 99.41103562 | 90.9540593  | 83.3373741  | 76.47163911 | 70.27748773 | 64.68436692 |
| 180910A00028 | 9/10/2018                           | 3.56 | 9/9/2033   | 9/10/2018  | 131.70771 | 120.0013892 | 109.4864905 | 100.0338214 | 91.52887546 | 83.87009568 | 76.96734845 | 70.74058428 | 65.11866156 |
| 190603A00003 | 6/3/2019                            | 2.05 | 6/3/2024   | 6/3/2019   | 102.41914 | 100.7542243 | 99.1242265  | 97.52810991 | 95.96488208 | 94.43358945 | 92.93331541 | 91.46317844 | 90.02233044 |
| 191105A00018 | 11/5/2019                           | 1.78 | 11/6/2023  | 11/5/2019  | 101.30963 | 100.208119  | 99.130452   | 98.07585899 | 97.04360523 | 96.03298689 | 95.04332943 | 94.07398611 | 93.12433654 |
| 200302A00031 | 3/2/2020                            | 1.02 | 11/18/2022 | 3/2/2020   | 100.24077 | 100.1045967 | 99.96880723 | 99.83340027 | 99.69837414 | 99.56372721 | 99.42945784 | 99.29556441 | 99.16204531 |
| 200312A00017 | 3/16/2020                           | 1.09 | 2/15/2023  | 3/16/2020  | 100.37253 | 99.99062978 | 99.61163657 | 99.23551668 | 98.86223746 | 98.49176677 | 98.12407293 | 97.75912476 | 97.39689153 |
| 200429A00018 | 5/4/2020                            | 0.73 | 4/17/2023  | 5/4/2020   | 100.19396 | 99.64585912 | 99.10374214 | 98.56750787 | 98.03706088 | 97.51230779 | 96.99315723 | 96.47951978 | 95.9713079  |
| 220726A00059 | 7/26/2022                           | 3.34 | 1/26/2024  | 7/26/2022  | 103.41698 | 102.0949964 | 100.7976881 | 99.52439827 | 98.27449055 | 97.04735114 | 95.84238769 | 94.65902836 | 93.49672096 |
| 170120A00008 | 1/20/2017                           | 3.63 | 1/20/2034  | 1/20/2017  | 131.40078 | 119.4595914 | 108.7646891 | 99.17750255 | 90.57560463 | 82.85075446 | 75.90718582 | 69.66010968 | 64.03440321 |
| 180914A00029 | 9/14/2018                           | 3.48 | 9/14/2028  | 9/14/2018  | 117.72944 | 111.5634346 | 105.7675536 | 100.3175593 | 95.19092609 | 90.36670864 | 85.82542351 | 81.54893981 | 77.52037877 |
| 181010A00020 | 10/10/2018                          | 3.27 | 12/1/2022  | 10/10/2018 | 100.65675 | 100.4841357 | 100.3121128 | 100.1406771 | 99.96982542 | 99.79955494 | 99.62986267 | 99.46074571 | 99.29220116 |
| 190620A00056 | 6/25/2019                           | 2.07 | 1/17/2023  | 6/25/2019  | 100.65444 | 100.3517264 | 100.0508461 | 99.75177935 | 99.45450959 | 99.15902062 | 98.86529641 | 98.57332108 | 98.283079   |
| 200228A00067 | 2/28/2020                           | 1.4  | 2/28/2025  | 2/28/2020  | 101.66317 | 99.29168657 | 96.98716651 | 94.74734668 | 92.57005761 | 90.4532154  | 88.39481785 | 86.39294075 | 84.44573432 |
| 200506A00005 | 5/6/2020                            | 0.97 | 5/6/2025   | 5/6/2020   | 100.66471 | 98.13130797 | 95.67389618 | 93.28973518 | 90.97620413 | 88.73079372 | 86.55110063 | 84.43482224 | 82.37975168 |
| 200922A00041 | 9/24/2020                           | 2.68 | 9/23/2024  | 9/24/2020  | 103.89761 | 101.924059  | 99.99810918 | 98.11832173 | 96.28330701 | 94.49172676 | 92.74229188 | 91.03376022 | 89.36493452 |
| 181109A00029 | 11/9/2018                           | 3.72 | 11/9/2026  | 11/9/2018  | 113.01281 | 108.8013146 | 104.7732364 | 100.9195667 | 97.23179346 | 93.70186837 | 90.32217869 | 87.08552116 | 83.98507758 |
| 190301A00012 | 3/1/2019                            | 3.41 | 3/1/2029   | 3/1/2019   | 118.5803  | 111.9290872 | 105.7040278 | 99.87548639 | 94.41603295 | 89.30027164 | 84.50468013 | 80.00746237 | 75.78841364 |
| 190314A00027 | 3/22/2019                           | 2.92 | 3/21/2025  | 3/22/2019  | 105.4751  | 103.0017851 | 100.5995385 | 98.2659082  | 95.99854509 | 93.79519505 | 91.65369441 | 89.57196575 | 87.54801386 |
| 190430A00001 | 4/30/2019                           | 2.47 | 5/2/2024   | 4/30/2019  | 102.95715 | 101.3724717 | 99.81989839 | 98.29851711 | 96.80745384 | 95.34586693 | 93.91294565 | 92.50790876 | 91.1300031  |
| 200224A00007 | 2/24/2020                           | 1.59 | 2/24/2025  | 2/24/2020  | 102.11202 | 99.74646688 | 97.44737351 | 95.21251128 | 93.03973627 | 90.92698875 | 88.87228935 | 86.87373542 | 84.92949761 |
| 200228A00020 | 2/28/2020                           | 1.32 | 2/24/2023  | 2/28/2020  | 100.46714 | 100.060329  | 99.65680444 | 99.25652669 | 98.85945673 | 98.46555613 | 98.07478709 | 97.6871124  | 97.30249543 |
| 200305A00008 | 3/10/2020                           | 1.01 | 6/19/2023  | 3/10/2020  | 100.38188 | 99.6619778  | 98.95235664 | 98.25279925 | 97.56309272 | 96.88303007 | 96.21241013 | 95.55103725 | 94.8987212  |
| 200311A00006 | 3/13/2020                           | 1.12 | 3/10/2025  | 3/13/2020  | 100.99118 | 98.60237944 | 96.28180099 | 94.02711582 | 91.83608962 | 89.70657729 | 87.63651883 | 85.62393539 | 83.66692557 |
| 200811A00003 | 8/11/2020                           | 0.57 | 8/11/2025  | 8/11/2020  | 99.96831  | 97.1857654  | 94.49390107 | 91.88929667 | 89.36867958 | 86.92891752 | 84.5670118  | 82.28009085 | 80.06540412 |
| 220118A00008 | 1/18/2022                           | 1.36 | 1/18/2024  | 1/18/2022  | 100.75242 | 99.46823959 | 98.21025848 | 96.97768198 | 95.76974947 | 94.58573086 | 93.42492512 | 92.28665876 | 91.17028454 |
| 150819A00012 | 8/19/2015                           | 3.04 | 8/19/2025  | 8/19/2015  | 106.7579  | 103.8645184 | 101.0650624 | 98.35598653 | 95.73389648 | 93.19554419 | 90.73782061 | 88.35774898 | 86.05247846 |
| 170111A00011 | 1/11/2017                           | 3.24 | 1/11/2029  | 1/11/2017  | 117.13958 | 110.6707353 | 104.6088617 | 98.92610513 | 93.59666658 | 88.5966364  | 83.90384627 | 79.49773349 | 75.35921635 |
| 171016A00005 | 10/16/2017                          | 2.2  | 10/17/2022 | 10/16/2017 | 100.15089 | 100.1036474 | 100.0564653 | 100.0093449 | 99.96228605 | 99.91528872 | 99.86835274 | 99.82147799 | 99.77466434 |
| 180222A00027 | 2/22/2018                           | 3.24 | 2/22/2028  | 2/22/2018  | 115.61364 | 110.0343526 | 104.7634742 | 99.78231898 | 95.07343123 | 90.62049405 | 86.4082494  | 82.42242426 | 78.64966215 |
| 190426A00016 | 5/1/2019                            | 2.58 | 4/14/2023  | 5/1/2019   | 101.20183 | 100.6587485 | 100.1214905 | 99.58996742 | 99.06408763 | 98.54376144 | 98.0289011  | 97.51942067 | 97.01523602 |
| 190930A00077 | 9/30/2019                           | 2.23 | 9/28/2029  | 9/30/2019  | 111.86281 | 104.8751391 | 98.37547317 | 92.32715166 | 86.69644408 | 81.45230597 | 76.56615208 | 72.01164985 | 67.76453121 |
| 200511A00021 | 5/11/2020                           | 1.53 | 2/1/2029   | 5/11/2020  | 106.48307 | 100.2892608 | 94.49419689 | 89.07023994 | 83.99179427 | 79.23514986 | 74.77833472 | 70.60097942 | 66.68419288 |

|              | Parallel-Shift Sensitivity Analysis |       |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|-------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |       |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate  | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 220826A00033 | 8/26/2022                           | 3.73  | 8/26/2025  | 8/26/2022  | 108.81679 | 105.8748018 | 103.0286327 | 100.2746486 | 97.60937131 | 95.02947296 | 92.53176911 | 90.11321151 | 87.77088157 |
| 150601A00664 | 6/1/2015                            | 3.78  | 1/16/2032  | 6/1/2015   | 128.28452 | 118.432297  | 109.4472433 | 101.2475968 | 93.7597295  | 86.91730005 | 80.660497   | 74.93536461 | 69.69320128 |
| 150821A00018 | 8/21/2015                           | 2.6   | 8/21/2024  | 8/21/2015  | 103.80694 | 101.9182357 | 100.0732374 | 98.2706709  | 96.50931133 | 94.78797735 | 93.10552902 | 91.46086617 | 89.8529267  |
| 170322A00022 | 3/22/2017                           | 3.89  | 9/23/2041  | 3/22/2017  | 144.66038 | 125.0943141 | 108.6734272 | 94.85961747 | 83.21037723 | 73.36131837 | 65.01196945 | 57.91421983 | 51.86290655 |
| 190606A00023 | 6/6/2019                            | 2.23  | 6/6/2024   | 6/6/2019   | 102.53631 | 100.8657245 | 99.23024463 | 97.62882488 | 96.06046454 | 94.5242023  | 93.01911418 | 91.54431172 | 90.09894028 |
| 150601A00830 | 6/1/2015                            | 6.743 | 7/31/2025  | 6/1/2015   | 117.2833  | 114.2805052 | 111.3726401 | 108.5561912 | 105.8277913 | 103.1842156 | 100.6223752 | 98.13931021 | 95.73218409 |
| 170313A00033 | 3/13/2017                           | 3.31  | 3/15/2027  | 3/13/2017  | 112.44419 | 107.898668  | 103.5660502 | 99.43523731 | 95.4957659  | 91.73776922 | 88.15194008 | 84.72949621 | 81.46214791 |
| 170322A00023 | 3/22/2017                           | 3.82  | 9/22/2039  | 3/22/2017  | 141.44121 | 123.7711164 | 108.6970221 | 95.81353556 | 84.78106342 | 75.31480235 | 67.17562103 | 60.16250054 | 54.10626043 |
| 170728A00031 | 7/28/2017                           | 2.27  | 1/27/2023  | 7/28/2017  | 100.75775 | 100.4272449 | 100.0989022 | 99.77270541 | 99.44863356 | 99.12666595 | 98.80678214 | 98.48896196 | 98.17318549 |
| 180705A00062 | 7/5/2018                            | 3.04  | 7/6/2023   | 7/5/2018   | 101.95936 | 101.1867611 | 100.4258665 | 99.67640857 | 98.9381307  | 98.21078393 | 97.49412667 | 96.78792437 | 96.09194934 |
| 181211A00018 | 12/11/2018                          | 3.14  | 12/11/2023 | 12/11/2018 | 102.87079 | 101.6685992 | 100.4945014 | 99.34752257 | 98.22673044 | 97.13123503 | 96.0601863  | 95.01277194 | 93.98821531 |
| 190724A00024 | 7/24/2019                           | 2.49  | 7/24/2029  | 7/24/2019  | 114.38153 | 107.440827  | 100.9729973 | 94.94331733 | 89.31978139 | 84.07287861 | 79.17538657 | 74.60218291 | 70.3300733  |
| 191105A00014 | 11/5/2019                           | 1.96  | 11/6/2023  | 11/5/2019  | 101.38934 | 100.2891543 | 99.212749   | 98.15935968 | 97.12825431 | 96.11873161 | 95.13011942 | 94.16177327 | 93.21307491 |
| 200228A00026 | 2/28/2020                           | 2.14  | 2/28/2035  | 2/28/2020  | 115.21321 | 103.1887726 | 92.55766344 | 83.15003837 | 74.81758762 | 67.43070627 | 60.87605159 | 55.05442978 | 49.87896636 |
| 200506A00010 | 5/6/2020                            | 0.94  | 5/6/2026   | 5/6/2020   | 101.61446 | 98.10449759 | 94.7332999  | 91.49462735 | 88.3825613  | 85.39148182 | 82.51605071 | 79.75119563 | 77.09209529 |
| 170613A00032 | 6/13/2017                           | 2.45  | 6/13/2025  | 6/13/2017  | 105.06987 | 102.3698112 | 99.75289713 | 97.21603659 | 94.75627218 | 92.3707776  | 90.05685077 | 87.81190738 | 85.63347476 |
| 171010A00005 | 10/10/2017                          | 2.06  | 10/11/2022 | 10/10/2017 | 100.09515 | 100.0645676 | 100.0340202 | 100.0035078 | 99.97303053 | 99.94258818 | 99.9121807  | 99.88180805 | 99.85147015 |
| 171026A00009 | 10/26/2017                          | 2.75  | 10/27/2025 | 10/26/2017 | 106.34746 | 103.2767366 | 100.3112798 | 97.44688189 | 94.67952886 | 92.00539081 | 89.42081219 | 86.92230273 | 84.50652893 |
| 180620A00014 | 6/20/2018                           | 3.4   | 6/20/2028  | 6/20/2018  | 116.60605 | 110.7037249 | 105.1434682 | 99.90354713 | 94.96372606 | 90.30515742 | 85.91027865 | 81.76271762 | 77.84720537 |
| 190214A00006 | 2/14/2019                           | 2.67  | 2/14/2024  | 2/14/2019  | 102.80274 | 101.4308032 | 100.0837322 | 98.76091302 | 97.46174746 | 96.18565634 | 94.93207904 | 93.70047266 | 92.49031135 |
| 150601A00668 | 6/1/2015                            | 3.89  | 1/16/2037  | 6/1/2015   | 138.66314 | 123.5244888 | 110.3102417 | 98.76023335 | 88.65096492 | 79.79025842 | 72.01271272 | 65.17583952 | 59.15677446 |
| 180111A00007 | 1/11/2018                           | 2.66  | 1/14/2025  | 1/11/2018  | 104.76742 | 102.4775922 | 100.2492331 | 98.0802967  | 95.96881842 | 93.91291311 | 91.91077133 | 89.96065559 | 88.06089694 |
| 180124A00020 | 1/24/2018                           | 2.53  | 1/24/2023  | 1/24/2018  | 100.85728 | 100.5345249 | 100.2138374 | 99.89520162 | 99.57859797 | 99.26400696 | 98.95140939 | 98.64078631 | 98.33211898 |
| 180410A00017 | 4/10/2018                           | 3.02  | 10/10/2023 | 4/10/2018  | 102.44702 | 101.4127106 | 100.399275  | 99.40608589 | 98.43254064 | 97.47806029 | 96.54208843 | 95.62409015 | 94.72355098 |
| 190409A00019 | 4/9/2019                            | 2.91  | 4/9/2029   | 4/9/2019   | 116.58144 | 109.8528261 | 103.5642382 | 97.68450482 | 92.1848169  | 87.03854044 | 82.22104173 | 77.70952719 | 73.48289697 |
| 190620A00027 | 6/20/2019                           | 2.14  | 6/20/2024  | 6/20/2019  | 102.44565 | 100.7378657 | 99.06657673 | 97.43067963 | 95.82911419 | 94.26086284 | 92.72494851 | 91.22043254 | 89.7464128  |
| 200127A00016 | 1/27/2020                           | 1.81  | 1/27/2025  | 1/27/2020  | 102.54275 | 100.251235  | 98.02210555 | 95.85331583 | 93.74289844 | 91.68896207 | 89.68968802 | 87.74332694 | 85.84819577 |
| 200302A00033 | 3/2/2020                            | 1.31  | 3/3/2025   | 3/2/2020   | 101.44855 | 99.07201472 | 96.76281212 | 94.51866377 | 92.33738094 | 90.21686156 | 88.15508626 | 86.15011459 | 84.20008145 |
| 200828A00002 | 8/28/2020                           | 0.73  | 8/28/2026  | 8/28/2020  | 101.08853 | 97.29455968 | 93.66182724 | 90.18267545 | 86.84985403 | 83.65649182 | 80.59607503 | 77.66242672 | 74.84968771 |
| 210709A00002 | 7/9/2021                            | 1.36  | 7/9/2029   | 7/9/2021   | 106.65824 | 100.0128832 | 93.82277419 | 88.05441269 | 82.67693457 | 77.66188723 | 72.98302904 | 68.61614649 | 64.53888744 |
| 210830A00011 | 8/30/2021                           | 0.53  | 8/30/2023  | 8/30/2021  | 99.941577 | 99.03009876 | 98.13511924 | 97.25619408 | 96.39289493 | 95.54480857 | 94.71153623 | 93.89269292 | 93.08790693 |
| 220225A00013 | 2/25/2022                           | 1.92  | 2/23/2024  | 2/25/2022  | 101.63264 | 100.2466018 | 98.88606569 | 97.55038649 | 96.23894253 | 94.95113236 | 93.68637397 | 92.44410404 | 91.22377716 |
| 180116A00015 | 1/16/2018                           | 3.06  | 1/18/2028  | 1/16/2018  | 113.58811 | 108.1859464 | 103.0774403 | 98.24506086 | 93.67241375 | 89.34416281 | 85.24595623 | 81.3643582  | 77.68678575 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 191104A00024 | 11/4/2019                           | 2.26 | 8/3/2029   | 11/4/2019  | 111.85707 | 105.0145691 | 98.64020863 | 92.69953039 | 87.16077667 | 81.99466713 | 77.17419399 | 72.67443516 | 68.47238357 |
| 140922A00026 | 9/22/2014                           | 3.02 | 9/30/2024  | 9/22/2014  | 104.8862  | 102.8785946 | 100.9199012 | 99.00862302 | 97.14331753 | 95.32259633 | 93.54512257 | 91.80960865 | 90.11481402 |
| 181130A00037 | 11/30/2018                          | 3.05 | 11/30/2023 | 11/30/2018 | 102.83678 | 101.6621592 | 100.5143467 | 99.39243005 | 98.29554003 | 97.22284601 | 96.17355376 | 95.14690349 | 94.14216795 |
| 190918A00007 | 9/20/2019                           | 1.95 | 12/15/2022 | 9/20/2019  | 100.49051 | 100.2793209 | 100.0690293 | 99.85963233 | 99.65112418 | 99.44349912 | 99.23675152 | 99.03087575 | 98.82586624 |
| 200228A00016 | 2/28/2020                           | 1.35 | 2/22/2024  | 2/28/2020  | 100.8246  | 99.44732291 | 98.09534501 | 96.76803182 | 95.46476772 | 94.1849571  | 92.92802358 | 91.69340918 | 90.48057366 |
| 200818A00010 | 8/18/2020                           | 1.88 | 8/20/2035  | 8/18/2020  | 112.02338 | 99.79845704 | 89.0439175  | 79.57429773 | 71.22841157 | 63.86606595 | 57.36523458 | 51.61962398 | 46.53657585 |
| 140423A00036 | 4/23/2014                           | 4.03 | 4/23/2029  | 4/23/2014  | 123.01188 | 116.075978  | 109.5908087 | 103.5244993 | 97.8475949  | 92.53286484 | 87.55512339 | 82.89106593 | 78.51911901 |
| 150601A00512 | 6/1/2015                            | 3.79 | 7/16/2029  | 6/1/2015   | 121.75756 | 114.6327378 | 107.9858068 | 101.7820011 | 95.98926021 | 90.57800801 | 85.52094811 | 80.79287656 | 76.3705111  |
| 190528A00007 | 5/28/2019                           | 2.44 | 11/15/2023 | 5/28/2019  | 101.94798 | 100.8205984 | 99.71809567 | 98.63965203 | 97.58448616 | 96.55185025 | 95.54102822 | 94.55133408 | 93.58211033 |
| 190829A00045 | 8/29/2019                           | 1.9  | 8/28/2026  | 8/29/2019  | 105.16402 | 101.3046138 | 97.60794066 | 94.06631171 | 90.67244095 | 87.41942215 | 84.30070704 | 81.31008492 | 78.44166347 |
| 200722A00011 | 7/22/2020                           | 0.59 | 7/24/2023  | 7/22/2020  | 100.04594 | 99.23303842 | 98.4332705  | 97.64631631 | 96.87187003 | 96.10963549 | 95.35932581 | 94.62066303 | 93.89337778 |
| 220421A00015 | 4/21/2022                           | 3.12 | 9/16/2024  | 4/21/2022  | 104.72812 | 102.7650829 | 100.8489196 | 98.97822275 | 97.15163663 | 95.36785521 | 93.62561995 | 91.92371772 | 90.26097881 |
| 170822A00019 | 8/22/2017                           | 2.44 | 8/22/2024  | 8/22/2017  | 103.27821 | 101.396257  | 99.55785202 | 97.76173148 | 96.00667519 | 94.29150602 | 92.61508816 | 90.97632536 | 89.37415928 |
| 170919A00073 | 9/19/2017                           | 2.28 | 9/19/2024  | 9/19/2017  | 103.33766 | 101.3757722 | 99.46106599 | 97.59211787 | 95.76755525 | 93.98605611 | 92.24634682 | 90.54719996 | 88.88743235 |
| 180529A00066 | 5/29/2018                           | 2.99 | 5/26/2023  | 5/29/2018  | 101.67903 | 101.0193928 | 100.3683048 | 99.72560302 | 99.09112622 | 98.46471718 | 97.84622266 | 97.23549329 | 96.63238346 |
| 180813A00013 | 8/13/2018                           | 2.99 | 12/5/2022  | 8/13/2018  | 100.63756 | 100.453871  | 100.270858  | 100.0885172 | 99.90684483 | 99.72583719 | 99.54549064 | 99.36580154 | 99.18676627 |
| 180830A00039 | 8/30/2018                           | 3.03 | 8/30/2023  | 8/30/2018  | 102.25681 | 101.3337511 | 100.4273346 | 99.53711613 | 98.66266424 | 97.80356283 | 96.95941027 | 96.12981884 | 95.31441415 |
| 181217A00010 | 12/17/2018                          | 3.11 | 12/15/2023 | 12/17/2018 | 102.85483 | 101.6420929 | 100.4579483 | 99.30139451 | 98.17147489 | 97.06727643 | 95.98792747 | 94.93259539 | 93.90048442 |
| 190524A00032 | 5/24/2019                           | 2.45 | 5/24/2023  | 5/24/2019  | 101.31308 | 100.6602488 | 100.0158225 | 99.37963618 | 98.7515324  | 98.13135777 | 97.5189628  | 96.91420169 | 96.31693228 |
| 200130A00012 | 1/30/2020                           | 1.72 | 1/30/2023  | 1/30/2020  | 100.58407 | 100.2456557 | 99.90950771 | 99.57560609 | 99.24392842 | 98.91445261 | 98.58715683 | 98.26201957 | 97.93901958 |
| 200330A00041 | 4/1/2020                            | 1.09 | 4/1/2025   | 4/1/2020   | 100.93408 | 98.48968475 | 96.11669397 | 93.81261202 | 91.57504786 | 89.40170831 | 87.29039343 | 85.23899209 | 83.2454778  |
| 201130A00005 | 11/30/2020                          | 0.28 | 11/30/2022 | 11/30/2020 | 100.15674 | 99.9873808  | 99.81858892 | 99.65036375 | 99.48270248 | 99.31560229 | 99.14906041 | 98.98307406 | 98.81764049 |
| 220711A00020 | 7/11/2022                           | 3.25 | 1/11/2024  | 7/11/2022  | 103.3382  | 102.0507525 | 100.7915088 | 99.55954158 | 98.35396424 | 97.17392861 | 96.01862294 | 94.88726994 | 93.77912496 |
| 170803A00032 | 8/3/2017                            | 2.12 | 8/3/2023   | 8/3/2017   | 101.4148  | 100.5676386 | 99.73458337 | 98.91528831 | 98.10941467 | 97.31663475 | 96.53663141 | 95.76909773 | 95.01373651 |
| 180518A00014 | 5/18/2018                           | 3.17 | 5/18/2023  | 5/18/2018  | 101.74525 | 101.107242  | 100.4772429 | 99.85509846 | 99.24066218 | 98.63379124 | 98.03434636 | 97.44219164 | 96.85719448 |
| 190110A00012 | 1/10/2019                           | 2.97 | 1/18/2024  | 1/10/2019  | 102.86841 | 101.5696222 | 100.2972802 | 99.05058436 | 97.82876742 | 96.63109285 | 95.45685343 | 94.30536974 | 93.1759888  |
| 190809A00020 | 8/9/2019                            | 2.44 | 8/9/2034   | 8/9/2019   | 120.28978 | 108.3518176 | 97.73798249 | 88.29327996 | 79.88162765 | 72.38345995 | 65.69364855 | 59.71969379 | 54.38015028 |
| 121101A00011 | 11/1/2012                           | 2.03 | 11/1/2022  | 11/1/2012  | 100.27186 | 100.1828608 | 100.0940185 | 100.0053346 | 99.91680854 | 99.82843998 | 99.74022849 | 99.65217366 | 99.56427508 |
| 150610A00009 | 6/10/2015                           | 3.03 | 6/10/2025  | 6/10/2015  | 106.62622 | 103.9130242 | 101.2830169 | 98.73311335 | 96.26036476 | 93.8619527  | 91.53518216 | 89.27747511 | 87.08636453 |
| 150721A00027 | 7/21/2015                           | 3.74 | 7/22/2030  | 7/21/2015  | 124.63781 | 116.3997335 | 108.7852287 | 101.743436  | 95.2279045  | 89.19618729 | 83.60947714 | 78.43227673 | 73.63210049 |
| 170612A00039 | 6/12/2017                           | 2.29 | 6/12/2024  | 6/12/2017  | 102.87202 | 101.1785788 | 99.52103197 | 97.89829964 | 96.30934905 | 94.75318858 | 93.22886554 | 91.73546435 | 90.27210461 |
| 180130A00085 | 1/30/2018                           | 2.79 | 1/30/2025  | 1/30/2018  | 105.16061 | 102.8238544 | 100.5508463 | 98.33949498 | 96.18779445 | 94.09381554 | 92.05570258 | 90.07167011 | 88.13999983 |
| 181005A00017 | 10/5/2018                           | 3.27 | 4/11/2023  | 10/5/2018  | 101.55716 | 101.0211956 | 100.4908881 | 99.96615237 | 99.44690081 | 98.9330476  | 98.42450873 | 97.92120193 | 97.42304661 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 190731A00004 | 7/31/2019                           | 2.18 | 7/31/2024  | 7/31/2019  | 102.67204 | 100.853955  | 99.07680271 | 97.33942722 | 95.64071264 | 93.97958129 | 92.35499211 | 90.76593922 | 89.21145048 |
| 200131A00038 | 1/31/2020                           | 1.73 | 1/30/2025  | 1/31/2020  | 102.3631  | 100.0659311 | 97.83150742 | 95.65777716 | 93.54276693 | 91.48457888 | 89.4813873  | 87.53143543 | 85.6330325  |
| 200220A00015 | 2/20/2020                           | 1.57 | 2/20/2025  | 2/20/2020  | 102.36179 | 99.99818299 | 97.70079177 | 95.46740176 | 93.29588275 | 91.1841879  | 89.13035004 | 87.13247802 | 85.18875333 |
| 200922A00036 | 9/24/2020                           | 1.55 | 9/23/2025  | 9/24/2020  | 102.54086 | 99.61721513 | 96.79196265 | 94.06125862 | 91.42143199 | 88.8689753  | 86.40053638 | 84.01291055 | 81.70303323 |
| 050923A00096 | 9/23/2005                           | 4.86 | 9/22/2025  | 9/23/2005  | 112.84071 | 109.7555981 | 106.7730835 | 103.8891794 | 101.1000761 | 98.40213299 | 95.79187069 | 93.26596239 | 90.82122649 |
| 170417A00068 | 4/17/2019                           | 2.59 | 4/17/2024  | 4/17/2019  | 102.87353 | 101.3335617 | 99.82428609 | 98.34485799 | 96.89446073 | 95.47230706 | 94.07763774 | 92.70972042 | 91.36784832 |
| 180913A00029 | 9/13/2018                           | 3.11 | 9/13/2023  | 9/13/2018  | 102.4083  | 101.4466661 | 100.5030861 | 99.57705682 | 98.66809151 | 97.77572131 | 96.89949441 | 96.03897527 | 95.19374392 |
| 181109A00028 | 11/9/2018                           | 3.72 | 11/9/2026  | 11/9/2018  | 113.01281 | 108.8013146 | 104.7732364 | 100.9195667 | 97.23179346 | 93.70186838 | 90.32217869 | 87.08552116 | 83.98507758 |
| 190215A00004 | 2/15/2019                           | 2.84 | 2/15/2023  | 2/15/2019  | 101.04365 | 100.6601683 | 100.279604  | 99.90192188 | 99.52708916 | 99.15507363 | 98.78584354 | 98.41936763 | 98.05561509 |
| 191015A00029 | 10/15/2019                          | 1.91 | 10/15/2024 | 10/15/2019 | 102.43575 | 100.4190798 | 98.45218923 | 96.53352511 | 94.66159682 | 92.83497076 | 91.05226758 | 89.31215974 | 87.61336915 |
| 191220A00001 | 12/20/2019                          | 2.62 | 12/19/2031 | 12/20/2019 | 118.03809 | 108.714842  | 100.2172122 | 92.46730432 | 85.39496851 | 78.93699124 | 73.03637585 | 67.6417011  | 62.70654905 |
| 200110A00014 | 1/10/2020                           | 1.73 | 1/10/2023  | 1/10/2020  | 100.55711 | 100.2736281 | 99.99175487 | 99.71147578 | 99.43277722 | 99.15564576 | 98.88006811 | 98.60603115 | 98.3335219  |
| 160606A00004 | 6/6/2016                            | 2.43 | 6/8/2026   | 6/6/2016   | 106.72704 | 103.0503493 | 99.52059341 | 96.13106213 | 92.87539753 | 89.74756901 | 86.74185417 | 83.85282108 | 81.07531163 |
| 180823A00035 | 8/23/2018                           | 3.05 | 8/22/2025  | 8/23/2018  | 107.19092 | 104.2745154 | 101.4531579 | 98.72324287 | 96.08132218 | 93.52409701 | 91.04841037 | 88.65124014 | 86.32969262 |
| 190227A00005 | 2/27/2019                           | 2.87 | 2/27/2024  | 2/27/2019  | 103.00192 | 101.5945021 | 100.2131414 | 98.85718055 | 97.52597955 | 96.21891953 | 94.93540173 | 93.6748468  | 92.43669394 |
| 190401A00010 | 4/1/2019                            | 2.62 | 4/1/2024   | 4/1/2019   | 102.82824 | 101.3323578 | 99.86583963 | 98.42789798 | 97.01777099 | 95.63472337 | 94.27804521 | 92.94705095 | 91.64107827 |
| 190625A00023 | 6/25/2019                           | 2.47 | 6/25/2027  | 6/25/2019  | 109.29702 | 104.5507661 | 100.0394884 | 95.75026607 | 91.6709604  | 87.79016507 | 84.09715775 | 80.58185497 | 77.23477023 |
| 200630A00004 | 6/30/2020                           | 0.66 | 7/1/2024   | 6/30/2020  | 99.87872  | 98.16453371 | 96.4875464  | 94.8466183  | 93.24065677 | 91.66861365 | 90.12948294 | 88.62229865 | 87.14613275 |
| 150407A00010 | 4/7/2015                            | 2.21 | 4/10/2023  | 4/7/2015   | 101.0328  | 100.5006131 | 99.97403153 | 99.452966   | 98.93733007 | 98.42703906 | 97.92201005 | 97.42216183 | 96.92741485 |
| 180403A00005 | 4/3/2018                            | 2.72 | 4/3/2023   | 4/3/2018   | 101.26646 | 100.7527785 | 100.2442983 | 99.7409444  | 99.24263958 | 98.74930814 | 98.26087585 | 97.77726999 | 97.29841926 |
| 180813A00059 | 8/13/2018                           | 3.01 | 8/11/2023  | 8/13/2018  | 102.13279 | 101.261759  | 100.405577  | 99.56386824 | 98.73626763 | 97.92242236 | 97.1219913  | 96.33464449 | 95.56006277 |
| 190701A00009 | 7/3/2019                            | 2.14 | 7/2/2024   | 7/3/2019   | 102.49825 | 100.7576208 | 99.05473418 | 97.38843979 | 95.75763296 | 94.16125373 | 92.59828453 | 91.067748   | 89.56870503 |
| 190826A00056 | 8/26/2019                           | 1.72 | 8/26/2024  | 8/26/2019  | 101.91481 | 100.0357733 | 98.20049302 | 96.40768942 | 94.6561304  | 92.9446276  | 91.27203454 | 89.6372449  | 88.03919082 |
| 200709A00004 | 7/10/2020                           | 1.4  | 7/10/2025  | 7/10/2020  | 101.92229 | 99.20221767 | 96.56800917 | 94.01643243 | 91.54440167 | 89.14896757 | 86.82731016 | 84.57673215 | 82.39465267 |
| 220601A00038 | 6/3/2022                            | 3.69 | 5/28/2032  | 6/3/2022   | 128.78567 | 118.5540722 | 109.2540074 | 100.7947186 | 93.09476961 | 86.08104222 | 79.68784558 | 73.85612563 | 68.5327622  |
| 180104A00013 | 1/4/2018                            | 2.39 | 1/4/2023   | 1/4/2018   | 100.71519 | 100.4480166 | 100.182262  | 99.91791644 | 99.65496875 | 99.39340781 | 99.13322265 | 98.87440239 | 98.61693628 |
| 190626A00004 | 6/26/2019                           | 2.15 | 6/26/2024  | 6/26/2019  | 102.48986 | 100.7654019 | 99.07806513 | 97.42671208 | 95.81025612 | 94.22765481 | 92.67790756 | 91.16005351 | 89.67316949 |
| 200225A00018 | 2/25/2020                           | 1.94 | 2/25/2030  | 2/25/2020  | 110.29376 | 102.972176  | 96.18975179 | 89.90399194 | 84.07595322 | 78.66993163 | 73.65317786 | 68.99563914 | 64.66972484 |
| 201015A00017 | 10/15/2020                          | 0.29 | 10/17/2022 | 10/15/2020 | 100.0634  | 100.0161992 | 99.96906262 | 99.92198798 | 99.87497517 | 99.82802406 | 99.78113454 | 99.73430647 | 99.68753973 |
| 220421A00013 | 4/21/2022                           | 3.33 | 9/15/2026  | 4/21/2022  | 110.91991 | 106.8993686 | 103.0490648 | 99.36088612 | 95.82715075 | 92.44058135 | 89.19428179 | 86.08171508 | 83.09668272 |
| 160714A00029 | 8/10/2016                           | 2.27 | 8/10/2026  | 8/10/2016  | 106.50712 | 102.6684224 | 98.9894633  | 95.46278309 | 92.08131179 | 88.8383435  | 85.72751574 | 82.74279014 | 79.87843423 |
| 171018A00011 | 10/18/2017                          | 2.68 | 10/18/2027 | 10/18/2017 | 111.75449 | 106.6208457 | 101.75626   | 97.14519825 | 92.77310593 | 88.62634005 | 84.69210706 | 80.95840556 | 77.41397306 |
| 180629A00008 | 6/29/2018                           | 3.02 | 6/29/2023  | 6/29/2018  | 101.90317 | 101.1498705 | 100.407691  | 99.67638807 | 98.95572382 | 98.24546742 | 97.54539463 | 96.85528762 | 96.17493472 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 180910A00032 | 9/10/2018                           | 3.22 | 9/10/2024  | 9/10/2018  | 104.90264 | 102.9537792 | 101.0510797 | 99.19316471 | 97.37870964 | 95.60643795 | 93.87511913 | 92.1835667  | 90.53063631 |
| 190131A00036 | 1/31/2019                           | 2.69 | 7/31/2023  | 1/31/2019  | 101.88558 | 101.0443665 | 100.2170166 | 99.4031874  | 98.6025497  | 97.81478477 | 97.03958408 | 96.27664892 | 95.52568994 |
| 200115A00015 | 1/17/2020                           | 1.88 | 1/17/2023  | 1/17/2020  | 100.59687 | 100.294273  | 99.99350502 | 99.69454998 | 99.39739146 | 99.10201323 | 98.80839924 | 98.51653365 | 98.2264008  |
| 200827A00007 | 8/27/2020                           | 0.77 | 8/27/2025  | 8/27/2020  | 100.18461 | 97.36667368 | 94.64161329 | 92.00588146 | 89.45608895 | 86.98899372 | 84.60149369 | 82.2906199  | 80.05353004 |
| 171219A00025 | 12/19/2017                          | 2.33 | 12/19/2022 | 12/19/2017 | 100.61232 | 100.3896527 | 100.167982  | 99.94730328 | 99.72760979 | 99.5088949  | 99.291152   | 99.07437457 | 98.85855611 |
| 180918A00023 | 9/18/2018                           | 3.17 | 9/18/2023  | 9/18/2018  | 102.48482 | 101.5094387 | 100.5526191 | 99.61383759 | 98.69258729 | 97.78838002 | 96.90074565 | 96.02923119 | 95.17340006 |
| 191206A00019 | 12/6/2019                           | 1.96 | 11/15/2023 | 12/6/2019  | 101.40157 | 100.2775004 | 99.17825305 | 98.10301518 | 97.05100676 | 96.02148119 | 95.01372358 | 94.02704905 | 93.06080121 |
| 200210A00009 | 2/10/2020                           | 1.57 | 2/10/2025  | 2/10/2020  | 102.32689 | 99.99251368 | 97.7228125  | 95.51564572 | 93.36895511 | 91.28076207 | 89.24916404 | 87.27233114 | 85.34850295 |
| 200227A00005 | 2/27/2020                           | 1.43 | 2/27/2024  | 2/27/2020  | 100.95109 | 99.55890551 | 98.19252448 | 96.85128811 | 95.53456342 | 94.24173817 | 92.97222007 | 91.72543595 | 90.50083099 |
| 200309A00046 | 3/9/2020                            | 0.78 | 3/11/2025  | 3/9/2020   | 100.4703  | 98.07878226 | 95.75580617 | 93.49902598 | 91.30619031 | 89.17513799 | 87.10379383 | 85.09016465 | 83.13233553 |
| 200417A00016 | 4/21/2020                           | 2.18 | 4/21/2025  | 4/21/2020  | 103.76217 | 101.2278241 | 98.76836012 | 96.38111644 | 94.06354632 | 91.81320957 | 89.62776739 | 87.50497737 | 85.44268885 |
| 200511A00019 | 5/11/2020                           | 1.18 | 2/1/2027   | 5/11/2020  | 102.8181  | 98.59921079 | 94.57554019 | 90.73709823 | 87.07445887 | 83.57872164 | 80.24147975 | 77.05479031 | 74.01114646 |
| 200615A00005 | 6/15/2020                           | 0.61 | 6/15/2023  | 6/15/2020  | 100.09379 | 99.38586762 | 98.68790925 | 97.99970799 | 97.32106035 | 96.65176846 | 95.99163988 | 95.34048741 | 94.69812895 |
| 200922A00040 | 9/24/2020                           | 2    | 9/23/2024  | 9/24/2020  | 102.5396  | 100.5799042 | 98.66754645 | 96.80108903 | 94.97914968 | 93.20039726 | 91.46354949 | 89.76737078 | 88.11067024 |
| 220624A00016 | 6/24/2022                           | 3.34 | 6/24/2026  | 6/24/2022  | 110.73628 | 106.928334  | 103.2736204 | 99.76507685 | 96.39601236 | 93.16008472 | 90.05127971 | 87.06389193 | 84.19250687 |
| 180514A00035 | 5/14/2018                           | 3.07 | 5/14/2024  | 5/14/2018  | 104.00388 | 102.3785628 | 100.7865626 | 99.22692464 | 97.69872658 | 96.20108109 | 94.73313408 | 93.29406316 | 91.88307611 |
| 180522A00019 | 5/22/2018                           | 3.16 | 5/22/2023  | 5/22/2018  | 101.7651  | 101.1160841 | 100.4753432 | 99.84272346 | 99.21807104 | 98.60123594 | 97.99207193 | 97.39043641 | 96.79619028 |
| 190103A00010 | 1/3/2019                            | 2.7  | 1/3/2024   | 1/3/2019   | 102.57451 | 101.3116781 | 100.0788214 | 98.87487355 | 97.69882181 | 96.54970057 | 95.42658839 | 94.32860558 | 93.25491183 |
| 190514A00073 | 5/14/2019                           | 2.53 | 5/14/2024  | 5/14/2019  | 102.92435 | 101.3115218 | 99.73172975 | 98.18402415 | 96.66749156 | 95.1812531  | 93.72446276 | 92.29630589 | 90.89599769 |
| 191011A00013 | 10/11/2019                          | 1.88 | 10/11/2022 | 10/11/2019 | 100.08785 | 100.0572882 | 100.0267642 | 99.99627499 | 99.96582061 | 99.93540096 | 99.90501599 | 99.87466562 | 99.84434981 |
| 200210A00021 | 2/10/2020                           | 1.76 | 2/10/2025  | 2/10/2020  | 102.47241 | 100.1426134 | 97.87723483 | 95.67414568 | 93.5312994  | 91.44672844 | 89.41854075 | 87.44491639 | 85.52410439 |
| 160705A00005 | 7/5/2016                            | 1.49 | 7/5/2023   | 7/5/2016   | 100.82655 | 100.0605739 | 99.30619456 | 98.5631468  | 97.83117678 | 97.11003822 | 96.39949209 | 95.69930634 | 95.00925567 |
| 180802A00006 | 8/2/2018                            | 2.99 | 8/2/2023   | 8/2/2018   | 102.15019 | 101.3023278 | 100.4685214 | 99.64842607 | 98.84170558 | 98.04803466 | 97.26709852 | 96.49859239 | 95.74222118 |
| 190926A00015 | 9/26/2019                           | 2.32 | 11/26/2030 | 9/26/2019  | 114.08402 | 105.9201811 | 98.40788065 | 91.49154778 | 85.12062869 | 79.24910957 | 73.83508676 | 68.84037981 | 64.23018275 |
| 191002A00016 | 10/2/2019                           | 1.79 | 10/2/2023  | 10/2/2019  | 101.15902 | 100.153173  | 99.16723799 | 98.20062902 | 97.25278242 | 96.32315625 | 95.41122924 | 94.51649984 | 93.63848529 |
| 210216A00008 | 2/16/2021                           | 0.71 | 2/17/2026  | 2/16/2021  | 100.63095 | 97.34298032 | 94.17844421 | 91.13208961 | 88.19891303 | 85.3741489  | 82.65325693 | 80.03191027 | 77.50598437 |
| 160330A00054 | 3/30/2016                           | 2.9  | 3/31/2031  | 3/30/2016  | 120.66482 | 111.8507391 | 103.7629345 | 96.33738023 | 89.51601554 | 83.24616097 | 77.47999399 | 72.17407824 | 67.28894048 |
| 170117A00046 | 1/17/2017                           | 2.55 | 1/17/2024  | 1/17/2017  | 102.3108  | 101.0182729 | 99.75235877 | 98.51223956 | 97.29713333 | 96.1062899  | 94.93898931 | 93.79454025 | 92.67227863 |
| 170906A00020 | 9/6/2017                            | 2.14 | 9/6/2023   | 9/6/2017   | 101.45271 | 100.5148446 | 99.59426733 | 98.69050266 | 97.80309319 | 96.93159797 | 96.07559179 | 95.23466448 | 94.40842021 |
| 190329A00018 | 3/29/2019                           | 2.6  | 3/29/2024  | 3/29/2019  | 102.78168 | 101.2941403 | 99.83568108 | 98.40552149 | 97.00291071 | 95.62712395 | 94.27746133 | 92.95324682 | 91.65382724 |
| 190816A00006 | 8/16/2019                           | 1.77 | 8/16/2024  | 8/16/2019  | 101.98057 | 100.1269529 | 98.31596203 | 96.54636612 | 94.81697939 | 93.12665758 | 91.47429623 | 89.85882903 | 88.27922627 |
| 200429A00045 | 5/1/2020                            | 1.54 | 4/30/2025  | 5/1/2020   | 102.13974 | 99.6024048  | 97.14069289 | 94.75189136 | 92.43340714 | 90.18275677 | 87.99756093 | 85.87553937 | 83.81450603 |
| 210106A00006 | 1/8/2021                            | 0.48 | 7/17/2023  | 1/8/2021   | 99.956056 | 99.16249949 | 98.38147051 | 97.61267405 | 96.85582455 | 96.11064531 | 95.37686808 | 94.65423282 | 93.94248731 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 140521A00019 | 5/21/2014                           | 3.43 | 5/22/2028  | 5/21/2014  | 117.39354 | 111.5194135 | 105.9821625 | 100.7606012 | 95.834992   | 91.18693629 | 86.79927645 | 82.65600545 | 78.74218362 |
| 180720A00068 | 7/20/2018                           | 2.89 | 7/20/2023  | 7/20/2018  | 101.99192 | 101.1801355 | 100.3812674 | 99.5950086  | 98.82106197 | 98.05913976 | 97.30896308 | 96.57026163 | 95.84277334 |
| 180727A00039 | 7/27/2018                           | 3.48 | 7/27/2028  | 7/27/2018  | 117.35119 | 111.328218  | 105.6594795 | 100.3222359 | 95.29532056 | 90.5590241  | 86.09498679 | 81.88609957 | 77.91641279 |
| 200428A00013 | 4/30/2020                           | 1.49 | 4/29/2024  | 4/30/2020  | 101.1878  | 99.62899576 | 98.10165914 | 96.60490176 | 95.13787145 | 93.69974744 | 92.28973882 | 90.90708328 | 89.55104572 |
| 210129A00013 | 1/29/2021                           | 0.65 | 1/9/2025   | 1/29/2021  | 99.833701 | 97.62052322 | 95.4666677  | 93.3701447  | 91.32904709 | 89.3415462  | 87.40588785 | 85.52038876 | 83.68343298 |
| 170609A00026 | 6/9/2017                            | 2.3  | 6/9/2023   | 6/9/2017   | 101.27996 | 100.5836389 | 99.89687802 | 99.2194798  | 98.55125365 | 97.89201411 | 97.24158067 | 96.59977768 | 95.96643408 |
| 180827A00010 | 8/27/2018                           | 2.99 | 8/25/2023  | 8/27/2018  | 102.19228 | 101.2830589 | 100.3900054 | 99.51268958 | 98.65069794 | 97.80363137 | 96.97110451 | 96.15274517 | 95.34819378 |
| 190523A00020 | 5/23/2019                           | 2.5  | 2/9/2024   | 5/23/2019  | 102.37293 | 101.0208325 | 99.69299281 | 98.38881268 | 97.10771443 | 95.84913874 | 94.6125439  | 93.39740514 | 92.20321399 |
| 190826A00065 | 8/26/2019                           | 2.09 | 8/28/2029  | 8/26/2019  | 110.78343 | 103.9129804 | 97.51755454 | 91.56185127 | 86.01335952 | 80.84212808 | 76.02055202 | 71.52317798 | 67.32652643 |
| 191004A00002 | 10/4/2019                           | 2.08 | 10/4/2029  | 10/4/2019  | 110.83934 | 103.8712124 | 97.39142456 | 91.36318842 | 85.75266572 | 80.52871944 | 75.66268516 | 71.1281629  | 66.90082751 |
| 200327A00036 | 3/27/2020                           | 0.77 | 9/27/2023  | 3/27/2020  | 100.23603 | 99.24694727 | 98.27724277 | 97.326351   | 96.39372927 | 95.47885557 | 94.5812276  | 93.70036184 | 92.83579269 |
| 150601A00490 | 6/1/2015                            | 3.19 | 7/2/2024   | 6/1/2015   | 104.27503 | 102.518245  | 100.799504  | 99.11764394 | 97.47155214 | 95.86016094 | 94.28244534 | 92.73742085 | 91.22414146 |
| 160830A00038 | 8/30/2016                           | 2.24 | 8/28/2026  | 8/30/2016  | 106.49457 | 102.6092219 | 98.88740416 | 95.32139521 | 91.90387958 | 88.62792288 | 85.48694999 | 82.47472454 | 79.58532971 |
| 170518A00034 | 5/18/2017                           | 2.15 | 5/18/2023  | 5/18/2017  | 101.15094 | 100.5143537 | 99.88577317 | 99.26504669 | 98.65202761 | 98.04657286 | 97.44854291 | 96.85780164 | 96.27421624 |
| 190402A00004 | 4/2/2019                            | 2.9  | 4/2/2029   | 4/2/2019   | 116.47059 | 109.7647727 | 103.4964636 | 97.63473932 | 92.15101618 | 87.01886368 | 82.2138316  | 77.71329192 | 73.49629415 |
| 190829A00031 | 8/29/2019                           | 1.54 | 8/29/2024  | 8/29/2019  | 101.80497 | 99.91496019 | 98.06920553 | 96.26640241 | 94.5052984  | 92.78468583 | 91.10339988 | 89.46031673 | 87.85435186 |
| 200131A00010 | 2/3/2020                            | 1.68 | 2/3/2023   | 2/3/2020   | 100.57827 | 100.2288591 | 99.881868   | 99.53727405 | 99.19505253 | 98.85517904 | 98.51762949 | 98.18238012 | 97.84940751 |
| 200221A00004 | 2/21/2020                           | 1.69 | 2/21/2025  | 2/21/2020  | 102.34353 | 99.98374021 | 97.6900114  | 95.46013521 | 93.2919876  | 91.18352767 | 89.13279383 | 87.13790027 | 85.19703356 |
| 200224A00021 | 2/24/2020                           | 1.58 | 9/24/2024  | 2/24/2020  | 101.7035  | 99.74966295 | 97.84312781 | 95.98245335 | 94.16625632 | 92.39320473 | 90.66201552 | 88.97145244 | 87.32032402 |
| 200504A00015 | 5/4/2020                            | 0.68 | 5/4/2023   | 5/4/2020   | 100.15962 | 99.56536076 | 98.97812204 | 98.39777908 | 97.82421103 | 97.25729984 | 96.69693021 | 96.14298947 | 95.59536753 |
| 220217A00021 | 2/17/2022                           | 1.85 | 2/13/2024  | 2/17/2022  | 101.49488 | 100.1378858 | 98.80541753 | 97.49686814 | 96.21164978 | 94.94919338 | 93.70894789 | 92.49037961 | 91.29297154 |
| 220916A00043 | 9/16/2022                           | 4.07 | 9/16/2031  | 9/16/2022  | 131.95002 | 122.1996304 | 113.2794403 | 105.1135193 | 97.63327912 | 90.77672708 | 84.4878004  | 78.71577026 | 73.41470862 |
| 170313A00032 | 3/13/2017                           | 3.69 | 6/14/2032  | 3/13/2017  | 128.89014 | 118.6080119 | 109.2659066 | 100.7718587 | 93.04339122 | 86.00648613 | 79.59467512 | 73.74823226 | 68.41345711 |
| 171206A00048 | 12/6/2017                           | 3.04 | 12/6/2032  | 12/6/2017  | 124.93941 | 114.3075176 | 104.6990196 | 96.00906641 | 88.14409269 | 81.02054773 | 74.56377537 | 68.70702437 | 63.39057348 |
| 190821A00030 | 8/21/2019                           | 1.8  | 8/21/2024  | 8/21/2019  | 102.05291 | 100.185553  | 98.36140202 | 96.57920442 | 94.83775085 | 93.1358746  | 91.4724498  | 89.84638976 | 88.25664533 |
| 200109A00012 | 1/14/2020                           | 1.94 | 12/15/2022 | 1/14/2020  | 100.4884  | 100.2772112 | 100.0669228 | 99.85752904 | 99.64902405 | 99.44140215 | 99.23465769 | 99.02878506 | 98.82377868 |
| 200304A00034 | 3/4/2020                            | 1.12 | 3/4/2024   | 3/4/2020   | 100.51811 | 99.11318158 | 97.73457824 | 96.38162145 | 95.0536589  | 93.7500599  | 92.47021452 | 91.21353273 | 89.97944359 |
| 200430A00009 | 4/30/2020                           | 1.16 | 4/30/2026  | 4/30/2020  | 101.92626 | 98.43829455 | 95.08738704 | 91.86741174 | 88.77255437 | 85.79729225 | 82.93637786 | 80.18482349 | 77.53788678 |
| 210428A00007 | 4/28/2021                           | 1.74 | 10/27/2028 | 4/28/2021  | 107.52778 | 101.5496874 | 95.94174447 | 90.67913249 | 85.73881894 | 81.0994224  | 76.74108593 | 72.64536071 | 68.79509924 |
| 211222A00025 | 12/22/2021                          | 1.2  | 7/15/2024  | 12/22/2021 | 100.85399 | 99.09446085 | 97.37380208 | 95.69086767 | 94.0445568  | 92.43381018 | 90.85760804 | 89.31496829 | 87.80494483 |
| 150601A01024 | 6/1/2015                            | 5.33 | 2/27/2026  | 6/1/2015   | 115.75088 | 112.1872675 | 108.7556116 | 105.4503116 | 102.2660341 | 99.19769997 | 96.24047059 | 93.38973508 | 90.64109844 |
| 170322A00011 | 3/22/2017                           | 2.48 | 3/22/2024  | 3/22/2017  | 102.74372 | 101.2719038 | 99.82856135 | 98.41294019 | 97.024312   | 95.66197355 | 94.32524554 | 93.01347162 | 91.72601742 |
| 170831A00022 | 8/31/2017                           | 2.27 | 2/29/2024  | 8/31/2017  | 102.15749 | 100.7507329 | 99.37012325 | 98.01499568 | 96.68470621 | 95.37863211 | 94.09617105 | 92.83674021 | 91.59977551 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 180914A00026 | 9/14/2018                           | 3.15 | 9/14/2023  | 9/14/2018  | 102.45251 | 101.4879438 | 100.5415402 | 99.6127874  | 98.70119454 | 97.80628886 | 96.92761483 | 96.06473338 | 95.21722115 |
| 190510A00018 | 5/10/2019                           | 2.54 | 5/10/2023  | 5/10/2019  | 101.30423 | 100.6896663 | 100.0825579 | 99.48276547 | 98.89015728 | 98.30460463 | 97.72598195 | 97.15416661 | 96.58903886 |
| 190620A00057 | 6/25/2019                           | 2.09 | 5/15/2023  | 6/25/2019  | 101.04485 | 100.4175469 | 99.79802697 | 99.1861419  | 98.58175103 | 97.98471717 | 97.39490642 | 96.81218817 | 96.2364349  |
| 200227A00026 | 2/27/2020                           | 1.41 | 2/27/2023  | 2/27/2020  | 100.50679 | 100.0916537 | 99.67993441 | 99.27158914 | 98.86657665 | 98.46485634 | 98.06638827 | 97.67113314 | 97.27905227 |
| 210917A00008 | 9/17/2021                           | 1.55 | 9/15/2028  | 9/17/2021  | 106.27183 | 100.438225  | 94.96054243 | 89.81527584 | 84.98058778 | 80.43618122 | 76.1631835  | 72.14403945 | 68.36241318 |
| 150317A00012 | 3/17/2015                           | 2.46 | 3/18/2024  | 3/17/2015  | 102.6931  | 101.2321971 | 99.79936199 | 98.3938595  | 97.01497627 | 95.66202327 | 94.33433479 | 93.03126746 | 91.75219928 |
| 150601A00523 | 6/1/2015                            | 4.55 | 7/25/2031  | 6/1/2015   | 133.75481 | 124.1384242 | 115.3242662 | 107.2402788 | 99.82125702 | 93.00816201 | 86.747508   | 80.9908133  | 75.69410786 |
| 150601A00734 | 6/1/2015                            | 2.92 | 5/1/2025   | 6/1/2015   | 105.61529 | 103.0298167 | 100.5211311 | 98.08648644 | 95.72325191 | 93.42890805 | 91.20104106 | 89.03733762 | 86.93557999 |
| 150819A00013 | 8/19/2015                           | 3.51 | 8/19/2030  | 8/19/2015  | 123.0414  | 114.789442  | 107.1689142 | 100.1278479 | 93.61881079 | 87.59849063 | 82.02731806 | 76.8691254  | 72.09083821 |
| 170110A00020 | 1/10/2017                           | 2.4  | 1/10/2024  | 1/10/2017  | 102.23099 | 100.9535137 | 99.70434632 | 98.48254478 | 97.28720969 | 96.11748109 | 94.97253633 | 93.85158797 | 92.75388199 |
| 170203A00012 | 2/3/2017                            | 3.63 | 2/2/2035   | 2/3/2017   | 133.0909  | 120.0861427 | 108.5449127 | 98.29204379 | 89.1742772  | 81.05741889 | 73.82387754 | 67.37053123 | 61.6068777  |
| 200302A00036 | 3/2/2020                            | 1.45 | 3/2/2026   | 3/2/2020   | 102.75908 | 99.40972782 | 96.18678739 | 93.0848352  | 90.09871261 | 87.22350831 | 84.45454507 | 81.78736729 | 79.21772936 |
| 200429A00015 | 4/29/2020                           | 0.66 | 4/29/2024  | 4/29/2020  | 100.05197 | 98.49935309 | 96.97814362 | 95.4874615  | 94.02645477 | 92.59430293 | 91.19021542 | 89.81343027 | 88.46321279 |
| 200429A00046 | 5/1/2020                            | 2.07 | 4/30/2025  | 5/1/2020   | 103.51518 | 100.9598255 | 98.4804984  | 96.07447809 | 93.73915929 | 91.47204681 | 89.27075011 | 87.1329781  | 85.05653431 |
| 180503A00040 | 5/3/2018                            | 3.3  | 5/5/2025   | 5/3/2018   | 106.74251 | 104.1316199 | 101.598403  | 99.14007544 | 96.75396864 | 94.43752748 | 92.18830439 | 90.00395409 | 87.88222857 |
| 190329A00017 | 3/29/2019                           | 2.59 | 3/29/2023  | 3/29/2019  | 101.1303  | 100.6312831 | 100.1371826 | 99.64792421 | 99.16343698 | 98.68365144 | 98.20849943 | 97.73791412 | 97.27182994 |
| 190605A00020 | 6/5/2019                            | 2.19 | 2/5/2024   | 6/5/2019   | 101.92749 | 100.5898443 | 99.27602364 | 97.98544659 | 96.71754992 | 95.47178812 | 94.24763274 | 93.04457167 | 91.8621086  |
| 190816A00031 | 8/16/2019                           | 1.77 | 8/16/2024  | 8/16/2019  | 101.98057 | 100.1269529 | 98.31596203 | 96.54636612 | 94.81697939 | 93.12665758 | 91.47429623 | 89.85882903 | 88.27922627 |
| 190826A00058 | 8/26/2019                           | 1.91 | 8/26/2026  | 8/26/2019  | 105.19346 | 101.3386509 | 97.64617196 | 94.10836123 | 90.71795952 | 87.46808551 | 84.3522141  | 81.36415614 | 78.49803934 |
| 200227A00016 | 2/27/2020                           | 1.47 | 2/27/2025  | 2/27/2020  | 101.83035 | 99.45967032 | 97.15583618 | 94.91659934 | 92.7397963  | 90.6233488  | 88.56525995 | 86.56361054 | 84.61655555 |
| 191122A00018 | 11/26/2019                          | 3.11 | 11/22/2039 | 11/26/2019 | 130.10172 | 113.1902793 | 98.81880085 | 86.58428882 | 76.15001076 | 67.2342851  | 59.60121355 | 53.05301439 | 47.42367347 |
| 200303A00010 | 3/3/2020                            | 1.34 | 3/3/2025   | 3/3/2020   | 101.52166 | 99.14422339 | 96.83413848 | 94.58912687 | 92.40699925 | 90.28565303 | 88.22306828 | 86.21730406 | 84.26649478 |
| 200414A00016 | 4/16/2020                           | 1.64 | 4/15/2024  | 4/16/2020  | 101.38399 | 99.86150907 | 98.36934083 | 96.90665422 | 95.47264506 | 94.06653802 | 92.68758529 | 91.33506539 | 90.00828198 |
| 200922A00030 | 9/24/2020                           | 2.45 | 9/25/2023  | 9/24/2020  | 101.80592 | 100.8153105 | 99.84393364 | 98.89123307 | 97.95667401 | 97.03974192 | 96.13994156 | 95.25679612 | 94.3898463  |
| 220927A00071 | 9/27/2022                           | 4.7  | 9/26/2024  | 9/27/2022  | 107.96536 | 105.9420209 | 103.9674874 | 102.0402736 | 100.1589511 | 98.32214441 | 96.52852885 | 94.77682815 | 93.06581238 |
| 171208A00008 | 12/8/2017                           | 2.25 | 12/8/2022  | 12/8/2017  | 100.53452 | 100.3424753 | 100.1511736 | 99.96061168 | 99.7707853  | 99.58169012 | 99.39332185 | 99.20567625 | 99.01874912 |
| 180604A00050 | 6/4/2018                            | 3.15 | 6/4/2024   | 6/4/2018   | 104.08464 | 102.4059672 | 100.7624447 | 99.15303002 | 97.57672432 | 96.03256798 | 94.5196385  | 93.03704871 | 91.58394508 |
| 191121A00010 | 11/21/2019                          | 2.59 | 11/20/2037 | 11/21/2019 | 124.07296 | 109.0564165 | 96.09338503 | 84.88838637 | 75.19001835 | 66.78417405 | 59.48833588 | 53.14676737 | 47.62645776 |
| 191212A00028 | 12/13/2019                          | 1.93 | 1/17/2023  | 12/13/2019 | 100.61202 | 100.3093923 | 100.0085948 | 99.70961034 | 99.41242255 | 99.11701517 | 98.82337218 | 98.53147771 | 98.24131611 |
| 220302A00006 | 3/2/2022                            | 1.52 | 4/25/2023  | 3/2/2022   | 100.6458  | 100.074433  | 99.50953213 | 98.95099038 | 98.3987008  | 97.85255888 | 97.31246242 | 96.77831146 | 96.25000826 |
| 220815A00006 | 8/15/2022                           | 3.52 | 8/15/2024  | 8/15/2022  | 105.2669  | 103.3843884 | 101.5449746 | 99.74741978 | 97.99052698 | 96.2731411  | 94.59414723 | 92.95246894 | 91.34706669 |
| 160628A00050 | 6/28/2016                           | 1.56 | 6/28/2023  | 6/28/2016  | 100.86623 | 100.1190747 | 99.38294179 | 98.65759028 | 97.94278481 | 97.23829678 | 96.54390417 | 95.85939129 | 95.18454854 |
| 180102A00021 | 1/2/2018                            | 2.82 | 1/2/2026   | 1/2/2018   | 107.02166 | 103.7616819 | 100.6186356 | 97.58762057 | 94.6639759  | 91.84326593 | 89.12126789 | 86.49396002 | 83.95751053 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 180619A00021 | 6/19/2018                           | 3.24 | 6/19/2028  | 6/19/2018  | 116.53931 | 110.611914  | 105.0288544 | 99.76820849 | 94.80957308 | 90.13394663 | 85.72362525 | 81.56210685 | 77.63400302 |
| 190924A00035 | 9/24/2019                           | 1.88 | 9/13/2024  | 9/24/2019  | 102.28452 | 100.3538899 | 98.46928669 | 96.62933712 | 94.8327142  | 93.07813933 | 91.36438019 | 89.69024873 | 88.05459926 |
| 191122A00020 | 11/26/2019                          | 3.2  | 11/23/2037 | 11/26/2019 | 130.73556 | 115.3986725 | 102.1319306 | 90.63969234 | 80.67018757 | 72.00879978 | 64.47240416 | 57.90459358 | 52.17164954 |
| 191212A00019 | 12/13/2019                          | 1.93 | 12/19/2022 | 12/13/2019 | 100.50358 | 100.2812923 | 100.0600006 | 99.83969683 | 99.62037442 | 99.40202676 | 99.1846473  | 98.96822956 | 98.75276712 |
| 200515A00001 | 5/15/2020                           | 0.59 | 5/15/2023  | 5/15/2020  | 100.09952 | 99.47558595 | 98.85940155 | 98.25082268 | 97.64970913 | 97.05592413 | 96.4693342  | 95.88980913 | 95.3172218  |
| 200313A00032 | 3/18/2020                           | 1.46 | 3/18/2025  | 3/18/2020  | 101.84015 | 99.42025632 | 97.06997874 | 94.78692335 | 92.56879216 | 90.41337977 | 88.31856904 | 86.282327   | 84.30270094 |
| 200511A00028 | 5/13/2020                           | 1.02 | 5/13/2024  | 5/13/2020  | 100.45359 | 98.86426226 | 97.30751106 | 95.78239886 | 94.28802583 | 92.82352609 | 91.38806613 | 89.98084325 | 88.60108415 |
| 151211A00055 | 12/11/2015                          | 2.62 | 12/11/2024 | 12/11/2015 | 104.49135 | 102.2944997 | 100.1546939 | 98.07004209 | 96.03873016 | 94.05901893 | 92.12924041 | 90.24779423 | 88.41314422 |
| 170615A00015 | 6/15/2017                           | 2.25 | 6/14/2024  | 6/15/2017  | 102.81351 | 101.1151343 | 99.45284337 | 97.82555115 | 96.23221651 | 94.67183991 | 93.14346123 | 91.64615783 | 90.17904266 |
| 170912A00009 | 9/12/2017                           | 2.11 | 12/15/2022 | 9/12/2017  | 100.52432 | 100.3130755 | 100.1027329 | 99.89328507 | 99.68472623 | 99.47705067 | 99.27025273 | 99.06432678 | 98.85926728 |
| 171026A00006 | 10/26/2017                          | 2.32 | 10/26/2022 | 10/26/2017 | 100.23946 | 100.1671861 | 100.0950271 | 100.0229805 | 99.95104595 | 99.87922325 | 99.80751213 | 99.73591236 | 99.66442367 |
| 180130A00091 | 1/30/2018                           | 2.74 | 1/25/2023  | 1/30/2018  | 100.90205 | 100.5767653 | 100.2535761 | 99.93246678 | 99.6134173  | 99.29640787 | 98.98141896 | 98.66843126 | 98.35742573 |
| 181004A00029 | 10/4/2018                           | 3.7  | 10/4/2028  | 10/4/2018  | 119.203   | 112.9390855 | 107.0536373 | 101.5216887 | 96.32004765 | 91.42716251 | 86.82299767 | 82.48891935 | 78.40759057 |
| 190122A00042 | 1/22/2019                           | 2.79 | 1/23/2023  | 1/22/2019  | 100.93517 | 100.6150164 | 100.2969008 | 99.98080434 | 99.66670769 | 99.35459189 | 99.04443817 | 98.736228   | 98.4299431  |
| 200123A00049 | 1/23/2020                           | 1.63 | 1/23/2023  | 1/23/2020  | 100.56431 | 100.2449147 | 99.92755004 | 99.61220088 | 99.298848   | 98.98747241 | 98.67805539 | 98.37057843 | 98.06502327 |
| 200130A00021 | 1/30/2020                           | 1.54 | 1/30/2023  | 1/30/2020  | 100.55294 | 100.2142502 | 99.87783326 | 99.54366869 | 99.21173394 | 98.88200679 | 98.5544653  | 98.22908784 | 97.90585305 |
| 180205A00050 | 2/5/2018                            | 2.81 | 2/6/2023   | 2/5/2018   | 100.98853 | 100.6299563 | 100.2739308 | 99.92042501 | 99.56941236 | 99.22086646 | 98.87476135 | 98.53107142 | 98.18977143 |
| 180731A00004 | 7/31/2018                           | 2.97 | 7/31/2023  | 7/31/2018  | 102.12179 | 101.2794897 | 100.4510653 | 99.63617407 | 98.83448647 | 98.04568353 | 97.26945653 | 96.50550651 | 95.75354392 |
| 190807A00014 | 8/7/2019                            | 1.75 | 8/7/2023   | 8/7/2019   | 101.02376 | 100.1687797 | 99.32821724 | 98.50171162 | 97.68891248 | 96.88948101 | 96.10308952 | 95.32942091 | 94.56816834 |
| 190820A00021 | 8/20/2019                           | 2.13 | 8/20/2029  | 8/20/2019  | 111.03081 | 104.1724377 | 97.78673233 | 91.83866805 | 86.29598445 | 81.12895382 | 76.31017048 | 71.81435859 | 67.61819675 |
| 200806A00002 | 8/6/2020                            | 0.43 | 8/6/2024   | 8/6/2020   | 99.668927 | 97.85951871 | 96.0913473  | 94.36323654 | 92.67405161 | 91.02269692 | 89.4081145  | 87.82928249 | 86.28521362 |
| 211206A00010 | 12/6/2021                           | 1.54 | 12/4/2026  | 12/6/2021  | 104.15406 | 100.0577856 | 96.14454336 | 92.40516647 | 88.83100045 | 85.41387124 | 82.14605557 | 79.02025339 | 76.02956207 |
| 220429A00006 | 4/29/2022                           | 3.06 | 4/29/2024  | 4/29/2022  | 103.69102 | 102.1115609 | 100.563929  | 99.04723284 | 97.56061052 | 96.10323192 | 94.67429716 | 93.27303524 | 91.89870271 |
| 130926A00009 | 9/26/2013                           | 4    | 10/2/2028  | 9/26/2013  | 121.90055 | 115.5298768 | 109.5435543 | 103.9162366 | 98.6243792  | 93.646103   | 88.96106826 | 84.55035847 | 80.39637371 |
| 151116A00025 | 11/16/2015                          | 3.04 | 11/14/2025 | 11/16/2015 | 107.37659 | 104.241216  | 101.2145034 | 98.29205263 | 95.46967114 | 92.74336149 | 90.10931098 | 87.56388188 | 85.10360221 |
| 170918A00007 | 9/18/2017                           | 2.8  | 9/20/2027  | 9/18/2017  | 111.43871 | 106.4111169 | 101.6430579 | 97.11976903 | 92.82740312 | 88.75296696 | 84.8842641  | 81.20984199 | 77.71894287 |
| 171212A00024 | 12/12/2017                          | 2.29 | 12/12/2022 | 12/12/2017 | 100.56446 | 100.3612752 | 100.1589246 | 99.95740338 | 99.75670645 | 99.55682868 | 99.35776497 | 99.15951029 | 98.96205964 |
| 191004A00032 | 10/4/2019                           | 2.01 | 1/3/2028   | 10/4/2019  | 107.97334 | 102.7564369 | 97.82333628 | 93.15708111 | 88.74182451 | 84.56274666 | 80.60598234 | 76.85855403 | 73.30831021 |
| 200429A00058 | 5/1/2020                            | 1.83 | 4/30/2025  | 5/1/2020   | 102.89234 | 100.3451444 | 97.87379402 | 95.47557089 | 93.1478753  | 90.88821736 | 88.69421161 | 86.56357188 | 84.49410641 |
| 200604A00001 | 6/4/2020                            | 0.65 | 6/5/2023   | 6/4/2020   | 100.12821 | 99.44720635 | 98.77541926 | 98.11266187 | 97.45875319 | 96.81351701 | 96.17678177 | 95.54838044 | 94.92815031 |
| 160119A00025 | 1/19/2016                           | 3.05 | 1/19/2028  | 1/19/2016  | 113.54206 | 108.1384597 | 103.0287479 | 98.19537661 | 93.62193417 | 89.29306804 | 85.19441104 | 81.31251298 | 77.63477744 |
| 160504A00004 | 5/4/2016                            | 2.3  | 5/4/2026   | 5/4/2016   | 106.51489 | 102.9218117 | 99.46966909 | 96.15215365 | 92.96327966 | 89.89736251 | 86.94900165 | 84.11306462 | 81.38467211 |
| 190215A00005 | 2/15/2019                           | 2.89 | 2/15/2024  | 2/15/2019  | 102.94952 | 101.5763339 | 100.2280454 | 98.90403528 | 97.6037042  | 96.32647212 | 95.07177749 | 93.83907653 | 92.62784255 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 190814A00006 | 8/14/2019                           | 1.84 | 8/14/2023  | 8/14/2019  | 101.11763 | 100.2433398 | 99.38412068 | 98.53958519 | 97.70935924 | 96.89308139 | 96.09040225 | 95.30098407 | 94.52450016 |
| 190930A00070 | 9/30/2019                           | 1.93 | 9/27/2024  | 9/30/2019  | 102.41432 | 100.445181  | 98.52386094 | 96.64890554 | 94.81891102 | 93.0325259  | 91.28844856 | 89.58542508 | 87.92224711 |
| 200922A00027 | 9/24/2020                           | 1.65 | 9/23/2025  | 9/24/2020  | 102.84012 | 99.91197361 | 97.08233395 | 94.34735163 | 91.70335204 | 89.14682426 | 86.67441283 | 84.28290988 | 81.96924783 |
| 180814A00032 | 8/14/2018                           | 3.1  | 8/14/2025  | 8/14/2018  | 107.27903 | 104.3825471 | 101.5798186 | 98.86731454 | 96.24165571 | 93.69960795 | 91.23807515 | 88.85409263 | 86.54482076 |
| 190220A00007 | 2/20/2019                           | 2.87 | 2/20/2024  | 2/20/2019  | 102.95512 | 101.5677881 | 100.2058302 | 98.86861348 | 97.5555218  | 96.26595916 | 94.99934872 | 93.75513204 | 92.53276839 |
| 190225A00026 | 2/25/2019                           | 3.43 | 2/27/2034  | 2/25/2019  | 131.12424 | 118.9949955 | 108.1482545 | 98.43979276 | 89.74236206 | 81.94361245 | 74.9442774  | 68.65658828 | 63.00288805 |
| 190930A00012 | 9/30/2019                           | 1.93 | 9/30/2024  | 9/30/2019  | 102.42522 | 100.4479201 | 98.51883313 | 96.63648049 | 94.79944172 | 93.00634941 | 91.25588685 | 89.54678573 | 87.87782406 |
| 191025A00010 | 10/25/2019                          | 2.24 | 7/25/2028  | 10/25/2019 | 110.14331 | 104.3316553 | 98.86487119 | 93.72072284 | 88.8785153  | 84.31898265 | 80.02418229 | 75.97739764 | 72.1630484  |
| 130702A00018 | 7/2/2013                            | 3.17 | 7/17/2023  | 7/2/2013   | 102.20027 | 101.3957316 | 100.6038608 | 99.82436183 | 99.05694618 | 98.3013341  | 97.55725448 | 96.82444446 | 96.10264912 |
| 150720A00011 | 7/20/2015                           | 2.69 | 7/20/2023  | 7/20/2015  | 101.82929 | 101.0182273 | 100.2200764 | 99.43452688 | 98.66128169 | 97.90005321 | 97.15056272 | 96.41254003 | 95.68572323 |
| 190110A00013 | 1/10/2019                           | 2.97 | 1/17/2024  | 1/10/2019  | 102.86164 | 101.5653205 | 100.2956749 | 99.05188703 | 97.83317314 | 96.63878141 | 95.46799027 | 94.32010685 | 93.19446558 |
| 191120A00011 | 11/20/2019                          | 1.88 | 1/20/2023  | 11/20/2019 | 100.60644 | 100.295544  | 99.98658008 | 99.67952706 | 99.37436723 | 99.07108303 | 98.76965717 | 98.47007253 | 98.17231221 |
| 200305A00036 | 3/5/2020                            | 1.36 | 3/5/2027   | 3/5/2020   | 103.72879 | 99.40125327 | 95.27768938 | 91.34746073 | 87.60054107 | 84.02747446 | 80.61933982 | 77.36771803 | 74.26466111 |
| 160129A00067 | 1/29/2016                           | 2.53 | 1/29/2026  | 1/29/2016  | 106.67742 | 103.3413567 | 100.1276591 | 97.03120253 | 94.047108   | 91.17072543 | 88.39762154 | 85.72356857 | 83.14453368 |
| 170821A00038 | 8/23/2017                           | 2.39 | 8/23/2024  | 8/23/2017  | 103.41611 | 101.5259718 | 99.67968874 | 97.87598767 | 96.11363639 | 94.39144642 | 92.70827112 | 91.06300392 | 89.45457663 |
| 190110A00009 | 1/10/2019                           | 2.97 | 1/16/2024  | 1/10/2019  | 102.85487 | 101.561019  | 100.2940701 | 99.05319062 | 97.8375805  | 96.64647261 | 95.47913104 | 94.33484956 | 93.21295003 |
| 190514A00020 | 5/14/2019                           | 2.66 | 5/14/2025  | 5/14/2019  | 105.12066 | 102.5075071 | 99.97278338 | 97.51365227 | 95.12739722 | 92.81141816 | 90.56322562 | 88.38043516 | 86.26076215 |
| 190820A00019 | 8/20/2019                           | 1.76 | 8/21/2023  | 8/20/2019  | 101.06177 | 100.1689031 | 99.29175358 | 98.4299121  | 97.58298055 | 96.75057454 | 95.93232278 | 95.12786655 | 94.33685917 |
| 210924A00005 | 9/24/2021                           | 2.37 | 9/24/2036  | 9/24/2021  | 118.45541 | 104.9250485 | 93.12688039 | 82.82770329 | 73.8268912  | 65.9516974  | 59.05325375 | 53.00316119 | 47.69058172 |
| 150601A00665 | 6/1/2015                            | 3.82 | 1/14/2033  | 6/1/2015   | 130.87957 | 119.9371788 | 110.0458601 | 101.097734  | 92.99656179 | 85.65643587 | 79.00062102 | 72.96053049 | 67.4748213  |
| 150826A00039 | 8/26/2015                           | 3.22 | 8/27/2029  | 8/26/2015  | 119.58474 | 112.3790037 | 105.666809  | 99.4116268  | 93.5798172  | 88.14038319 | 83.06475059 | 78.3265671  | 73.90151898 |
| 160816A00003 | 8/16/2016                           | 1.63 | 8/16/2023  | 8/16/2016  | 101.02346 | 100.1430238 | 99.27787922 | 98.42762933 | 97.59189191 | 96.77029772 | 95.96249    | 95.16812387 | 94.38686591 |
| 171214A00005 | 12/14/2017                          | 2.29 | 12/14/2022 | 12/14/2017 | 100.57559 | 100.3668443 | 100.1589763 | 99.95198331 | 99.74585989 | 99.54060045 | 99.33619948 | 99.13265153 | 98.92995119 |
| 091112A00011 | 11/12/2009                          | 4.77 | 11/15/2024 | 11/12/2009 | 108.95523 | 106.7796386 | 104.658938  | 102.5913639 | 100.5752199 | 98.60887747 | 96.69077217 | 94.81940099 | 92.99331921 |
| 111216A00001 | 12/16/2011                          | 3.95 | 12/30/2031 | 12/16/2011 | 130.22512 | 120.3312735 | 111.3022912 | 103.0570318 | 95.52240518 | 88.63252911 | 82.32798241 | 76.55513894 | 71.26557356 |
| 150603A00017 | 6/3/2015                            | 2.84 | 6/3/2025   | 6/3/2015   | 106.06515 | 103.3787413 | 100.7742825 | 98.24874758 | 95.79924866 | 93.42302458 | 91.11743416 | 88.87995006 | 86.70815295 |
| 180406A00014 | 4/6/2018                            | 2.95 | 4/6/2023   | 4/6/2018   | 101.3563  | 100.8346633 | 100.318398  | 99.80741678 | 99.30163865 | 98.80098439 | 98.30537636 | 97.81473848 | 97.32899619 |
| 190208A00005 | 2/8/2019                            | 2.63 | 2/8/2023   | 2/8/2019   | 100.96505 | 100.6006472 | 100.2388837 | 99.87972621 | 99.52314651 | 99.16911688 | 98.81760994 | 98.46859874 | 98.12205668 |
| 190529A00031 | 5/29/2019                           | 2.36 | 5/30/2023  | 5/29/2019  | 101.28019 | 100.6111175 | 99.95086099 | 99.29924707 | 98.65610698 | 98.02127633 | 97.39459494 | 96.77590675 | 96.16505962 |
| 190821A00017 | 8/21/2019                           | 1.8  | 8/21/2024  | 8/21/2019  | 102.05291 | 100.185553  | 98.36140202 | 96.57920442 | 94.83775085 | 93.1358746  | 91.4724498  | 89.84638976 | 88.25664533 |
| 191120A00024 | 11/20/2019                          | 2.23 | 11/16/2029 | 11/20/2019 | 112.04739 | 104.9267649 | 98.31138187 | 92.16269489 | 86.44529034 | 81.12661884 | 76.17674941 | 71.56814592 | 67.27546376 |
| 200505A00004 | 5/5/2020                            | 0.77 | 5/5/2025   | 5/5/2020   | 100.47574 | 97.94010928 | 95.48063882 | 93.09458099 | 90.7793067  | 88.53229883 | 86.35114668 | 84.23354061 | 82.17726712 |
| 200731A00004 | 7/31/2020                           | 0.38 | 7/31/2023  | 7/31/2020  | 99.936844 | 99.10460091 | 98.28611482 | 97.48104744 | 96.68907142 | 95.90986995 | 95.14313639 | 94.38857379 | 93.64589461 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 210607A00001 | 6/7/2021                            | 0.46 | 6/7/2023   | 6/7/2021   | 99.995213 | 99.309312   | 98.63277067 | 97.96539886 | 97.30701121 | 96.65742731 | 96.01647156 | 95.38397302 | 94.75976522 |
| 210608A00017 | 6/10/2021                           | 2.67 | 6/8/2029   | 6/10/2021  | 114.366   | 107.5865113 | 101.2599443 | 95.35356527 | 89.83717757 | 84.68291042 | 79.86502766 | 75.35975332 | 71.14511231 |
| 190517A00005 | 5/17/2019                           | 2.31 | 5/17/2024  | 5/17/2019  | 102.77437 | 101.1515355 | 99.56210004 | 98.00510214 | 96.47961332 | 94.98474048 | 93.51962415 | 92.0834369  | 90.67538184 |
| 190528A00006 | 5/28/2019                           | 2.43 | 9/15/2023  | 5/28/2019  | 101.74994 | 100.7864894 | 99.84124684 | 98.91370027 | 98.003356   | 97.10973858 | 96.23238995 | 95.37086865 | 94.52474907 |
| 200205A00013 | 2/5/2020                            | 1.77 | 2/6/2023   | 2/5/2020   | 100.61567 | 100.257925  | 99.90272431 | 99.55003909 | 99.19984263 | 98.85210864 | 98.50681119 | 98.16392471 | 97.823424   |
| 200604A00005 | 6/4/2020                            | 0.89 | 6/4/2025   | 6/4/2020   | 100.47141 | 97.86595155 | 95.34043467 | 92.89190256 | 90.51753154 | 88.21462182 | 85.98059114 | 83.81296864 | 81.70938925 |
| 190110A00003 | 1/10/2019                           | 2.97 | 1/10/2024  | 1/10/2019  | 102.82707 | 101.5477418 | 100.2967014 | 99.07301345 | 97.87578034 | 96.70414366 | 95.55728218 | 94.43440981 | 93.33477376 |
| 190820A00029 | 8/20/2019                           | 1.76 | 8/20/2024  | 8/20/2019  | 101.97363 | 100.1096573 | 98.28875865 | 96.50968985 | 94.77124653 | 93.07226678 | 91.41162935 | 89.78825193 | 88.20108953 |
| 210817A00013 | 8/19/2021                           | 2    | 8/19/2026  | 8/19/2021  | 105.50953 | 101.666708  | 97.98492847 | 94.456625   | 91.07462712 | 87.83213589 | 84.72270274 | 81.74020954 | 78.87885006 |
| 220922A00042 | 9/22/2022                           | 4.6  | 3/22/2024  | 9/22/2022  | 105.72509 | 104.2330899 | 102.7698624 | 101.3346501 | 99.92671756 | 98.54535468 | 97.18987551 | 95.85961725 | 94.55393926 |
| 110505A00022 | 5/5/2011                            | 4.59 | 5/15/2026  | 5/5/2011   | 114.41267 | 110.6601589 | 107.0539902 | 103.5876149 | 100.2548185 | 97.04970022 | 93.96665492 | 91.00035647 | 88.14574211 |
| 170228A00015 | 2/28/2017                           | 2.87 | 5/28/2025  | 2/28/2017  | 105.75601 | 103.0975899 | 100.5197553 | 98.01955125 | 95.59415632 | 93.24087174 | 90.95711513 | 88.74041453 | 86.58840287 |
| 181109A00023 | 11/9/2018                           | 3.39 | 11/9/2022  | 11/9/2018  | 100.46555 | 100.3542008 | 100.2431111 | 100.1322793 | 100.0217042 | 99.91138513 | 99.80132108 | 99.69151114 | 99.58195441 |
| 190805A00011 | 8/5/2019                            | 1.91 | 8/5/2024   | 8/5/2019   | 102.18966 | 100.3630842 | 98.57791524 | 96.83297571 | 95.12712956 | 93.45927993 | 91.82836747 | 90.23336891 | 88.67329552 |
| 200227A00012 | 2/27/2020                           | 1.41 | 2/27/2023  | 2/27/2020  | 100.50679 | 100.0916537 | 99.67993441 | 99.27158914 | 98.86657665 | 98.46485634 | 98.06638827 | 97.67113314 | 97.27905227 |
| 200305A00002 | 3/5/2020                            | 1.14 | 3/5/2025   | 3/5/2020   | 101.03598 | 98.65941928 | 96.35036549 | 94.10653171 | 91.92571843 | 89.80581346 | 87.74478791 | 85.74069234 | 83.79165322 |
| 210715A00009 | 7/15/2021                           | 0.54 | 7/17/2023  | 7/15/2021  | 100.00433 | 99.21055715 | 98.42931739 | 97.66031247 | 96.90325679 | 96.1578736  | 95.42389462 | 94.70105977 | 93.98911679 |
| 180126A00028 | 1/26/2018                           | 2.69 | 1/26/2023  | 1/26/2018  | 100.89123 | 100.5632063 | 100.2373132 | 99.91353356 | 99.59184686 | 99.27223285 | 98.95467154 | 98.63914319 | 98.32562832 |
| 190819A00026 | 8/19/2019                           | 1.62 | 8/19/2024  | 8/19/2019  | 101.93006 | 100.0649583 | 98.24297913 | 96.46287246 | 94.72343239 | 93.02349556 | 91.36193934 | 89.73768012 | 88.14967167 |
| 190823A00005 | 8/23/2019                           | 1.62 | 8/23/2024  | 8/23/2019  | 101.94182 | 100.066142  | 98.23404976 | 96.44427146 | 94.69558247 | 92.9868015  | 91.31678884 | 89.68444462 | 88.08870709 |
| 171030A00021 | 10/30/2017                          | 2.29 | 11/30/2022 | 10/30/2017 | 100.4825  | 100.3128835 | 100.1438364 | 99.97535489 | 99.80743616 | 99.64007741 | 99.4732759  | 99.30702888 | 99.14133363 |
| 180918A00011 | 9/18/2018                           | 3.17 | 9/18/2023  | 9/18/2018  | 102.48482 | 101.5094387 | 100.5526191 | 99.61383759 | 98.69258729 | 97.78838002 | 96.90074565 | 96.02923119 | 95.17340006 |
| 190328A00019 | 3/28/2019                           | 2.56 | 3/28/2024  | 3/28/2019  | 102.71616 | 101.2317543 | 99.77631916 | 98.34907883 | 96.9492864  | 95.57622089 | 94.22918604 | 92.90750926 | 91.61054069 |
| 190529A00023 | 5/29/2019                           | 2.38 | 5/29/2024  | 5/29/2019  | 102.7509  | 101.1000372 | 99.4835276  | 97.90036771 | 96.34958877 | 94.8302596  | 93.3414847  | 91.88240253 | 90.4521839  |
| 200818A00009 | 8/18/2020                           | 1.7  | 8/18/2033  | 8/18/2020  | 110.04421 | 99.61443639 | 90.26796727 | 81.88640963 | 74.36486309 | 67.61032314 | 61.54027967 | 56.08148658 | 51.16888094 |
| 151223A00074 | 12/23/2015                          | 3.01 | 12/23/2027 | 12/23/2015 | 113.91903 | 108.5517678 | 103.4734154 | 98.66682746 | 94.11596809 | 89.80583649 | 85.72239407 | 81.85249725 | 78.18383532 |
| 160119A00019 | 1/19/2016                           | 2.95 | 1/19/2027  | 1/19/2016  | 110.39933 | 106.0516329 | 101.9015395 | 97.93901841 | 94.15460105 | 90.53934763 | 87.08481463 | 83.78302448 | 80.62643733 |
| 160707A00032 | 7/7/2016                            | 1.52 | 7/7/2023   | 7/7/2016   | 100.85345 | 100.0819471 | 99.32220223 | 98.57395118 | 97.83693464 | 97.1110901  | 96.39560615 | 95.69081315 | 94.99629199 |
| 190830A00010 | 9/3/2019                            | 1.75 | 9/1/2023   | 9/3/2019   | 101.07524 | 100.1527113 | 99.24694931 | 98.35749838 | 97.48392124 | 96.62579611 | 95.78271606 | 94.95428829 | 94.1401336  |
| 200402A00011 | 4/2/2020                            | 0.8  | 3/31/2023  | 4/2/2020   | 100.23416 | 99.73229272 | 99.23542055 | 98.74347374 | 98.25637948 | 97.77406639 | 97.29646446 | 96.82350508 | 96.35512092 |
| 201208A00031 | 12/10/2020                          | 1.43 | 12/9/2024  | 12/10/2020 | 101.56573 | 99.41269537 | 97.31553849 | 95.27240838 | 93.28153211 | 91.34120977 | 89.44981075 | 87.60577033 | 85.80758639 |
| 210624A00020 | 6/24/2021                           | 0.78 | 6/24/2024  | 6/24/2021  | 100.08614 | 98.38874659 | 96.72786785 | 95.10239237 | 93.51125297 | 91.95342574 | 90.42792775 | 88.93381503 | 87.47018054 |
| 130405A00006 | 4/5/2013                            | 2.41 | 4/7/2025   | 4/5/2013   | 104.61535 | 102.100805  | 99.65985251 | 97.28990374 | 94.98848206 | 92.75321308 | 90.58181966 | 88.47211732 | 86.42200978 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 160119A00029 | 1/19/2016                           | 3.39 | 1/20/2032  | 1/19/2016  | 125.22214 | 115.4968191 | 106.6317294 | 98.54552557 | 91.16496824 | 84.4240799  | 78.26339041 | 72.62926413 | 67.47329986 |
| 170328A00015 | 3/28/2017                           | 2.75 | 11/29/2024 | 3/28/2017  | 104.425   | 102.2662686 | 100.1628649 | 98.11297574 | 96.11486638 | 94.16687242 | 92.26739639 | 90.41490446 | 88.60792334 |
| 180918A00041 | 9/18/2018                           | 3.18 | 9/18/2024  | 9/18/2018  | 105.12013 | 103.1428377 | 101.2129526 | 99.32904489 | 97.48973788 | 95.69370557 | 93.93967038 | 92.22640104 | 90.5527106  |
| 200226A00015 | 2/26/2020                           | 1.53 | 2/26/2024  | 2/26/2020  | 101.0905  | 99.70007965 | 98.33537874 | 96.99574664 | 95.68055329 | 94.38918928 | 93.121065   | 91.87560982 | 90.65227137 |
| 200304A00040 | 3/4/2020                            | 1.12 | 3/1/2024   | 3/4/2020   | 100.51454 | 99.11742931 | 97.74635608 | 96.4006518  | 95.07967464 | 93.78280394 | 92.50943936 | 91.25900001 | 90.03092374 |
| 200604A00012 | 6/4/2020                            | 1.59 | 6/4/2030   | 6/4/2020   | 107.89794 | 100.4145348 | 93.50192104 | 87.11361396 | 81.20714188 | 75.74368151 | 70.68772672 | 66.00678905 | 61.67112669 |
| 200626A00014 | 6/26/2020                           | 0.62 | 6/26/2025  | 6/26/2020  | 100.0987  | 97.43237796 | 94.84957388 | 92.34712746 | 89.92202665 | 87.5713951  | 85.29248485 | 83.08266953 | 80.93943795 |
| 211222A00004 | 12/22/2021                          | 1.26 | 10/15/2024 | 12/22/2021 | 101.09852 | 99.09589102 | 97.14276348 | 95.23759286 | 93.37889628 | 91.56524745 | 89.7952741  | 88.0676555  | 86.38112015 |
| 220112A00004 | 1/12/2022                           | 1.55 | 1/12/2026  | 1/12/2022  | 103.33332 | 100.0973041 | 96.97902189 | 93.9735313  | 91.07612453 | 88.28231937 | 85.58784687 | 82.98863973 | 80.48082146 |
| 120127A00019 | 1/27/2012                           | 3.87 | 1/30/2032  | 1/27/2012  | 129.69884 | 119.7465163 | 110.6718355 | 102.3918761 | 94.83197683 | 87.92487604 | 81.60994351 | 75.83249528 | 70.5431824  |
| 140626A00036 | 6/26/2014                           | 3.55 | 6/26/2029  | 6/26/2014  | 121.386   | 114.2876162 | 107.6635235 | 101.4793112 | 95.70325087 | 90.30607157 | 85.26075649 | 80.5423575  | 76.12782589 |
| 150827A00029 | 8/27/2015                           | 2.74 | 8/27/2024  | 8/27/2015  | 104.11031 | 102.2027843 | 100.3397161 | 98.51980054 | 96.74178296 | 95.00445335 | 93.30664456 | 91.64723044 | 90.02512415 |
| 180104A00018 | 1/4/2018                            | 2.97 | 1/4/2027   | 1/4/2018   | 110.37063 | 106.0631664 | 101.949823  | 98.02076149 | 94.26670479 | 90.67889719 | 87.2490718  | 83.96942027 | 80.83256445 |
| 180530A00025 | 5/30/2018                           | 3.49 | 5/30/2030  | 5/30/2018  | 122.34188 | 114.3333906 | 106.9227671 | 100.061891  | 93.70676946 | 87.81715847 | 82.3562242  | 77.29023712 | 72.58829495 |
| 180718A00026 | 7/18/2018                           | 3.03 | 7/18/2023  | 7/18/2018  | 102.01335 | 101.2079942 | 100.4153493 | 99.63511797 | 98.86701008 | 98.11074436 | 97.36604822 | 96.6326574  | 95.91031562 |
| 181005A00016 | 10/5/2018                           | 3.26 | 1/10/2023  | 10/5/2018  | 100.96583 | 100.6818662 | 100.3995084 | 100.1187431 | 99.83955689 | 99.56193636 | 99.28586831 | 99.01133966 | 98.73833749 |
| 181025A00010 | 10/25/2018                          | 3.07 | 10/25/2022 | 10/25/2018 | 100.28647 | 100.2168865 | 100.1474143 | 100.0780488 | 100.0087898 | 99.93963694 | 99.87059008 | 99.80164895 | 99.73281332 |
| 190819A00004 | 8/20/2019                           | 1.81 | 5/24/2024  | 8/20/2019  | 101.77903 | 100.1496734 | 98.55406929 | 96.99123623 | 95.46022832 | 93.96013602 | 92.49008441 | 91.04923147 | 89.63676657 |
| 200122A00034 | 1/22/2020                           | 1.87 | 1/22/2024  | 1/22/2020  | 101.43768 | 100.1391687 | 98.86601167 | 97.61748886 | 96.39290358 | 95.19158556 | 94.01288968 | 92.85619482 | 91.72090272 |
| 200922A00035 | 9/24/2020                           | 2.94 | 9/23/2024  | 9/24/2020  | 104.41686 | 102.4380005 | 100.5068538 | 98.62196953 | 96.78195539 | 94.98547039 | 93.2312228  | 91.51796794 | 89.84450616 |
| 220630A00045 | 6/30/2022                           | 3.39 | 6/30/2026  | 6/30/2022  | 110.47368 | 106.6675609 | 103.0149093 | 99.50863329 | 96.14201783 | 92.90869877 | 89.802642   | 86.81812406 | 83.94971402 |
| 120709A00016 | 7/9/2012                            | 3.2  | 7/15/2027  | 7/9/2012   | 112.90716 | 108.0227532 | 103.3814617 | 98.96987386 | 94.77538971 | 90.78616802 | 86.99107623 | 83.37964424 | 79.94202133 |
| 180618A00026 | 6/18/2018                           | 3.05 | 4/13/2023  | 6/18/2018  | 101.45153 | 100.9104015 | 100.3750497 | 99.84538134 | 99.32130624 | 98.80273597 | 98.28958396 | 97.78176548 | 97.27919754 |
| 190131A00019 | 1/31/2019                           | 3.44 | 1/30/2034  | 1/31/2019  | 131.08759 | 119.0395217 | 108.2570719 | 98.59883632 | 89.93994546 | 82.17005657 | 75.19159555 | 68.91821915 | 63.27346935 |
| 190211A00016 | 2/11/2019                           | 3.01 | 2/11/2025  | 2/11/2019  | 105.45407 | 103.0854022 | 100.782075  | 98.54193154 | 96.3628958  | 94.24297215 | 92.18024157 | 90.17285829 | 88.21904653 |
| 190521A00043 | 5/21/2019                           | 2.54 | 5/22/2023  | 5/21/2019  | 101.36235 | 100.7148019 | 100.0755185 | 99.44434315 | 98.82112213 | 98.20570565 | 97.59794768 | 96.9977058  | 96.4048411  |
| 190808A00052 | 8/8/2019                            | 1.7  | 8/8/2024   | 8/8/2019   | 102.04761 | 100.2101559 | 98.41459777 | 96.65973435 | 94.94441006 | 93.26750942 | 91.6279554  | 90.02470785 | 88.45676196 |
| 201208A00029 | 12/10/2020                          | 1.52 | 12/9/2025  | 12/10/2020 | 102.69696 | 99.56944443 | 96.55287773 | 93.64266978 | 90.83445251 | 88.12406606 | 85.50754726 | 82.98111898 | 80.54118    |
| 210527A00026 | 6/1/2021                            | 2.78 | 6/1/2028   | 6/1/2021   | 112.95022 | 107.2021341 | 101.786122  | 96.68119596 | 91.86781076 | 87.32775244 | 83.04404054 | 79.0008379  | 75.18336766 |
| 211222A00030 | 12/22/2021                          | 1.33 | 1/15/2025  | 12/22/2021 | 101.40127 | 99.15432981 | 96.96788557 | 94.83992657 | 92.76852149 | 90.75181685 | 88.78803322 | 86.87546167 | 85.01246039 |
| 160606A00005 | 6/6/2016                            | 2.92 | 6/6/2031   | 6/6/2016   | 119.88106 | 110.9825557 | 102.8292371 | 95.35436739 | 88.49752339 | 82.2039716  | 76.42410444 | 71.11293521 | 66.22964532 |
| 190206A00013 | 2/6/2019                            | 2.68 | 2/6/2023   | 2/6/2019   | 100.97375 | 100.6148444 | 100.2584952 | 99.90467252 | 99.55334952 | 99.20449973 | 98.85809704 | 98.51411573 | 98.17253041 |
| 190808A00025 | 8/8/2019                            | 1.7  | 8/8/2024   | 8/8/2019   | 102.04761 | 100.2101559 | 98.41459777 | 96.65973435 | 94.94441006 | 93.26750942 | 91.6279554  | 90.02470785 | 88.45676196 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 190816A00022 | 8/16/2019                           | 1.77 | 8/16/2024  | 8/16/2019  | 101.98057 | 100.1269529 | 98.31596203 | 96.54636612 | 94.81697939 | 93.12665758 | 91.47429623 | 89.85882903 | 88.27922627 |
| 200103A00009 | 1/3/2020                            | 1.9  | 1/3/2024   | 1/3/2020   | 101.41724 | 100.1643292 | 98.9411684  | 97.74670515 | 96.5799343  | 95.43989731 | 94.32567954 | 93.23640775 | 92.17124778 |
| 200309A00004 | 3/9/2020                            | 0.71 | 3/8/2024   | 3/9/2020   | 100.09843 | 98.68349675 | 97.29531503 | 95.93318864 | 94.5964494  | 93.28445149 | 91.99657054 | 90.73220275 | 89.49076403 |
| 180621A00017 | 6/21/2018                           | 3.42 | 6/21/2028  | 6/21/2018  | 116.72812 | 110.8196055 | 105.2536121 | 100.0083672 | 95.0636022  | 90.40043958 | 86.00128931 | 81.84975408 | 77.93054187 |
| 180719A00061 | 7/19/2018                           | 3.07 | 7/19/2023  | 7/19/2018  | 102.05959 | 101.2512055 | 100.4556207 | 99.67253719 | 98.9016618  | 98.14271038 | 97.39540756 | 96.65948639 | 95.93468806 |
| 180730A00078 | 7/30/2018                           | 3.14 | 7/28/2023  | 7/30/2018  | 102.16307 | 101.3298714 | 100.5102564 | 99.7038912  | 98.91045627 | 98.12964239 | 97.36115008 | 96.60468929 | 95.85997899 |
| 191031A00033 | 10/31/2019                          | 2.2  | 5/31/2028  | 10/31/2019 | 109.66587 | 104.0120166 | 98.68612896 | 93.66744719 | 88.93663227 | 84.4756638  | 80.26774304 | 76.29720348 | 72.54942864 |
| 191106A00022 | 11/6/2019                           | 2.34 | 1/2/2030   | 11/6/2019  | 113.01243 | 105.7369848 | 98.98517841 | 92.71647937 | 86.89370166 | 81.48271132 | 76.45216032 | 71.77324509 | 67.41948725 |
| 191218A00014 | 12/18/2019                          | 2.04 | 12/18/2024 | 12/18/2019 | 102.94392 | 100.7519208 | 98.61721735 | 96.53789087 | 94.51210779 | 92.53811095 | 90.61421566 | 88.73880602 | 86.91033149 |
| 201116A00010 | 11/16/2020                          | 0.57 | 11/15/2023 | 11/16/2020 | 99.819277 | 98.70477923 | 97.61495879 | 96.54900429 | 95.50613933 | 94.4856208  | 93.48673722 | 92.50880699 | 91.55117686 |
| 220923A00035 | 9/23/2022                           | 4.7  | 3/22/2024  | 9/23/2022  | 105.8741  | 104.3809449 | 102.9165824 | 101.4802546 | 100.0712255 | 98.68878466 | 97.3322455  | 96.00094479 | 94.69424144 |
| 170427A00044 | 4/27/2017                           | 3.02 | 4/27/2027  | 4/27/2017  | 111.44418 | 106.8060809 | 102.3903651 | 98.18517193 | 94.17933718 | 90.36234875 | 86.7243049  | 83.25587553 | 79.94826599 |
| 171025A00027 | 10/25/2017                          | 2.36 | 10/25/2022 | 10/25/2017 | 100.23303 | 100.1635337 | 100.0941467 | 100.0248659 | 99.95569099 | 99.8866217  | 99.81765782 | 99.74879911 | 99.68004533 |
| 180920A00014 | 9/20/2018                           | 3.59 | 9/20/2028  | 9/20/2018  | 118.43115 | 112.228161  | 106.3981525 | 100.9166459 | 95.76089658 | 90.90975954 | 86.34356896 | 82.04402751 | 77.99410435 |
| 190807A00021 | 8/7/2019                            | 2    | 8/7/2026   | 8/7/2019   | 105.44842 | 101.6379018 | 97.98586954 | 94.48493685 | 91.12809695 | 87.90870329 | 84.82044918 | 81.85734864 | 79.01371853 |
| 191003A00014 | 10/3/2019                           | 1.71 | 9/20/2024  | 10/3/2019  | 101.95136 | 100.0057006 | 98.10687902 | 96.25347987 | 94.44414047 | 92.67754837 | 90.95243908 | 89.26759402 | 87.62183844 |
| 200306A00001 | 3/6/2020                            | 1.11 | 3/6/2026   | 3/6/2020   | 101.60293 | 98.26326068 | 95.05021057 | 91.95833281 | 88.98244128 | 86.11759943 | 83.35910681 | 80.70248655 | 78.14347349 |
| 200327A00075 | 3/31/2020                           | 1.75 | 3/29/2024  | 3/31/2020  | 101.49875 | 100.0212748 | 98.57269959 | 97.15225319 | 95.75918938 | 94.39278782 | 93.05235294 | 91.73721285 | 90.44671835 |
| 200730A00001 | 7/30/2020                           | 0.46 | 7/30/2024  | 7/30/2020  | 99.726651 | 97.93481779 | 96.18345097 | 94.47140312 | 92.79756667 | 91.16087224 | 89.56028707 | 87.99481351 | 86.46348764 |
| 150401A00008 | 4/1/2015                            | 2.62 | 4/1/2025   | 4/1/2015   | 104.78374 | 102.2903777 | 99.86950629 | 97.51859951 | 95.23523425 | 93.01708655 | 90.8619269  | 88.76761567 | 86.73209899 |
| 160811A00011 | 8/11/2016                           | 2.25 | 8/11/2026  | 8/11/2016  | 106.4356  | 102.595674  | 98.91565413 | 95.38806848 | 92.00583509 | 88.76223695 | 85.65090126 | 82.66578004 | 79.80113196 |
| 180403A00041 | 4/3/2018                            | 2.91 | 4/3/2025   | 4/3/2018   | 105.85714 | 103.3376412 | 100.8915429 | 98.51628245 | 96.20939935 | 93.96853405 | 91.79142323 | 89.67589523 | 87.61986572 |
| 180917A00078 | 9/17/2018                           | 3.05 | 9/15/2023  | 9/17/2018  | 102.4575  | 101.4888424 | 100.5384956 | 99.60594226 | 98.69068577 | 97.79224775 | 96.91016737 | 96.04400051 | 95.19331903 |
| 181029A00081 | 10/29/2018                          | 3.27 | 4/28/2023  | 10/29/2018 | 101.67201 | 101.0890485 | 100.5127678 | 99.9430505  | 99.37978495 | 98.82286203 | 98.27217506 | 97.72761976 | 97.18909413 |
| 181116A00015 | 11/19/2018                          | 3.29 | 2/15/2024  | 11/19/2018 | 103.50601 | 102.1287742 | 100.7765059 | 99.44858337 | 98.14440551 | 96.86339048 | 95.60497504 | 94.36861378 | 93.15377839 |
| 191004A00001 | 10/4/2019                           | 2.47 | 10/4/2034  | 10/4/2019  | 118.98431 | 107.0902601 | 96.52774122 | 87.13938306 | 78.78720169 | 71.35012468 | 64.72184087 | 58.80893287 | 53.5292541  |
| 200226A00005 | 2/26/2020                           | 1.53 | 2/27/2023  | 2/26/2020  | 100.5568  | 100.1415443 | 99.72970055 | 99.32123158 | 98.91609613 | 98.5142536  | 98.11566404 | 97.72028813 | 97.32808721 |
| 211222A00010 | 12/22/2021                          | 1.06 | 1/16/2024  | 12/22/2021 | 100.3551  | 99.07843569 | 97.82838817 | 96.60412588 | 95.40485661 | 94.2298208  | 93.07828983 | 91.94956444 | 90.84297327 |
| 160211A00035 | 2/11/2016                           | 2.25 | 2/11/2025  | 2/11/2016  | 103.64342 | 101.2966143 | 99.01468064 | 96.79547523 | 94.63693575 | 92.53707956 | 90.49400016 | 88.50586381 | 86.57090633 |
| 180815A00021 | 8/15/2018                           | 3.01 | 8/15/2023  | 8/15/2018  | 102.155   | 101.2730259 | 100.4062765 | 99.55435935 | 98.7168958  | 97.89351995 | 97.08387819 | 96.28762869 | 95.50444085 |
| 180831A00019 | 8/31/2018                           | 3.21 | 9/2/2025   | 8/31/2018  | 107.35081 | 104.4117181 | 101.5690958 | 98.81926111 | 96.15868921 | 93.58400903 | 91.09199557 | 88.67956272 | 86.34375648 |
| 190808A00009 | 8/8/2019                            | 1.89 | 8/8/2024   | 8/8/2019   | 102.16239 | 100.328235  | 98.53582286 | 96.78395845 | 95.07149221 | 93.39731443 | 91.76035358 | 90.15957469 | 88.59397795 |
| 191223A00055 | 12/23/2019                          | 2.46 | 12/7/2029  | 12/23/2019 | 113.7698  | 106.5342495 | 99.8144716  | 93.57089453 | 87.76718427 | 82.36996369 | 77.34855693 | 72.67475723 | 68.32261589 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 200511A00016 | 5/11/2020                           | 0.71 | 2/1/2024   | 5/11/2020  | 99.906137 | 98.59406125 | 97.3051927  | 96.03896972 | 94.79484845 | 93.57230194 | 92.37081954 | 91.18990623 | 90.02908208 |
| 170120A00011 | 1/20/2017                           | 3.75 | 1/20/2037  | 1/20/2017  | 137.52504 | 122.4529569 | 109.3006937 | 97.80834525 | 87.75267575 | 78.94176627 | 71.21046787 | 64.41653541 | 58.4373371  |
| 180619A00023 | 6/19/2018                           | 3.04 | 6/19/2023  | 6/19/2018  | 101.8579  | 101.1320373 | 100.4165192 | 99.71112405 | 99.01563791 | 98.32985285 | 97.65356676 | 96.98658306 | 96.3287106  |
| 181023A00025 | 10/23/2018                          | 3.27 | 10/23/2023 | 10/23/2018 | 102.77584 | 101.7048533 | 100.6561953 | 99.62916804 | 98.62310681 | 97.63737391 | 96.67135727 | 95.72446919 | 94.79614515 |
| 191031A00019 | 10/31/2019                          | 1.88 | 10/31/2022 | 10/31/2019 | 100.2476  | 100.1614486 | 100.0754459 | 99.98958895 | 99.90387749 | 99.81831112 | 99.7328895  | 99.64761227 | 99.56247909 |
| 200430A00008 | 4/30/2020                           | 0.94 | 4/30/2025  | 4/30/2020  | 100.58263 | 98.06570216 | 95.62393194 | 93.25462337 | 90.95519717 | 88.72318313 | 86.55621468 | 84.45202382 | 82.40843629 |
| 211222A00008 | 12/22/2021                          | 1.13 | 4/15/2024  | 12/22/2021 | 100.59044 | 99.07436238 | 97.58848752 | 96.1319846  | 94.70405244 | 93.30391857 | 91.93083795 | 90.58409176 | 89.26298622 |
| 160930A00005 | 9/30/2016                           | 2.03 | 9/30/2024  | 9/30/2016  | 102.62684 | 100.6474683 | 98.71634589 | 96.8319972  | 94.99300072 | 93.19798797 | 91.4456412  | 89.73469113 | 88.06391477 |
| 170130A00031 | 1/30/2017                           | 2.96 | 7/30/2025  | 1/30/2017  | 106.39766 | 103.5621202 | 100.8171314 | 98.15932206 | 95.58546865 | 93.09248433 | 90.67741239 | 88.33742007 | 86.06979266 |
| 200127A00030 | 1/27/2020                           | 1.8  | 1/27/2025  | 1/27/2020  | 102.51934 | 100.2280981 | 97.99924077 | 95.83071742 | 93.72056084 | 91.66687989 | 89.66785602 | 87.72174002 | 85.82684899 |
| 200228A00031 | 2/28/2020                           | 1.35 | 2/28/2024  | 2/28/2020  | 100.83966 | 99.44551609 | 98.07725398 | 96.73421594 | 95.41576594 | 94.12128886 | 92.85018962 | 91.6018924  | 90.37583984 |
| 200302A00053 | 3/2/2020                            | 1.31 | 3/3/2025   | 3/2/2020   | 101.44855 | 99.07201472 | 96.76281212 | 94.51866377 | 92.33738094 | 90.21686156 | 88.15508626 | 86.15011459 | 84.20008145 |
| 210428A00008 | 4/28/2021                           | 1.93 | 4/26/2030  | 4/28/2021  | 110.38501 | 102.9072101 | 95.99095035 | 89.59110996 | 83.66641361 | 78.17908643 | 73.09454036 | 68.38109004 | 64.0096955  |
| 160706A00010 | 7/6/2016                            | 1.99 | 7/7/2025   | 7/6/2016   | 103.55667 | 100.8214327 | 98.17213204 | 95.60553565 | 93.11855403 | 90.70823507 | 88.37175681 | 86.10642068 | 83.90964513 |
| 190326A00032 | 3/26/2019                           | 2.4  | 3/26/2024  | 3/26/2019  | 102.64453 | 101.162972  | 99.71027421 | 98.28566849 | 96.88841204 | 95.51778778 | 94.17310323 | 92.85368942 | 91.55889994 |
| 190328A00046 | 3/28/2019                           | 2.7  | 3/4/2025   | 3/28/2019  | 104.84113 | 102.4201273 | 100.0675173 | 97.78098382 | 95.55830475 | 93.39734588 | 91.29605703 | 89.25246824 | 87.26468608 |
| 191121A00004 | 11/21/2019                          | 1.77 | 11/21/2024 | 11/21/2019 | 102.54121 | 100.4194694 | 98.35191815 | 96.33679214 | 94.37240208 | 92.45712666 | 90.58940927 | 88.76775478 | 86.99072664 |
| 120306A00004 | 3/6/2012                            | 2.95 | 3/15/2023  | 3/6/2012   | 101.2348  | 100.7738761 | 100.3171603 | 99.86459025 | 99.41610958 | 98.9716629  | 98.53119582 | 98.09465492 | 97.66198775 |
| 171026A00010 | 10/26/2017                          | 2.84 | 10/26/2026 | 10/26/2017 | 109.28729 | 105.1897082 | 101.2701134 | 97.51981197 | 93.93058312 | 90.49465083 | 87.20465704 | 84.05363681 | 81.03499512 |
| 190523A00023 | 5/23/2019                           | 2.48 | 3/22/2023  | 5/23/2019  | 101.04667 | 100.5670707 | 100.0920263 | 99.62146988 | 99.15533799 | 98.69356837 | 98.2360999  | 97.78287261 | 97.33382764 |
| 190821A00028 | 8/21/2019                           | 1.8  | 8/21/2023  | 8/21/2019  | 101.09782 | 100.2047761 | 99.32745253 | 98.4654391  | 97.61833769 | 96.78576385 | 95.96734628 | 95.1627262  | 94.3715569  |
| 200312A00004 | 3/13/2020                           | 1.23 | 1/24/2025  | 3/13/2020  | 101.18111 | 98.91350901 | 96.70754529 | 94.56119303 | 92.47250179 | 90.43959736 | 88.46067819 | 86.53401213 | 84.65793323 |
| 210305A00013 | 3/5/2021                            | 2.41 | 3/5/2036   | 3/5/2021   | 118.83985 | 105.7423002 | 94.26247296 | 84.19005309 | 75.34312436 | 67.56420908 | 60.71687425 | 54.68282369 | 49.35940428 |
| 210609A00011 | 6/11/2021                           | 1.32 | 6/11/2024  | 6/11/2021  | 101.00151 | 99.33090088 | 97.69564362 | 96.09468497 | 94.52700962 | 92.99164254 | 91.48764693 | 90.01412229 | 88.57020268 |
| 180823A00053 | 8/23/2018                           | 3.2  | 8/23/2028  | 8/23/2018  | 116.7933  | 110.6829133 | 104.9372818 | 99.53267873 | 94.44704145 | 89.65984401 | 85.15198279 | 80.90567103 | 76.90434169 |
| 190328A00031 | 4/25/2019                           | 2.56 | 4/25/2024  | 4/25/2019  | 102.87144 | 101.309652  | 99.77923351 | 98.27930797 | 96.80903073 | 95.36758807 | 93.95419574 | 92.56809755 | 91.20856422 |
| 190528A00028 | 5/28/2019                           | 2.42 | 5/30/2023  | 5/28/2019  | 101.3205  | 100.6512717 | 99.9908654  | 99.33910313 | 98.69581605 | 98.06083976 | 97.43401407 | 96.81518288 | 96.20419405 |
| 190603A00005 | 6/3/2019                            | 2.25 | 6/3/2024   | 6/3/2019   | 102.55604 | 100.8934408 | 99.26564689 | 97.67163097 | 96.11040498 | 94.58101944 | 93.0825616  | 91.6141536  | 90.17495082 |
| 190816A00020 | 8/16/2019                           | 1.79 | 8/16/2024  | 8/16/2019  | 102.01843 | 100.1644502 | 98.35309875 | 96.58314906 | 94.85341512 | 93.1627525  | 91.51005655 | 89.89426081 | 88.31433539 |
| 190826A00030 | 8/26/2019                           | 1.72 | 8/26/2026  | 8/26/2019  | 104.96335 | 101.098884  | 97.39754989 | 93.85163623 | 90.45383398 | 87.19721531 | 84.07521171 | 81.08159345 | 78.21045038 |
| 191009A00021 | 10/9/2019                           | 1.71 | 10/7/2022  | 10/9/2019  | 100.05259 | 100.0331506 | 100.0137279 | 99.99432517 | 99.97494247 | 99.95557974 | 99.93623694 | 99.91691404 | 99.897611   |
| 191119A00027 | 11/19/2019                          | 1.8  | 11/19/2024 | 11/19/2019 | 102.59879 | 100.4818306 | 98.41883566 | 96.4080529  | 94.44780347 | 92.53647597 | 90.67252314 | 88.85445865 | 87.08085429 |
| 200131A00032 | 1/31/2020                           | 2.1  | 1/31/2030  | 1/31/2020  | 111.37072 | 104.0801912 | 97.32076117 | 91.05098373 | 85.23284382 | 79.83145818 | 74.8148029  | 70.153466   | 65.82042247 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 220510A00014 | 5/13/2022                           | 2.72 | 11/6/2023  | 5/13/2022  | 102.23565 | 101.130448  | 100.0491018 | 98.99084539 | 97.95494477 | 96.94069692 | 95.94742797 | 94.97449179 | 94.02126855 |
| 180222A00025 | 2/22/2018                           | 3.48 | 2/22/2033  | 2/22/2018  | 129.8137  | 118.7322927 | 108.7311782 | 99.69807765 | 91.53296736 | 84.14667895 | 77.45967025 | 71.40094062 | 65.90707341 |
| 190906A00012 | 9/6/2019                            | 1.76 | 9/6/2024   | 9/6/2019   | 102.02579 | 100.1165311 | 98.25237589 | 96.43198482 | 94.65406974 | 92.91738904 | 91.22074556 | 89.56298473 | 87.94299273 |
| 190429A00004 | 4/29/2019                           | 2.65 | 4/15/2024  | 4/29/2019  | 102.95554 | 101.4203682 | 99.9157366  | 98.44080384 | 96.99475985 | 95.57682359 | 94.18624178 | 92.82228768 | 91.48425985 |
| 190808A00024 | 8/8/2019                            | 1.69 | 2/8/2024   | 8/8/2019   | 101.41811 | 100.0731062 | 98.75223003 | 97.45488906 | 96.1805093  | 94.92853495 | 93.69842772 | 92.48966614 | 91.30174488 |
| 191115A00015 | 11/18/2019                          | 2.61 | 11/18/2024 | 11/18/2019 | 104.05943 | 101.9346145 | 99.86373244 | 97.84503886 | 95.87686128 | 93.95759411 | 92.08569541 | 90.2596838  | 88.4781356  |
| 200727A00016 | 7/27/2020                           | 0.43 | 7/27/2023  | 7/27/2020  | 99.983569 | 99.16188452 | 98.35361418 | 97.55843211 | 96.77602271 | 96.0060805  | 95.24830962 | 94.50242353 | 93.76814462 |
| 200922A00033 | 9/24/2020                           | 2.37 | 9/23/2024  | 9/24/2020  | 103.27852 | 101.3112826 | 99.39152911 | 97.51781859 | 95.6887647  | 93.90303243 | 92.15933579 | 90.45643562 | 88.79313757 |
| 190712A00018 | 7/12/2019                           | 2.25 | 7/12/2024  | 7/12/2019  | 102.73671 | 100.9675922 | 99.23734417 | 97.54480866 | 95.88887717 | 94.26848368 | 92.68260263 | 91.13024697 | 89.61046636 |
| 200224A00024 | 2/24/2020                           | 1.59 | 2/24/2025  | 2/24/2020  | 102.11202 | 99.74646688 | 97.44737351 | 95.21251128 | 93.03973627 | 90.92698875 | 88.87228935 | 86.87373542 | 84.92949761 |
| 200227A00030 | 2/27/2020                           | 1.59 | 2/27/2026  | 2/27/2020  | 103.22716 | 99.87774004 | 96.65435943 | 93.55162991 | 90.56442062 | 87.68784602 | 84.91725285 | 82.24820779 | 79.67648588 |
| 150408A00004 | 4/8/2015                            | 2.17 | 4/10/2023  | 4/8/2015   | 101.01146 | 100.4793429 | 99.95282658 | 99.4318259  | 98.91625432 | 98.40602718 | 97.90106157 | 97.40127628 | 96.90659176 |
| 150601A00737 | 6/1/2015                            | 2.68 | 12/31/2024 | 6/1/2015   | 104.64589 | 102.3945246 | 100.2027267 | 98.06847666 | 95.98984179 | 93.96497144 | 91.9920926  | 90.06950588 | 88.19558178 |
| 180622A00018 | 6/22/2018                           | 2.92 | 6/22/2023  | 6/22/2018  | 101.8536  | 101.118718  | 100.3944317 | 99.68051623 | 98.97674971 | 98.28291673 | 97.59880789 | 96.92421964 | 96.25895409 |
| 181211A00009 | 12/11/2018                          | 3.14 | 12/11/2023 | 12/11/2018 | 102.87079 | 101.6685992 | 100.4945014 | 99.34752257 | 98.22673044 | 97.13123503 | 96.0601863  | 95.01277194 | 93.98821531 |
| 190529A00013 | 5/29/2019                           | 2.38 | 5/29/2024  | 5/29/2019  | 102.7509  | 101.1000372 | 99.4835276  | 97.90036771 | 96.34958877 | 94.8302596  | 93.3414847  | 91.88240253 | 90.4521839  |
| 210507A00008 | 5/7/2021                            | 1.94 | 5/7/2031   | 5/7/2021   | 111.39725 | 102.9290787 | 95.1725674  | 88.06409609 | 81.54603927 | 75.56617564 | 70.07715585 | 65.03602504 | 60.40379449 |
| 130424A00004 | 4/24/2013                           | 2.46 | 4/24/2025  | 4/24/2013  | 104.83416 | 102.2705098 | 99.78281776 | 97.3683771  | 95.02459519 | 92.74898834 | 90.53917653 | 88.3928783  | 86.30790595 |
| 131217A00024 | 12/17/2013                          | 4.34 | 1/2/2029   | 12/17/2013 | 123.93673 | 117.2833462 | 111.0434246 | 105.1888582 | 99.69360815 | 94.53353625 | 89.68625633 | 85.13099738 | 80.84847842 |
| 150601A00666 | 6/1/2015                            | 3.88 | 1/16/2035  | 6/1/2015   | 135.34801 | 122.2541811 | 110.6249573 | 100.2858376 | 91.08407396 | 82.88585104 | 75.57384732 | 69.04512173 | 63.20928064 |
| 190826A00057 | 8/26/2019                           | 1.87 | 8/26/2025  | 8/26/2019  | 103.39222 | 100.5297829 | 97.76121734 | 95.08294608 | 92.49155219 | 89.98376687 | 87.5564622  | 85.20664428 | 82.93144668 |
| 200214A00002 | 2/14/2020                           | 1.58 | 11/15/2024 | 2/14/2020  | 102.11233 | 100.0115222 | 97.96409565 | 95.96832716 | 94.02256255 | 92.12521374 | 90.27475547 | 88.46972231 | 86.70870578 |
| 200228A00014 | 2/28/2020                           | 1.4  | 2/28/2025  | 2/28/2020  | 101.66317 | 99.29168657 | 96.98716651 | 94.74734668 | 92.57005761 | 90.4532154  | 88.39481785 | 86.39294075 | 84.44573432 |
| 201204A00016 | 12/8/2020                           | 1.58 | 12/8/2023  | 12/8/2020  | 100.98074 | 99.79854919 | 98.64388968 | 97.51580584 | 96.41338869 | 95.33577026 | 94.28212135 | 93.25164934 | 92.24359622 |
| 211222A00020 | 12/22/2021                          | 0.97 | 10/16/2023 | 12/22/2021 | 100.31055 | 99.27224302 | 98.25528947 | 97.25903772 | 96.28286099 | 95.32615759 | 94.38834963 | 93.4688819  | 92.56722076 |
| 170224A00039 | 5/24/2017                           | 3.17 | 5/24/2027  | 5/24/2017  | 112.34708 | 107.6164232 | 103.1152825 | 98.83126632 | 94.75271913 | 90.86867542 | 87.16881507 | 83.64342164 | 80.28334362 |
| 190730A00016 | 7/30/2019                           | 2    | 7/30/2024  | 7/30/2019  | 102.57378 | 100.7549255 | 98.97704623 | 97.2389786  | 95.53960129 | 93.87783172 | 92.25262444 | 90.66296958 | 89.10789141 |
| 200224A00001 | 2/24/2020                           | 1.59 | 2/24/2025  | 2/24/2020  | 102.11202 | 99.74646688 | 97.44737351 | 95.21251128 | 93.03973627 | 90.92698875 | 88.87228935 | 86.87373542 | 84.92949761 |
| 170915A00031 | 9/15/2017                           | 2.1  | 9/15/2023  | 9/15/2017  | 101.53528 | 100.5714498 | 99.62586748 | 98.69801605 | 97.78740019 | 96.8935429  | 96.01598465 | 95.15428256 | 94.3080097  |
| 181127A00027 | 11/27/2018                          | 3.25 | 11/28/2022 | 11/27/2018 | 100.62649 | 100.4622418 | 100.2985282 | 100.1353485 | 99.97270004 | 99.81058033 | 99.6489868  | 99.48791689 | 99.32736811 |
| 190128A00035 | 1/28/2019                           | 3.04 | 1/26/2024  | 1/28/2019  | 103.0161  | 101.6969246 | 100.4023774 | 99.131802   | 97.8845635  | 96.66004928 | 95.45766817 | 94.2768495  | 93.11704217 |
| 190814A00003 | 8/14/2019                           | 2.01 | 8/14/2029  | 8/14/2019  | 111.18547 | 104.2972218 | 97.8839635  | 91.91049362 | 86.34439233 | 81.15578464 | 76.31712871 | 71.80302282 | 67.59002917 |
| 201030A00005 | 11/2/2020                           | 2.49 | 10/29/2040 | 11/2/2020  | 119.88046 | 103.0997038 | 88.99100606 | 77.10771082 | 67.08025337 | 58.60250323 | 51.42058209 | 45.32369997 | 40.13663749 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 160628A00049 | 6/28/2016                           | 1.88 | 6/27/2025  | 6/28/2016  | 103.57449 | 100.8572134 | 98.22474504 | 95.67388332 | 93.20157316 | 90.80489703 | 88.48106763 | 86.22742092 | 84.04140969 |
| 161208A00007 | 12/8/2016                           | 2.6  | 12/8/2023  | 12/8/2016  | 102.20641 | 101.0164298 | 99.85410415 | 98.71847691 | 97.60863583 | 96.52370982 | 95.46286662 | 94.42531069 | 93.4102812  |
| 190715A00010 | 7/15/2019                           | 2.23 | 7/15/2024  | 7/15/2019  | 102.71372 | 100.9369352 | 99.19933562 | 97.49977154 | 95.83713348 | 94.21035383 | 92.61840482 | 91.06029666 | 89.53507581 |
| 190828A00020 | 8/28/2019                           | 1.95 | 5/28/2027  | 8/28/2019  | 106.70221 | 102.0911259 | 97.70592329 | 93.53433427 | 89.56482471 | 85.7865465  | 82.18929277 | 78.7634564  | 75.49999131 |
| 200818A00008 | 8/18/2020                           | 1.5  | 8/18/2031  | 8/18/2020  | 107.74445 | 99.17744146 | 91.3552682  | 84.20936959 | 77.67781384 | 71.70462811 | 66.23919848 | 61.23573298 | 56.65278079 |
| 140313A00030 | 3/13/2014                           | 3.27 | 3/15/2024  | 3/13/2014  | 103.87002 | 102.4079775 | 100.9738655 | 99.56695339 | 98.18653456 | 96.83192645 | 95.5024695  | 94.19752617 | 92.91648001 |
| 140710A00027 | 7/10/2014                           | 2.8  | 7/17/2023  | 7/10/2014  | 101.90247 | 101.0992472 | 100.3086782 | 99.53046679 | 98.76432451 | 98.00997196 | 97.26713829 | 96.53556087 | 95.81498502 |
| 150720A00012 | 7/20/2015                           | 2.99 | 7/21/2025  | 7/20/2015  | 106.79782 | 103.971868  | 101.2355999 | 98.58565968 | 96.01884039 | 93.53207394 | 91.12242401 | 88.78707959 | 86.52334875 |
| 170824A00038 | 8/24/2017                           | 2.23 | 8/24/2023  | 8/24/2017  | 101.49555 | 100.5924651 | 99.70541284 | 98.83396551 | 97.97771399 | 97.13626337 | 96.30923231 | 95.49625248 | 94.69696799 |
| 190107A00010 | 1/7/2019                            | 2.66 | 1/9/2023   | 1/7/2019   | 100.81524 | 100.534049  | 100.2544324 | 99.97638051 | 99.69988021 | 99.42491842 | 99.15148226 | 98.87955895 | 98.6091359  |
| 190215A00017 | 2/15/2019                           | 2.89 | 2/15/2024  | 2/15/2019  | 102.94952 | 101.5763339 | 100.2280454 | 98.90403528 | 97.6037042  | 96.32647212 | 95.07177749 | 93.83907653 | 92.62784255 |
| 190729A00008 | 7/29/2019                           | 2.18 | 1/29/2024  | 7/29/2019  | 101.88071 | 100.562268  | 99.26763919 | 97.99621863 | 96.7474254  | 95.52069771 | 94.31549214 | 93.13128285 | 91.9675609  |
| 200310A00042 | 3/10/2020                           | 1.41 | 3/11/2030  | 3/10/2020  | 106.41344 | 99.19664571 | 92.51689753 | 86.33153526 | 80.60149168 | 75.29097078 | 70.36715866 | 65.79996143 | 61.56176723 |
| 200511A00023 | 5/11/2020                           | 1.7  | 2/3/2031   | 5/11/2020  | 109.18579 | 101.0453377 | 93.57254829 | 86.70922561 | 80.40252058 | 74.60441377 | 69.27125222 | 64.36333285 | 59.84452738 |
| 150826A00038 | 8/26/2015                           | 2.94 | 8/26/2026  | 8/26/2015  | 109.74331 | 105.7855816 | 101.9938488 | 98.36028714 | 94.87748148 | 91.53840257 | 88.33638516 | 85.2651072  | 82.31857037 |
| 160129A00066 | 1/29/2016                           | 3.04 | 1/29/2031  | 1/29/2016  | 121.49351 | 112.8127285 | 104.8331012 | 97.49398901 | 90.74030091 | 84.52195678 | 78.79340837 | 73.51320804 | 68.64362055 |
| 160706A00026 | 7/6/2016                            | 2.19 | 7/6/2027   | 7/6/2016   | 108.03064 | 103.2851047 | 98.77625086 | 94.49100046 | 90.41707174 | 86.54292551 | 82.85771588 | 79.35124462 | 76.01391874 |
| 170224A00021 | 2/24/2017                           | 3.4  | 2/24/2032  | 2/24/2017  | 125.51593 | 115.6824297 | 106.7267804 | 98.56523432 | 91.12245863 | 84.33065066 | 78.12874978 | 72.46173532 | 67.28000081 |
| 180716A00054 | 7/16/2018                           | 3.59 | 7/16/2040  | 7/16/2018  | 140.93785 | 122.4262735 | 106.7612705 | 93.47870667 | 82.19296636 | 72.58327967 | 64.38249042 | 57.36782005 | 51.35326423 |
| 180823A00055 | 8/23/2018                           | 3.44 | 8/23/2033  | 8/23/2018  | 130.32719 | 118.7380642 | 108.3258803 | 98.9633901  | 90.53776282 | 82.94888651 | 76.10787425 | 69.93575261 | 64.36230919 |
| 190122A00043 | 1/22/2019                           | 2.96 | 1/22/2025  | 1/22/2019  | 105.51048 | 103.1907313 | 100.9337251 | 98.73738728 | 96.59972892 | 94.51883952 | 92.4928833  | 90.52009567 | 88.59878004 |
| 190409A00033 | 4/9/2019                            | 2.62 | 6/9/2023   | 4/9/2019   | 101.50378 | 100.8065839 | 100.1189589 | 99.4407048  | 98.77163104 | 98.11155198 | 97.46028701 | 96.81766031 | 96.18350073 |
| 191120A00031 | 11/20/2019                          | 1.69 | 11/21/2022 | 11/20/2019 | 100.34801 | 100.2033863 | 100.0591884 | 99.91541739 | 99.77207135 | 99.6291484  | 99.48664662 | 99.34456413 | 99.20289906 |
| 200731A00005 | 7/31/2020                           | 0.45 | 7/31/2024  | 7/31/2020  | 99.707923 | 97.9136718  | 96.15999414 | 94.44574264 | 92.7698093  | 91.13112408 | 89.52865338 | 87.96139853 | 86.42839441 |
| 200803A00005 | 8/3/2020                            | 0.54 | 6/30/2023  | 8/3/2020   | 100.03045 | 99.28224681 | 98.54515757 | 97.81894013 | 97.10335571 | 96.39817247 | 95.70316525 | 95.01811535 | 94.3428103  |
| 211022A00008 | 10/22/2021                          | 1.12 | 10/22/2024 | 10/22/2021 | 100.81911 | 98.80126026 | 96.83359046 | 94.91452167 | 93.0425395  | 91.21618796 | 89.43406671 | 87.69482853 | 85.99717684 |
| 111024A00010 | 10/24/2011                          | 3.11 | 10/30/2023 | 10/24/2011 | 102.75749 | 101.6661146 | 100.5979065 | 99.55213051 | 98.52808524 | 97.52509844 | 96.5425253  | 95.5797471  | 94.63616991 |
| 150601A00688 | 6/1/2015                            | 2.61 | 2/21/2025  | 6/1/2015   | 104.78205 | 102.3859976 | 100.0569629 | 97.79269689 | 95.59104347 | 93.44993114 | 91.36736906 | 89.34144342 | 87.370314   |
| 170706A00090 | 7/6/2017                            | 2.48 | 7/6/2023   | 7/6/2017   | 101.52584 | 100.7550943 | 99.99602819 | 99.24837927 | 98.51189133 | 97.78631575 | 97.07141125 | 96.36694363 | 95.67268548 |
| 180110A00027 | 1/10/2018                           | 2.6  | 1/10/2023  | 1/10/2018  | 100.7787  | 100.495081  | 100.2130702 | 99.93265041 | 99.65380819 | 99.37653018 | 99.10080318 | 98.82661412 | 98.5539501  |
| 191126A00022 | 11/26/2019                          | 1.72 | 5/26/2023  | 11/26/2019 | 100.8988  | 100.2412995 | 99.59234234 | 98.95176473 | 98.31940514 | 97.6951062  | 97.07871451 | 96.47008054 | 95.86905853 |
| 191230A00013 | 12/30/2019                          | 1.84 | 12/2/2024  | 12/30/2019 | 102.73282 | 100.5793611 | 98.4814507  | 96.43725898 | 94.44503473 | 92.50309828 | 90.60983791 | 88.7637065  | 86.96321835 |
| 200218A00024 | 2/20/2020                           | 1.73 | 7/17/2023  | 2/20/2020  | 100.9617  | 100.1637009 | 99.37828058 | 98.60514114 | 97.84399615 | 97.09456803 | 96.35658771 | 95.6297943  | 94.91393479 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 200429A00051 | 5/1/2020                            | 2.54 | 4/30/2025  | 5/1/2020   | 104.73491 | 102.1635759 | 99.66862781 | 97.24733802 | 94.89709043 | 92.6153795  | 90.39980467 | 88.24806528 | 86.15795562 |
| 211222A00026 | 12/22/2021                          | 1.2  | 7/15/2024  | 12/22/2021 | 100.85399 | 99.09446085 | 97.37380208 | 95.69086767 | 94.0445568  | 92.43381018 | 90.85760804 | 89.31496829 | 87.80494483 |
| 071231A00068 | 12/31/2007                          | 4.93 | 12/30/2022 | 12/31/2007 | 101.33262 | 101.0782545 | 100.8251677 | 100.5733472 | 100.3227836 | 100.0734675 | 99.82538968 | 99.57854086 | 99.33291198 |
| 160706A00030 | 7/6/2016                            | 2.59 | 7/7/2031   | 7/6/2016   | 117.16672 | 108.3018412 | 100.1885975 | 92.75898218 | 85.95148601 | 79.71044358 | 73.9854495  | 68.7308361  | 63.90520534 |
| 170728A00040 | 7/28/2017                           | 2.44 | 1/27/2025  | 7/28/2017  | 104.32238 | 102.0035271 | 99.7477925  | 97.55310542 | 95.41747338 | 93.33898107 | 91.31578685 | 89.34611945 | 87.42827484 |
| 171207A00036 | 12/7/2017                           | 2.23 | 12/7/2022  | 12/7/2017  | 100.52528 | 100.3360262 | 100.1474896 | 99.95967093 | 99.77256588 | 99.5861704  | 99.40048038 | 99.21549179 | 99.0312006  |
| 180116A00014 | 1/16/2018                           | 3.01 | 1/19/2027  | 1/16/2018  | 110.65758 | 106.3043647 | 102.1489318 | 98.18124636 | 94.39183267 | 90.77174406 | 87.31253046 | 84.00620811 | 80.84523122 |
| 180604A00048 | 6/4/2018                            | 3.01 | 6/5/2023   | 6/4/2018   | 101.75274 | 101.0654999 | 100.3875324 | 99.71865346 | 99.0586812  | 98.4074385  | 97.7647529  | 97.13045647 | 96.50438567 |
| 180910A00013 | 9/10/2018                           | 3.08 | 9/11/2023  | 9/10/2018  | 102.36851 | 101.4124799 | 100.4742969 | 99.55346803 | 98.64951478 | 97.76197596 | 96.8904071  | 96.03437967 | 95.19348034 |
| 200214A00020 | 2/18/2020                           | 1.78 | 1/15/2025  | 2/18/2020  | 102.4402  | 100.1810825 | 97.98272142 | 95.84309436 | 93.76026269 | 91.73236591 | 89.75761779 | 87.83430288 | 85.96077312 |
| 200226A00006 | 2/26/2020                           | 1.57 | 2/26/2025  | 2/26/2020  | 102.06987 | 99.69910038 | 97.39509547 | 95.15560337 | 92.97846599 | 90.86161018 | 88.80304385 | 86.80085234 | 84.85319486 |
| 160307A00028 | 3/7/2016                            | 2.91 | 3/7/2028   | 3/7/2016   | 113.12767 | 107.6033101 | 102.3865915 | 97.45876047 | 92.80230295 | 88.40085406 | 84.23911709 | 80.30278853 | 76.57848869 |
| 171012A00027 | 10/12/2017                          | 2.21 | 10/12/2022 | 10/12/2017 | 100.10684 | 100.0734962 | 100.0401886 | 100.0069199 | 99.9736901  | 99.94049914 | 99.90734693 | 99.87423339 | 99.84115847 |
| 190104A00033 | 1/4/2019                            | 3.37 | 1/31/2029  | 1/4/2019   | 118.09441 | 111.5431034 | 105.4066518 | 99.65654244 | 94.26636267 | 89.21163522 | 84.46966718 | 80.01941146 | 75.84133972 |
| 190110A00014 | 1/10/2019                           | 2.97 | 1/17/2024  | 1/10/2019  | 102.86164 | 101.5653205 | 100.2956749 | 99.05188703 | 97.83317314 | 96.63878141 | 95.46799027 | 94.32010685 | 93.19446558 |
| 190627A00009 | 6/27/2019                           | 1.93 | 6/27/2023  | 6/27/2019  | 101.14136 | 100.3957817 | 99.66115889 | 98.9372536  | 98.22383268 | 97.52066966 | 96.82754456 | 96.14424365 | 95.47055922 |
| 190628A00004 | 6/28/2019                           | 2.12 | 6/28/2023  | 6/28/2019  | 101.22038 | 100.4726399 | 99.73591009 | 99.00995201 | 98.2945308  | 97.58941841 | 96.89439333 | 96.20924034 | 95.5337503  |
| 200709A00008 | 7/10/2020                           | 1.88 | 7/10/2026  | 7/10/2020  | 104.85343 | 101.1266757 | 97.5522948  | 94.12322225 | 90.83276136 | 87.67456354 | 84.64260791 | 81.73118232 | 78.93486563 |
| 181227A00028 | 12/27/2018                          | 3.46 | 12/27/2028 | 12/27/2018 | 118.40632 | 111.9384652 | 105.874478  | 100.1868579 | 94.85012741 | 89.84067015 | 85.13658515 | 80.71755286 | 76.56471252 |
| 190110A00002 | 1/10/2019                           | 2.93 | 1/10/2023  | 1/10/2019  | 100.87226 | 100.5884736 | 100.3062893 | 100.0256968 | 99.74668254 | 99.46923327 | 99.19333574 | 98.91897689 | 98.6461438  |
| 190603A00047 | 6/3/2019                            | 2.22 | 6/2/2023   | 6/3/2019   | 101.19764 | 100.520696  | 99.85278564 | 99.19372677 | 98.54334439 | 97.9014681  | 97.26793189 | 96.64257407 | 96.02523709 |
| 190617A00027 | 6/17/2019                           | 2.21 | 6/16/2023  | 6/17/2019  | 101.24319 | 100.5279629 | 99.82282897 | 99.1275709  | 98.44198212 | 97.76586183 | 97.09901473 | 96.44125089 | 95.79238552 |
| 190816A00035 | 8/16/2019                           | 1.77 | 8/16/2023  | 8/16/2019  | 101.06015 | 100.1807497 | 99.31660234 | 98.467314   | 97.63250386 | 96.811804   | 96.00485888 | 95.21132483 | 94.43086953 |
| 200311A00040 | 3/12/2020                           | 1.3  | 3/11/2025  | 3/12/2020  | 101.43458 | 99.03770491 | 96.70931692 | 94.44707673 | 92.24873945 | 90.11214993 | 88.03523857 | 86.01601744 | 84.05257646 |
| 210818A00007 | 8/18/2021                           | 0.81 | 8/18/2025  | 8/18/2021  | 100.66626 | 97.85564812 | 95.13708688 | 92.50708891 | 89.96231423 | 87.49956702 | 85.11578857 | 82.80805063 | 80.57354909 |
| 150220A00021 | 2/20/2015                           | 2.72 | 2/20/2024  | 2/20/2015  | 102.74438 | 101.3585912 | 99.99815414 | 98.66243232 | 97.35081045 | 96.06269319 | 94.79750434 | 93.55468608 | 92.33369829 |
| 190318A00021 | 3/18/2019                           | 2.76 | 3/18/2024  | 3/18/2019  | 102.96053 | 101.5004588 | 100.0683962 | 98.66360537 | 97.28537549 | 95.93301988 | 94.60587505 | 93.30329977 | 92.02467404 |
| 200131A00015 | 2/5/2020                            | 1.73 | 2/5/2025   | 2/5/2020   | 102.38334 | 100.0689678 | 97.81823726 | 95.62905408 | 93.49940751 | 91.42736395 | 89.41106349 | 87.44871674 | 85.53860166 |
| 210226A00012 | 2/26/2021                           | 2.31 | 2/26/2036  | 2/26/2021  | 117.53568 | 104.5389019 | 93.14796365 | 83.15419831 | 74.37709218 | 66.66036143 | 59.86859082 | 53.88435302 | 48.60573781 |
| 210528A00003 | 5/28/2021                           | 0.63 | 5/28/2024  | 5/28/2021  | 99.816666 | 98.19378055 | 96.60470559 | 95.04844935 | 93.52405905 | 92.03061878 | 90.56724773 | 89.13309843 | 87.7273552  |
| 220323A00008 | 3/23/2022                           | 2.47 | 3/25/2024  | 3/23/2022  | 102.56587 | 101.0904997 | 99.64377686 | 98.22494131 | 96.83325783 | 95.46801657 | 94.12853194 | 92.81414153 | 91.5242052  |
| 160714A00054 | 7/14/2016                           | 2.03 | 7/15/2024  | 7/14/2016  | 102.35261 | 100.5791732 | 98.84486309 | 97.14852807 | 95.48906034 | 93.8653939  | 92.27650253 | 90.72139795 | 89.19912804 |
| 180614A00038 | 6/14/2018                           | 3.08 | 6/14/2023  | 6/14/2018  | 101.85625 | 101.1440324 | 100.4417772 | 99.74927397 | 99.0663203  | 98.39271946 | 97.72828005 | 97.07281589 | 96.4261458  |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 190114A00040 | 1/14/2019                           | 2.89 | 1/14/2025  | 1/14/2019  | 105.29861 | 103.0025557 | 100.7681    | 98.59319441 | 96.47587058 | 94.41423977 | 92.40648905 | 90.45087759 | 88.54573324 |
| 190530A00006 | 5/30/2019                           | 2.25 | 5/30/2024  | 5/30/2019  | 102.73756 | 101.0806994 | 99.45841466 | 97.86968713 | 96.31353956 | 94.78903266 | 93.29526326 | 91.83136257 | 90.3964945  |
| 191108A00014 | 11/8/2019                           | 2.25 | 11/8/2029  | 11/8/2019  | 113.19599 | 106.0140433 | 99.34102824 | 93.13815539 | 87.36979044 | 82.00317798 | 77.00819463 | 72.35712464 | 68.0244557  |
| 200504A00004 | 5/4/2020                            | 0.75 | 5/5/2025   | 5/4/2020   | 100.42347 | 97.8885328  | 95.42973632 | 93.04433724 | 90.72970692 | 88.4833287  | 86.30279232 | 84.18578855 | 82.13010429 |
| 180126A00029 | 1/26/2018                           | 2.88 | 1/27/2025  | 1/26/2018  | 105.04815 | 102.7268822 | 100.4686374 | 98.27134547 | 96.1330209  | 94.05175493 | 92.0257121  | 90.05312695 | 88.13230087 |
| 190131A00053 | 1/31/2019                           | 2.67 | 1/31/2023  | 1/31/2019  | 100.94181 | 100.599533  | 100.2595653 | 99.92188857 | 99.58647978 | 99.25331616 | 98.92237528 | 98.593635   | 98.26707346 |
| 190411A00017 | 4/15/2019                           | 2.65 | 4/15/2024  | 4/15/2019  | 102.95554 | 101.4203682 | 99.9157366  | 98.44080384 | 96.99475985 | 95.57682359 | 94.18624178 | 92.82228768 | 91.48425985 |
| 190717A00008 | 7/17/2019                           | 2.22 | 7/17/2024  | 7/17/2019  | 102.68627 | 100.9048017 | 99.1627257  | 97.45888704 | 95.79217611 | 94.1615247  | 92.56590399 | 91.00432278 | 89.47582577 |
| 200203A00011 | 2/3/2020                            | 1.7  | 2/15/2023  | 2/3/2020   | 100.60646 | 100.2240118 | 99.84447094 | 99.46780649 | 99.09398577 | 98.72297659 | 98.35474726 | 97.98926656 | 97.62650374 |
| 200709A00006 | 7/10/2020                           | 2.58 | 7/10/2030  | 7/10/2020  | 115.60087 | 107.7359425 | 100.471235  | 93.75762244 | 87.55025081 | 81.80814226 | 76.49384092 | 71.57309301 | 67.01455752 |
| 200720A00034 | 7/20/2020                           | 0.77 | 7/21/2025  | 7/20/2020  | 100.1688  | 97.44532032 | 94.80882217 | 92.25605141 | 89.78389202 | 87.38936273 | 85.06961035 | 82.82190339 | 80.64362611 |
| 220406A00007 | 4/6/2022                            | 2.87 | 4/8/2024   | 4/6/2022   | 103.25274 | 101.7343351 | 100.2459263 | 98.78670083 | 97.35587149 | 95.95267899 | 94.57639064 | 93.22629919 | 91.90172175 |
| 181002A00055 | 10/2/2018                           | 3.14 | 10/3/2022  | 10/2/2018  | 100.03422 | 100.0258812 | 100.0175493 | 100.0092251 | 100.0009085 | 99.99259948 | 99.9842981  | 99.97600433 | 99.96771814 |
| 181227A00022 | 12/27/2019                          | 2.91 | 12/27/2022 | 12/27/2019 | 100.77791 | 100.5330319 | 100.2893464 | 100.0468444 | 99.8055172  | 99.56535641 | 99.32635355 | 99.08850028 | 98.85178832 |
| 200922A00034 | 9/24/2020                           | 2.24 | 9/23/2026  | 9/24/2020  | 106.64869 | 102.6910792 | 98.90290058 | 95.27601644 | 91.80272144 | 88.47571907 | 85.28809775 | 82.2333084  | 79.30514351 |
| 051003A00009 | 10/3/2005                           | 5.15 | 10/15/2025 | 10/3/2005  | 113.59689 | 110.4465916 | 107.4025025 | 104.4604339 | 101.6163836 | 98.86653058 | 96.20722564 | 93.63498276 | 91.1464706  |
| 150601A00404 | 6/1/2015                            | 4.29 | 1/17/2029  | 6/1/2015   | 123.37635 | 116.6993744 | 110.440051  | 104.5698789 | 99.06244815 | 93.8932784  | 89.03966821 | 84.48055668 | 80.19639657 |
| 160122A00029 | 1/22/2016                           | 2.48 | 1/22/2025  | 1/22/2016  | 104.39139 | 102.0848796 | 99.84083096 | 97.65717838 | 95.53194099 | 93.46321603 | 91.44917514 | 89.48806091 | 87.57818362 |
| 160628A00038 | 6/28/2016                           | 1.88 | 6/27/2025  | 6/28/2016  | 103.57449 | 100.8572134 | 98.22474504 | 95.67388332 | 93.20157316 | 90.80489703 | 88.48106763 | 86.22742092 | 84.04140969 |
| 200611A00010 | 6/11/2020                           | 1.08 | 6/11/2027  | 6/11/2020  | 102.68847 | 98.13362795 | 93.80477916 | 89.68953034 | 85.77623253 | 82.0539363  | 78.51234564 | 75.14177512 | 71.93311025 |
| 171025A00026 | 10/25/2017                          | 2.64 | 10/25/2024 | 10/25/2017 | 103.99143 | 101.9320889 | 99.92390801 | 97.96528191 | 96.05466333 | 94.19056497 | 92.37155656 | 90.59626227 | 88.86335819 |
| 181015A00024 | 10/15/2018                          | 3.29 | 10/16/2023 | 10/15/2018 | 102.75978 | 101.7076407 | 100.677055  | 99.66736466 | 98.67793824 | 97.70816961 | 96.75747662 | 95.82529991 | 94.91110181 |
| 190621A00015 | 6/21/2019                           | 2.2  | 6/21/2024  | 6/21/2019  | 102.55448 | 100.8430098 | 99.16815294 | 97.52880237 | 95.92389307 | 94.35240293 | 92.81335056 | 91.30579321 | 89.82882488 |
| 190805A00009 | 8/5/2019                            | 1.91 | 8/5/2024   | 8/5/2019   | 102.18966 | 100.3630842 | 98.57791524 | 96.83297571 | 95.12712956 | 93.45927993 | 91.82836747 | 90.23336891 | 88.67329552 |
| 190816A00021 | 8/16/2019                           | 1.77 | 8/16/2023  | 8/16/2019  | 101.06015 | 100.1807497 | 99.31660234 | 98.467314   | 97.63250386 | 96.811804   | 96.00485888 | 95.21132483 | 94.43086953 |
| 200225A00050 | 2/25/2020                           | 1.57 | 2/25/2025  | 2/25/2020  | 102.06677 | 99.69890047 | 97.39764085 | 95.16074692 | 92.98606786 | 90.8715374  | 88.81517001 | 86.81505719 | 84.86936404 |
| 220622A00010 | 6/22/2022                           | 3.43 | 7/12/2024  | 6/22/2022  | 104.85757 | 103.0688614 | 101.3193765 | 99.60795662 | 97.93348361 | 96.29488199 | 94.69111713 | 93.12119327 | 91.58415162 |
| 190107A00024 | 1/7/2019                            | 2.91 | 1/5/2024   | 1/7/2019   | 102.71637 | 101.4499067 | 100.2128749 | 99.00425449 | 97.82306813 | 96.668383   | 95.53930836 | 94.43499323 | 93.35462411 |
| 190211A00017 | 2/11/2019                           | 3.12 | 2/11/2026  | 2/11/2019  | 108.31897 | 104.9290665 | 101.6642673 | 98.51930506 | 95.48916302 | 92.56906074 | 89.75444171 | 87.0409617  | 84.42447772 |
| 190607A00018 | 6/7/2019                            | 2.19 | 6/7/2024   | 6/7/2019   | 102.47294 | 100.8001988 | 99.16264748 | 97.55924175 | 95.98897698 | 94.4508881  | 92.94404762 | 91.46756376 | 90.0205787  |
| 190801A00010 | 8/1/2019                            | 1.97 | 8/1/2023   | 8/1/2019   | 101.28113 | 100.4399916 | 99.61277693 | 98.79913927 | 97.99874658 | 97.2112776  | 96.43642139 | 95.67387691 | 94.92335261 |
| 190816A00011 | 8/16/2019                           | 1.77 | 8/16/2024  | 8/16/2019  | 101.98057 | 100.1269529 | 98.31596203 | 96.54636612 | 94.81697939 | 93.12665758 | 91.47429623 | 89.85882903 | 88.27922627 |
| 200326A00028 | 3/26/2020                           | 1.54 | 3/26/2025  | 3/26/2020  | 102.05403 | 99.6109035  | 97.23862878 | 94.93474628 | 92.69689856 | 90.52282403 | 88.41035241 | 86.35740044 | 84.36196785 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 200922A00044 | 9/24/2020                           | 2.61 | 9/25/2023  | 9/24/2020  | 101.96557 | 100.9741025 | 100.0018815 | 99.04834815 | 98.11296743 | 97.19522455 | 96.29462404 | 95.41068883 | 94.54295941 |
| 211005A00019 | 10/5/2021                           | 0.47 | 10/5/2023  | 10/5/2021  | 99.919727 | 98.91110077 | 97.92267113 | 96.95383689 | 96.00402056 | 95.07266715 | 94.15924306 | 93.26323506 | 92.38414933 |
| 220106A00018 | 1/10/2022                           | 3.11 | 1/8/2032   | 1/10/2022  | 122.59389 | 113.0170086 | 104.2874527 | 96.32515811 | 89.0580362  | 82.42114194 | 76.35593114 | 70.80959871 | 65.73448834 |
| 180530A00026 | 5/30/2018                           | 3.55 | 5/30/2031  | 5/30/2018  | 125.24819 | 116.1434836 | 107.7944117 | 100.1336811 | 93.10033966 | 86.63914988 | 80.7000249  | 75.23752284 | 70.21039331 |
| 180816A00038 | 8/16/2018                           | 3.38 | 8/16/2028  | 8/16/2018  | 116.91901 | 110.8549543 | 105.1507756 | 99.78319144 | 94.73053742 | 89.97265092 | 85.49075954 | 81.26737858 | 77.28621656 |
| 191003A00019 | 10/3/2019                           | 1.71 | 9/27/2024  | 10/3/2019  | 101.97256 | 100.0079461 | 98.09106967 | 96.22047192 | 94.39475157 | 92.61255944 | 90.87259617 | 89.17360999 | 87.51439463 |
| 200228A00005 | 2/28/2020                           | 1.35 | 2/28/2024  | 2/28/2020  | 100.83966 | 99.44551609 | 98.07725398 | 96.73421594 | 95.41576594 | 94.12128886 | 92.85018962 | 91.6018924  | 90.37583984 |
| 200306A00030 | 3/6/2020                            | 0.88 | 3/6/2023   | 3/6/2020   | 100.28329 | 99.84957092 | 99.41959331 | 98.99331131 | 98.57067741 | 98.15164488 | 97.73616781 | 97.32420107 | 96.91570028 |
| 161213A00017 | 12/13/2016                          | 2.24 | 12/13/2022 | 12/13/2016 | 100.55974 | 100.3537873 | 100.1486931 | 99.944451   | 99.74105571 | 99.53850185 | 99.33678415 | 99.13589735 | 98.93583626 |
| 170929A00057 | 9/29/2017                           | 2.16 | 9/29/2023  | 9/29/2017  | 101.63779 | 100.6357723 | 99.65344423 | 98.69022764 | 97.74556913 | 96.81893649 | 95.90981768 | 95.0177199  | 94.14216867 |
| 180205A00019 | 2/5/2018                            | 2.88 | 2/5/2025   | 2/5/2018   | 105.41385 | 103.0567919 | 100.7644474 | 98.53468416 | 96.36545651 | 94.25479736 | 92.20081477 | 90.20168862 | 88.25566745 |
| 200309A00005 | 3/9/2020                            | 0.77 | 3/7/2025   | 3/9/2020   | 100.44489 | 98.06393054 | 95.75092793 | 93.5035638  | 91.31961536 | 89.1969484  | 87.13351326 | 85.12734093 | 83.17653933 |
| 081205A00033 | 12/5/2008                           | 4.77 | 12/7/2023  | 12/5/2008  | 104.80432 | 103.6005154 | 102.4245065 | 101.2753376 | 100.1520957 | 99.05390861 | 97.97994307 | 96.9294024  | 95.90152457 |
| 190828A00031 | 8/28/2019                           | 1.71 | 8/28/2024  | 8/28/2019  | 101.90133 | 100.0172174 | 98.17708883 | 96.37965464 | 94.62367331 | 92.90794755 | 91.2313224  | 89.59268345 | 87.99095511 |
| 200227A00009 | 2/27/2020                           | 1.47 | 2/27/2025  | 2/27/2020  | 101.83035 | 99.45967032 | 97.15583618 | 94.91659934 | 92.7397963  | 90.6233488  | 88.56525995 | 86.56361054 | 84.61655555 |
| 200511A00017 | 5/11/2020                           | 0.83 | 2/3/2025   | 5/11/2020  | 100.25172 | 97.96860596 | 95.74827974 | 93.58868565 | 91.48784258 | 89.44384518 | 87.4548606  | 85.51912524 | 83.63494178 |
| 151229A00080 | 12/29/2015                          | 3.49 | 12/30/2030 | 12/29/2015 | 123.76205 | 115.1255779 | 107.1762446 | 99.85527016 | 93.10921615 | 86.88946915 | 81.15178079 | 75.85585381 | 70.96496946 |
| 180717A00047 | 7/17/2018                           | 3.3  | 9/17/2025  | 7/17/2018  | 107.73134 | 104.745916  | 101.8597613 | 99.06903412 | 96.3700602  | 93.7593278  | 91.23347957 | 88.78930482 | 86.42373226 |
| 180820A00055 | 8/20/2018                           | 3.37 | 8/21/2028  | 8/20/2018  | 116.8974  | 110.820604  | 105.1052159 | 99.72780018 | 94.66655884 | 89.90120783 | 85.41286464 | 81.18394468 | 77.19806582 |
| 190424A00023 | 4/24/2019                           | 2.43 | 4/24/2023  | 4/24/2019  | 101.21564 | 100.6445046 | 100.079809  | 99.52144382 | 98.96930294 | 98.42328263 | 97.88328148 | 97.34920028 | 96.82094202 |
| 190501A00028 | 5/1/2019                            | 2.42 | 5/1/2024   | 5/1/2019   | 102.8717  | 101.2903892 | 99.74107461 | 98.22285596 | 96.73486319 | 95.27625842 | 93.84623449 | 92.4440135  | 91.06884553 |
| 200115A00017 | 1/15/2020                           | 1.88 | 1/17/2023  | 1/15/2020  | 100.59687 | 100.294273  | 99.99350502 | 99.69454998 | 99.39739146 | 99.10201323 | 98.80839924 | 98.51653365 | 98.2264008  |
| 200415A00035 | 4/17/2020                           | 2.16 | 4/16/2025  | 4/17/2020  | 103.68965 | 101.169723  | 98.72398381 | 96.34980575 | 94.04467611 | 91.80618675 | 89.63202901 | 87.5199889  | 85.46794256 |
| 200429A00010 | 4/29/2020                           | 0.78 | 4/29/2025  | 4/29/2020  | 100.49841 | 97.97802401 | 95.53299076 | 93.16060747 | 90.85828583 | 88.6235471  | 86.45401661 | 84.34741865 | 82.30157165 |
| 200429A00043 | 5/1/2020                            | 1.56 | 4/30/2025  | 5/1/2020   | 102.19164 | 99.65362822 | 97.19125159 | 94.8018003  | 92.48268081 | 90.23140922 | 88.0456058  | 85.92298989 | 83.86137503 |
| 200819A00007 | 8/19/2020                           | 0.38 | 8/21/2023  | 8/19/2020  | 99.906406 | 99.01795603 | 98.1451966  | 97.28771557 | 96.44511479 | 95.61700983 | 94.8030294  | 94.00281479 | 93.21601936 |
| 060808A00022 | 8/8/2006                            | 5.57 | 6/15/2026  | 8/8/2006   | 118.42988 | 114.5175118 | 110.7598608 | 107.1498876 | 103.6809159 | 100.3466139 | 97.14097306 | 94.05829034 | 91.09315005 |
| 160718A00010 | 7/18/2016                           | 1.65 | 7/18/2023  | 7/18/2016  | 100.97911 | 100.1772624 | 99.38810656 | 98.61134574 | 97.84668957 | 97.09385667 | 96.35257432 | 95.62257815 | 94.9036118  |
| 171002A00013 | 10/2/2017                           | 2.23 | 11/30/2022 | 10/2/2017  | 100.47232 | 100.3027207 | 100.1336865 | 99.96521782 | 99.79731187 | 99.62996589 | 99.46317709 | 99.29694276 | 99.13126016 |
| 190809A00022 | 8/9/2019                            | 1.88 | 8/9/2024   | 8/9/2019   | 102.14698 | 100.3103611 | 98.51559544 | 96.7614827  | 95.04686885 | 93.37063993 | 91.73172031 | 90.1290712  | 88.56168907 |
| 190926A00017 | 9/26/2019                           | 2.23 | 9/26/2029  | 9/26/2019  | 111.85524 | 104.8730374 | 98.37810643 | 92.33386219 | 86.70664819 | 81.46548606 | 76.58184957 | 72.02945885 | 67.7840929  |
| 200306A00012 | 3/6/2020                            | 0.95 | 3/6/2024   | 3/6/2020   | 100.27464 | 98.86635585 | 97.4845554  | 96.12855605 | 94.79769929 | 93.49134855 | 92.20888823 | 90.94972292 | 89.71327654 |
| 200428A00011 | 4/30/2020                           | 1.95 | 4/29/2025  | 4/30/2020  | 103.20011 | 100.6515712 | 98.1788278  | 95.77917159 | 93.45000682 | 91.18884737 | 88.99331124 | 86.86111547 | 84.79007129 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 200529A00009 | 5/29/2020                           | 0.42 | 5/30/2023  | 5/29/2020  | 100.03649 | 99.37131514 | 98.71493625 | 98.06717696 | 97.42786854 | 96.79684669 | 96.17395128 | 95.55902633 | 94.9519198  |
| 200720A00042 | 7/22/2020                           | 2.04 | 7/21/2026  | 7/22/2020  | 105.51486 | 101.7471241 | 98.13439334 | 94.66947654 | 91.34555745 | 88.15617105 | 85.09518355 | 82.15677348 | 79.33541408 |
| 200730A00002 | 7/30/2020                           | 0.67 | 11/6/2024  | 7/30/2020  | 99.88578  | 97.83861634 | 95.84307105 | 93.89749563 | 92.00030686 | 90.14998386 | 88.34506513 | 86.5841457  | 84.86587451 |
| 200925A00004 | 9/25/2020                           | 0.53 | 9/25/2023  | 9/25/2020  | 99.890147 | 98.90980696 | 97.94855964 | 97.00585219 | 96.08115292 | 95.17395025 | 94.28375183 | 93.41008362 | 92.55248902 |
| 170111A00016 | 1/11/2017                           | 3.51 | 1/11/2033  | 1/11/2017  | 128.28675 | 117.4797233 | 107.7134113 | 98.88086945 | 90.88670582 | 83.64577598 | 77.0820326  | 71.12750949 | 65.72142394 |
| 180620A00038 | 6/20/2018                           | 3.4  | 6/20/2028  | 6/20/2018  | 116.60605 | 110.7037249 | 105.1434682 | 99.90354713 | 94.96372606 | 90.30515742 | 85.91027865 | 81.76271762 | 77.84720537 |
| 180917A00032 | 9/17/2018                           | 3.17 | 9/15/2023  | 9/17/2018  | 102.46789 | 101.5006856 | 100.5517385 | 99.62053593 | 98.70658321 | 97.80940385 | 96.92853879 | 96.0635456  | 95.21399773 |
| 190430A00002 | 4/30/2019                           | 2.4  | 11/2/2022  | 4/30/2019  | 100.31208 | 100.2202585 | 100.1286128 | 100.0371375 | 99.94583204 | 99.85469603 | 99.76372896 | 99.67293037 | 99.58229978 |
| 191129A00012 | 11/29/2019                          | 1.99 | 11/29/2024 | 11/29/2019 | 102.76794 | 100.6275975 | 98.54219947 | 96.50995218 | 94.52913129 | 92.59808252 | 90.71521813 | 88.87901364 | 87.08800479 |
| 160922A00014 | 9/22/2016                           | 2.06 | 9/22/2026  | 9/22/2016  | 106.45223 | 102.48653   | 98.69091136 | 95.05718964 | 91.57762057 | 88.24487134 | 85.05199638 | 81.9924149  | 79.05988967 |
| 171013A00021 | 10/13/2017                          | 2    | 10/17/2022 | 10/13/2017 | 100.14422 | 100.0969528 | 100.049749  | 100.0026073 | 99.95552754 | 99.90850955 | 99.86155322 | 99.81465843 | 99.76782507 |
| 180801A00015 | 8/1/2018                            | 3.16 | 8/1/2023   | 8/1/2018   | 102.20418 | 101.3599255 | 100.5296091 | 99.71288383 | 98.9094179  | 98.11889036 | 97.34099051 | 96.57541753 | 95.82188007 |
| 181022A00029 | 10/22/2018                          | 3.22 | 10/24/2022 | 10/22/2018 | 100.28109 | 100.2143254 | 100.1476654 | 100.0811055 | 100.0146454 | 99.94828502 | 99.88202408 | 99.81586237 | 99.74979966 |
| 191002A00006 | 10/2/2019                           | 1.84 | 10/2/2024  | 10/2/2019  | 102.25015 | 100.2694248 | 98.33707865 | 96.45162953 | 94.61164867 | 92.81576087 | 91.06264203 | 89.35101692 | 87.67965696 |
| 191107A00011 | 11/8/2019                           | 2.02 | 2/24/2023  | 11/8/2019  | 100.75307 | 100.3455542 | 99.94132802 | 99.54035283 | 99.14258956 | 98.74799974 | 98.35654552 | 97.96818965 | 97.58289547 |
| 200403A00014 | 4/3/2020                            | 0.63 | 4/17/2023  | 4/3/2020   | 100.18783 | 99.63915488 | 99.09647016 | 98.55968212 | 98.02869496 | 97.50341492 | 96.9837503  | 96.46961131 | 95.9609101  |
| 150904A00021 | 9/4/2015                            | 2.52 | 9/5/2023   | 9/4/2015   | 101.90144 | 100.9626671 | 100.0411513 | 99.13642359 | 98.24802831 | 97.37552609 | 96.51849321 | 95.67652091 | 94.84921471 |
| 160616A00028 | 6/16/2016                           | 1.81 | 6/16/2023  | 6/16/2016  | 100.95566 | 100.2415917 | 99.53759522 | 98.84346331 | 98.15898959 | 97.48397343 | 96.81821973 | 96.16153871 | 95.51374577 |
| 170609A00043 | 6/9/2017                            | 3.07 | 6/9/2032   | 6/9/2017   | 124.40543 | 114.2712905 | 105.0711112 | 96.71312121 | 89.11504038 | 82.20305216 | 75.91089183 | 70.1790374  | 64.95399092 |
| 190826A00018 | 8/26/2019                           | 1.9  | 8/27/2029  | 8/26/2019  | 110.47176 | 103.5740653 | 97.15472502 | 91.17810989 | 85.61141646 | 80.42442885 | 75.58930254 | 71.08036715 | 66.87394662 |
| 190927A00036 | 9/27/2019                           | 1.94 | 9/6/2024   | 9/27/2019  | 102.37692 | 100.4641606 | 98.5965674  | 96.77280382 | 94.99157988 | 93.2516522  | 91.55182192 | 89.89093283 | 88.26786954 |
| 200227A00031 | 2/27/2020                           | 1.43 | 2/27/2024  | 2/27/2020  | 100.95109 | 99.55890551 | 98.19252448 | 96.85128811 | 95.53456342 | 94.24173817 | 92.97222007 | 91.72543595 | 90.50083099 |
| 200302A00034 | 3/2/2020                            | 1.25 | 3/1/2024   | 3/2/2020   | 100.70075 | 99.30225521 | 97.92981497 | 96.58276699 | 95.26046881 | 93.96229916 | 92.6876571  | 91.4359612  | 90.20664874 |
| 200604A00010 | 6/4/2020                            | 0.89 | 6/4/2025   | 6/4/2020   | 100.47141 | 97.86595155 | 95.34043467 | 92.89190256 | 90.51753154 | 88.21462182 | 85.98059114 | 83.81296864 | 81.70938925 |
| 220322A00010 | 3/22/2022                           | 2.34 | 9/22/2023  | 3/22/2022  | 101.6861  | 100.7041834 | 99.74118434 | 98.79655891 | 97.86978496 | 96.96035996 | 96.06780007 | 95.19163931 | 94.33142871 |
| 220909A00052 | 9/9/2022                            | 3.95 | 3/8/2024   | 9/9/2022   | 104.63106 | 103.1846313 | 101.7654448 | 100.372799  | 99.00601344 | 97.66443022 | 96.34741337 | 95.05434788 | 93.78463881 |
| 190530A00008 | 5/30/2019                           | 2.38 | 5/30/2025  | 5/30/2019  | 104.80578 | 102.1472532 | 99.56968404 | 97.07009225 | 94.64563279 | 92.29358487 | 90.01134549 | 87.79642343 | 85.64643356 |
| 190830A00021 | 8/30/2019                           | 1.76 | 8/30/2024  | 8/30/2019  | 102.00363 | 100.1133046 | 98.2672078  | 96.46404477 | 94.70256399 | 92.98155865 | 91.2998647  | 89.65635907 | 88.04995795 |
| 191115A00014 | 11/18/2019                          | 2.45 | 11/18/2024 | 11/18/2019 | 103.71539 | 101.5943408 | 99.52714971 | 97.51207314 | 95.54744069 | 93.63164881 | 91.76315752 | 89.94048737 | 88.16221648 |
| 141208A00008 | 12/8/2014                           | 3.02 | 12/16/2024 | 12/8/2014  | 105.11916 | 102.9077573 | 100.75391   | 98.65570035 | 96.61129199 | 94.61892483 | 92.67691113 | 90.78363188 | 88.93753332 |
| 160620A00015 | 6/20/2016                           | 1.71 | 6/20/2023  | 6/20/2016  | 100.95823 | 100.2324344 | 99.51704609 | 98.81184246 | 98.11660708 | 97.43112962 | 96.75520565 | 96.08863642 | 95.43122866 |
| 170110A00022 | 1/10/2017                           | 2.27 | 1/10/2023  | 1/10/2017  | 100.71024 | 100.4264773 | 100.1443199 | 99.86375784 | 99.58477753 | 99.30736553 | 99.03150856 | 98.75719347 | 98.48440727 |
| 171219A00063 | 12/19/2017                          | 2.8  | 12/20/2027 | 12/19/2017 | 112.79875 | 107.4684358 | 102.425087  | 97.65168404 | 93.13230708 | 88.85206287 | 84.79701258 | 80.95410525 | 77.31111617 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 200228A00025 | 2/28/2020                           | 1.57 | 3/2/2027   | 2/28/2020  | 104.64729 | 100.3072252 | 96.17109668 | 92.22830004 | 88.46883325 | 84.88326192 | 81.46268415 | 78.19869784 | 75.08337004 |
| 200228A00030 | 2/28/2020                           | 1.32 | 2/28/2023  | 2/28/2020  | 100.47    | 100.0522213 | 99.63790117 | 99.22699689 | 98.8194665  | 98.41526867 | 98.01436274 | 97.61670873 | 97.22226728 |
| 211222A00017 | 12/22/2021                          | 0.88 | 7/17/2023  | 12/22/2021 | 100.27786 | 99.48288394 | 98.70044973 | 97.93026352 | 97.17203947 | 96.42550058 | 95.69037836 | 94.96641249 | 94.2533505  |
| 150316A00043 | 3/16/2015                           | 2.37 | 3/16/2023  | 3/16/2015  | 101.01264 | 100.5490932 | 100.0898076 | 99.63472326 | 99.18378257 | 98.73692896 | 98.29410689 | 97.85526183 | 97.42034024 |
| 170216A00045 | 2/16/2017                           | 3.73 | 2/17/2037  | 2/16/2017  | 137.36533 | 122.2328306 | 109.0376864 | 97.51633225 | 87.44256114 | 78.62204701 | 70.88769605 | 64.0956967  | 58.12216015 |
| 190214A00013 | 2/14/2019                           | 2.64 | 2/14/2023  | 2/14/2019  | 100.99654 | 100.6155306 | 100.2374053 | 99.86212832 | 99.48966756 | 99.11999126 | 98.7530682  | 98.38886761 | 98.02735916 |
| 191017A00022 | 10/17/2019                          | 2.25 | 7/17/2028  | 10/17/2019 | 110.16636 | 104.3746445 | 98.92544979 | 93.79672862 | 88.96796821 | 84.42007235 | 80.13525634 | 76.09695032 | 72.28971016 |
| 200228A00066 | 2/28/2020                           | 1.35 | 2/28/2024  | 2/28/2020  | 100.83966 | 99.44551609 | 98.07725398 | 96.73421594 | 95.41576594 | 94.12128886 | 92.85018962 | 91.6018924  | 90.37583984 |
| 200312A00042 | 3/16/2020                           | 1.38 | 3/16/2023  | 3/16/2020  | 100.51179 | 100.0501056 | 99.59266409 | 99.1394043  | 98.69026895 | 98.24520181 | 97.8041477  | 97.36705241 | 96.93386272 |
| 210507A00009 | 5/7/2021                            | 2.02 | 5/7/2032   | 5/7/2021   | 112.84296 | 103.402661  | 94.8358888  | 87.05699553 | 79.98914709 | 73.56337572 | 67.71773804 | 62.39656715 | 57.54980765 |
| 130513A00007 | 5/13/2013                           | 2.54 | 5/15/2023  | 5/13/2013  | 101.32844 | 100.7001352 | 100.0796146 | 99.46673767 | 98.8613636  | 98.26335508 | 97.67257809 | 97.08890188 | 96.51219883 |
| 160706A00028 | 7/6/2016                            | 2.39 | 7/6/2029   | 7/6/2016   | 112.62665 | 105.8302165 | 99.49359463 | 93.58319748 | 88.06806614 | 82.9196487  | 78.11160072 | 73.61960329 | 69.42119707 |
| 190603A00033 | 6/3/2019                            | 2.05 | 6/3/2024   | 6/3/2019   | 102.41914 | 100.7542243 | 99.1242265  | 97.52810991 | 95.96488208 | 94.43358945 | 92.93331541 | 91.46317844 | 90.02233044 |
| 200122A00035 | 1/22/2020                           | 1.94 | 1/22/2025  | 1/22/2020  | 102.8315  | 100.5495669 | 98.32942306 | 96.16902819 | 94.0664247  | 92.01973204 | 90.02714306 | 88.08692062 | 86.19739441 |
| 200305A00009 | 3/10/2020                           | 1.04 | 10/18/2023 | 3/10/2020  | 100.38278 | 99.33876382 | 98.31632941 | 97.31480989 | 96.33356896 | 95.37199587 | 94.42950421 | 93.50553063 | 92.59953381 |
| 220927A00073 | 9/27/2022                           | 4.72 | 9/26/2025  | 9/27/2022  | 112.0622  | 108.9870921 | 106.0145053 | 103.1404453 | 100.361097  | 97.67281541 | 95.07211696 | 92.55567129 | 90.12029367 |
| 190531A00013 | 5/31/2019                           | 2.31 | 12/6/2022  | 5/31/2019  | 100.51816 | 100.3318662 | 100.1462651 | 99.96135736 | 99.77713901 | 99.59360617 | 99.41075501 | 99.2285817  | 99.04708246 |
| 190927A00012 | 10/1/2019                           | 1.96 | 10/1/2024  | 10/1/2019  | 102.48923 | 100.508655  | 98.57640518 | 96.69100065 | 94.85101603 | 93.05507922 | 91.30186903 | 89.59011295 | 87.91858496 |
| 200207A00004 | 2/7/2020                            | 1.53 | 2/7/2023   | 2/7/2020   | 100.56293 | 100.2021883 | 99.84403791 | 99.48844883 | 99.13539363 | 98.78484525 | 98.436777   | 98.09116257 | 97.74797603 |
| 081215A00091 | 12/15/2008                          | 4.19 | 12/15/2023 | 12/15/2008 | 104.3078  | 103.0836347 | 101.8882966 | 100.7207782 | 99.58011513 | 98.46538685 | 97.3757147  | 96.31025933 | 95.26821852 |
| 140113A00012 | 1/13/2014                           | 3.48 | 1/17/2023  | 1/13/2014  | 101.08164 | 100.778091  | 100.4763776 | 100.1764815 | 99.87838623 | 99.58207551 | 99.28753327 | 98.99474362 | 98.70369087 |
| 170728A00032 | 7/28/2017                           | 2.36 | 7/27/2023  | 7/28/2017  | 101.50789 | 100.6803872 | 99.8663449  | 99.06543548 | 98.27734306 | 97.5017618  | 96.73839556 | 95.98695747 | 95.24716957 |
| 171120A00017 | 11/20/2017                          | 2.41 | 11/21/2022 | 11/20/2017 | 100.44065 | 100.296028  | 100.1518367 | 100.0080709 | 99.86472876 | 99.72180834 | 99.57930778 | 99.43722522 | 99.29555879 |
| 190910A00004 | 9/11/2019                           | 1.86 | 9/11/2024  | 9/11/2019  | 102.23819 | 100.3133934 | 98.43436335 | 96.59973724 | 94.80819909 | 93.05848076 | 91.34935992 | 89.67965798 | 88.04823829 |
| 200115A00022 | 1/15/2020                           | 1.88 | 10/14/2022 | 1/15/2020  | 100.11181 | 100.0729123 | 100.0340651 | 99.99526556 | 99.9565135  | 99.91780886 | 99.87915153 | 99.84054144 | 99.80197848 |
| 220729A00035 | 8/3/2022                            | 3.14 | 8/3/2027   | 8/3/2022   | 112.76454 | 107.8331179 | 103.1495879 | 98.70020378 | 94.47205288 | 90.45299851 | 86.63162946 | 82.99721308 | 79.53965165 |
| 190424A00007 | 4/24/2019                           | 2.66 | 4/24/2024  | 4/24/2019  | 103.02391 | 101.4636061 | 99.93460428 | 98.43603564 | 96.96705855 | 95.52686202 | 94.1146644  | 92.72971201 | 91.37127786 |
| 190930A00008 | 9/30/2019                           | 1.9  | 10/10/2023 | 9/30/2019  | 101.28316 | 100.2553248 | 99.24827479 | 98.26138206 | 97.29404596 | 96.34568956 | 95.4157584  | 94.50371945 | 93.60906008 |
| 210621A00008 | 6/21/2021                           | 1.04 | 6/23/2025  | 6/21/2021  | 100.89915 | 98.23758383 | 95.65892803 | 93.16006943 | 90.73803137 | 88.38997057 | 86.11317003 | 83.90503238 | 81.7630736  |
| 170322A00026 | 3/22/2017                           | 3.22 | 3/22/2028  | 3/22/2017  | 114.9156  | 109.3037849 | 104.0059114 | 99.00273158 | 94.27627639 | 89.80976347 | 85.58751294 | 81.59486939 | 77.81812991 |
| 180426A00053 | 4/26/2018                           | 2.94 | 4/26/2023  | 4/26/2018  | 101.51965 | 100.9420391 | 100.3709918 | 99.80640088 | 99.24815719 | 98.69615411 | 98.15028738 | 97.61045503 | 97.07655738 |
| 180622A00005 | 6/22/2018                           | 3.5  | 7/2/2029   | 6/22/2018  | 120.06974 | 113.038066  | 106.4766872 | 100.3514619 | 94.63091154 | 89.28599658 | 84.28991407 | 79.61791387 | 75.24713075 |
| 190426A00009 | 4/26/2019                           | 2.63 | 4/26/2024  | 4/26/2019  | 102.98807 | 101.4225923 | 99.88858975 | 98.38517787 | 96.91150816 | 95.46676313 | 94.05015494 | 92.66092403 | 91.29833787 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 190724A00021 | 7/24/2019                           | 2.33 | 7/23/2027  | 7/24/2019  | 109.48463 | 104.6386281 | 100.0365512 | 95.66485679 | 91.51082816 | 87.56251544 | 83.80868534 | 80.23877443 | 76.84284584 |
| 200203A00001 | 2/3/2020                            | 1.7  | 2/3/2023   | 2/3/2020   | 100.58528 | 100.2358478 | 99.88884147 | 99.54423244 | 99.20199591 | 98.86210749 | 98.52454308 | 98.18927894 | 97.85629162 |
| 200212A00003 | 2/12/2020                           | 1.63 | 2/12/2025  | 2/12/2020  | 102.47721 | 100.1352472 | 97.85830726 | 95.64423018 | 93.49094233 | 91.39645052 | 89.35883837 | 87.37626287 | 85.44695114 |
| 200406A00006 | 4/6/2020                            | 1.13 | 4/7/2025   | 4/6/2020   | 101.0432  | 98.58143764 | 96.19189592 | 93.87204057 | 91.61944069 | 89.43176557 | 87.30677989 | 85.2423392  | 83.23638553 |
| 200511A00020 | 5/11/2020                           | 1.4  | 2/1/2028   | 5/11/2020  | 104.84108 | 99.6318855  | 94.71120766 | 90.06165248 | 85.66696061 | 81.51192517 | 77.58231859 | 73.86482493 | 70.34697719 |
| 201028A00003 | 10/30/2020                          | 1.42 | 2/27/2026  | 10/30/2020 | 102.6459  | 99.30641923 | 96.09270571 | 92.99937855 | 90.02131628 | 87.15364235 | 84.39171209 | 81.73110042 | 79.16759029 |
| 211103A00007 | 11/3/2021                           | 0.52 | 1/4/2023   | 11/3/2021  | 100.19248 | 99.92648832 | 99.6619102  | 99.39873299 | 99.13694557 | 98.87653694 | 98.61749623 | 98.35981268 | 98.10347563 |
| 220601A00022 | 6/1/2022                            | 2.73 | 12/1/2023  | 6/1/2022   | 102.33436 | 101.1621704 | 100.016784  | 98.8972884  | 97.80281299 | 96.73252596 | 95.68563197 | 94.66137021 | 93.65901255 |
| 130107A00002 | 1/7/2013                            | 3.22 | 1/18/2028  | 1/7/2013   | 114.43447 | 109.0101951 | 103.8804441 | 99.02764639 | 94.43536817 | 90.08823604 | 85.97186292 | 82.07277972 | 78.37837194 |
| 130508A00013 | 5/8/2013                            | 2.23 | 5/15/2023  | 5/8/2013   | 101.18935 | 100.5608317 | 99.94011091 | 99.32704736 | 98.72149983 | 98.12333053 | 97.53240505 | 96.94859221 | 96.371764   |
| 151002A00081 | 10/2/2015                           | 2.29 | 10/2/2023  | 10/2/2015  | 101.77834 | 100.7675221 | 99.7767166  | 98.80533708 | 97.85281661 | 96.91861011 | 96.00219334 | 95.10306187 | 94.2207302  |
| 170613A00033 | 6/13/2017                           | 2.3  | 6/13/2024  | 6/13/2017  | 102.89441 | 101.1980431 | 99.53767393 | 97.91221937 | 96.32064231 | 94.76194694 | 93.23517667 | 91.73941218 | 90.27376956 |
| 171016A00045 | 10/16/2017                          | 2.2  | 10/17/2022 | 10/16/2017 | 100.15089 | 100.1036474 | 100.0564653 | 100.0093449 | 99.96228605 | 99.91528872 | 99.86835274 | 99.82147799 | 99.77466434 |
| 171204A00020 | 12/4/2017                           | 2.48 | 12/5/2022  | 12/4/2017  | 100.54398 | 100.3604177 | 100.1775319 | 99.99531777 | 99.81377174 | 99.63289007 | 99.45266912 | 99.27310523 | 99.09419482 |
| 210128A00010 | 1/28/2021                           | 0.57 | 7/9/2024   | 1/28/2021  | 99.717847 | 97.98440054 | 96.2889804  | 94.63044832 | 93.00771056 | 91.41971605 | 89.86545425 | 88.3439532  | 86.85427764 |
| 220602A00039 | 6/2/2022                            | 3.11 | 6/2/2027   | 6/2/2022   | 112.826   | 108.0392325 | 103.4861533 | 99.15406393 | 95.03102928 | 91.10582573 | 87.36789443 | 83.80729803 | 80.41468056 |
| 220823A00056 | 8/23/2022                           | 3.5  | 8/23/2024  | 8/23/2022  | 105.5414  | 103.6304016 | 101.7636618 | 99.93989025 | 98.15784399 | 96.41632417 | 94.71417414 | 93.0502777  | 91.4235574  |
| 180511A00035 | 5/11/2018                           | 2.93 | 5/11/2023  | 5/11/2018  | 101.60598 | 100.9869332 | 100.3754324 | 99.77133911 | 99.17451923 | 98.58484173 | 98.00217874 | 97.42640545 | 96.8574     |
| 180627A00027 | 6/27/2018                           | 2.87 | 6/27/2023  | 6/27/2018  | 101.84591 | 101.0974089 | 100.3598981 | 99.63313465 | 98.91688488 | 98.21092181 | 97.51502496 | 96.82898014 | 96.15257916 |
| 190328A00083 | 3/28/2019                           | 2.37 | 3/28/2024  | 3/28/2019  | 102.60936 | 101.1228184 | 99.66533813 | 98.23613783 | 96.8344674  | 95.45960275 | 94.11084471 | 92.78751793 | 91.48896987 |
| 190910A00030 | 9/10/2019                           | 1.86 | 9/10/2024  | 9/10/2019  | 102.23473 | 100.312646  | 98.43620836 | 96.60405367 | 94.81487139 | 93.06739851 | 91.36041755 | 89.69275458 | 88.06327733 |
| 191126A00015 | 11/27/2019                          | 1.88 | 10/14/2022 | 11/27/2019 | 100.11181 | 100.0729123 | 100.0340651 | 99.99526556 | 99.9565135  | 99.91780886 | 99.87915153 | 99.84054144 | 99.80197848 |
| 200330A00045 | 3/30/2020                           | 1.47 | 3/30/2027  | 3/30/2020  | 104.30082 | 99.89718252 | 95.70392599 | 91.70992191 | 87.90469121 | 84.27835973 | 80.82162018 | 77.52569654 | 74.38231108 |
| 051107A00075 | 11/7/2005                           | 5.29 | 11/17/2025 | 11/7/2005  | 114.9004  | 111.628067  | 108.4685514 | 105.4172901 | 102.4699322 | 99.62232975 | 96.8705269  | 94.21074957 | 91.63939586 |
| 180327A00024 | 3/27/2018                           | 2.79 | 5/26/2023  | 3/27/2018  | 101.60596 | 100.9458389 | 100.2942853 | 99.65113498 | 99.01622624 | 98.38940126 | 97.7705063  | 97.1593915  | 96.55591075 |
| 200311A00056 | 3/13/2020                           | 1.27 | 4/10/2024  | 3/13/2020  | 100.79801 | 99.29377961 | 97.81936655 | 96.3739595  | 94.9567736  | 93.56705182 | 92.20406377 | 90.86710453 | 89.55549349 |
| 180716A00016 | 7/16/2018                           | 3.03 | 7/14/2023  | 7/16/2018  | 101.99812 | 101.203597  | 100.4214476 | 99.65138636 | 98.89313433 | 98.1464211  | 97.41098446 | 96.68657011 | 95.97293134 |
| 190110A00005 | 1/10/2019                           | 3.2  | 1/9/2026   | 1/10/2019  | 108.31807 | 105.0183646 | 101.8374291 | 98.77029991 | 95.81224899 | 92.95877479 | 90.20558993 | 87.54860949 | 84.98394009 |
| 191204A00013 | 12/4/2019                           | 1.72 | 12/4/2024  | 12/4/2019  | 102.47577 | 100.3199436 | 98.21984985 | 96.1736477  | 94.17957623 | 92.23594665 | 90.34113869 | 88.49359719 | 86.69182891 |
| 210924A00003 | 9/24/2021                           | 2.37 | 9/24/2036  | 9/24/2021  | 118.45541 | 104.9250485 | 93.12688039 | 82.82770329 | 73.8268912  | 65.9516974  | 59.05325375 | 53.00316119 | 47.69058172 |
| 170822A00018 | 8/22/2017                           | 2.25 | 8/22/2023  | 8/22/2017  | 101.50683 | 100.6090868 | 99.72718482 | 98.86070749 | 98.00925267 | 97.17243213 | 96.3498709  | 95.54120673 | 94.74608954 |
| 190318A00008 | 3/18/2019                           | 2.76 | 3/18/2024  | 3/18/2019  | 102.96053 | 101.5004588 | 100.0683962 | 98.66360537 | 97.28537549 | 95.93301988 | 94.60587505 | 93.30329977 | 92.02467404 |
| 190531A00038 | 5/31/2019                           | 2.82 | 5/31/2034  | 5/31/2019  | 124.53033 | 112.5273833 | 101.8292596 | 92.2857519  | 83.76471559 | 76.14981417 | 69.33855361 | 63.24056981 | 57.7761358  |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 190604A00031 | 6/4/2019                            | 2.25 | 6/5/2023   | 6/4/2019   | 101.22959 | 100.5443545 | 99.86837731 | 99.20146973 | 98.54345015 | 97.89414174 | 97.25337237 | 96.62097436 | 95.99678445 |
| 190712A00001 | 7/12/2019                           | 2.05 | 7/12/2024  | 7/12/2019  | 102.59144 | 100.8198287 | 99.08720565 | 97.39241255 | 95.73433589 | 94.1119049  | 92.52408955 | 90.96989853 | 89.44837745 |
| 191230A00031 | 12/30/2019                          | 1.85 | 12/30/2024 | 12/30/2019 | 102.84809 | 100.6200406 | 98.45099822 | 96.33896613 | 94.28202991 | 92.27835627 | 90.32618882 | 88.42384407 | 86.56970772 |
| 200128A00028 | 1/28/2020                           | 1.81 | 1/28/2025  | 1/28/2020  | 102.54553 | 100.2513784 | 98.0197532  | 95.8486009  | 93.73595169 | 91.67991165 | 89.67865932 | 87.7304425  | 85.83357518 |
| 200407A00001 | 4/8/2020                            | 2.41 | 4/7/2025   | 4/8/2020   | 104.28477 | 101.7815091 | 99.3513951  | 96.99186578 | 94.70046289 | 92.47482946 | 90.31270492 | 88.21192053 | 86.17039496 |
| 200415A00030 | 4/15/2020                           | 0.76 | 3/15/2023  | 4/15/2020  | 100.22482 | 99.76665591 | 99.31267787 | 98.86282754 | 98.41704869 | 97.97528614 | 97.53748571 | 97.10359416 | 96.67355924 |
| 201028A00005 | 10/30/2020                          | 1.85 | 10/31/2025 | 10/30/2020 | 103.58659 | 100.5482537 | 97.61471221 | 94.78175844 | 92.04537956 | 89.40174756 | 86.84720944 | 84.37827804 | 81.99162346 |
| 201030A00002 | 11/2/2020                           | 2.8  | 10/29/2040 | 11/2/2020  | 125.12002 | 107.9041367 | 93.41006741 | 81.18461716 | 70.85262307 | 62.10314822 | 54.67818033 | 48.36336768 | 42.98041662 |
| 220701A00014 | 7/1/2022                            | 3.15 | 7/14/2023  | 7/1/2022   | 102.09367 | 101.2987293 | 100.5161665 | 99.74569624 | 98.98703965 | 98.23992621 | 97.50409362 | 96.77928753 | 96.06526114 |
| 150105A00026 | 1/5/2015                            | 2.54 | 1/5/2024   | 1/5/2015   | 102.38248 | 101.1160951 | 99.87919136 | 98.67074426 | 97.48977361 | 96.33534403 | 95.20656235 | 94.10257531 | 93.02256726 |
| 160705A00104 | 7/5/2016                            | 2.1  | 7/6/2026   | 7/5/2016   | 105.66389 | 101.9322311 | 98.35259038 | 94.91791844 | 91.62154018 | 88.45712838 | 85.41868324 | 82.50051331 | 79.69721758 |
| 180816A00024 | 8/16/2018                           | 3.01 | 8/16/2023  | 8/16/2018  | 102.16055 | 101.2758434 | 100.406453  | 99.55198502 | 98.71205725 | 97.88630054 | 97.07435815 | 96.27588522 | 95.49054832 |
| 190115A00063 | 1/15/2019                           | 2.96 | 1/16/2024  | 1/15/2019  | 102.84178 | 101.5480211 | 100.2811608 | 99.04036829 | 97.82484373 | 96.63381998 | 95.46656119 | 94.32236115 | 93.20054177 |
| 190212A00017 | 2/12/2019                           | 2.86 | 6/30/2023  | 2/12/2019  | 101.78796 | 101.0324117 | 100.2880623 | 99.55466016 | 98.83196533 | 98.11974462 | 97.41777164 | 96.72582648 | 96.04369545 |
| 190709A00018 | 7/9/2019                            | 2.24 | 7/9/2024   | 7/9/2019   | 102.70569 | 100.9447482 | 99.22234498 | 97.53732342 | 95.88857613 | 94.27503884 | 92.69568834 | 91.14954044 | 89.63564811 |
| 210201A00012 | 2/3/2021                            | 0.75 | 11/17/2025 | 2/3/2021   | 100.2039  | 97.17341812 | 94.24916934 | 91.42682843 | 88.70227015 | 86.07156227 | 83.53095524 | 81.07687246 | 78.70590107 |
| 220118A00009 | 1/18/2022                           | 1.65 | 1/17/2025  | 1/18/2022  | 102.14474 | 99.88389263 | 97.68399481 | 95.54302228 | 93.45903397 | 91.43016646 | 89.45463031 | 87.53070649 | 85.65674311 |
| 190520A00007 | 5/20/2019                           | 2.52 | 5/20/2024  | 5/20/2019  | 102.93905 | 101.3102752 | 99.71507147 | 98.15246884 | 96.62153154 | 95.12135958 | 93.65108701 | 92.20988023 | 90.79693653 |
| 200326A00030 | 3/26/2020                           | 1.13 | 3/24/2023  | 3/26/2020  | 100.39857 | 99.91533358 | 99.43674187 | 98.96272548 | 98.493219   | 98.02815828 | 97.56748037 | 97.1111235  | 96.65902706 |
| 210428A00015 | 4/28/2021                           | 2.02 | 4/28/2031  | 4/28/2021  | 112.0567  | 103.5835802 | 95.82012391 | 88.70306653 | 82.17509243 | 76.18424683 | 70.68340921 | 65.6298208  | 60.98466055 |
| 150601A00470 | 6/1/2015                            | 2.98 | 5/31/2024  | 6/1/2015   | 103.89953 | 102.2299479 | 100.5952134 | 98.9943008  | 97.42622413 | 95.8900358  | 94.38482471 | 92.90971449 | 91.46386179 |
| 171018A00003 | 10/18/2017                          | 2.23 | 10/18/2023 | 10/18/2017 | 101.76105 | 100.7075286 | 99.67576153 | 98.66507832 | 97.67483756 | 96.70442364 | 95.7532454  | 94.82073504 | 93.90634689 |
| 180207A00002 | 2/7/2018                            | 3.13 | 2/6/2026   | 2/7/2018   | 108.30898 | 104.9338268 | 101.6827357 | 98.55050519 | 95.53217912 | 92.62303381 | 89.81856595 | 87.11448119 | 84.50668328 |
| 190826A00063 | 8/26/2019                           | 2.05 | 8/28/2028  | 8/26/2019  | 109.1716  | 103.3002908 | 97.7829203  | 92.59634433 | 87.71904845 | 83.13102185 | 78.81364492 | 74.74958597 | 70.92270599 |
| 190923A00081 | 9/23/2019                           | 1.96 | 9/20/2024  | 9/23/2019  | 102.44858 | 100.4978627 | 98.59408343 | 96.73582192 | 94.92171283 | 93.15044114 | 91.42073989 | 89.73138807 | 88.08120867 |
| 191113A00016 | 11/15/2019                          | 2.02 | 8/15/2024  | 11/15/2019 | 102.43143 | 100.576393  | 98.76393904 | 96.99283865 | 95.26190889 | 93.57000822 | 91.91603478 | 90.29892469 | 88.71765056 |
| 200225A00012 | 2/25/2020                           | 1.57 | 2/25/2025  | 2/25/2020  | 102.06677 | 99.69890047 | 97.39764085 | 95.16074692 | 92.98606786 | 90.8715374  | 88.81517001 | 86.81505719 | 84.86936404 |
| 100824A00009 | 8/24/2010                           | 3.91 | 9/2/2025   | 8/24/2010  | 109.40565 | 106.4362263 | 103.5640276 | 100.7853404 | 98.09661646 | 95.49446203 | 92.97563038 | 90.53701453 | 88.17564046 |
| 170215A00041 | 2/15/2017                           | 2.6  | 10/16/2023 | 2/15/2017  | 102.03135 | 100.9833198 | 99.95678854 | 98.95109501 | 97.96560923 | 96.99972638 | 96.05286557 | 95.12446869 | 94.21399926 |
| 180820A00054 | 8/20/2018                           | 3    | 8/18/2023  | 8/20/2018  | 102.16273 | 101.2725931 | 100.3979647 | 99.53843873 | 98.69362608 | 97.86315104 | 97.04665057 | 96.24377381 | 95.45418155 |
| 190523A00016 | 5/23/2019                           | 2.48 | 2/15/2023  | 5/23/2019  | 100.90559 | 100.5224347 | 100.1421936 | 99.76483281 | 99.39031967 | 99.01862193 | 98.64970787 | 98.28354624 | 97.92010624 |
| 190904A00020 | 9/4/2019                            | 1.69 | 9/1/2023   | 9/4/2019   | 101.01934 | 100.0970956 | 99.19161133 | 98.30243463 | 97.42912829 | 96.57127061 | 95.7284547  | 94.90028786 | 94.08639093 |
| 200720A00039 | 7/22/2020                           | 2.48 | 7/21/2025  | 7/22/2020  | 104.98843 | 102.1965453 | 99.49328756 | 96.87534502 | 94.33955088 | 91.88287516 | 89.50241788 | 87.19540258 | 84.95917035 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 170731A00029 | 7/31/2017                           | 2.34 | 7/31/2023  | 7/31/2017  | 101.50677 | 100.6684384 | 99.84391373 | 99.03285577 | 98.2349368  | 97.44983966 | 96.6772573  | 95.91689243 | 95.16845708 |
| 180920A00028 | 9/20/2018                           | 3.12 | 9/20/2023  | 9/20/2018  | 102.55452 | 101.5718394 | 100.6079876 | 99.66242532 | 98.73463528 | 97.8241195  | 96.93039846 | 96.05301028 | 95.19150987 |
| 180920A00062 | 9/20/2018                           | 3.12 | 9/20/2023  | 9/20/2018  | 102.55452 | 101.5718394 | 100.6079876 | 99.66242532 | 98.73463528 | 97.8241195  | 96.93039846 | 96.05301028 | 95.19150987 |
| 180924A00052 | 9/24/2018                           | 3.22 | 9/22/2023  | 9/24/2018  | 102.55688 | 101.5703268 | 100.6027562 | 99.65362024 | 98.72239556 | 97.80857822 | 96.91168313 | 96.03124304 | 95.16680781 |
| 190809A00011 | 8/9/2019                            | 1.69 | 8/9/2024   | 8/9/2019   | 102.032   | 100.1920834 | 98.39416655 | 96.6370501  | 94.9195739  | 93.2406182  | 91.5991019  | 89.99398092 | 88.42424678 |
| 191120A00005 | 11/20/2019                          | 2.63 | 11/20/2034 | 11/20/2019 | 120.94839 | 108.8291017 | 98.07535708 | 88.52456507 | 80.03432358 | 72.47981834 | 65.75156868 | 59.75347233 | 54.40110814 |
| 191217A00012 | 12/20/2019                          | 2.03 | 12/20/2024 | 12/20/2019 | 102.92854 | 100.7315061 | 98.59200255 | 96.5081053  | 94.47796929 | 92.49982655 | 90.57198222 | 88.69281081 | 86.86075276 |
| 200204A00020 | 2/4/2020                            | 1.6  | 2/4/2025   | 2/4/2020   | 102.37696 | 100.059278  | 97.80537107 | 95.61314319 | 93.48057813 | 91.4057371  | 89.3867553  | 87.42183863 | 85.5092606  |
| 200226A00009 | 2/26/2020                           | 1.75 | 2/26/2030  | 2/26/2020  | 109.96395 | 102.606044  | 95.79208668 | 89.47907762 | 83.62762249 | 78.20161207 | 73.16793301 | 68.49620548 | 64.15854494 |
| 150601A00689 | 6/1/2015                            | 2.81 | 2/28/2025  | 6/1/2015   | 104.98674 | 102.5744337 | 100.2299755 | 97.95107801 | 95.73554593 | 93.58127065 | 91.4862262  | 89.44846544 | 87.46611657 |
| 160329A00006 | 3/29/2016                           | 2.12 | 3/29/2023  | 3/29/2016  | 100.8953  | 100.3969661 | 99.90354318 | 99.41495749 | 98.93113823 | 98.45201597 | 97.97752261 | 97.50759136 | 97.04215671 |
| 160701A00039 | 7/1/2016                            | 1.92 | 7/1/2026   | 7/1/2016   | 105.45511 | 101.7270654 | 98.15075523 | 94.71913754 | 91.42553964 | 88.26363853 | 85.22744019 | 82.31126013 | 79.50970539 |
| 170728A00033 | 7/28/2017                           | 2.46 | 1/29/2024  | 7/28/2017  | 102.25717 | 100.9360801 | 99.63884473 | 98.36486151 | 97.11354838 | 95.8843424  | 94.67669901 | 93.49009132 | 92.32400934 |
| 190327A00031 | 3/27/2019                           | 2.53 | 3/27/2024  | 3/27/2019  | 102.6659  | 101.1845069 | 99.73197793 | 98.3075411  | 96.9104534  | 95.53999757 | 94.1954809  | 92.87623423 | 91.58161093 |
| 191004A00012 | 10/4/2019                           | 1.78 | 10/4/2024  | 10/4/2019  | 102.13492 | 100.1501516 | 98.21395008 | 96.32482019 | 94.48132463 | 92.68208003 | 90.92575465 | 89.21106595 | 87.53677849 |
| 200127A00013 | 1/27/2020                           | 1.56 | 1/27/2023  | 1/27/2020  | 100.5521  | 100.2216871 | 99.8934448  | 99.56735238 | 99.2433888  | 98.92153325 | 98.60176518 | 98.28406432 | 97.96841066 |
| 200205A00011 | 2/7/2020                            | 2.31 | 2/7/2024   | 2/7/2020   | 102.10143 | 100.7569182 | 99.43643685 | 98.13940082 | 96.86523988 | 95.6134018  | 94.38335165 | 93.17457117 | 91.98655811 |
| 200214A00007 | 2/14/2020                           | 1.59 | 2/14/2025  | 2/14/2020  | 102.38874 | 100.0420869 | 97.76073744 | 95.54251956 | 93.38534598 | 91.2872106  | 89.24618483 | 87.26041407 | 85.32811449 |
| 200226A00025 | 2/26/2020                           | 1.38 | 2/26/2025  | 2/26/2020  | 101.92155 | 99.54607922 | 97.23763467 | 94.99395889 | 92.81288137 | 90.69231721 | 88.63026321 | 86.62479413 | 84.67405923 |
| 200429A00050 | 5/1/2020                            | 2.61 | 4/30/2025  | 5/1/2020   | 104.91658 | 102.3428579 | 99.84558326 | 97.42201929 | 95.06954826 | 92.78566309 | 90.56796174 | 88.41414209 | 86.32199709 |
| 180118A00004 | 1/18/2018                           | 2.88 | 1/17/2025  | 1/18/2018  | 104.99119 | 102.6969133 | 100.4642933 | 98.29128265 | 96.17592025 | 94.11632327 | 92.11068362 | 90.15726433 | 88.25439624 |
| 180730A00004 | 7/30/2018                           | 3.14 | 7/28/2023  | 7/30/2018  | 102.16307 | 101.3298714 | 100.5102564 | 99.7038912  | 98.91045627 | 98.12964239 | 97.36115008 | 96.60468929 | 95.85997899 |
| 181227A00027 | 12/27/2018                          | 3.24 | 12/26/2025 | 12/27/2018 | 108.33844 | 105.0754153 | 101.9286592 | 98.8933213  | 95.96478537 | 93.13865813 | 90.41075655 | 87.77709628 | 85.23388073 |
| 200203A00005 | 2/3/2020                            | 1.7  | 5/3/2023   | 2/3/2020   | 100.76885 | 100.1752497 | 99.5886171  | 99.00883343 | 98.43577935 | 97.86933823 | 97.30939615 | 96.75584179 | 96.20856634 |
| 200221A00013 | 2/21/2020                           | 1.69 | 2/21/2025  | 2/21/2020  | 102.34353 | 99.98374021 | 97.6900114  | 95.46013521 | 93.2919876  | 91.18352767 | 89.13279383 | 87.13790027 | 85.19703356 |
| 200922A00039 | 9/24/2020                           | 3    | 9/23/2025  | 9/24/2020  | 106.8801  | 103.891213  | 101.0023465 | 98.20960738 | 95.50927274 | 92.89778522 | 90.37174482 | 87.92790091 | 85.56314485 |
| 190522A00019 | 5/23/2019                           | 2.55 | 5/15/2024  | 5/23/2019  | 102.96232 | 101.3465319 | 99.76387486 | 98.2133949  | 96.69417478 | 95.20533199 | 93.74601708 | 92.31541213 | 90.91272923 |
| 190524A00026 | 5/28/2019                           | 2.45 | 6/15/2023  | 5/28/2019  | 101.41129 | 100.6981218 | 99.99496871 | 99.30162413 | 98.6178837  | 97.94354873 | 97.27842597 | 96.62232742 | 95.9750702  |
| 200224A00029 | 2/24/2020                           | 1.56 | 2/24/2023  | 2/24/2020  | 100.56517 | 100.1581205 | 99.75435538 | 99.35383851 | 98.95653084 | 98.56239394 | 98.17138998 | 97.78348174 | 97.39863258 |
| 140131A00025 | 1/31/2014                           | 3.28 | 1/30/2023  | 1/31/2014  | 101.11305 | 100.7735202 | 100.436262  | 100.1012557 | 99.76847888 | 99.43790939 | 99.10952538 | 98.78330528 | 98.45922781 |
| 160727A00002 | 7/27/2016                           | 1.87 | 7/27/2023  | 7/27/2016  | 101.10013 | 100.2744813 | 99.46227095 | 98.66317269 | 97.876871   | 97.10306045 | 96.34144525 | 95.5917389  | 94.85366379 |
| 161031A00007 | 10/31/2016                          | 1.91 | 10/31/2022 | 10/31/2016 | 100.25018 | 100.1640319 | 100.078027  | 99.99216784 | 99.90645417 | 99.82088559 | 99.73546177 | 99.65018234 | 99.56504697 |
| 171030A00023 | 10/30/2017                          | 2.9  | 11/1/2027  | 10/30/2017 | 112.22046 | 107.0618924 | 102.1744667 | 97.54247761 | 93.15121039 | 88.98687566 | 85.0365461  | 81.28809792 | 77.7301567  |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 180529A00043 | 5/29/2018                           | 2.99 | 5/30/2023  | 5/29/2018  | 101.7034  | 101.0327363 | 100.3709074 | 99.71773568 | 99.07305221 | 98.43669238 | 97.80849579 | 97.18830614 | 96.57597112 |
| 190522A00017 | 5/23/2019                           | 2.53 | 3/1/2023   | 5/23/2019  | 100.98192 | 100.5601122 | 100.1418184 | 99.72699508 | 99.31559921 | 98.90758852 | 98.5029214  | 98.10155694 | 97.70345487 |
| 190710A00022 | 7/10/2019                           | 2.22 | 7/10/2024  | 7/10/2019  | 102.6742  | 100.9109198 | 99.18627978 | 97.49912468 | 95.84834691 | 94.23288182 | 92.6517056  | 91.1038333  | 89.58831695 |
| 190910A00017 | 9/16/2019                           | 1.86 | 9/16/2024  | 9/16/2019  | 102.23594 | 100.2981091 | 98.40666818 | 96.56021957 | 94.75742088 | 92.99697887 | 91.27764734 | 89.59822503 | 87.95755371 |
| 191114A00009 | 11/18/2019                          | 1.94 | 8/16/2023  | 11/18/2019 | 101.21101 | 100.3308835 | 99.46601736 | 98.6160189  | 97.78050715 | 96.95911401 | 96.15148378 | 95.35727262 | 94.57614807 |
| 200429A00003 | 4/29/2020                           | 0.74 | 4/28/2023  | 4/29/2020  | 100.19668 | 99.61861382 | 99.04718788 | 98.48228566 | 97.92379604 | 97.37161045 | 96.82562272 | 96.28572908 | 95.75182804 |
| 201006A00003 | 10/6/2020                           | 0.29 | 10/6/2022  | 10/6/2020  | 100.02237 | 100.0057174 | 99.98907865 | 99.97245674 | 99.9558516  | 99.93926322 | 99.92269154 | 99.90613656 | 99.88959825 |
| 170622A00037 | 6/22/2017                           | 3.27 | 6/22/2033  | 6/22/2017  | 126.57774 | 115.4327101 | 105.4048451 | 96.37492601 | 88.23708615 | 80.89724838 | 74.27175496 | 68.28616301 | 62.87418497 |
| 181114A00021 | 11/14/2018                          | 3.17 | 11/14/2023 | 11/14/2018 | 102.89846 | 101.766137  | 100.6587361 | 99.57543705 | 98.51545879 | 97.47805361 | 96.46250549 | 95.46812845 | 94.49426495 |
| 190828A00019 | 8/28/2019                           | 2    | 3/28/2028  | 8/28/2019  | 108.27397 | 102.8258949 | 97.68625384 | 92.83599883 | 88.2573514  | 83.93371392 | 79.8495853  | 75.99048311 | 72.34287159 |
| 191106A00012 | 11/6/2019                           | 2.02 | 10/11/2024 | 11/6/2019  | 102.64728 | 100.6388686 | 98.67985576 | 96.76871153 | 94.90396303 | 93.08419326 | 91.30803861 | 89.57418636 | 87.88137246 |
| 211222A00018 | 12/22/2021                          | 0.88 | 7/17/2023  | 12/22/2021 | 100.27786 | 99.48288394 | 98.70044973 | 97.93026352 | 97.17203947 | 96.42550058 | 95.69037836 | 94.96641249 | 94.2533505  |
| 190904A00019 | 9/4/2019                            | 1.69 | 9/4/2024   | 9/4/2019   | 101.88323 | 99.98076173 | 98.12311373 | 96.30896431 | 94.53703673 | 92.80610017 | 91.11496777 | 89.46249474 | 87.8475766  |
| 200224A00015 | 2/24/2020                           | 1.57 | 1/10/2024  | 2/24/2020  | 101.01774 | 99.75071077 | 98.51176299 | 97.29996453 | 96.11442333 | 94.95428644 | 93.81873786 | 92.70699652 | 91.61831445 |
| 200604A00014 | 6/4/2020                            | 2.42 | 6/4/2040   | 6/4/2020   | 118.78274 | 102.3794181 | 88.54306526 | 76.85226191 | 66.95703201 | 58.56640502 | 51.43819581 | 45.37059803 | 40.19526168 |
| 210604A00005 | 6/4/2021                            | 0.3  | 12/2/2022  | 6/4/2021   | 100.1602  | 99.98529796 | 99.81100559 | 99.63732192 | 99.46424377 | 99.29176798 | 99.1198914  | 98.94861092 | 98.77792343 |
| 180625A00041 | 6/25/2018                           | 3.06 | 6/20/2023  | 6/25/2018  | 101.87853 | 101.1498609 | 100.4316103 | 99.72355805 | 99.0254879  | 98.33718963 | 97.65845891 | 96.98909709 | 96.32891097 |
| 181023A00021 | 10/23/2018                          | 3.28 | 10/23/2023 | 10/23/2018 | 102.78659 | 101.7155416 | 100.6668228 | 99.6397356  | 98.63361532 | 97.64782419 | 96.68175015 | 95.73480546 | 94.80642559 |
| 190122A00007 | 1/22/2019                           | 3.03 | 1/22/2024  | 1/22/2019  | 102.975   | 101.6657938 | 100.3821253 | 99.12326805 | 97.88852037 | 96.67720735 | 95.48867935 | 94.32231091 | 93.17749957 |
| 200303A00034 | 3/3/2020                            | 1.21 | 3/3/2025   | 3/3/2020   | 101.20485 | 98.83131915 | 96.52505759 | 94.28378679 | 92.10531989 | 89.98755668 | 87.92847952 | 85.92614968 | 83.97870367 |
| 200810A00004 | 8/10/2020                           | 0.43 | 8/9/2024   | 8/10/2020  | 99.667944 | 97.85078383 | 96.07519664 | 94.33999215 | 92.64402194 | 90.98617743 | 89.3653883  | 87.78062088 | 86.23087668 |
| 170123A00039 | 1/23/2017                           | 2.79 | 1/23/2026  | 1/23/2017  | 107.50521 | 104.1711305 | 100.9586783 | 97.86275993 | 94.87852727 | 92.00136096 | 89.22685846 | 86.55082251 | 83.96925039 |
| 190626A00010 | 6/26/2019                           | 2.1  | 6/26/2023  | 6/26/2019  | 101.19847 | 100.456251  | 99.72488734 | 99.00414372 | 98.29379012 | 97.59360311 | 96.90336566 | 96.22286684 | 95.55190166 |
| 190808A00023 | 8/8/2019                            | 1.68 | 11/8/2023  | 8/8/2019   | 101.19998 | 100.0938173 | 99.01172241 | 97.95291217 | 96.91664147 | 95.90219669 | 94.90889407 | 93.93607811 | 92.98312022 |
| 150601A00650 | 6/1/2015                            | 2.75 | 3/31/2023  | 6/1/2015   | 101.20093 | 100.6962285 | 100.1965425 | 99.70180206 | 99.21193408 | 98.72686695 | 98.24653043 | 97.77085567 | 97.29977512 |
| 180110A00028 | 1/10/2018                           | 2.85 | 1/10/2025  | 1/10/2018  | 104.88247 | 102.6078997 | 100.3940217 | 98.23880353 | 96.14030079 | 94.09664857 | 92.10605765 | 90.16681078 | 88.27725913 |
| 180719A00063 | 7/19/2018                           | 3.21 | 7/19/2024  | 7/19/2018  | 104.493   | 102.6894172 | 100.9257584 | 99.20086038 | 97.51360438 | 95.86291277 | 94.24774727 | 92.66710716 | 91.12002758 |
| 190606A00026 | 6/6/2019                            | 2.23 | 6/6/2023   | 6/6/2019   | 101.21962 | 100.5316972 | 99.85311005 | 99.1836648  | 98.52317757 | 97.87146939 | 97.22836605 | 96.59369793 | 95.96729981 |
| 190711A00022 | 7/11/2019                           | 2    | 7/11/2023  | 7/11/2019  | 101.23933 | 100.4553193 | 99.68341844 | 98.92335305 | 98.17485234 | 97.43765373 | 96.71150254 | 95.99615169 | 95.29136146 |
| 190830A00002 | 8/30/2019                           | 1.93 | 8/28/2026  | 8/30/2019  | 105.28142 | 101.4197263 | 97.7208345  | 94.17705437 | 90.7810973  | 87.52605457 | 84.40537554 | 81.41284724 | 78.5425752  |
| 190930A00035 | 9/30/2019                           | 1.93 | 9/30/2024  | 9/30/2019  | 102.42522 | 100.4479201 | 98.51883313 | 96.63648049 | 94.79944172 | 93.00634941 | 91.25588685 | 89.54678573 | 87.87782406 |
| 191105A00007 | 11/5/2019                           | 1.98 | 11/5/2026  | 11/5/2019  | 106.3788  | 102.2983635 | 98.3972107  | 94.66650246 | 91.09788625 | 87.6834653  | 84.41577111 | 81.28773774 | 78.29267776 |
| 200709A00002 | 7/10/2020                           | 1.66 | 7/10/2025  | 7/10/2020  | 102.64731 | 99.91705758 | 97.27290737 | 94.71162361 | 92.23011308 | 89.82541928 | 87.49471535 | 85.23529738 | 83.04457817 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 220317A00012 | 3/17/2022                           | 1.99 | 9/15/2023  | 3/17/2022  | 101.32305 | 100.3618321 | 99.41879235 | 98.49341961 | 97.5852209  | 96.69372139 | 95.81846361 | 94.95900668 | 94.11492554 |
| 170608A00020 | 6/8/2017                            | 2.27 | 6/10/2024  | 6/8/2017   | 102.8274  | 101.1398126 | 99.48790861 | 97.87061926 | 96.28692062 | 94.73582934 | 93.21640058 | 91.72772617 | 90.26893272 |
| 180223A00022 | 2/23/2018                           | 2.93 | 2/23/2023  | 2/23/2018  | 101.1196  | 100.7139295 | 100.3115112 | 99.91230712 | 99.516279   | 99.12338898 | 98.73359987 | 98.34687506 | 97.96317849 |
| 190702A00002 | 7/2/2019                            | 2.16 | 7/2/2024   | 7/2/2019   | 102.53365 | 100.7926973 | 99.08949431 | 97.4228893  | 95.79177746 | 94.19509866 | 92.63183519 | 91.10100956 | 89.6016825  |
| 200304A00053 | 3/6/2020                            | 2.33 | 3/6/2025   | 3/6/2020   | 103.94664 | 101.5314895 | 99.18478038 | 96.9041906  | 94.68749078 | 92.53254012 | 90.43728232 | 88.39974167 | 86.41801944 |
| 220830A00055 | 8/30/2022                           | 3.7  | 8/30/2029  | 8/30/2022  | 121.86428 | 114.6148602 | 107.8595684 | 101.5619384 | 95.68837744 | 90.20792687 | 85.09204308 | 80.31439749 | 75.85069411 |
| 160630A00012 | 6/30/2016                           | 2.11 | 6/30/2025  | 6/30/2016  | 103.86269 | 101.1413732 | 98.50500736 | 95.95038183 | 93.47443415 | 91.07423999 | 88.74700569 | 86.4900613  | 84.30085411 |
| 200123A00013 | 1/27/2020                           | 1.89 | 1/27/2025  | 1/27/2020  | 102.73007 | 100.4363301 | 98.20502382 | 96.03410309 | 93.92159918 | 91.86561948 | 89.86434402 | 87.91602227 | 86.01896998 |
| 200928A00002 | 9/28/2020                           | 0.35 | 9/28/2023  | 9/28/2020  | 99.812549 | 98.82308634 | 97.853072   | 96.90193801 | 95.9691382  | 95.05414726 | 94.15645976 | 93.27558923 | 92.41106727 |
| 160119A00030 | 1/19/2016                           | 3.44 | 1/18/2033  | 1/19/2016  | 127.61168 | 116.8200452 | 107.0702476 | 98.25502823 | 90.27872798 | 83.05597783 | 76.51054301 | 70.57430202 | 65.18634454 |
| 170803A00020 | 8/3/2017                            | 2.84 | 8/3/2027   | 8/3/2017   | 111.31408 | 106.4173881 | 101.7673173 | 97.35018457 | 93.15313122 | 89.16407171 | 85.3716433  | 81.76515936 | 78.33456584 |
| 211222A00022 | 12/22/2021                          | 1.06 | 1/16/2024  | 12/22/2021 | 100.3551  | 99.07843569 | 97.82838817 | 96.60412588 | 95.40485661 | 94.2298208  | 93.07828983 | 91.94956444 | 90.84297327 |
| 170327A00072 | 3/29/2017                           | 3.09 | 3/29/2027  | 3/29/2017  | 112.18518 | 107.5901724 | 103.212672  | 99.04122388 | 95.06503619 | 91.27393894 | 87.65834476 | 84.20921244 | 80.918013   |
| 180116A00010 | 1/16/2018                           | 2.58 | 1/17/2023  | 1/16/2018  | 100.80896 | 100.5059434 | 100.2047618 | 99.90539502 | 99.60782667 | 99.31204048 | 99.01802038 | 98.72575051 | 98.43521521 |
| 180719A00065 | 7/19/2018                           | 3.36 | 7/20/2026  | 7/19/2018  | 110.53562 | 106.6751522 | 102.9723462 | 99.41990963 | 96.01093171 | 92.73885724 | 89.59746651 | 86.58085611 | 83.68342105 |
| 190430A00003 | 4/30/2019                           | 2.43 | 8/2/2023   | 4/30/2019  | 101.67468 | 100.8290132 | 99.99738353 | 99.17943964 | 98.37484587 | 97.5832774  | 96.8044199  | 96.03796907 | 95.28363024 |
| 150601A00733 | 6/1/2015                            | 2.72 | 5/1/2025   | 6/1/2015   | 105.44402 | 102.8534384 | 100.3399538 | 97.9008073  | 95.53335284 | 93.23505651 | 91.00349088 | 88.83632978 | 86.7313433  |
| 151109A00020 | 11/9/2015                           | 2.79 | 11/9/2023  | 11/9/2015  | 102.32453 | 101.2108221 | 100.1213253 | 99.05525699 | 98.01186702 | 96.99043713 | 95.9902791  | 95.01073319 | 94.05116675 |
| 190930A00011 | 9/30/2019                           | 1.89 | 10/24/2022 | 9/30/2019  | 100.19235 | 100.1256591 | 100.0590728 | 99.99258642 | 99.92619984 | 99.85991281 | 99.79372511 | 99.72763652 | 99.66164684 |
| 191206A00044 | 12/10/2019                          | 2.01 | 10/31/2024 | 12/10/2019 | 102.7001  | 100.6387888 | 98.62900806 | 96.66912864 | 94.75758194 | 92.89286058 | 91.07351548 | 89.29815316 | 87.5654331  |
| 200114A00006 | 1/15/2020                           | 1.99 | 1/15/2025  | 1/15/2020  | 102.92503 | 100.6602338 | 98.45631148 | 96.31123933 | 94.22307526 | 92.18995547 | 90.21009059 | 88.28176212 | 86.40331906 |
| 200220A00025 | 2/20/2020                           | 1.72 | 2/21/2023  | 2/20/2020  | 100.62506 | 100.2260949 | 99.83028813 | 99.43760511 | 99.04800891 | 98.66146321 | 98.27793225 | 97.89738087 | 97.5197744  |
| 200318A00043 | 3/18/2020                           | 1.06 | 3/20/2023  | 3/18/2020  | 100.40628 | 99.93345333 | 99.46507486 | 99.0010838  | 98.54141863 | 98.08601894 | 97.63482546 | 97.18778002 | 96.74482551 |
| 200925A00008 | 9/25/2020                           | 0.74 | 9/25/2025  | 9/25/2020  | 100.11846 | 97.22601558 | 94.43140477 | 91.73079001 | 89.12050985 | 86.59706647 | 84.15711729 | 81.79746717 | 79.51506106 |
| 210608A00005 | 6/8/2021                            | 0.51 | 6/7/2024   | 6/8/2021   | 99.814367 | 98.16144893 | 96.5434299  | 94.95927009 | 93.40797124 | 91.88857449 | 90.40015838 | 88.94183701 | 87.5127583  |
| 120113A00013 | 1/13/2012                           | 3.87 | 1/15/2032  | 1/13/2012  | 129.59997 | 119.6916443 | 110.6537658 | 102.4043497 | 94.86956574 | 87.98288514 | 81.68432248 | 75.91976056 | 70.64034781 |
| 170623A00028 | 6/23/2017                           | 2.79 | 6/23/2027  | 6/23/2017  | 110.79606 | 106.0201117 | 101.4798877 | 97.16245324 | 93.05565452 | 89.14806985 | 85.42896121 | 81.88822928 | 78.51637162 |
| 180103A00019 | 1/3/2018                            | 2.51 | 1/3/2023   | 1/3/2018   | 100.71861 | 100.4544556 | 100.1916854 | 99.93028929 | 99.67025669 | 99.4115769  | 99.15423939 | 98.89823374 | 98.64354963 |
| 190122A00045 | 1/22/2019                           | 3.17 | 1/22/2027  | 1/22/2019  | 111.95647 | 107.5505361 | 103.3452191 | 99.33032486 | 95.49622725 | 91.83383783 | 88.33457269 | 84.99032177 | 81.79342012 |
| 190326A00024 | 3/26/2019                           | 2.59 | 3/26/2024  | 3/26/2019  | 102.7509  | 101.2714655 | 99.82080481 | 98.3981516  | 97.0027663  | 95.6339349  | 94.29096779 | 92.97319877 | 91.67998402 |
| 200224A00020 | 2/24/2020                           | 1.59 | 2/24/2025  | 2/24/2020  | 102.11202 | 99.74646688 | 97.44737351 | 95.21251128 | 93.03973627 | 90.92698875 | 88.87228935 | 86.87373542 | 84.92949761 |
| 200302A00035 | 3/2/2020                            | 1.22 | 7/3/2023   | 3/2/2020   | 100.54801 | 99.78953386 | 99.0424476  | 98.3064945  | 97.58142726 | 96.8670059  | 96.16299741 | 95.46917556 | 94.78532062 |
| 220916A00042 | 9/16/2022                           | 4.07 | 9/16/2030  | 9/16/2022  | 128.8965  | 120.2895613 | 112.3443433 | 105.0059803 | 98.22443791 | 91.95406529 | 86.15318968 | 80.78375053 | 75.81096899 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 150601A00522 | 6/1/2015                            | 4.52 | 7/25/2030  | 6/1/2015   | 130.20448 | 121.7471621 | 113.9261792 | 106.6897835 | 99.99070552 | 93.78574268 | 88.03538937 | 82.70350283 | 77.75700058 |
| 170216A00044 | 2/16/2017                           | 3.52 | 2/17/2032  | 2/16/2017  | 126.5857  | 116.7232735 | 107.7383617 | 99.54747118 | 92.07547785 | 85.25474908 | 79.0243614  | 73.32940346 | 68.12035447 |
| 180116A00046 | 1/16/2018                           | 2.58 | 1/11/2023  | 1/16/2018  | 100.77816 | 100.4917806 | 100.207039  | 99.92392005 | 99.64240973 | 99.3624943  | 99.08416016 | 98.80739387 | 98.53218213 |
| 180917A00054 | 9/17/2018                           | 3.17 | 9/15/2023  | 9/17/2018  | 102.46789 | 101.5006856 | 100.5517385 | 99.62053593 | 98.70658321 | 97.80940385 | 96.92853879 | 96.0635456  | 95.21399773 |
| 190827A00001 | 8/27/2019                           | 1.74 | 8/27/2024  | 8/27/2019  | 101.95617 | 100.0741193 | 98.23594996 | 96.44037486 | 94.68615697 | 92.97210323 | 91.2970627  | 89.6599248  | 88.05961759 |
| 191212A00029 | 12/13/2019                          | 1.94 | 5/16/2023  | 12/13/2019 | 100.9535  | 100.3237948 | 99.70193796 | 99.08777879 | 98.48117491 | 97.8819874  | 97.29008073 | 96.70532266 | 96.12758414 |
| 200228A00063 | 2/28/2020                           | 1.32 | 2/28/2023  | 2/28/2020  | 100.47    | 100.0522213 | 99.63790117 | 99.22699689 | 98.8194665  | 98.41526867 | 98.01436274 | 97.61670873 | 97.22226728 |
| 150422A00019 | 4/22/2015                           | 2.62 | 4/22/2025  | 4/22/2015  | 104.89873 | 102.3469111 | 99.87044333 | 97.46664716 | 95.13295922 | 92.86692352 | 90.66618614 | 88.5284903  | 86.45167161 |
| 160706A00027 | 7/6/2016                            | 2.29 | 7/6/2028   | 7/6/2016   | 110.34825 | 104.5797494 | 99.1507122  | 94.03935471 | 89.22540376 | 84.68998649 | 80.41552606 | 76.38564572 | 72.58508048 |
| 180206A00013 | 2/6/2018                            | 2.72 | 2/6/2024   | 2/6/2018   | 102.81923 | 101.4698094 | 100.1445015 | 98.8427141  | 97.56387508 | 96.30743049 | 95.07284375 | 93.85959501 | 92.66718051 |
| 180412A00034 | 4/12/2018                           | 3.23 | 4/15/2030  | 4/12/2018  | 121.22823 | 113.3333735 | 106.0224443 | 99.24892265 | 92.97023379 | 87.14739209 | 81.74468065 | 76.72936141 | 72.0714123  |
| 180622A00004 | 6/22/2018                           | 3.47 | 12/22/2028 | 6/22/2018  | 118.43114 | 111.9758673 | 105.9229013 | 100.2448975 | 94.91652082 | 89.91428366 | 85.21640096 | 80.80265774 | 76.65428761 |
| 190130A00018 | 1/30/2019                           | 2.95 | 10/17/2022 | 1/30/2019  | 100.18634 | 100.1390639 | 100.0918523 | 100.0447025 | 99.99761438 | 99.95058773 | 99.90362247 | 99.85671847 | 99.80987562 |
| 190321A00003 | 3/21/2019                           | 2.67 | 3/21/2024  | 3/21/2019  | 102.84375 | 101.3767061 | 99.93795118 | 98.52673814 | 97.14234556 | 95.7840767  | 94.45125849 | 93.14324046 | 91.85939388 |
| 190710A00012 | 7/10/2019                           | 2.18 | 7/10/2023  | 7/10/2019  | 101.30745 | 100.5267912 | 99.75813488 | 99.00120902 | 98.25574649 | 97.52148822 | 96.79818291 | 96.0855867  | 95.38346295 |
| 200825A00007 | 8/27/2020                           | 4.79 | 8/27/2026  | 8/27/2020  | 116.46101 | 112.3840947 | 108.4764436 | 104.7301245 | 101.1376151 | 97.69178318 | 94.38586469 | 91.21344252 | 88.16842698 |
| 170524A00011 | 5/24/2017                           | 2.54 | 5/24/2024  | 5/24/2017  | 102.99302 | 101.3532339 | 99.74739076 | 98.17450095 | 96.63361354 | 95.12381421 | 93.64422337 | 92.19399458 | 90.77231291 |
| 191025A00013 | 10/25/2019                          | 1.98 | 10/25/2024 | 10/25/2019 | 102.61558 | 100.5708582 | 98.57701187 | 96.63243758 | 94.7355962  | 92.88500815 | 91.07925061 | 89.31695492 | 87.5968041  |
| 120112A00014 | 1/12/2012                           | 3.43 | 1/15/2032  | 1/12/2012  | 126.99329 | 117.1320207 | 108.1429357 | 99.94353946 | 92.45956241 | 85.62410399 | 79.37686579 | 73.66346818 | 68.43484091 |
| 170822A00020 | 8/22/2017                           | 2.59 | 8/22/2025  | 8/22/2017  | 105.47035 | 102.5878906 | 99.79939088 | 97.10129061 | 94.49018397 | 91.96281229 | 89.51605675 | 87.14693167 | 84.85257799 |
| 180619A00020 | 6/19/2018                           | 3.1  | 6/19/2025  | 6/19/2018  | 106.88139 | 104.1400428 | 101.4833535 | 98.90815332 | 96.41141871 | 93.99026111 | 91.64191963 | 89.36375436 | 87.15324009 |
| 190806A00027 | 8/6/2019                            | 1.71 | 8/7/2023   | 8/6/2019   | 101.07443 | 100.2180464 | 99.37611742 | 98.54828375 | 97.73419369 | 96.93350714 | 96.14589516 | 95.37103947 | 94.60863209 |
| 140815A00030 | 8/15/2014                           | 2.96 | 10/16/2023 | 8/15/2014  | 102.4114  | 101.3612264 | 100.3325798 | 99.32480091 | 98.33725915 | 97.36934894 | 96.42048873 | 95.49011976 | 94.57770494 |
| 180904A00014 | 9/4/2018                            | 3.37 | 9/1/2028   | 9/4/2018   | 116.97882 | 110.8702394 | 105.1266085 | 99.72415242 | 94.64076763 | 89.85589297 | 85.35039436 | 81.10645882 | 77.10749687 |
| 190814A00010 | 8/14/2019                           | 1.84 | 4/5/2023   | 8/14/2019  | 100.77389 | 100.2567569 | 99.74491778 | 99.23829364 | 98.73680508 | 98.2403743  | 97.74892504 | 97.26238259 | 96.78067372 |
| 200204A00001 | 2/4/2020                            | 1.79 | 2/4/2025   | 2/4/2020   | 102.5216  | 100.2084462 | 97.95881528 | 95.77062251 | 93.64186313 | 91.5706092  | 89.55500614 | 87.5932696  | 85.68368232 |
| 200626A00015 | 6/26/2020                           | 0.43 | 6/26/2023  | 6/26/2020  | 100.01803 | 99.2798043  | 98.55241399 | 97.83561854 | 97.12918797 | 96.43289893 | 95.74653444 | 95.06988367 | 94.40274171 |
| 170130A00008 | 1/30/2017                           | 2.58 | 1/30/2023  | 1/30/2017  | 100.87569 | 100.5366579 | 100.1998979 | 99.86538728 | 99.53310367 | 99.20302494 | 98.87512924 | 98.54939503 | 98.22580104 |
| 171006A00034 | 10/6/2017                           | 2.27 | 10/6/2022  | 10/6/2017  | 100.05426 | 100.0375863 | 100.020932  | 100.0042943 | 99.98767332 | 99.97106897 | 99.95448125 | 99.93791012 | 99.92135555 |
| 191220A00002 | 12/20/2019                          | 3.02 | 12/20/2038 | 12/20/2019 | 128.53432 | 112.4751203 | 98.72132767 | 86.92348784 | 76.78708171 | 68.06362698 | 60.54326036 | 54.04854774 | 48.42931378 |
| 200131A00048 | 1/31/2020                           | 1.69 | 1/31/2024  | 1/31/2020  | 101.2284  | 99.90975772 | 98.61439137 | 97.34173652 | 96.09124822 | 94.86239845 | 93.65467552 | 92.46758341 | 91.30064121 |
| 201030A00003 | 11/2/2020                           | 2.58 | 10/29/2040 | 11/2/2020  | 121.40162 | 104.4945392 | 90.27395935 | 78.29132879 | 68.17545748 | 59.61881952 | 52.36633641 | 46.20618415 | 40.96225079 |
| 160119A00026 | 1/19/2016                           | 3.14 | 1/19/2029  | 1/19/2016  | 116.5653  | 110.0930387 | 104.0295423 | 98.3467755  | 93.01876411 | 88.02143741 | 83.33247911 | 78.93119073 | 74.79836636 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 160726A00005 | 7/26/2016                           | 2.28 | 7/27/2026  | 7/26/2016  | 106.46408 | 102.6626977 | 99.01810406 | 95.52302597 | 92.17056843 | 88.95419018 | 85.86768361 | 82.90515602 | 80.06101197 |
| 171116A00021 | 11/16/2017                          | 2.16 | 11/16/2022 | 11/16/2017 | 100.38283 | 100.2520474 | 100.1216177 | 99.99154222 | 99.8618195  | 99.73244804 | 99.60342639 | 99.47475309 | 99.34642669 |
| 180814A00033 | 8/14/2018                           | 3.25 | 8/13/2027  | 8/14/2018  | 114.09424 | 109.0816976 | 104.3225903 | 99.80278109 | 95.50899151 | 91.42874634 | 87.55032094 | 83.86269234 | 80.35549388 |
| 190208A00009 | 2/8/2019                            | 2.67 | 2/8/2024   | 2/8/2019   | 102.76382 | 101.4091369 | 100.0787476 | 98.77205474 | 97.48847975 | 96.22746264 | 94.988461   | 93.77094944 | 92.57441884 |
| 200131A00007 | 1/31/2020                           | 1.68 | 1/31/2023  | 1/31/2020  | 100.57314 | 100.2319913 | 99.89314171 | 99.55657276 | 99.22226152 | 98.89018543 | 98.5603222  | 98.23264984 | 97.90714666 |
| 200207A00016 | 2/7/2020                            | 1.74 | 2/7/2024   | 2/7/2020   | 101.32096 | 99.98204352 | 98.66706114 | 97.37543114 | 96.10658581 | 94.85997534 | 93.63506719 | 92.43134535 | 91.24830976 |
| 200402A00021 | 4/2/2020                            | 0.77 | 10/2/2024  | 4/2/2020   | 100.34478 | 98.37881624 | 96.4610527  | 94.59000938 | 92.76425974 | 90.98243085 | 89.24320087 | 87.54529685 | 85.88749249 |
| 200430A00016 | 4/30/2020                           | 0.82 | 4/30/2024  | 4/30/2020  | 100.12036 | 98.5676778  | 97.04638844 | 95.55560736 | 94.094483   | 92.66219524 | 91.25795387 | 89.88099726 | 88.53059104 |
| 210924A00011 | 9/24/2021                           | 2.19 | 9/25/2034  | 9/24/2021  | 115.69687 | 104.0113462 | 93.63763571 | 84.4205976  | 76.22419909 | 68.92907646 | 62.43041704 | 56.63611964 | 51.46519543 |
| 160328A00045 | 3/28/2016                           | 2.49 | 3/27/2026  | 3/28/2016  | 106.93686 | 103.4389403 | 100.0750216 | 96.83925323 | 93.72607212 | 90.7301875  | 87.8465659  | 85.07041714 | 82.39718125 |
| 171026A00007 | 10/26/2017                          | 2.47 | 10/26/2023 | 10/26/2017 | 101.92515 | 100.8510567 | 99.7995422  | 98.76990441 | 97.76146588 | 96.7735769  | 95.80561406 | 94.85697892 | 93.92709684 |
| 190523A00014 | 5/23/2019                           | 2.5  | 11/15/2023 | 5/23/2019  | 102.01628 | 100.8884857 | 99.78557599 | 98.70673163 | 97.65117108 | 96.61814638 | 95.6069413  | 94.61686971 | 93.64727397 |
| 190814A00005 | 8/14/2019                           | 1.65 | 8/14/2024  | 8/14/2019  | 101.97206 | 100.1196317 | 98.30976124 | 96.54122413 | 94.8128376  | 93.12346025 | 91.47199033 | 89.85736415 | 88.27855446 |
| 190930A00075 | 9/30/2019                           | 2.19 | 9/29/2027  | 9/30/2019  | 108.45505 | 103.4768583 | 98.75793323 | 94.28342964 | 90.03942498 | 86.01286047 | 82.19148308 | 78.56379174 | 75.11898731 |
| 160815A00006 | 8/15/2016                           | 2.23 | 8/17/2026  | 8/15/2016  | 106.39255 | 102.5378278 | 98.8442445  | 95.30424658 | 91.91067155 | 88.65672746 | 85.53597176 | 82.54229156 | 79.66988507 |
| 171129A00020 | 11/29/2017                          | 2.89 | 11/30/2026 | 11/29/2017 | 109.76607 | 105.5637461 | 101.5473451 | 97.70761338 | 94.03581042 | 90.52367854 | 87.16341332 | 83.94763589 | 80.86936719 |
| 190404A00003 | 4/4/2019                            | 2.47 | 4/4/2024   | 4/4/2019   | 102.79857 | 101.2916945 | 99.81452844 | 98.36627142 | 96.94614775 | 95.55340905 | 94.187333   | 92.84722225 | 91.53240326 |
| 190925A00004 | 9/25/2019                           | 1.7  | 9/24/2024  | 9/25/2019  | 102.20099 | 100.237216  | 98.32103643 | 96.45100762 | 94.62573555 | 92.8438779  | 91.1041418  | 89.40528163 | 87.74609695 |
| 200214A00014 | 2/18/2020                           | 1.8  | 2/18/2025  | 2/18/2020  | 102.59742 | 100.2431396 | 97.95453006 | 95.72940099 | 93.56564794 | 91.46124855 | 89.41425881 | 87.4228095  | 85.48510293 |
| 200227A00027 | 2/27/2020                           | 1.47 | 2/27/2025  | 2/27/2020  | 101.83035 | 99.45967032 | 97.15583618 | 94.91659934 | 92.7397963  | 90.6233488  | 88.56525995 | 86.56361054 | 84.61655555 |
| 210924A00004 | 9/24/2021                           | 2.37 | 9/24/2036  | 9/24/2021  | 118.45541 | 104.9250485 | 93.12688039 | 82.82770329 | 73.8268912  | 65.9516974  | 59.05325375 | 53.00316119 | 47.69058172 |
| 180611A00030 | 6/11/2018                           | 2.91 | 6/12/2023  | 6/11/2018  | 101.78697 | 101.079661  | 100.3821839 | 99.69433074 | 99.01590321 | 98.34670829 | 97.68655821 | 97.03527031 | 96.39266678 |
| 181018A00011 | 10/18/2018                          | 3.35 | 10/18/2023 | 10/18/2018 | 102.83418 | 101.7762614 | 100.7401194 | 99.72508785 | 98.73052571 | 97.75581777 | 96.80037326 | 95.86362465 | 94.94502652 |
| 190531A00037 | 5/31/2019                           | 2.61 | 5/31/2029  | 5/31/2019  | 114.90991 | 108.0957938 | 101.7365598 | 95.79936366 | 90.25390676 | 85.0722212  | 80.22847858 | 75.69881546 | 71.46117388 |
| 190829A00050 | 8/29/2019                           | 1.73 | 8/29/2024  | 8/29/2019  | 101.94277 | 100.0556452 | 98.21262698 | 96.41242094 | 94.65378065 | 92.93550411 | 91.25643187 | 89.61544524 | 88.01146457 |
| 200228A00012 | 3/3/2020                            | 1.4  | 3/3/2025   | 3/3/2020   | 101.66788 | 99.28864073 | 96.97679119 | 94.73005306 | 92.54623588 | 90.42323596 | 88.35903232 | 86.35168301 | 84.39932145 |
| 210428A00006 | 4/28/2021                           | 1.23 | 4/28/2026  | 4/28/2021  | 102.17096 | 98.68389653 | 95.33364747 | 92.1141072  | 89.01947926 | 86.04425749 | 83.18320966 | 80.4313622  | 77.78398587 |
| 220310A00005 | 3/10/2022                           | 2.06 | 3/8/2024   | 3/10/2022  | 101.88743 | 100.4617554 | 99.06296968 | 97.69037585 | 96.34330279 | 95.0211018  | 93.72314569 | 92.4488279  | 91.19756168 |
| 140307A00011 | 3/7/2014                            | 3.19 | 3/15/2023  | 3/7/2014   | 101.38687 | 100.9250478 | 100.4674424 | 100.0139959 | 99.56465158 | 99.11935387 | 98.67804806 | 98.2406805  | 97.80719847 |
| 160830A00037 | 8/30/2016                           | 2.16 | 8/29/2025  | 8/30/2016  | 104.25075 | 101.3679379 | 98.57979431 | 95.88270789 | 93.27322591 | 90.74804568 | 88.3040072  | 85.93808617 | 83.64738741 |
| 190409A00031 | 4/9/2019                            | 2.64 | 4/9/2024   | 4/9/2019   | 102.9051  | 101.3867306 | 99.89839577 | 98.43927589 | 97.00858171 | 95.60555192 | 94.22945195 | 92.87957279 | 91.55522987 |
| 190711A00019 | 7/11/2019                           | 2.19 | 7/11/2023  | 7/11/2019  | 101.3188  | 100.5353741 | 99.76404243 | 99.00452284 | 98.25654539 | 97.51984832 | 96.79417773 | 96.07928731 | 95.37493804 |
| 200513A00003 | 5/13/2020                           | 0.68 | 5/13/2025  | 5/13/2020  | 100.24259 | 97.68946821 | 95.2135232  | 92.8119535  | 90.48207685 | 88.22132628 | 86.0272442  | 83.89747696 | 81.82976964 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 200818A00004 | 8/18/2020                           | 0.92 | 8/18/2026  | 8/18/2020  | 101.30731 | 97.54846222 | 93.94796355 | 90.4983592  | 87.192584   | 84.02393918 | 80.98607143 | 78.07295334 | 75.27886502 |
| 210601A00002 | 6/1/2021                            | 0.9  | 6/2/2025   | 6/1/2021   | 100.49653 | 97.89602414 | 95.37516746 | 92.93102391 | 90.56078496 | 88.26176509 | 86.03139537 | 83.86721748 | 81.76687811 |
| 220429A00007 | 4/29/2022                           | 3.14 | 10/29/2024 | 4/29/2022  | 105.06077 | 102.9794773 | 100.9500039 | 98.97071605 | 97.04004089 | 95.15646679 | 93.31854041 | 91.52486398 | 89.77409275 |
| 161215A00014 | 12/15/2016                          | 2.66 | 12/15/2022 | 12/15/2016 | 100.64053 | 100.4291069 | 100.218589  | 100.0089664 | 99.8002333  | 99.59238412 | 99.38541313 | 99.17931473 | 98.97408334 |
| 190820A00005 | 8/21/2019                           | 1.76 | 2/27/2023  | 8/21/2019  | 100.65267 | 100.237168  | 99.82508564 | 99.41637958 | 99.01100846 | 98.60893168 | 98.21010926 | 97.81450188 | 97.42207086 |
| 210125A00007 | 1/27/2021                           | 2.98 | 1/27/2031  | 1/27/2021  | 119.73054 | 111.1829895 | 103.3247782 | 96.09639149 | 89.44374712 | 83.31767435 | 77.67344476 | 72.47035019 | 67.67132272 |
| 160815A00005 | 8/15/2016                           | 2.23 | 8/17/2026  | 8/15/2016  | 106.39255 | 102.5378278 | 98.8442445  | 95.30424658 | 91.91067155 | 88.65672746 | 85.53597176 | 82.54229156 | 79.66988507 |
| 180130A00070 | 1/30/2018                           | 3.14 | 1/29/2027  | 1/30/2018  | 111.29827 | 106.9048569 | 102.7120168 | 98.70955913 | 94.88786072 | 91.2378333  | 87.75089113 | 84.41892068 | 81.23425225 |
| 190215A00046 | 2/15/2019                           | 2.7  | 2/15/2024  | 2/15/2019  | 102.85101 | 101.4758835 | 100.125734  | 98.79993458 | 97.49788344 | 96.21899811 | 94.96271474 | 93.72848739 | 92.51578727 |
| 191114A00008 | 11/18/2019                          | 1.93 | 4/17/2023  | 11/18/2019 | 100.85714 | 100.3069344 | 99.76272555 | 99.2244157  | 98.69190921 | 98.1651125  | 97.643934   | 97.12828408 | 96.61807501 |
| 191206A00021 | 12/6/2019                           | 2.02 | 12/6/2024  | 12/6/2019  | 102.85791 | 100.6981956 | 98.59429657 | 96.54436841 | 94.54664683 | 92.59943993 | 90.70112448 | 88.85014257 | 87.04499832 |
| 180620A00044 | 6/20/2018                           | 2.89 | 6/20/2023  | 6/20/2018  | 101.81979 | 101.0904998 | 100.3716551 | 99.66302981 | 98.96440705 | 98.2755759  | 97.59633137 | 96.92647415 | 96.26581045 |
| 180926A00031 | 9/26/2018                           | 3.24 | 9/26/2023  | 9/26/2018  | 102.60002 | 101.6024578 | 100.6242904 | 99.66495447 | 98.7239097  | 97.8006364  | 96.89463436 | 96.00542203 | 95.13253558 |
| 190102A00058 | 1/2/2019                            | 2.91 | 1/2/2024   | 1/2/2019   | 102.69648 | 101.4374168 | 100.2084826 | 99.0086028  | 97.83675241 | 96.6919544  | 95.5732767  | 94.47982973 | 93.41076399 |
| 190523A00015 | 5/23/2019                           | 2.51 | 4/1/2024   | 5/23/2019  | 102.66131 | 101.1667419 | 99.70151641 | 98.26484507 | 96.85596662 | 95.47414635 | 94.11867491 | 92.78886729 | 91.48406169 |
| 200710A00006 | 7/10/2020                           | 0.4  | 7/10/2023  | 7/10/2020  | 99.979332 | 99.20347914 | 98.43959784 | 97.68741265 | 96.94665662 | 96.21707087 | 95.49840432 | 94.79041331 | 94.09286145 |
| 210722A00001 | 7/22/2021                           | 1.1  | 7/22/2026  | 7/22/2021  | 101.93585 | 98.23356332 | 94.68444577 | 91.28137199 | 88.0175906  | 84.88669835 | 81.88262024 | 78.99959087 | 76.23213691 |
| 080909A00042 | 9/9/2008                            | 4.74 | 9/11/2023  | 9/9/2008   | 104.05693 | 103.090799  | 102.1426813 | 101.2120742 | 100.2984949 | 99.40147808 | 98.52057555 | 97.65535499 | 96.80539952 |
| 160422A00026 | 4/22/2016                           | 2.62 | 4/22/2026  | 4/22/2016  | 107.10817 | 103.5490212 | 100.1280918 | 96.83925697 | 93.67669884 | 90.63488913 | 87.70857296 | 84.89275367 | 82.18267864 |
| 161222A00030 | 12/22/2016                          | 3.09 | 12/22/2026 | 12/22/2016 | 111.35022 | 107.0401289 | 102.9230572 | 98.98926745 | 95.22957362 | 91.63530476 | 88.19827278 | 84.91074259 | 81.76540411 |
| 180109A00028 | 1/9/2018                            | 2.6  | 1/9/2025   | 1/9/2018   | 104.60241 | 102.3277162 | 100.1137821 | 97.95856977 | 95.86012719 | 93.8165826  | 91.82614062 | 89.88707837 | 87.99774198 |
| 180727A00028 | 7/27/2018                           | 3.25 | 7/27/2026  | 7/27/2018  | 110.69198 | 106.7960514 | 103.0602488 | 99.47715196 | 96.03972478 | 92.74129232 | 89.57552025 | 86.53639564 | 83.61820896 |
| 190530A00004 | 5/30/2019                           | 2.24 | 5/30/2023  | 5/30/2019  | 101.25949 | 100.5897291 | 99.92880171 | 99.27653634 | 98.63276361 | 97.99731853 | 97.37004039 | 96.75077256 | 96.13936241 |
| 191120A00006 | 11/20/2019                          | 2.67 | 11/20/2035 | 11/20/2019 | 122.05464 | 109.0020551 | 97.5238862  | 87.41971073 | 78.51565825 | 70.6607674  | 63.72386071 | 57.59085954 | 52.1624753  |
| 200305A00020 | 3/5/2020                            | 0.95 | 3/5/2025   | 3/5/2020   | 100.88485 | 98.50357044 | 96.19007102 | 93.94205087 | 91.75729784 | 89.63368772 | 87.56918026 | 85.56181529 | 83.60970905 |
| 110805A00014 | 8/5/2011                            | 4.06 | 8/17/2026  | 8/5/2011   | 113.49938 | 109.5071189 | 105.6801892 | 102.010875  | 98.49185927 | 95.1162022  | 91.8773203  | 88.76896608 | 85.78520916 |
| 160307A00026 | 3/7/2016                            | 2.2  | 3/7/2023   | 3/7/2016   | 100.86241 | 100.424444  | 99.99027603 | 99.55986074 | 99.13314956 | 98.71009476 | 98.29064942 | 97.87476744 | 97.46240348 |
| 170228A00014 | 2/28/2017                           | 2.89 | 3/1/2027   | 2/28/2017  | 111.07017 | 106.5742115 | 102.288003  | 98.20066746 | 94.30194781 | 90.58216859 | 87.03219966 | 83.64342278 | 80.40770024 |
| 170322A00024 | 3/22/2017                           | 3.72 | 9/22/2036  | 3/22/2017  | 136.65124 | 121.9300172 | 109.0489228 | 97.76347284 | 87.86304929 | 79.16604494 | 71.51572573 | 64.77670184 | 58.83191539 |
| 170808A00037 | 8/8/2017                            | 2.19 | 12/15/2022 | 8/8/2017   | 100.54122 | 100.3299528 | 100.1195847 | 99.91011144 | 99.70152726 | 99.49382645 | 99.28700333 | 99.0810523  | 98.87596779 |
| 171127A00016 | 11/27/2017                          | 2.28 | 11/27/2023 | 11/27/2017 | 101.92019 | 100.7592591 | 99.62468922 | 98.51558779 | 97.43110474 | 96.37042743 | 95.33277864 | 94.31741464 | 93.32362343 |
| 180110A00029 | 1/10/2018                           | 3.13 | 1/10/2028  | 1/10/2018  | 113.90187 | 108.5126889 | 103.4152509 | 98.59217588 | 94.02721084 | 89.7051524  | 85.61177345 | 81.73375507 | 78.05862366 |
| 190606A00027 | 6/6/2019                            | 2.51 | 6/5/2026   | 6/6/2019   | 107.00228 | 103.3286278 | 99.80145101 | 96.41408007 | 93.16018967 | 90.03377931 | 87.02915449 | 84.14090908 | 81.36390883 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 191105A00008 | 11/5/2019                           | 1.83 | 11/5/2024  | 11/5/2019  | 102.61146 | 100.5322914 | 98.50544743 | 96.52925348 | 94.60210581 | 92.72246382 | 90.88884704 | 89.09983229 | 87.35405097 |
| 200303A00001 | 3/3/2020                            | 1.15 | 3/3/2025   | 3/3/2020   | 101.37167 | 98.9895051  | 96.67496684 | 94.42576052 | 92.23968422 | 90.11462339 | 88.04854683 | 86.03950289 | 84.08561581 |
| 171030A00022 | 10/30/2017                          | 2.28 | 10/31/2022 | 10/30/2017 | 100.28207 | 100.1958929 | 100.1098606 | 100.0239742 | 99.93823321 | 99.85263741 | 99.76718641 | 99.68187986 | 99.59671741 |
| 180831A00016 | 8/31/2018                           | 2.99 | 8/31/2023  | 8/31/2018  | 102.22527 | 101.2996554 | 100.3907795 | 99.49819135 | 98.62145599 | 97.76015394 | 96.91388035 | 96.08224442 | 95.26486881 |
| 200130A00016 | 1/30/2020                           | 1.58 | 1/30/2025  | 1/30/2020  | 102.31306 | 100.0102823 | 97.77052758 | 95.5917267  | 93.47189445 | 91.40912169 | 89.401572   | 87.44747846 | 85.54514064 |
| 200226A00016 | 2/26/2020                           | 1.57 | 2/26/2025  | 2/26/2020  | 102.06987 | 99.69910038 | 97.39509547 | 95.15560337 | 92.97846599 | 90.86161018 | 88.80304385 | 86.80085234 | 84.85319486 |
| 200227A00013 | 2/27/2020                           | 1.43 | 2/27/2024  | 2/27/2020  | 100.95109 | 99.55890551 | 98.19252448 | 96.85128811 | 95.53456342 | 94.24173817 | 92.97222007 | 91.72543595 | 90.50083099 |
| 211222A00005 | 12/22/2021                          | 1.2  | 7/15/2024  | 12/22/2021 | 100.85399 | 99.09446085 | 97.37380208 | 95.69086767 | 94.0445568  | 92.43381018 | 90.85760804 | 89.31496829 | 87.80494483 |
| 121031A00004 | 10/31/2012                          | 2.07 | 10/31/2022 | 10/31/2012 | 100.26904 | 100.1828246 | 100.0967522 | 100.0108262 | 99.92504633 | 99.83941225 | 99.75392357 | 99.66857995 | 99.58338102 |
| 160616A00034 | 6/16/2016                           | 1.97 | 6/17/2024  | 6/16/2016  | 102.13842 | 100.4415088 | 98.78074083 | 97.15502572 | 95.56331752 | 94.00461221 | 92.47794551 | 90.98239091 | 89.51705775 |
| 190114A00042 | 1/14/2019                           | 2.92 | 1/13/2023  | 1/14/2019  | 100.88766 | 100.5955469 | 100.3051358 | 100.0164116 | 99.72935948 | 99.44396499 | 99.16021367 | 98.87809128 | 98.59758373 |
| 190917A00029 | 9/17/2019                           | 2.02 | 12/6/2022  | 9/17/2019  | 100.46415 | 100.2779221 | 100.0923953 | 99.90756162 | 99.72341711 | 99.5399579  | 99.35718014 | 99.17508001 | 98.99365373 |
| 191009A00026 | 10/9/2019                           | 1.74 | 10/7/2022  | 10/9/2019  | 100.05318 | 100.0337339 | 100.0143107 | 99.99490753 | 99.97552435 | 99.95616113 | 99.93681785 | 99.91749447 | 99.89819095 |
| 200115A00024 | 1/15/2020                           | 1.88 | 1/17/2023  | 1/15/2020  | 100.59687 | 100.294273  | 99.99350502 | 99.69454998 | 99.39739146 | 99.10201323 | 98.80839924 | 98.51653365 | 98.2264008  |
| 130405A00007 | 4/5/2013                            | 2.91 | 4/17/2028  | 4/5/2013   | 114.21276 | 108.5216882 | 103.1537292 | 98.08879858 | 93.3081678  | 88.79436214 | 84.53107044 | 80.50306163 | 76.69610766 |
| 170224A00044 | 5/24/2017                           | 3.29 | 5/24/2029  | 5/24/2017  | 118.38987 | 111.5193239 | 105.1028566 | 99.10791962 | 93.50446392 | 88.2647383  | 83.36310199 | 78.77585332 | 74.48107326 |
| 180103A00011 | 1/3/2018                            | 2.35 | 1/3/2023   | 1/3/2018   | 100.69978 | 100.4353993 | 100.1724086 | 99.91079632 | 99.65055161 | 99.39166377 | 99.13412216 | 98.87791632 | 98.62303583 |
| 191104A00009 | 11/4/2019                           | 1.91 | 11/6/2023  | 11/4/2019  | 101.33366 | 100.2338061 | 99.15772578 | 98.10465667 | 97.07386678 | 96.06465494 | 95.07634913 | 94.10830495 | 93.15990427 |
| 200221A00014 | 2/21/2020                           | 1.49 | 2/21/2023  | 2/21/2020  | 100.56876 | 100.1695207 | 99.77344679 | 99.38050402 | 98.9906553  | 98.60386413 | 98.22009462 | 97.8393114  | 97.46147969 |
| 180402A00005 | 4/2/2018                            | 2.94 | 4/3/2023   | 4/2/2018   | 101.33355 | 100.8202222 | 100.3120853 | 99.80906379 | 99.31108056 | 98.81806025 | 98.32992892 | 97.84661413 | 97.36804483 |
| 190507A00006 | 5/7/2019                            | 2.57 | 5/8/2023   | 5/7/2019   | 101.31286 | 100.703742  | 100.1019379 | 99.50732031 | 98.91976085 | 98.33913431 | 97.76531841 | 97.19819373 | 96.63764362 |
| 190530A00034 | 5/30/2019                           | 2.44 | 5/30/2024  | 5/30/2019  | 102.85646 | 101.2020509 | 99.58210325 | 97.99560828 | 96.44159301 | 94.91912225 | 93.4272967  | 91.96525123 | 90.53215323 |
| 190809A00008 | 8/9/2019                            | 1.87 | 8/3/2023   | 8/9/2019   | 101.11766 | 100.2730245 | 99.44244736 | 98.62557963 | 97.82208417 | 97.03163478 | 96.25391577 | 95.48862159 | 94.73545638 |
| 190819A00030 | 8/19/2019                           | 2.01 | 8/20/2029  | 8/19/2019  | 111.20656 | 104.3021041 | 97.87476884 | 91.88912496 | 86.31254387 | 81.1149636  | 76.26867486 | 71.748126   | 67.52974493 |
| 190826A00060 | 8/26/2019                           | 2.02 | 8/26/2027  | 8/26/2019  | 107.45295 | 102.5891406 | 97.97449521 | 93.59499009 | 89.43746031 | 85.48954299 | 81.73962446 | 78.17679119 | 74.79078412 |
| 220112A00005 | 1/12/2022                           | 1.55 | 1/12/2026  | 1/12/2022  | 103.33332 | 100.0973041 | 96.97902189 | 93.9735313  | 91.07612453 | 88.28231937 | 85.58784687 | 82.98863973 | 80.48082146 |
| 140827A00038 | 8/27/2014                           | 3.07 | 8/30/2024  | 8/27/2014  | 104.53401 | 102.6186639 | 100.7480285 | 98.92079181 | 97.13568949 | 95.39150217 | 93.68705377 | 92.02120962 | 90.39287472 |
| 151229A00079 | 12/29/2015                          | 3    | 12/30/2025 | 12/29/2015 | 107.58789 | 104.3265521 | 101.1818589 | 98.14892298 | 95.22309883 | 92.39996584 | 89.67531578 | 87.04514102 | 84.5056234  |
| 190522A00003 | 5/22/2019                           | 2.55 | 5/22/2024  | 5/22/2019  | 102.99913 | 101.3645665 | 99.76376458 | 98.19574455 | 96.65956295 | 95.15431249 | 93.6791203  | 92.23314624 | 90.81558139 |
| 191218A00013 | 12/18/2019                          | 1.94 | 12/19/2022 | 12/18/2019 | 100.5058  | 100.2835129 | 100.0622177 | 99.84191046 | 99.62258462 | 99.40423352 | 99.18685064 | 98.9704295  | 98.75496366 |
| 191223A00056 | 12/23/2019                          | 2.46 | 12/14/2029 | 12/23/2019 | 113.79899 | 106.5444441 | 99.80819971 | 93.55040223 | 87.73446461 | 82.32678413 | 77.29648383 | 72.61517768 | 68.25675711 |
| 200225A00015 | 2/25/2020                           | 1.54 | 2/26/2024  | 2/25/2020  | 101.10472 | 99.71418865 | 98.34938409 | 97.0096501  | 95.69435659 | 94.40289409 | 93.13467293 | 91.88912246 | 90.66569027 |
| 170602A00023 | 6/2/2017                            | 2.09 | 6/2/2023   | 6/2/2017   | 101.16985 | 100.4922358 | 99.82367142 | 99.16397816 | 98.51298039 | 97.87050706 | 97.23639163 | 96.61047183 | 95.9925896  |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 170622A00038 | 6/22/2017                           | 3.32 | 6/22/2034  | 6/22/2017  | 128.57244 | 116.3909765 | 105.5275786 | 95.8306792  | 87.16694911 | 79.41901397 | 72.48346794 | 66.26914361 | 60.69560433 |
| 171206A00038 | 12/6/2017                           | 2.69 | 12/6/2027  | 12/6/2017  | 112.13356 | 106.8575809 | 101.8641141 | 97.1364995  | 92.65914913 | 88.41747355 | 84.39781239 | 80.58736999 | 76.97415583 |
| 180530A00072 | 5/30/2018                           | 3.06 | 5/30/2024  | 5/30/2018  | 103.89773 | 102.2342909 | 100.6054838 | 99.01028759 | 97.44772507 | 95.91685682 | 94.41677951 | 92.94662415 | 91.50555437 |
| 210216A00006 | 2/16/2021                           | 1.44 | 2/15/2030  | 2/16/2021  | 107.64131 | 100.3979276 | 93.68963628 | 87.47423714 | 81.71305577 | 76.37063337 | 71.41444458 | 66.81464144 | 62.54382084 |
| 220920A00050 | 9/20/2022                           | 4.37 | 9/20/2024  | 9/20/2022  | 107.24176 | 105.2423056 | 103.2907339 | 101.3855992 | 99.52551036 | 97.70912745 | 95.93515961 | 94.20236276 | 92.50953765 |
| 130212A00017 | 2/12/2013                           | 2.29 | 2/15/2023  | 2/12/2013  | 100.83273 | 100.4497419 | 100.0696714 | 99.69248025 | 99.31813577 | 98.94660576 | 98.57785849 | 98.21186273 | 97.84858768 |
| 161020A00002 | 10/20/2016                          | 1.96 | 8/15/2023  | 10/20/2016 | 101.22611 | 100.3486029 | 99.48626703 | 98.63871034 | 97.80555516 | 96.98643666 | 96.18100224 | 95.38891104 | 94.60983342 |
| 180104A00017 | 1/4/2018                            | 2.77 | 1/3/2025   | 1/4/2018   | 104.6611  | 102.4075357 | 100.2136778 | 98.0775101  | 95.9971051  | 93.97061595 | 91.99627245 | 90.07237716 | 88.19730169 |
| 180530A00024 | 5/30/2018                           | 3.44 | 5/30/2029  | 5/30/2018  | 119.42517 | 112.5050133 | 106.0425459 | 100.0049164 | 94.36180154 | 89.08520046 | 84.14924513 | 79.53002681 | 75.20543765 |
| 190403A00006 | 4/3/2019                            | 2.48 | 4/3/2024   | 4/3/2019   | 102.80813 | 101.3039196 | 99.82933867 | 98.38358939 | 96.96589948 | 95.57552375 | 94.21174293 | 92.87386252 | 91.56121173 |
| 190701A00023 | 7/1/2019                            | 1.95 | 7/1/2024   | 7/1/2019   | 102.36883 | 100.6282631 | 98.92545013 | 97.25923727 | 95.62851509 | 94.03221939 | 92.4693288  | 90.93886263 | 89.43987873 |
| 190816A00015 | 8/16/2019                           | 2.2  | 8/16/2029  | 8/16/2019  | 111.4959  | 104.6321365 | 98.24042112 | 92.28583489 | 86.73621163 | 81.56190633 | 76.73558583 | 72.23203775 | 68.02799613 |
| 200221A00016 | 2/21/2020                           | 1.69 | 2/21/2025  | 2/21/2020  | 102.34353 | 99.98374021 | 97.6900114  | 95.46013521 | 93.2919876  | 91.18352767 | 89.13279383 | 87.13790027 | 85.19703356 |
| 160921A00020 | 9/21/2016                           | 1.97 | 9/21/2023  | 9/21/2016  | 101.31764 | 100.3403685 | 99.38188146 | 98.44164457 | 97.51914034 | 96.6138707  | 95.72535608 | 94.85313455 | 93.99676104 |
| 170622A00040 | 6/22/2017                           | 3.41 | 6/23/2036  | 6/22/2017  | 132.19154 | 117.9813783 | 105.5292641 | 94.60448473 | 85.00788397 | 76.56739216 | 69.13421047 | 62.57954997 | 56.79184251 |
| 180719A00064 | 7/19/2018                           | 3.3  | 7/21/2025  | 7/19/2018  | 107.29959 | 104.4749105 | 101.7396394 | 99.09044487 | 96.52413583 | 94.0376589  | 91.62809166 | 89.29263611 | 87.02861261 |
| 181218A00072 | 12/18/2018                          | 3.04 | 12/19/2022 | 12/18/2018 | 100.75045 | 100.5277746 | 100.306098  | 100.0854107 | 99.86570615 | 99.64697764 | 99.42921866 | 99.21242273 | 98.99658341 |
| 190326A00003 | 3/26/2019                           | 2.57 | 3/27/2023  | 3/26/2019  | 101.11162 | 100.6181354 | 100.1294633 | 99.64553151 | 99.1662713  | 98.69161524 | 98.22149723 | 97.75585241 | 97.29461715 |
| 190730A00007 | 7/30/2019                           | 2.19 | 7/30/2024  | 7/30/2019  | 102.68635 | 100.870755  | 99.09598628 | 97.36088578 | 95.66433811 | 94.00526624 | 92.38263002 | 90.79542462 | 89.24267912 |
| 200309A00019 | 3/9/2020                            | 0.89 | 3/11/2024  | 3/9/2020   | 100.19066 | 98.77005549 | 97.37640244 | 96.00900495 | 94.66718707 | 93.35029557 | 92.05769899 | 90.78878672 | 89.54296815 |
| 201116A00011 | 11/16/2020                          | 0.71 | 11/15/2024 | 11/16/2020 | 99.973075 | 97.90099542 | 95.8815926  | 93.91316724 | 91.99408807 | 90.12278887 | 88.29776532 | 86.51757201 | 84.78081966 |
| 160615A00031 | 6/15/2016                           | 2.51 | 6/17/2030  | 6/15/2016  | 116.1049  | 108.2315727 | 100.9561872 | 94.2300268  | 88.00859069 | 82.25121035 | 76.92070002 | 71.98304117 | 67.407097   |
| 170531A00080 | 5/31/2017                           | 2.3  | 5/31/2024  | 5/31/2017  | 102.82652 | 101.1662427 | 99.54064586 | 97.94870736 | 96.38944576 | 94.86191778 | 93.36521651 | 91.89846959 | 90.46083752 |
| 200226A00008 | 2/26/2020                           | 1.38 | 2/26/2025  | 2/26/2020  | 101.92155 | 99.54607922 | 97.23763467 | 94.99395889 | 92.81288137 | 90.69231721 | 88.63026321 | 86.62479413 | 84.67405923 |
| 200304A00021 | 3/4/2020                            | 0.94 | 3/4/2024   | 3/4/2020   | 100.42855 | 99.02152867 | 97.64091189 | 96.28601994 | 94.95619765 | 93.65081165 | 92.36924942 | 91.1109185  | 89.87524562 |
| 200325A00029 | 3/25/2020                           | 1.15 | 3/24/2023  | 3/25/2020  | 100.45161 | 99.96771009 | 99.48846318 | 99.01380395 | 98.54366671 | 98.07798701 | 97.61670164 | 97.15974855 | 96.70706688 |
| 180914A00013 | 9/14/2018                           | 3.48 | 9/14/2028  | 9/14/2018  | 117.72944 | 111.5634346 | 105.7675536 | 100.3175593 | 95.19092609 | 90.36670864 | 85.82542351 | 81.54893981 | 77.52037877 |
| 190328A00079 | 3/28/2019                           | 2.37 | 3/28/2024  | 3/28/2019  | 102.60936 | 101.1228184 | 99.66533813 | 98.23613783 | 96.8344674  | 95.45960275 | 94.11084471 | 92.78751793 | 91.48896987 |
| 190523A00022 | 5/23/2019                           | 2.47 | 10/12/2022 | 5/23/2019  | 100.11552 | 100.0821628 | 100.048848  | 100.0155721 | 99.98233515 | 99.94913701 | 99.91597763 | 99.88285693 | 99.84977485 |
| 190523A00024 | 5/23/2019                           | 2.47 | 10/31/2022 | 5/23/2019  | 100.29845 | 100.2122539 | 100.1262076 | 100.0403071 | 99.95455217 | 99.8689424  | 99.78347745 | 99.69815697 | 99.61298061 |
| 190524A00040 | 5/24/2019                           | 2.47 | 5/24/2024  | 5/24/2019  | 102.87661 | 101.237824  | 99.63296267 | 98.06103721 | 96.52109715 | 95.01222863 | 93.53355251 | 92.08422278 | 90.6634249  |
| 190820A00038 | 8/20/2019                           | 1.76 | 8/20/2024  | 8/20/2019  | 101.97363 | 100.1096573 | 98.28875865 | 96.50968985 | 94.77124653 | 93.07226678 | 91.41162935 | 89.78825193 | 88.20108953 |
| 160714A00023 | 8/10/2016                           | 2.49 | 8/10/2028  | 8/10/2016  | 111.67371 | 105.7766806 | 100.2312182 | 95.01455066 | 90.10548994 | 85.48431629 | 81.13266926 | 77.03344765 | 73.17071718 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 190111A00026 | 1/11/2019                           | 3.48 | 1/11/2034  | 1/11/2019  | 131.4484  | 119.4295503 | 108.6675691 | 99.0225619  | 90.3709493  | 82.60348505 | 75.62352443 | 69.34550988 | 63.6936455  |
| 190913A00014 | 9/13/2019                           | 2.08 | 9/13/2024  | 9/13/2019  | 102.67851 | 100.743902  | 98.85540528 | 97.01163667 | 95.21126714 | 93.45301607 | 91.73564921 | 90.05797664 | 88.41885089 |
| 191125A00036 | 11/25/2019                          | 2.29 | 11/23/2029 | 11/25/2019 | 112.50105 | 105.3462161 | 98.69992252 | 92.52329669 | 86.78063102 | 81.439112   | 76.46857118 | 71.84125891 | 67.53163845 |
| 200221A00003 | 2/25/2020                           | 1.69 | 2/25/2025  | 2/25/2020  | 102.35724 | 99.98581713 | 97.68107373 | 95.44077091 | 93.26275562 | 91.14495947 | 89.08539482 | 87.08215119 | 85.13339178 |
| 200309A00033 | 3/9/2020                            | 1.06 | 3/9/2026   | 3/9/2020   | 101.43748 | 98.0930533  | 94.87574398 | 91.78006628 | 88.80080197 | 85.93298454 | 83.17188566 | 80.5130024  | 77.95204529 |
| 200327A00074 | 3/31/2020                           | 1.76 | 3/29/2024  | 3/31/2020  | 101.51385 | 100.0362497 | 98.58755819 | 97.16699752 | 95.77382139 | 94.40730942 | 93.06676598 | 91.75151913 | 90.46091963 |
| 081219A00069 | 12/19/2008                          | 4.26 | 12/22/2023 | 12/19/2008 | 104.31658 | 103.0756619 | 101.8643719 | 100.6816609 | 99.52652449 | 98.39800479 | 97.29518797 | 96.21720161 | 95.16321241 |
| 170120A00010 | 1/20/2017                           | 3.71 | 1/22/2036  | 1/20/2017  | 135.55024 | 121.5050082 | 109.1438382 | 98.25204507 | 88.64350731 | 80.15672625 | 72.65144918 | 66.00577102 | 60.11364423 |
| 180727A00037 | 7/27/2018                           | 3.13 | 7/27/2023  | 7/27/2018  | 102.14865 | 101.3182394 | 100.5013183 | 99.69756273 | 98.90665628 | 98.1282925  | 97.36217463 | 96.60801523 | 95.86553579 |
| 190625A00012 | 6/25/2019                           | 2.12 | 6/25/2024  | 6/25/2019  | 102.43286 | 100.7116322 | 99.02740864 | 97.37906185 | 95.76550985 | 94.18571456 | 92.63867955 | 91.12344787 | 89.63910006 |
| 190819A00005 | 8/19/2019                           | 1.62 | 8/21/2023  | 8/19/2019  | 101.02448 | 100.1305549 | 99.25239031 | 98.38957037 | 97.54169561 | 96.70838028 | 95.88925181 | 95.08395025 | 94.29212774 |
| 200430A00007 | 4/30/2020                           | 0.72 | 4/28/2023  | 4/30/2020  | 100.18501 | 99.60698983 | 99.03560227 | 98.47073811 | 97.91228625 | 97.3601381  | 96.81418752 | 96.27433073 | 95.74046626 |
| 210304A00004 | 3/4/2021                            | 0.58 | 3/4/2024   | 3/4/2021   | 99.740142 | 98.34106059 | 96.9682001  | 95.62088811 | 94.29847497 | 93.00033257 | 91.72585344 | 90.47444993 | 89.24555339 |
| 150817A00077 | 8/17/2015                           | 2.49 | 8/17/2023  | 8/17/2015  | 101.79139 | 100.9045408 | 100.0331195 | 99.17672711 | 98.33497711 | 97.50749612 | 96.69392337 | 95.89391017 | 95.10711941 |
| 170818A00003 | 8/18/2017                           | 2.23 | 8/20/2024  | 8/18/2017  | 103.09592 | 101.2168133 | 99.38115591 | 97.58769125 | 95.83520292 | 94.12251746 | 92.44850256 | 90.81206529 | 89.21215053 |
| 210114A00009 | 1/19/2021                           | 2.66 | 1/17/2030  | 1/19/2021  | 115.38907 | 107.9910075 | 101.1263638 | 94.75376719 | 88.83526522 | 83.33602183 | 78.22404626 | 73.46994686 | 69.04670742 |
| 210623A00011 | 6/23/2021                           | 0.56 | 6/23/2023  | 6/23/2021  | 100.05138 | 99.32200069 | 98.60319546 | 97.89473791 | 97.19640597 | 96.50798387 | 95.82926194 | 95.1600364  | 94.50010912 |
| 130821A00019 | 8/21/2013                           | 3.81 | 8/29/2025  | 8/21/2013  | 109.46722 | 106.4987474 | 103.6273139 | 100.8492207 | 98.16093199 | 95.55906604 | 93.04038717 | 90.60179875 | 88.24033641 |
| 150512A00029 | 5/12/2015                           | 3.03 | 5/12/2025  | 5/12/2015  | 106.08236 | 103.4616917 | 100.9194728 | 98.45286728 | 96.05916402 | 93.73576766 | 91.48019299 | 89.29005943 | 87.16308582 |
| 180116A00031 | 1/16/2018                           | 2.58 | 1/17/2023  | 1/16/2018  | 100.80896 | 100.5059434 | 100.2047618 | 99.90539502 | 99.60782667 | 99.31204048 | 99.01802038 | 98.72575051 | 98.43521521 |
| 180118A00037 | 1/18/2018                           | 2.88 | 1/21/2025  | 1/18/2018  | 105.01397 | 102.7088979 | 100.4660241 | 98.28329558 | 96.15874166 | 94.09046929 | 92.07665955 | 90.11556424 | 88.20550254 |
| 180813A00026 | 8/13/2018                           | 2.87 | 8/11/2023  | 8/13/2018  | 102.09721 | 101.2251545 | 100.367985  | 99.52532352 | 98.69680366 | 97.88207134 | 97.08078422 | 96.29261122 | 95.51723208 |
| 190222A00021 | 2/22/2019                           | 2.95 | 8/21/2024  | 2/22/2019  | 104.24589 | 102.3570991 | 100.5119268 | 98.70910366 | 96.94740936 | 95.22566653 | 93.54273908 | 91.89753046 | 90.28898201 |
| 191202A00005 | 12/2/2019                           | 2.03 | 12/2/2024  | 12/2/2019  | 102.866   | 100.716649  | 98.62262423 | 96.58211371 | 94.59337576 | 92.65473973 | 90.76460242 | 88.9214248  | 87.12372881 |
| 210210A00005 | 2/10/2021                           | 0.52 | 2/13/2024  | 2/10/2021  | 99.651861 | 98.30822744 | 96.98889173 | 95.69325248 | 94.42072789 | 93.17075473 | 91.94278758 | 90.7362982  | 89.55077476 |
| 150610A00017 | 6/10/2015                           | 2.9  | 6/15/2023  | 6/10/2015  | 101.73351 | 101.0190535 | 100.31463   | 99.62002753 | 98.93504159 | 98.25947326 | 97.59312909 | 96.9358209  | 96.28736562 |
| 180730A00041 | 7/30/2018                           | 3.14 | 7/31/2023  | 7/30/2018  | 102.18135 | 101.3399151 | 100.5123255 | 99.6982378  | 98.89732368 | 98.10926529 | 97.33375497 | 96.57049479 | 95.81919617 |
| 180910A00007 | 9/10/2018                           | 2.96 | 9/8/2023   | 9/10/2018  | 102.33253 | 101.383448  | 100.4519531 | 99.53756351 | 98.63981103 | 97.75824435 | 96.89242836 | 96.04194346 | 95.20638483 |
| 180914A00008 | 9/14/2018                           | 3.15 | 9/14/2023  | 9/14/2018  | 102.45251 | 101.4879438 | 100.5415402 | 99.6127874  | 98.70119454 | 97.80628886 | 96.92761483 | 96.06473338 | 95.21722115 |
| 190802A00032 | 8/2/2019                            | 2.01 | 8/2/2024   | 8/2/2019   | 102.36498 | 100.5445784 | 98.76527586 | 97.02591126 | 95.32536118 | 93.6625408  | 92.03640229 | 90.44593331 | 88.89015558 |
| 191007A00029 | 10/7/2019                           | 1.88 | 10/9/2029  | 10/7/2019  | 110.47231 | 103.4625458 | 96.94655213 | 90.88697791 | 85.24948015 | 80.00246763 | 75.11686716 | 70.56591089 | 66.32494246 |
| 200429A00044 | 5/1/2020                            | 1.86 | 4/30/2025  | 5/1/2020   | 102.97019 | 100.4219795 | 97.94963207 | 95.55043429 | 93.2217858  | 90.96119604 | 88.76627893 | 86.63474766 | 84.5644099  |
| 161212A00040 | 12/12/2016                          | 2.45 | 12/12/2023 | 12/12/2016 | 102.17126 | 100.9688718 | 99.79471123 | 98.64779394 | 97.5271798  | 96.43197154 | 95.36131227 | 94.31438329 | 93.29040196 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 180719A00004 | 7/19/2018                           | 3.07 | 7/19/2023  | 7/19/2018  | 102.05959 | 101.2512055 | 100.4556207 | 99.67253719 | 98.9016618  | 98.14271038 | 97.39540756 | 96.65948639 | 95.93468806 |
| 190909A00025 | 9/9/2019                            | 1.88 | 9/9/2024   | 9/9/2019   | 102.27044 | 100.3506854 | 98.47645524 | 96.6463946  | 94.85919808 | 93.11360758 | 91.4084103  | 89.74243675 | 88.11455888 |
| 200302A00054 | 3/2/2020                            | 1.31 | 3/3/2025   | 3/2/2020   | 101.44855 | 99.07201472 | 96.76281212 | 94.51866377 | 92.33738094 | 90.21686156 | 88.15508626 | 86.15011459 | 84.20008145 |
| 201022A00012 | 10/26/2020                          | 2.25 | 10/24/2030 | 10/26/2020 | 113.40487 | 105.3530936 | 97.93831043 | 91.10666954 | 84.8091372  | 79.0010436  | 73.64167363 | 68.69389801 | 64.12384062 |
| 150601A00696 | 6/1/2015                            | 2.83 | 3/13/2025  | 6/1/2015   | 105.10437 | 102.6566436 | 100.2786949 | 97.96814183 | 95.72269614 | 93.54016115 | 91.41842755 | 89.3554694  | 87.34934023 |
| 160628A00040 | 6/28/2016                           | 1.56 | 6/28/2023  | 6/28/2016  | 100.86623 | 100.1190747 | 99.38294179 | 98.65759028 | 97.94278481 | 97.23829678 | 96.54390417 | 95.85939129 | 95.18454854 |
| 170313A00034 | 3/13/2017                           | 3.31 | 3/15/2027  | 3/13/2017  | 112.44419 | 107.898668  | 103.5660502 | 99.43523731 | 95.4957659  | 91.73776922 | 88.15194008 | 84.72949621 | 81.46214791 |
| 181120A00024 | 11/20/2018                          | 3.25 | 11/20/2023 | 11/20/2018 | 102.89459 | 101.7481681 | 100.6272953 | 99.5311258  | 98.45884885 | 97.40968894 | 96.38290378 | 95.37778258 | 94.39364439 |
| 190620A00055 | 6/25/2019                           | 2.08 | 4/17/2023  | 6/25/2019  | 100.94004 | 100.3895688 | 99.84509848 | 99.30652918 | 98.77376525 | 98.24671309 | 97.72528109 | 97.20937961 | 96.69892089 |
| 191104A00023 | 11/4/2019                           | 2.24 | 8/4/2028   | 11/4/2019  | 110.18673 | 104.3480367 | 98.85726499 | 93.69191477 | 88.8310453  | 84.25516406 | 79.94611978 | 75.88700381 | 72.0620592  |
| 220902A00042 | 9/2/2022                            | 3.89 | 9/5/2023   | 9/2/2022   | 103.09953 | 102.1559685 | 101.2297025 | 100.3202591 | 99.42718233 | 98.550033   | 97.68838729 | 96.84183638 | 96.00998571 |
| 151223A00070 | 12/23/2015                          | 2.57 | 12/26/2023 | 12/23/2015 | 102.3714  | 101.1304996 | 99.91960719 | 98.7376473  | 97.58359219 | 96.4564623  | 95.35532345 | 94.27928421 | 93.22749355 |
| 160804A00014 | 8/4/2016                            | 1.99 | 8/5/2024   | 8/4/2016   | 102.33869 | 100.5106945 | 98.72412798 | 96.97781693 | 95.27062457 | 93.60145333 | 91.96924321 | 90.37297027 | 88.81164518 |
| 180222A00026 | 2/22/2018                           | 2.98 | 2/21/2025  | 2/22/2018  | 105.76844 | 103.3602876 | 101.0194144 | 98.74356409 | 96.53057318 | 94.37836281 | 92.28493513 | 90.24836957 | 88.26681939 |
| 180713A00013 | 7/13/2018                           | 2.88 | 7/13/2023  | 7/13/2018  | 101.94429 | 101.1517713 | 100.3715681 | 99.60339623 | 98.84697888 | 98.10204742 | 97.36834143 | 96.64560831 | 95.933603   |
| 190513A00013 | 5/13/2019                           | 2.52 | 5/13/2024  | 5/13/2019  | 102.90282 | 101.2928101 | 99.71574622 | 98.17068067 | 96.65670378 | 95.17294023 | 93.71854741 | 92.29271385 | 90.8946578  |
| 191003A00022 | 10/3/2019                           | 1.72 | 2/3/2023   | 10/3/2019  | 100.59228 | 100.2428364 | 99.89581495 | 99.55119083 | 99.20893929 | 98.86903594 | 98.53145668 | 98.19617775 | 97.86317572 |
| 200224A00025 | 2/24/2020                           | 1.59 | 1/23/2025  | 2/24/2020  | 102.01893 | 99.74400005 | 97.53078974 | 95.377263   | 93.28146573 | 91.24152046 | 89.25562275 | 87.32203788 | 85.43909762 |
| 190208A00008 | 2/8/2019                            | 2.86 | 2/8/2024   | 2/8/2019   | 102.86118 | 101.5083908 | 100.179827  | 98.87488997 | 97.59300381 | 96.33361075 | 95.09617061 | 93.88016004 | 92.68507194 |
| 190328A00065 | 3/28/2019                           | 2.56 | 3/28/2024  | 3/28/2019  | 102.71616 | 101.2317543 | 99.77631916 | 98.34907883 | 96.9492864  | 95.57622089 | 94.22918604 | 92.90750926 | 91.61054069 |
| 200224A00002 | 2/24/2020                           | 1.56 | 2/24/2023  | 2/24/2020  | 100.56517 | 100.1581205 | 99.75435538 | 99.35383851 | 98.95653084 | 98.56239394 | 98.17138998 | 97.78348174 | 97.39863258 |
| 200309A00020 | 3/9/2020                            | 0.96 | 3/10/2025  | 3/9/2020   | 100.5982  | 98.21428641 | 95.89848637 | 93.64847591 | 91.46202386 | 89.33698809 | 87.27131149 | 85.26301798 | 83.31020884 |
| 121116A00006 | 11/16/2012                          | 2.64 | 11/13/2025 | 11/16/2012 | 106.11654 | 103.0036837 | 99.99880797 | 97.09754053 | 94.29571491 | 91.58935848 | 88.97468217 | 86.44807068 | 84.00607336 |
| 131217A00023 | 12/17/2013                          | 3.74 | 1/2/2024   | 12/17/2013 | 103.7509  | 102.4847871 | 101.2489196 | 100.0422229 | 98.86366877 | 97.7122771  | 96.5871128  | 95.48728342 | 94.41193665 |
| 150727A00013 | 7/27/2015                           | 3.04 | 7/28/2025  | 7/27/2015  | 106.61214 | 103.7787935 | 101.0357452 | 98.379636   | 95.80724943 | 93.31550602 | 90.90145659 | 88.56227604 | 86.29525737 |
| 181108A00025 | 11/8/2018                           | 3.44 | 7/31/2023  | 11/8/2018  | 102.43431 | 101.5917189 | 100.7629799 | 99.94775605 | 99.14571875 | 98.35654991 | 97.5799416  | 96.81559567 | 96.06322333 |
| 190115A00034 | 1/15/2019                           | 2.91 | 1/17/2023  | 1/15/2019  | 100.90894 | 100.6057308 | 100.3043542 | 100.0047934 | 99.70703184 | 99.41105332 | 99.11684177 | 98.82438132 | 98.53365628 |
| 200325A00030 | 3/25/2020                           | 1.5  | 3/25/2025  | 3/25/2020  | 102.27427 | 99.82409241 | 97.44500913 | 95.13455366 | 92.89035911 | 90.7101549  | 88.5917622  | 86.53308963 | 84.53212913 |
| 211001A00006 | 10/1/2021                           | 0.36 | 10/3/2022  | 10/1/2021  | 100.01104 | 100.0027152 | 99.99440256 | 99.98609755 | 99.97780016 | 99.96951037 | 99.96122818 | 99.95295357 | 99.94468653 |
| 170111A00014 | 1/11/2017                           | 3.47 | 1/12/2032  | 1/11/2017  | 125.91289 | 116.1773674 | 107.3004163 | 99.20102239 | 91.80623767 | 85.0503364  | 78.87406497 | 73.22397328 | 68.05181826 |
| 181010A00021 | 10/10/2018                          | 3.29 | 3/15/2023  | 10/10/2018 | 101.3916  | 100.9302482 | 100.4731073 | 100.0201151 | 99.57121493 | 99.12635153 | 98.68547045 | 98.24851823 | 97.81544241 |
| 190807A00020 | 8/7/2019                            | 1.57 | 2/7/2024   | 8/7/2019   | 101.24987 | 99.90888492 | 98.59191321 | 97.29836567 | 96.02767209 | 94.77928033 | 93.55265559 | 92.34727975 | 91.16265071 |
| 191008A00018 | 10/8/2019                           | 1.74 | 10/11/2022 | 10/8/2019  | 100.08357 | 100.0530105 | 100.02249   | 99.99200434 | 99.9615535  | 99.9311374  | 99.90075596 | 99.87040914 | 99.84009685 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 200130A00005 | 1/30/2020                           | 1.73 | 1/30/2024  | 1/30/2020  | 101.27904 | 99.96243882 | 98.66935021 | 97.39918917 | 96.15139363 | 94.92541955 | 93.72074015 | 92.53684528 | 91.37324074 |
| 120113A00012 | 1/13/2012                           | 3.62 | 1/15/2027  | 1/13/2012  | 113.2455  | 108.8476527 | 104.6484867 | 100.6379407 | 96.80651839 | 93.14525417 | 89.6456802  | 86.29979604 | 83.10004018 |
| 171122A00009 | 11/22/2017                          | 2.2  | 11/22/2022 | 11/22/2017 | 100.42849 | 100.2809902 | 100.1339348 | 99.98732167 | 99.84114867 | 99.6954138  | 99.55011509 | 99.40525055 | 99.26081822 |
| 200310A00073 | 3/12/2020                           | 2.12 | 3/11/2027  | 3/12/2020  | 107.12384 | 102.7062314 | 98.49655992 | 94.48397269 | 90.65823757 | 87.00970578 | 83.52927559 | 80.20835845 | 77.03884751 |
| 200511A00022 | 5/11/2020                           | 1.6  | 2/1/2030   | 5/11/2020  | 107.72843 | 100.5652167 | 93.92676332 | 87.77199029 | 82.06322911 | 76.76592074 | 71.84834476 | 67.28137335 | 63.03824768 |
| 160830A00034 | 8/30/2016                           | 1.9  | 8/30/2023  | 8/30/2016  | 101.21033 | 100.2925003 | 99.39125328 | 98.50613936 | 97.63672851 | 96.7826059  | 95.9433712  | 95.11863793 | 94.30803289 |
| 190429A00003 | 4/29/2019                           | 2.62 | 10/13/2023 | 4/29/2019  | 102.04191 | 101.0018347 | 99.98293098 | 98.98455375 | 98.00608707 | 97.04693945 | 96.10654261 | 95.1843504  | 94.27983769 |
| 190724A00025 | 7/24/2019                           | 1.96 | 7/24/2023  | 7/24/2019  | 101.24806 | 100.4287518 | 99.62266458 | 98.82948089 | 98.04889274 | 97.28060186 | 96.52431934 | 95.77976527 | 95.04666837 |
| 190917A00035 | 9/19/2019                           | 2.02 | 10/16/2023 | 9/19/2019  | 101.41904 | 100.3744704 | 99.35134715 | 98.34901327 | 97.36683992 | 96.40422337 | 95.46058383 | 94.53536419 | 93.62802899 |
| 200818A00005 | 8/18/2020                           | 1.05 | 8/18/2027  | 8/18/2020  | 102.68774 | 97.95964195 | 93.47443224 | 89.21844529 | 85.17885464 | 81.34361361 | 77.70140413 | 74.24158909 | 70.9541681  |
| 190807A00012 | 8/7/2019                            | 1.76 | 2/7/2023   | 8/7/2019   | 100.61401 | 100.2535264 | 99.89562081 | 99.54027019 | 99.18744722 | 98.83712497 | 98.4892769  | 98.14387681 | 97.80089891 |
| 190923A00017 | 9/23/2019                           | 1.74 | 9/23/2024  | 9/23/2019  | 102.27762 | 100.3157483 | 98.40136204 | 96.53301893 | 94.70933008 | 92.92895802 | 91.1906145  | 89.49305828 | 87.83509309 |
| 200224A00046 | 2/24/2020                           | 1.59 | 2/24/2025  | 2/24/2020  | 102.11202 | 99.74646688 | 97.44737351 | 95.21251128 | 93.03973627 | 90.92698875 | 88.87228935 | 86.87373542 | 84.92949761 |
| 081211A00029 | 12/11/2008                          | 4.57 | 12/15/2023 | 12/11/2008 | 104.63733 | 103.4130906 | 102.2176329 | 101.04995   | 99.90908007 | 98.79410546 | 97.70414985 | 96.6383762  | 95.59598443 |
| 100930A00008 | 9/30/2010                           | 3.82 | 9/30/2025  | 9/30/2010  | 109.3982  | 106.3523445 | 103.4087227 | 100.5633343 | 97.8123563  | 95.15213717 | 92.57918762 | 90.0901726  | 87.68190353 |
| 111006A00023 | 10/6/2011                           | 3.81 | 10/15/2026 | 10/6/2011  | 113.12708 | 108.981261  | 105.0136036 | 101.2154733 | 97.57870493 | 94.09557181 | 90.75875925 | 87.56134038 | 84.49675347 |
| 121116A00022 | 11/16/2012                          | 2.78 | 11/16/2029 | 11/16/2012 | 117.00592 | 109.6698187 | 102.8522631 | 96.51374034 | 90.61794883 | 85.13152268 | 80.02377943 | 75.26649088 | 70.83367467 |
| 130904A00039 | 9/4/2013                            | 4.19 | 9/15/2028  | 9/4/2013   | 122.87025 | 116.5188249 | 110.5473389 | 104.9309314 | 99.64649851 | 94.67255808 | 89.98912755 | 85.57761193 | 81.42070056 |
| 180323A00013 | 3/23/2018                           | 3.18 | 3/23/2028  | 3/23/2018  | 115.51837 | 109.8601233 | 104.5191414 | 99.47593117 | 94.71229623 | 90.21124468 | 85.95690328 | 81.93443816 | 78.12998162 |
| 220927A00024 | 9/27/2022                           | 4.7  | 9/27/2024  | 9/27/2022  | 107.97657 | 105.9503652 | 103.9730966 | 102.0432742 | 100.1594641 | 98.32028541 | 96.52440824 | 94.77055149 | 93.05748059 |
| 190802A00003 | 8/2/2019                            | 2.01 | 8/2/2024   | 8/2/2019   | 102.36498 | 100.5445784 | 98.76527586 | 97.02591126 | 95.32536118 | 93.6625408  | 92.03640229 | 90.44593331 | 88.89015558 |
| 191104A00018 | 11/5/2019                           | 1.96 | 11/5/2024  | 11/5/2019  | 102.61358 | 100.5396858 | 98.51788371 | 96.54651464 | 94.6239843  | 92.74876102 | 90.91937281 | 89.13440453 | 87.39249522 |
| 191104A00025 | 11/4/2019                           | 2.33 | 8/2/2030   | 11/4/2019  | 113.75149 | 105.8982739 | 98.65028214 | 91.95763783 | 85.77481518 | 80.0602384  | 74.77592082 | 69.88713869 | 65.36213597 |
| 200305A00040 | 3/10/2020                           | 0.99 | 3/10/2023  | 3/10/2020  | 100.3311  | 99.88631913 | 99.44547429 | 99.00851699 | 98.5753959  | 98.14606058 | 97.72046147 | 97.29854987 | 96.88027795 |
| 200310A00025 | 3/10/2020                           | 0.87 | 3/11/2024  | 3/10/2020  | 100.33337 | 98.90885955 | 97.51141808 | 96.14034254 | 94.7949532  | 93.47459326 | 92.17862781 | 90.90644298 | 89.65744505 |
| 200403A00016 | 4/3/2020                            | 0.63 | 4/17/2023  | 4/3/2020   | 100.18783 | 99.63915488 | 99.09647016 | 98.55968212 | 98.02869496 | 97.50341492 | 96.9837503  | 96.46961131 | 95.9609101  |
| 150601A00530 | 6/1/2015                            | 3.08 | 7/24/2024  | 6/1/2015   | 104.44658 | 102.6259158 | 100.8458888 | 99.10532694 | 97.40310308 | 95.73813045 | 94.10936092 | 92.51578328 | 90.95642169 |
| 151002A00075 | 10/2/2015                           | 2.04 | 10/3/2022  | 10/2/2015  | 100.02578 | 100.0174427 | 100.0091109 | 100.0007868 | 99.99247042 | 99.98416176 | 99.97586078 | 99.96756747 | 99.95928182 |
| 160212A00044 | 2/12/2016                           | 1.93 | 2/13/2023  | 2/12/2016  | 100.68986 | 100.3127065 | 99.9383831  | 99.56685594 | 99.1980937  | 98.83206555 | 98.46874109 | 98.10809037 | 97.7500839  |
| 181010A00023 | 10/10/2018                          | 3.41 | 4/1/2024   | 10/10/2018 | 104.02711 | 102.5217813 | 101.0459792 | 99.59891434 | 98.17982057 | 96.78795834 | 95.42261372 | 94.08309724 | 92.76874283 |
| 190122A00046 | 1/22/2019                           | 3.29 | 1/22/2029  | 1/22/2019  | 118.4763  | 111.9018359 | 105.7432035 | 99.97182699 | 94.56124279 | 89.48692919 | 84.72615429 | 80.25783644 | 76.06241643 |
| 190729A00007 | 7/29/2019                           | 2.17 | 7/28/2023  | 7/29/2019  | 101.35319 | 100.5236838 | 99.70771722 | 98.90495885 | 98.11508999 | 97.33780216 | 96.57279663 | 95.81978407 | 95.07848418 |
| 220518A00008 | 5/18/2022                           | 3.01 | 5/20/2024  | 5/18/2022  | 103.74854 | 102.1128558 | 100.5108657 | 98.94159704 | 97.40411096 | 95.89750427 | 94.42090794 | 92.97348546 | 91.55443125 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 190814A00008 | 8/14/2019                           | 1.84 | 8/14/2024  | 8/14/2019  | 102.08798 | 100.2388817 | 98.43218891 | 96.66667979 | 94.94117777 | 93.25454738 | 91.60569247 | 89.99355471 | 88.41711194 |
| 190820A00008 | 8/20/2019                           | 1.76 | 8/20/2024  | 8/20/2019  | 101.97363 | 100.1096573 | 98.28875865 | 96.50968985 | 94.77124653 | 93.07226678 | 91.41162935 | 89.78825193 | 88.20108953 |
| 200302A00011 | 3/2/2020                            | 1.31 | 2/27/2025  | 3/2/2020   | 101.44218 | 99.07626209 | 96.77709315 | 94.54242107 | 92.37008532 | 90.25801055 | 88.20420265 | 86.20674507 | 84.26379538 |
| 200312A00016 | 3/16/2020                           | 1.09 | 2/15/2023  | 3/16/2020  | 100.37253 | 99.99062978 | 99.61163657 | 99.23551668 | 98.86223746 | 98.49176677 | 98.12407293 | 97.75912476 | 97.39689153 |
| 200429A00053 | 5/1/2020                            | 2.18 | 4/30/2025  | 5/1/2020   | 103.80065 | 101.2415543 | 98.75857124 | 96.34897722 | 94.01016445 | 91.73963531 | 89.53499693 | 87.39395595 | 85.31431377 |
| 210312A00005 | 3/12/2021                           | 0.53 | 3/12/2024  | 3/12/2021  | 99.83644  | 98.41312138 | 97.01690371 | 95.64708183 | 94.30297415 | 92.98392211 | 91.68928916 | 90.41845984 | 89.17083894 |
| 170111A00009 | 1/11/2017                           | 3.16 | 1/11/2028  | 1/11/2017  | 114.06706 | 108.6709293 | 103.5669891 | 98.73783064 | 94.16717385 | 89.83978987 | 85.74142761 | 81.8587456  | 78.17924906 |
| 171206A00041 | 12/6/2017                           | 2.44 | 12/6/2024  | 12/6/2017  | 104.06765 | 101.8887571 | 99.76620094 | 97.6981221  | 95.68273792 | 93.71833898 | 91.80328538 | 89.93600325 | 88.11498152 |
| 180530A00014 | 5/30/2018                           | 2.93 | 5/30/2023  | 5/30/2018  | 101.66309 | 100.9925822 | 100.330903  | 99.67787962 | 99.03334314 | 98.39712895 | 97.76907666 | 97.14903001 | 96.5368367  |
| 200110A00022 | 1/13/2020                           | 2    | 1/6/2025   | 1/13/2020  | 102.91849 | 100.6772341 | 98.49566144 | 96.37176088 | 94.30361034 | 92.28936758 | 90.32726609 | 88.4156113  | 86.55277704 |
| 210212A00016 | 2/17/2021                           | 1.32 | 2/18/2025  | 2/17/2021  | 101.44468 | 99.10442594 | 96.82953993 | 94.61784078 | 92.46723284 | 90.37570215 | 88.34131278 | 86.36220332 | 84.43658356 |
| 210903A00002 | 9/8/2021                            | 1.22 | 9/8/2023   | 9/8/2021   | 100.58351 | 99.64472953 | 98.72338357 | 97.81898547 | 96.93107114 | 96.05919328 | 95.20292064 | 94.36183731 | 93.53554205 |
| 080910A00065 | 9/10/2008                           | 5.03 | 9/15/2023  | 9/10/2008  | 104.27247 | 103.2958276 | 102.3375689 | 101.3971769 | 100.4741543 | 99.56802197 | 98.67831832 | 97.80459849 | 96.94643357 |
| 170119A00006 | 1/19/2017                           | 2.85 | 1/21/2025  | 1/19/2017  | 104.94422 | 102.6399675 | 100.397899  | 98.21595905 | 96.09217725 | 94.02466108 | 92.01159211 | 90.05122254 | 88.14187202 |
| 180703A00015 | 7/3/2018                            | 3.06 | 7/3/2023   | 7/3/2018   | 101.95715 | 101.1927316 | 100.4397624 | 99.6979882  | 98.96716067 | 98.24703873 | 97.53738835 | 96.83798229 | 96.14859983 |
| 200228A00015 | 3/3/2020                            | 1.34 | 10/16/2023 | 3/3/2020   | 100.70116 | 99.66064696 | 98.64151932 | 97.64312434 | 96.66483452 | 95.70604744 | 94.76618454 | 93.84468994 | 92.94102937 |
| 200601A00009 | 6/1/2020                            | 0.84 | 6/2/2025   | 6/1/2020   | 100.33543 | 97.73710067 | 95.21837504 | 92.7763135  | 90.40810905 | 88.11107764 | 85.88265174 | 83.72037441 | 81.62189364 |
| 200911A00006 | 9/11/2020                           | 0.37 | 9/11/2023  | 9/11/2020  | 99.863    | 98.91859957 | 97.9919259  | 97.08248398 | 96.18979709 | 95.31340592 | 94.45286785 | 93.60775612 | 92.7776592  |
| 170316A00018 | 3/16/2017                           | 2.8  | 3/18/2024  | 3/16/2017  | 103.01969 | 101.5591679 | 100.1266577 | 98.72142688 | 97.34276451 | 95.98998369 | 94.66242074 | 93.35943424 | 92.08040401 |
| 180214A00004 | 2/14/2018                           | 2.71 | 2/14/2023  | 2/14/2018  | 101.02319 | 100.6421242 | 100.2639368 | 99.88859805 | 99.51607587 | 99.14633851 | 98.77935472 | 98.41509373 | 98.05352522 |
| 180328A00010 | 3/28/2018                           | 3.1  | 3/28/2025  | 3/28/2018  | 105.96607 | 103.4682554 | 101.0426819 | 98.68684539 | 96.39834155 | 94.17486405 | 92.01419982 | 89.91422465 | 87.87289904 |
| 190923A00012 | 9/23/2019                           | 2.43 | 9/25/2034  | 9/23/2019  | 120.25428 | 108.2034201 | 97.50239735 | 87.99165582 | 79.53129905 | 71.99857586 | 65.28570059 | 59.29795997 | 53.95206785 |
| 191206A00009 | 12/6/2019                           | 2.87 | 12/4/2037  | 12/6/2019  | 125.9698  | 110.945161  | 97.96449635 | 86.73442245 | 77.00525866 | 68.56431323 | 61.23022841 | 54.84821496 | 49.28603231 |
| 191219A00036 | 12/20/2019                          | 2.1  | 12/20/2024 | 12/20/2019 | 103.08518 | 100.8863645 | 98.74511636 | 96.65951027 | 94.62770015 | 92.64791701 | 90.71846504 | 88.83771783 | 87.0041149  |
| 200305A00012 | 3/5/2020                            | 1.14 | 3/5/2025   | 3/5/2020   | 101.03598 | 98.65941928 | 96.35036549 | 94.10653171 | 91.92571843 | 89.80581346 | 87.74478791 | 85.74069234 | 83.79165322 |
| 180705A00003 | 7/5/2018                            | 3.04 | 7/5/2023   | 7/5/2018   | 101.95352 | 101.1836669 | 100.4254351 | 99.67855901 | 98.94278485 | 98.21786629 | 97.50356428 | 96.79964671 | 96.10588821 |
| 200110A00013 | 1/10/2020                           | 1.76 | 1/10/2024  | 1/10/2020  | 101.40325 | 100.1314082 | 98.88778014 | 97.67142467 | 96.48144504 | 95.31698381 | 94.17722069 | 93.06137058 | 91.96868165 |
| 200214A00005 | 2/14/2020                           | 1.59 | 2/14/2025  | 2/14/2020  | 102.38874 | 100.0420869 | 97.76073744 | 95.54251956 | 93.38534598 | 91.2872106  | 89.24618483 | 87.26041407 | 85.32811449 |
| 220401A00009 | 4/1/2022                            | 2.98 | 4/1/2027   | 4/1/2022   | 111.10251 | 106.5418468 | 102.1972453 | 98.05731882 | 94.11134285 | 90.34921087 | 86.76139556 | 83.33891256 | 80.07328664 |
| 150610A00008 | 6/10/2015                           | 3.58 | 6/10/2030  | 6/10/2015  | 124.28648 | 116.1252154 | 108.5757334 | 101.5885794 | 95.11855493 | 89.12433089 | 83.56809689 | 78.4152438  | 73.63407657 |
| 161003A00004 | 10/3/2016                           | 1.91 | 10/3/2023  | 10/3/2016  | 101.28263 | 100.2734468 | 99.28428965 | 98.31457001 | 97.36371944 | 96.43119148 | 95.51646058 | 94.61902111 | 93.73838644 |
| 190620A00026 | 6/20/2019                           | 2.09 | 6/20/2023  | 6/20/2019  | 101.17056 | 100.4447546 | 99.72934157 | 99.02409834 | 98.32880909 | 97.6432641  | 96.9672595  | 96.30059709 | 95.64308411 |
| 200513A00002 | 5/13/2020                           | 0.56 | 5/13/2024  | 5/13/2020  | 99.894329 | 98.30642287 | 96.75112616 | 95.22750132 | 93.73464634 | 92.27169329 | 90.83780676 | 89.43218224 | 88.05404478 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 130211A00017 | 2/11/2013                           | 3.27 | 2/15/2028  | 2/11/2013  | 114.91628 | 109.4022578 | 104.1914743 | 99.26565582 | 94.6077189  | 90.20168904 | 86.03262314 | 82.08653793 | 78.35034366 |
| 160628A00031 | 6/28/2016                           | 1.77 | 6/28/2023  | 6/28/2016  | 100.95718 | 100.2105301 | 99.47488132 | 98.74999306 | 98.03563068 | 97.33156632 | 96.63757865 | 95.95345264 | 95.27897931 |
| 160801A00001 | 8/1/2016                            | 1.97 | 8/1/2024   | 8/1/2016   | 102.28725 | 100.4701973 | 98.69412391 | 96.9578678  | 95.26031047 | 93.60037172 | 91.97700817 | 90.38921167 | 88.836008   |
| 180521A00025 | 5/21/2018                           | 3.24 | 5/21/2025  | 5/21/2018  | 107.04671 | 104.381781  | 101.7972372 | 99.29014471 | 96.85770204 | 94.49722884 | 92.20615972 | 89.98203839 | 87.82251221 |
| 200131A00016 | 1/31/2020                           | 1.73 | 1/31/2025  | 1/31/2020  | 102.36566 | 100.0658567 | 97.82893954 | 95.65284923 | 93.53560995 | 91.47532121 | 89.47015452 | 87.51835024 | 85.61821461 |
| 200228A00019 | 2/28/2020                           | 1.21 | 2/20/2025  | 2/28/2020  | 101.49389 | 99.14088048 | 96.85386171 | 94.63062159 | 92.46903653 | 90.36706661 | 88.32274927 | 86.33420081 | 84.39960791 |
| 200429A00052 | 5/1/2020                            | 1.43 | 4/30/2024  | 5/1/2020   | 101.09463 | 99.53389027 | 98.00469005 | 96.50613714 | 95.03737623 | 93.59758351 | 92.18596528 | 90.80175654 | 89.44421965 |
| 211222A00027 | 12/22/2021                          | 1.26 | 10/15/2024 | 12/22/2021 | 101.09852 | 99.09589102 | 97.14276348 | 95.23759286 | 93.37889628 | 91.56524745 | 89.7952741  | 88.0676555  | 86.38112015 |
| 180627A00026 | 6/27/2018                           | 2.87 | 6/27/2023  | 6/27/2018  | 101.84591 | 101.0974089 | 100.3598981 | 99.63313465 | 98.91688488 | 98.21092181 | 97.51502496 | 96.82898014 | 96.15257916 |
| 190315A00014 | 3/15/2019                           | 2.74 | 3/15/2024  | 3/15/2019  | 102.91403 | 101.462195  | 100.038067  | 98.64092038 | 97.27005549 | 95.92479618 | 94.60448906 | 93.30850252 | 92.03622579 |
| 190816A00036 | 8/16/2019                           | 1.77 | 8/16/2024  | 8/16/2019  | 101.98057 | 100.1269529 | 98.31596203 | 96.54636612 | 94.81697939 | 93.12665758 | 91.47429623 | 89.85882903 | 88.27922627 |
| 191108A00013 | 11/8/2019                           | 2.25 | 11/8/2029  | 11/8/2019  | 113.19599 | 106.0140433 | 99.34102824 | 93.13815539 | 87.36979044 | 82.00317798 | 77.00819463 | 72.35712464 | 68.0244557  |
| 191210A00011 | 12/10/2019                          | 1.92 | 12/12/2022 | 12/10/2019 | 100.47129 | 100.2684335 | 100.0664092 | 99.86521097 | 99.66483363 | 99.46527212 | 99.26652142 | 99.06857653 | 98.87143251 |
| 151223A00072 | 12/23/2015                          | 2.81 | 12/23/2025 | 12/23/2015 | 107.35037 | 104.1008362 | 100.9672322 | 97.94471768 | 95.02868924 | 92.21476541 | 89.49877442 | 86.87674257 | 84.34488332 |
| 170417A00057 | 4/17/2017                           | 2.32 | 4/17/2023  | 4/17/2017  | 101.07267 | 100.5217839 | 99.97689516 | 99.43791074 | 98.90473491 | 98.37727403 | 97.85543645 | 97.33913247 | 96.82827431 |
| 180913A00030 | 9/13/2018                           | 3.33 | 9/12/2025  | 9/13/2018  | 107.78144 | 104.8088335 | 101.934624  | 99.15502171 | 96.46640055 | 93.865294   | 91.34838723 | 88.91250953 | 86.55462722 |
| 181219A00006 | 12/19/2018                          | 3.06 | 12/19/2023 | 12/19/2018 | 102.81357 | 101.5904634 | 100.3964438 | 99.230486   | 98.09160871 | 96.97887584 | 95.89139404 | 94.82831028 | 93.78880958 |
| 190625A00024 | 6/25/2019                           | 2.26 | 6/25/2025  | 6/25/2019  | 104.25392 | 101.5406017 | 98.9115953  | 96.36373114 | 93.89398316 | 91.49946098 | 89.17740274 | 86.92516824 | 84.74023259 |
| 190813A00016 | 8/13/2019                           | 1.88 | 8/13/2024  | 8/13/2019  | 102.16018 | 100.3129951 | 98.50811359 | 96.7443201  | 95.02044231 | 93.33534874 | 91.68794713 | 90.07718276 | 88.50203698 |
| 160613A00047 | 6/15/2016                           | 2.18 | 6/16/2025  | 6/15/2016  | 103.99471 | 101.3091666 | 98.70647992 | 96.18356145 | 93.73745952 | 91.36535359 | 89.06454731 | 86.83246204 | 84.66663077 |
| 200429A00009 | 4/29/2020                           | 0.78 | 4/29/2025  | 4/29/2020  | 100.49841 | 97.97802401 | 95.53299076 | 93.16060747 | 90.85828583 | 88.6235471  | 86.45401661 | 84.34741865 | 82.30157165 |
| 220125A00010 | 1/25/2022                           | 1.89 | 1/25/2027  | 1/25/2022  | 105.86517 | 101.5989474 | 97.52849305 | 93.64382961 | 89.93553889 | 86.39472829 | 83.01299863 | 79.7824142  | 76.69547481 |
| 170815A00006 | 8/15/2017                           | 2.5  | 8/15/2024  | 8/15/2017  | 103.33878 | 101.4749515 | 99.65387042 | 97.87430461 | 96.13506668 | 94.43501074 | 92.77303076 | 91.14805885 | 89.55906372 |
| 180426A00011 | 4/26/2018                           | 2.94 | 4/26/2023  | 4/26/2018  | 101.51965 | 100.9420391 | 100.3709918 | 99.80640088 | 99.24815719 | 98.69615411 | 98.15028738 | 97.61045503 | 97.07655738 |
| 190807A00005 | 8/7/2019                            | 1.77 | 8/7/2024   | 8/7/2019   | 101.93485 | 100.1054901 | 98.31771691 | 96.57034375 | 94.86222673 | 93.19226153 | 91.55938175 | 89.96255737 | 88.40079326 |
| 191002A00013 | 10/2/2019                           | 1.78 | 10/3/2022  | 10/2/2019  | 100.02288 | 100.0145482 | 100.0062257 | 99.99791089 | 99.98960368 | 99.98130409 | 99.9730121  | 99.9647277  | 99.95645088 |
| 200709A00005 | 7/10/2020                           | 2.23 | 7/10/2030  | 7/10/2020  | 112.90029 | 105.1373203 | 97.96901193 | 91.3466021  | 85.22557068 | 79.56524943 | 74.32846988 | 69.48124519 | 64.99248248 |
| 220406A00006 | 4/6/2022                            | 2.65 | 10/6/2023  | 4/6/2022   | 102.04813 | 101.026737  | 100.0257516 | 99.04456905 | 98.08260585 | 97.13930122 | 96.21411605 | 95.30653182 | 94.41604961 |
| 180111A00016 | 1/11/2018                           | 2.57 | 1/11/2023  | 1/11/2018  | 100.7753  | 100.4889228 | 100.2041866 | 99.92107296 | 99.63956795 | 99.3596578  | 99.08132892 | 98.80456786 | 98.52936133 |
| 191025A00009 | 10/25/2019                          | 2.26 | 5/25/2029  | 10/25/2019 | 111.57969 | 104.92779   | 98.71977602 | 92.92365849 | 87.50992042 | 82.45130963 | 77.72265344 | 73.30068949 | 69.16391127 |
| 191122A00021 | 11/26/2019                          | 3.4  | 11/22/2038 | 11/26/2019 | 134.34715 | 117.9133766 | 103.8122134 | 91.69290957 | 81.25949652 | 72.26196351 | 64.48889511 | 57.76132116 | 51.92757423 |
| 191226A00020 | 12/26/2019                          | 2.44 | 12/21/2029 | 12/26/2019 | 113.68458 | 106.4160954 | 99.66819551 | 93.4007506  | 87.57693414 | 82.16293064 | 77.12767406 | 72.44261036 | 68.08148171 |
| 081217A00076 | 12/17/2008                          | 3.86 | 12/22/2023 | 12/17/2008 | 103.95675 | 102.7160896 | 101.5051054 | 100.3227434 | 99.16799637 | 98.03990385 | 96.9375495  | 95.8600586  | 94.8065957  |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 180727A00038 | 7/27/2018                           | 3.36 | 7/25/2025  | 7/27/2018  | 107.49811 | 104.66003   | 101.9120767 | 99.25088895 | 96.67325479 | 94.1761     | 91.75648113 | 89.41157919 | 87.13869362 |
| 190606A00028 | 6/6/2019                            | 2.74 | 6/6/2029   | 6/6/2019   | 114.82098 | 108.0319951 | 101.6959548 | 95.78015606 | 90.25443004 | 85.09092935 | 80.2639374  | 75.74969448 | 71.52623887 |
| 190816A00007 | 8/16/2019                           | 1.77 | 8/16/2023  | 8/16/2019  | 101.06015 | 100.1807497 | 99.31660234 | 98.467314   | 97.63250386 | 96.811804   | 96.00485888 | 95.21132483 | 94.43086953 |
| 200204A00016 | 2/4/2020                            | 1.72 | 2/6/2023   | 2/4/2020   | 100.59774 | 100.2400388 | 99.88487784 | 99.53223207 | 99.18207486 | 98.8343799  | 98.48912128 | 98.14627343 | 97.80581114 |
| 200227A00004 | 2/27/2020                           | 1.65 | 2/27/2030  | 2/27/2020  | 109.22742 | 101.893349  | 95.10223794 | 88.81112758 | 82.98066198 | 77.57476935 | 72.56037282 | 67.90712793 | 63.58718441 |
| 200306A00014 | 3/6/2020                            | 1.38 | 3/6/2030   | 3/6/2020   | 106.18647 | 98.99008279 | 92.32849552 | 86.1592924  | 80.44362338 | 75.14588616 | 70.23343968 | 65.67634428 | 61.44712574 |
| 200529A00004 | 5/29/2020                           | 0.56 | 5/29/2024  | 5/29/2020  | 99.896205 | 98.26660506 | 96.67104411 | 95.10852083 | 93.57807361 | 92.07877817 | 90.60974576 | 89.1701214  | 87.75908225 |
| 180910A00033 | 9/10/2018                           | 3.43 | 9/8/2028   | 9/10/2018  | 117.38659 | 111.2470135 | 105.4751662 | 100.0470308 | 94.94027679 | 90.13413665 | 85.60928839 | 81.3477481  | 77.33277068 |
| 190805A00008 | 8/5/2019                            | 1.88 | 8/4/2023   | 8/5/2019   | 101.1286  | 100.281221  | 99.4479875  | 98.62855198 | 97.82257395 | 97.02972402 | 96.24968349 | 95.4821439  | 94.72680662 |
| 150817A00099 | 8/17/2015                           | 3.19 | 8/17/2027  | 8/17/2015  | 113.11364 | 108.1365551 | 103.4113259 | 98.92389027 | 94.66104577 | 90.61038877 | 86.76026227 | 83.09970724 | 79.61841739 |
| 180223A00026 | 2/23/2018                           | 2.92 | 12/15/2022 | 2/23/2018  | 100.69546 | 100.4839582 | 100.2733573 | 100.063652  | 99.85483664 | 99.64690538 | 99.4398526  | 99.23367267 | 99.02836002 |
| 190808A00050 | 8/8/2019                            | 1.7  | 8/8/2024   | 8/8/2019   | 102.04761 | 100.2101559 | 98.41459777 | 96.65973435 | 94.94441006 | 93.26750942 | 91.6279554  | 90.02470785 | 88.45676196 |
| 200720A00037 | 7/22/2020                           | 2.1  | 7/21/2025  | 7/22/2020  | 103.9174  | 101.1407175 | 98.45229525 | 95.84883533 | 93.32718224 | 90.88431685 | 88.51734954 | 86.22351387 | 84.00016052 |
| 170629A00073 | 6/29/2017                           | 2.2  | 6/29/2023  | 6/29/2017  | 101.35166 | 100.5997626 | 99.85899113 | 99.12909749 | 98.40984355 | 97.70099805 | 97.00233639 | 96.31364036 | 95.63469797 |
| 181009A00008 | 10/9/2018                           | 3.24 | 10/7/2022  | 10/9/2018  | 100.08237 | 100.0629005 | 100.043453  | 100.0240256 | 100.0046182 | 99.98523085 | 99.96586342 | 99.94651592 | 99.92718831 |
| 190809A00021 | 8/9/2019                            | 2.12 | 8/9/2029   | 8/9/2019   | 111.92195 | 105.0219045 | 98.59631119 | 92.61009026 | 87.03092739 | 81.82903938 | 76.97696421 | 72.44936929 | 68.22287652 |
| 191108A00011 | 11/8/2019                           | 2.08 | 10/18/2024 | 11/8/2019  | 102.79705 | 100.7687305 | 98.7905788  | 96.86102801 | 94.97857134 | 93.14175978 | 91.34919935 | 89.59954869 | 87.89151656 |
| 191230A00012 | 12/30/2019                          | 1.77 | 12/1/2023  | 12/30/2019 | 101.32749 | 100.1596622 | 99.01860904 | 97.90342201 | 96.81322985 | 95.74720002 | 94.70453657 | 93.68447816 | 92.68629618 |
| 200227A00006 | 2/27/2020                           | 1.47 | 2/27/2025  | 2/27/2020  | 101.83035 | 99.45967032 | 97.15583618 | 94.91659934 | 92.7397963  | 90.6233488  | 88.56525995 | 86.56361054 | 84.61655555 |
| 200814A00009 | 8/18/2020                           | 1.36 | 8/16/2028  | 8/18/2020  | 105.08234 | 99.35991895 | 93.98273865 | 88.92827689 | 84.17558494 | 79.70517338 | 75.49890352 | 71.53988749 | 67.81239613 |
| 131106A00003 | 11/6/2013                           | 3.57 | 11/15/2023 | 11/6/2013  | 103.2343  | 102.0991415 | 100.9889752 | 99.90298462 | 98.84038558 | 97.8004274  | 96.78239123 | 95.78558842 | 94.8093589  |
| 151229A00081 | 12/29/2015                          | 3.76 | 12/31/2035 | 12/29/2015 | 136.10791 | 122.0815158 | 109.7291886 | 98.83837377 | 89.22469874 | 80.72809995 | 73.20949766 | 66.54794095 | 60.63815424 |
| 180530A00027 | 5/30/2018                           | 3.61 | 6/1/2032   | 5/30/2018  | 128.04699 | 117.8391724 | 108.5624958 | 100.1261138 | 92.44851758 | 85.45653442 | 79.08443392 | 73.27313487 | 67.96950022 |
| 181218A00077 | 12/18/2018                          | 3.09 | 12/18/2023 | 12/18/2018 | 102.8455  | 101.6248424 | 100.4331523 | 99.26940845 | 98.13263557 | 97.02190331 | 95.93632371 | 94.87504879 | 93.83726834 |
| 190107A00023 | 1/7/2019                            | 2.87 | 1/6/2023   | 1/7/2019   | 100.8315  | 100.5588455 | 100.2876717 | 100.0179648 | 99.74971284 | 99.48290414 | 99.217527   | 98.95356988 | 98.69102137 |
| 210804A00008 | 8/6/2021                            | 2.28 | 8/4/2028   | 8/6/2021   | 110.41983 | 104.5744402 | 99.07726254 | 93.90577691 | 89.03902869 | 84.4575123  | 80.14306414 | 76.07876397 | 72.24884393 |
| 160714A00020 | 9/6/2016                            | 2.28 | 9/4/2026   | 9/6/2016   | 106.69289 | 102.7851622 | 99.0426161  | 95.45741745 | 92.02214548 | 88.72976791 | 85.57361851 | 82.54737607 | 79.64504479 |
| 181026A00002 | 10/26/2018                          | 3.28 | 10/26/2023 | 10/26/2018 | 102.8026  | 101.7234327 | 100.6669235 | 99.63236363 | 98.61907384 | 97.62640273 | 96.65372526 | 95.70044142 | 94.76597499 |
| 190726A00017 | 7/26/2019                           | 2.44 | 7/24/2026  | 7/26/2019  | 107.05763 | 103.252757  | 99.60438729 | 96.10526911 | 92.74852461 | 89.52762944 | 86.43639263 | 83.46893775 | 80.61968517 |
| 191004A00005 | 10/4/2019                           | 1.54 | 10/4/2024  | 10/4/2019  | 101.90906 | 99.92167285 | 97.98301497 | 96.09158374 | 94.24593463 | 92.44467752 | 90.68647418 | 88.970036   | 87.29412175 |
| 191008A00033 | 10/8/2019                           | 1.71 | 10/8/2024  | 10/8/2019  | 102.00439 | 100.0105246 | 98.06561551 | 96.16814828 | 94.31666767 | 92.50977346 | 90.74611791 | 89.02440343 | 87.3433803  |
| 120517A00007 | 5/17/2012                           | 2.42 | 5/31/2023  | 5/17/2012  | 101.38521 | 100.7122336 | 100.0481707 | 99.39284211 | 98.74607652 | 98.10770699 | 97.47757093 | 96.85550989 | 96.24136949 |
| 160701A00019 | 7/1/2016                            | 1.73 | 7/3/2023   | 7/1/2016   | 100.93859 | 100.1784637 | 99.42974681 | 98.69218025 | 97.96551641 | 97.249515   | 96.54394273 | 95.84857308 | 95.16318606 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 180403A00006 | 4/3/2018                            | 3.07 | 4/3/2028   | 4/3/2018   | 114.99485 | 109.3211649 | 103.967413  | 98.91383023 | 94.14197717 | 89.63464135 | 85.37574942 | 81.350286   | 77.54421871 |
| 180529A00056 | 5/29/2018                           | 3    | 5/26/2023  | 5/29/2018  | 101.68564 | 101.0259752 | 100.3748629 | 99.73213709 | 99.0976365  | 98.47120388 | 97.852686   | 97.24193348 | 96.63880069 |
| 181005A00012 | 10/5/2018                           | 3.33 | 10/4/2024  | 10/5/2018  | 105.54263 | 103.5175659 | 101.5419707 | 99.61432101 | 97.73315201 | 95.897054   | 94.10466998 | 92.35469317 | 90.64586486 |
| 190619A00009 | 6/19/2019                           | 2.26 | 6/19/2024  | 6/19/2019  | 102.64932 | 100.942429  | 99.27196401 | 97.63682621 | 96.03595881 | 94.46834747 | 92.93301815 | 91.42903506 | 89.95549874 |
| 191002A00017 | 10/2/2019                           | 1.84 | 10/2/2024  | 10/2/2019  | 102.25015 | 100.2694248 | 98.33707865 | 96.45162953 | 94.61164867 | 92.81576087 | 91.06264203 | 89.35101692 | 87.67965696 |
| 200716A00015 | 7/20/2020                           | 1.54 | 7/19/2024  | 7/20/2020  | 101.45968 | 99.68440522 | 97.9485299  | 96.25090387 | 94.59042252 | 92.96602192 | 91.37667694 | 89.82139954 | 88.29923705 |
| 210216A00009 | 2/16/2021                           | 0.92 | 2/16/2027  | 2/16/2021  | 102.30296 | 98.03604299 | 93.96902145 | 90.09154887 | 86.39386764 | 82.8667706  | 79.50156718 | 76.29005188 | 73.22447474 |
| 090429A00044 | 4/29/2009                           | 4.1  | 4/29/2024  | 4/29/2014  | 100.43385 | 100.3475924 | 100.2388425 | 100.0293638 | 99.52330247 | 98.82426778 | 98.06774514 | 97.30449692 | 96.55102325 |
| 130416A00025 | 4/16/2013                           | 2.27 | 4/18/2028  | 4/16/2018  | 99.879694 | 99.30921393 | 98.10484561 | 96.32494549 | 94.17775568 | 91.87219101 | 89.55131621 | 87.28998742 | 85.11195708 |
| 140508A00011 | 5/8/2014                            | 2.32 | 5/8/2024   | 5/8/2019   | 100.24356 | 100.0882367 | 99.66330976 | 98.96607644 | 98.16996595 | 97.35778253 | 96.55389321 | 95.76327283 | 94.98608227 |
| 140723A00038 | 7/23/2014                           | 2.3  | 7/23/2024  | 7/23/2019  | 100.22915 | 100.0571785 | 99.5833822  | 98.82590647 | 97.95985598 | 97.0731155  | 96.19446969 | 95.33065935 | 94.48211713 |
| 141119A00005 | 11/19/2014                          | 2.53 | 11/19/2024 | 11/19/2019 | 100.22452 | 100.0416073 | 99.52958959 | 98.6915556  | 97.70585785 | 96.68099525 | 95.66034705 | 94.65721542 | 93.67334842 |
| 150202A00006 | 2/2/2015                            | 1.92 | 2/3/2025   | 2/3/2020   | 100.12289 | 99.75131952 | 99.00686168 | 97.99153732 | 96.87005332 | 95.73221225 | 94.60953865 | 93.50928725 | 92.43172715 |
| 151223A00007 | 12/23/2015                          | 3.76 | 12/23/2030 | 12/23/2022 | 100.42183 | 99.84646579 | 98.57080068 | 96.34839393 | 93.12000136 | 89.09005532 | 84.60177909 | 80.00958456 | 75.59060971 |
| 161012A00020 | 10/11/2016                          | 2.96 | 10/14/2031 | 10/11/2023 | 100.93788 | 99.31030737 | 96.91579668 | 93.59332959 | 89.36134879 | 84.5449821  | 79.56599044 | 74.75723261 | 70.27292441 |
| 170515A00052 | 5/15/2017                           | 3.78 | 5/15/2042  | 5/15/2024  | 103.48054 | 101.4290145 | 98.72992785 | 95.06504851 | 90.20281023 | 84.40099695 | 78.41388464 | 72.84329781 | 67.84080202 |
| 170519A00006 | 5/19/2017                           | 3    | 5/19/2032  | 5/19/2022  | 99.975776 | 99.46682849 | 98.18664502 | 96.010342   | 93.08565331 | 89.68999109 | 86.12400027 | 82.62220274 | 79.30073001 |
| 170705A00037 | 7/5/2017                            | 2.85 | 7/6/2032   | 7/6/2027   | 108.33903 | 104.3950998 | 100.4994382 | 96.62641756 | 92.780052   | 88.9775163  | 85.27374676 | 81.72959688 | 78.38438384 |
| 170802A00074 | 8/2/2017                            | 2.92 | 8/2/2027   | 8/2/2022   | 99.768377 | 99.42098006 | 98.31857564 | 96.41553547 | 93.93737869 | 91.11223854 | 88.15499806 | 85.22008878 | 82.38893954 |
| 170809A00042 | 8/9/2017                            | 2.35 | 8/9/2027   | 8/9/2022   | 99.974849 | 99.50573425 | 98.45448445 | 96.87141801 | 94.94907589 | 92.88060607 | 90.79315433 | 88.75200374 | 86.77821528 |
| 171004A00022 | 10/4/2017                           | 2.74 | 10/4/2027  | 10/4/2022  | 99.936771 | 99.43923911 | 98.25404584 | 96.32906816 | 93.82994129 | 90.98895045 | 88.02099574 | 85.08104963 | 82.24941052 |
| 171005A00047 | 10/5/2017                           | 3.29 | 10/5/2032  | 10/5/2022  | 99.960996 | 99.39568895 | 97.92434028 | 95.32674901 | 91.72134788 | 87.42933545 | 82.87237105 | 78.40677588 | 74.21781232 |
| 180105A00005 | 1/5/2018                            | 3.07 | 1/5/2028   | 1/5/2023   | 100.72166 | 100.1825776 | 99.28505171 | 97.93618532 | 96.14504946 | 94.0695598  | 91.87093795 | 89.66740761 | 87.52327328 |
| 180105A00006 | 1/5/2018                            | 3.07 | 1/5/2028   | 1/5/2023   | 100.72166 | 100.1825776 | 99.28505172 | 97.93618532 | 96.14504947 | 94.06955982 | 91.87093797 | 89.66740764 | 87.52327332 |
| 180130A00087 | 1/30/2018                           | 2.92 | 1/31/2028  | 1/30/2023  | 100.62136 | 100.0578726 | 99.10609001 | 97.68407603 | 95.83179952 | 93.72063458 | 91.50885833 | 89.30688534 | 87.16985975 |
| 180302A00003 | 3/2/2018                            | 3.89 | 3/2/2033   | 3/2/2023   | 100.93725 | 100.2170459 | 98.83995335 | 96.5234243  | 93.08585627 | 88.70501821 | 83.77351416 | 78.75268576 | 73.97555347 |
| 180315A00030 | 3/15/2018                           | 3.76 | 3/15/2033  | 3/17/2025  | 106.30987 | 103.421101  | 100.1903086 | 96.47404373 | 92.19293136 | 87.35045487 | 82.18660292 | 77.04741736 | 72.20702494 |
| 180504A00024 | 5/4/2018                            | 3.62 | 5/4/2028   | 5/4/2023   | 101.4953  | 100.5838559 | 99.24735332 | 97.35267726 | 94.79063025 | 91.63610425 | 88.09310541 | 84.40016101 | 80.76677813 |
| 180627A00005 | 6/27/2018                           | 3.63 | 6/30/2033  | 6/30/2023  | 101.51445 | 100.6001257 | 99.23975129 | 97.26127492 | 94.54278058 | 91.17041675 | 87.42400865 | 83.61174322 | 79.95486818 |
| 180703A00033 | 7/3/2018                            | 3.4  | 7/3/2028   | 7/3/2023   | 101.78527 | 100.8474764 | 99.65252769 | 98.14091357 | 96.2671382  | 94.09549171 | 91.76031064 | 89.39454527 | 87.08597207 |
| 190111A00040 | 1/11/2019                           | 3.74 | 1/11/2034  | 1/11/2024  | 102.96887 | 101.2629306 | 99.05215905 | 96.13352252 | 92.36902865 | 87.82945839 | 82.89776094 | 78.00539359 | 73.41841806 |
| 190116A00015 | 1/16/2019                           | 3.61 | 1/17/2034  | 1/16/2024  | 102.80438 | 101.2422712 | 99.29621706 | 96.83295411 | 93.74444499 | 90.10336493 | 86.15729385 | 82.21395249 | 78.47033187 |
| 190204A00054 | 2/4/2019                            | 3.98 | 2/6/2034   | 2/2/2024   | 103.07682 | 101.4200944 | 99.21851974 | 96.25163593 | 92.36666448 | 87.61094885 | 82.38001166 | 77.14956698 | 72.23905899 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 190222A00023 | 2/22/2019                           | 3.66 | 2/22/2034  | 2/22/2026  | 108.53225 | 104.5918332 | 100.3432896 | 95.67422971 | 90.48432631 | 84.87454616 | 79.09802808 | 73.50518917 | 68.32795815 |
| 190301A00015 | 3/1/2019                            | 3.86 | 3/1/2034   | 3/2/2026   | 108.77393 | 104.9948455 | 100.9150277 | 96.42691366 | 91.45087617 | 86.03085608 | 80.40176845 | 74.90815683 | 69.79887419 |
| 190409A00016 | 4/9/2019                            | 2.91 | 4/9/2029   | 4/9/2024   | 102.5196  | 100.7270281 | 98.59672281 | 96.0510763  | 93.05239767 | 89.70229604 | 86.19066646 | 82.71455431 | 79.39110205 |
| 190409A00017 | 4/9/2019                            | 3.01 | 4/9/2029   | 4/9/2024   | 102.55036 | 100.7566455 | 98.5499249  | 95.86110344 | 92.65295654 | 89.02514367 | 85.18652935 | 81.36561889 | 77.71107365 |
| 190430A00020 | 4/30/2019                           | 3.41 | 4/28/2034  | 4/28/2026  | 107.76261 | 103.6714788 | 99.24581647 | 94.34295109 | 88.93460237 | 83.1472936  | 77.30248371 | 71.73782398 | 66.62824641 |
| 190520A00018 | 5/20/2019                           | 3.7  | 5/20/2044  | 5/20/2024  | 103.1939  | 100.817297  | 97.60448557 | 93.19730279 | 87.47335216 | 81.01555171 | 74.72565426 | 69.05573843 | 64.02838925 |
| 190530A00044 | 5/30/2019                           | 2.85 | 5/30/2034  | 5/30/2024  | 102.3368  | 100.3016381 | 97.80623089 | 94.72676787 | 91.04988215 | 86.98528693 | 82.84901415 | 78.88714985 | 75.18799248 |
| 190807A00041 | 8/7/2019                            | 2.27 | 8/7/2034   | 7/7/2024   | 101.30681 | 98.91449304 | 95.95470699 | 92.36824957 | 88.26864496 | 83.98321297 | 79.81900892 | 75.91747638 | 72.2956405  |
| 190807A00044 | 8/7/2019                            | 2.27 | 8/7/2034   | 8/7/2024   | 101.43638 | 98.98280188 | 95.98117182 | 92.37487522 | 88.26940373 | 83.98323454 | 79.81900881 | 75.91747616 | 72.29564024 |
| 190827A00044 | 8/27/2019                           | 1.9  | 8/27/2029  | 8/27/2024  | 101.3576  | 99.37843534 | 97.14125473 | 94.63371639 | 91.91270121 | 89.1127969  | 86.35659018 | 83.70821878 | 81.18054078 |
| 190930A00079 | 9/30/2019                           | 2.04 | 10/1/2029  | 9/30/2024  | 101.62749 | 99.66091818 | 97.44612907 | 94.95677209 | 92.24211011 | 89.42647793 | 86.63873491 | 83.95436979 | 81.39250445 |
| 190930A00083 | 9/30/2019                           | 2.04 | 10/1/2029  | 9/30/2024  | 101.62748 | 99.66091778 | 97.44612834 | 94.95677093 | 92.24210842 | 89.42647568 | 86.63873209 | 83.95436646 | 81.39250064 |
| 191007A00012 | 10/7/2019                           | 2    | 10/5/2029  | 10/7/2024  | 101.46951 | 99.36953101 | 97.03124191 | 94.44295482 | 91.65859357 | 88.8070416  | 86.00741353 | 83.32126789 | 80.75995391 |
| 191007A00013 | 10/7/2019                           | 2    | 10/5/2029  | 10/7/2024  | 101.46951 | 99.36953089 | 97.0312417  | 94.44295448 | 91.65859309 | 88.80704096 | 86.00741275 | 83.32126697 | 80.75995286 |
| 191028A00015 | 10/28/2019                          | 2.49 | 10/27/2034 | 10/28/2024 | 102.23607 | 99.72143806 | 96.73252986 | 93.17883056 | 89.12088427 | 84.82383474 | 80.59448141 | 76.61415996 | 72.91906642 |
| 191031A00036 | 10/31/2019                          | 2.9  | 10/31/2039 | 10/31/2024 | 102.24894 | 99.44067876 | 95.88521822 | 91.38747267 | 86.10439302 | 80.55112174 | 75.25805642 | 70.43100211 | 66.06626938 |
| 191031A00037 | 10/31/2019                          | 2.59 | 10/30/2034 | 10/31/2024 | 102.00584 | 99.54941884 | 96.59421425 | 93.05748917 | 89.00417925 | 84.71680091 | 80.50533691 | 76.54520703 | 72.86877279 |
| 191220A00029 | 12/20/2019                          | 2.57 | 12/19/2031 | 12/20/2024 | 102.73076 | 100.3699776 | 97.73424765 | 94.76919247 | 91.48463087 | 88.01743731 | 84.55218669 | 81.22698022 | 78.08801001 |
| 200108A00009 | 1/8/2020                            | 2.4  | 1/8/2035   | 1/8/2025   | 102.2618  | 99.44474555 | 96.13376874 | 92.27307498 | 87.93733266 | 83.42713046 | 79.05577531 | 74.97563749 | 71.20438265 |
| 200108A00040 | 1/8/2020                            | 2.52 | 1/8/2030   | 1/8/2025   | 102.5118  | 99.8562617  | 96.80574507 | 93.30576182 | 89.38780517 | 85.22762574 | 81.06163453 | 77.06868404 | 73.31516848 |
| 200110A00012 | 1/10/2020                           | 2.57 | 1/10/2035  | 1/10/2025  | 102.48555 | 99.74864902 | 96.56045636 | 92.85744148 | 88.68641345 | 84.3179084  | 80.04887991 | 76.04490949 | 72.33351738 |
| 200115A00023 | 1/15/2020                           | 2.16 | 1/15/2030  | 1/15/2025  | 102.11343 | 99.85747842 | 97.41013219 | 94.74520397 | 91.89659261 | 88.97089052 | 86.08601917 | 83.31460419 | 80.67464052 |
| 200115A00025 | 1/15/2020                           | 2.1  | 1/15/2025  | 1/15/2023  | 100.12671 | 99.43772692 | 98.32321427 | 96.84353843 | 95.16241888 | 93.42979947 | 91.71596147 | 90.04136841 | 88.407894   |
| 200306A00021 | 3/6/2020                            | 1.16 | 3/6/2030   | 3/6/2025   | 99.862621 | 97.32194698 | 94.53771282 | 91.55169356 | 88.497129   | 85.5083553  | 82.64991947 | 79.93229647 | 77.3491001  |
| 200309A00013 | 3/9/2020                            | 1.1  | 3/8/2030   | 3/9/2025   | 99.712362 | 97.15821793 | 94.35721839 | 91.35804417 | 88.29958717 | 85.31437715 | 82.46192741 | 79.75041057 | 77.17304066 |
| 200316A00030 | 3/16/2020                           | 1.35 | 3/15/2030  | 3/16/2025  | 100.67278 | 98.19090465 | 95.48610995 | 92.56813927 | 89.53598128 | 86.5264759  | 83.62931484 | 80.87140799 | 78.2499872  |
| 200316A00032 | 3/16/2020                           | 1.35 | 3/15/2030  | 3/16/2025  | 100.67278 | 98.19090449 | 95.48610964 | 92.5681388  | 89.53598064 | 86.52647507 | 83.62931385 | 80.87140684 | 78.2499859  |
| 200318A00015 | 3/18/2020                           | 1.69 | 3/18/2030  | 3/18/2023  | 99.341935 | 98.00109816 | 95.91133897 | 93.18291769 | 90.10554113 | 86.951807   | 83.88233027 | 80.95550924 | 78.17627164 |
| 200326A00035 | 3/26/2020                           | 1.68 | 3/26/2030  | 3/26/2025  | 101.14879 | 98.70646501 | 96.05680323 | 93.19360211 | 90.19530662 | 87.19240726 | 84.28605643 | 81.51522076 | 78.88088505 |
| 200423A00008 | 4/23/2020                           | 1.59 | 4/23/2030  | 4/23/2025  | 100.35505 | 97.02347602 | 93.18908651 | 88.84151114 | 84.1804841  | 79.50705007 | 75.03947631 | 70.85678562 | 66.95846372 |
| 200423A00009 | 4/23/2020                           | 1.59 | 4/23/2030  | 4/23/2025  | 100.35505 | 97.0234762  | 93.18908684 | 88.84151164 | 84.18048479 | 79.50705096 | 75.03947738 | 70.85678686 | 66.9584651  |
| 200423A00010 | 4/23/2020                           | 1.59 | 4/23/2030  | 4/23/2025  | 100.35505 | 97.02347636 | 93.18908708 | 88.84151198 | 84.18048526 | 79.50705156 | 75.0394781  | 70.85678769 | 66.95846603 |
| 200430A00021 | 4/30/2020                           | 1.2  | 4/30/2030  | 4/30/2025  | 99.941137 | 97.39311973 | 94.59794173 | 91.59398094 | 88.51407425 | 85.49644538 | 82.60998653 | 79.86680505 | 77.26059009 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 200505A00010 | 5/5/2020                            | 0.89 | 5/6/2030   | 5/5/2025   | 99.603549 | 96.92008663 | 94.0075382  | 90.91723795 | 87.78845757 | 84.74779373 | 81.84866956 | 79.09622127 | 76.4827802  |
| 200512A00023 | 5/12/2020                           | 1.78 | 5/11/2035  | 5/12/2025  | 100.14202 | 96.2589526  | 91.64217627 | 86.34047305 | 80.76789446 | 75.38292636 | 70.41762322 | 65.90275148 | 61.80208435 |
| 200609A00003 | 6/9/2020                            | 1.66 | 6/8/2035   | 6/9/2025   | 99.246478 | 94.91578972 | 89.68077341 | 83.73885144 | 77.60668002 | 71.78016902 | 66.46499278 | 61.6711494  | 57.35044418 |
| 200612A00001 | 6/12/2020                           | 0.75 | 6/12/2030  | 6/12/2025  | 99.265553 | 96.49883445 | 93.50663555 | 90.3563986  | 87.19454546 | 84.13903994 | 81.23196935 | 78.4739217  | 75.85645422 |
| 201022A00008 | 10/22/2020                          | 1.02 | 10/22/2035 | 10/22/2025 | 98.670162 | 94.68901942 | 90.20079001 | 85.39719046 | 80.63573618 | 76.15878634 | 72.02876141 | 68.22758549 | 64.72520842 |
| 201029A00008 | 10/29/2020                          | 0.92 | 10/29/2030 | 10/29/2025 | 99.495143 | 96.53648829 | 93.39471748 | 90.12412908 | 86.85651477 | 83.70501812 | 80.71170346 | 77.87699466 | 75.19162554 |
| 201030A00025 | 10/30/2020                          | 2.02 | 10/28/2050 | 10/30/2025 | 99.518717 | 93.77907423 | 86.61645547 | 78.60735973 | 70.86024214 | 63.98988561 | 58.05142246 | 52.93823961 | 48.52716366 |
| 201116A00019 | 11/16/2020                          | 1.32 | 11/15/2030 | 11/16/2025 | 99.626316 | 95.83216279 | 91.61976127 | 87.05396024 | 82.36981541 | 77.82432402 | 73.55083274 | 69.57310695 | 65.87461256 |
| 201118A00015 | 11/18/2020                          | 1.66 | 11/18/2036 | 11/18/2027 | 100.99848 | 94.64299759 | 87.86016465 | 80.84173994 | 73.98951581 | 67.65909741 | 61.98258439 | 56.93363921 | 52.44226957 |
| 201118A00017 | 11/18/2020                          | 1.66 | 11/18/2036 | 11/18/2027 | 100.99848 | 94.64299986 | 87.86016801 | 80.84174448 | 73.98952149 | 67.65910409 | 61.98259188 | 56.93364736 | 52.44227823 |
| 201118A00018 | 11/18/2020                          | 1.85 | 11/18/2036 | 11/18/2027 | 101.35449 | 95.06508396 | 88.34884735 | 81.38199338 | 74.55741627 | 68.23312251 | 62.55318703 | 57.49746034 | 52.99761038 |
| 201202A00016 | 12/2/2020                           | 1.32 | 12/3/2035  | 12/2/2025  | 99.393544 | 95.38765825 | 90.92378567 | 86.13347155 | 81.33686748 | 76.8020132  | 72.61379061 | 68.76077049 | 65.21279397 |
| 201202A00017 | 12/2/2020                           | 1.32 | 12/3/2035  | 12/2/2025  | 99.393545 | 95.38765908 | 90.92378702 | 86.13347352 | 81.33687013 | 76.8020165  | 72.6137945  | 68.76077491 | 65.21279886 |
| 201229A00003 | 12/29/2020                          | 1.28 | 12/30/2030 | 12/30/2025 | 99.511349 | 95.62645391 | 91.32939493 | 86.69190191 | 81.95755426 | 77.38011793 | 73.08509462 | 69.09174153 | 65.38198186 |
| 201230A00018 | 12/30/2020                          | 1.52 | 12/28/2035 | 12/28/2027 | 100.59574 | 94.28740642 | 87.62116379 | 80.77340478 | 74.10456962 | 67.93051665 | 62.37007985 | 57.39994969 | 52.95704282 |
| 210108A00007 | 1/8/2021                            | 1.65 | 1/8/2036   | 1/8/2026   | 99.64333  | 94.80677847 | 89.17292807 | 82.94821627 | 76.64117641 | 70.70509501 | 65.32127409 | 60.48567096 | 56.14336143 |
| 210225A00010 | 2/25/2021                           | 2.02 | 2/25/2041  | 2/25/2026  | 101.11765 | 96.47484028 | 91.11360351 | 85.15050239 | 79.0777075  | 73.3845397  | 68.24725202 | 63.64199771 | 59.50704666 |
| 210405A00013 | 4/5/2021                            | 1.82 | 4/7/2036   | 4/5/2026   | 101.58509 | 97.57313208 | 93.17392696 | 88.43108986 | 83.56325177 | 78.85717299 | 74.47712426 | 70.44845529 | 66.74482287 |
| 210622A00004 | 6/22/2021                           | 2.42 | 6/20/2036  | 6/22/2026  | 103.09007 | 98.31760359 | 92.94541785 | 86.95382949 | 80.64941201 | 74.49276492 | 68.81099458 | 63.69214423 | 59.10115117 |
| 210910A00009 | 9/10/2021                           | 1.77 | 9/10/2036  | 9/10/2026  | 102.34818 | 98.03600128 | 93.39727562 | 88.4716447  | 83.4571102  | 78.62083494 | 74.12699339 | 70.00291256 | 66.22070818 |
| 210924A00016 | 9/24/2021                           | 1.91 | 9/24/2036  | 9/24/2026  | 102.94666 | 98.67903044 | 94.09364559 | 89.22119776 | 84.22644799 | 79.37003935 | 74.83816236 | 70.6749742  | 66.85658719 |
| 211019A00005 | 10/19/2021                          | 2.49 | 10/20/2036 | 10/19/2026 | 104.5365  | 99.57310798 | 94.05611608 | 87.98712397 | 81.59707954 | 75.30633018 | 69.47241571 | 64.21536709 | 59.50911727 |
| 211110A00017 | 11/10/2021                          | 2.01 | 11/10/2036 | 11/10/2026 | 103.56963 | 99.20137747 | 94.54847734 | 89.63020882 | 84.59054366 | 79.68087446 | 75.09148956 | 70.87617818 | 67.0130282  |
| 211116A00012 | 11/16/2021                          | 2.22 | 12/18/2034 | 11/16/2026 | 104.24381 | 100.2030711 | 96.00731777 | 91.62730647 | 87.14724676 | 82.72736124 | 78.52545443 | 74.61432432 | 70.99146515 |
| 211124A00008 | 11/24/2021                          | 2.62 | 11/22/2041 | 11/24/2026 | 105.54887 | 100.6391425 | 95.22714644 | 89.27987981 | 83.02158421 | 76.90191338 | 71.28658106 | 66.25515209 | 61.75566801 |
| 211215A00020 | 12/15/2021                          | 1.85 | 12/15/2031 | 12/15/2026 | 103.36278 | 99.77384356 | 96.14888199 | 92.48590873 | 88.82395154 | 85.24659903 | 81.82798601 | 78.60054576 | 75.56223591 |
| 211227A00012 | 12/27/2021                          | 2.39 | 12/29/2036 | 12/27/2028 | 107.14895 | 100.3398531 | 93.37203684 | 86.26954788 | 79.24133081 | 72.57350369 | 66.48760105 | 61.04678842 | 56.20648716 |
| 220217A00024 | 2/17/2022                           | 2.43 | 2/17/2027  | 2/17/2025  | 103.13182 | 100.8104984 | 98.3711381  | 95.7949176  | 93.08821558 | 90.30502462 | 87.52543008 | 84.81869648 | 82.21610926 |
| 220617A00069 | 6/17/2022                           | 4.06 | 6/17/2027  | 6/17/2025  | 107.95673 | 105.4174422 | 102.8649828 | 100.2871546 | 97.65949574 | 94.96645068 | 92.20344073 | 89.39434384 | 86.60487707 |
| 220831A00108 | 8/31/2022                           | 4.07 | 8/31/2027  | 9/2/2025   | 109.02519 | 106.1014362 | 103.1845559 | 100.2587247 | 97.29807872 | 94.28677762 | 91.22067845 | 88.12451642 | 85.06600683 |
| 210611A00010 | 6/11/2021                           | 1.02 | 6/11/2026  | 6/11/2021  | 101.40465 | 98.05837772 | 94.84418768 | 91.75607926 | 88.78836574 | 85.93565257 | 83.1928203  | 80.55500874 | 78.01760211 |
| 160608A00029 | 6/8/2016                            | 2.36 | 6/8/2026   | 6/8/2016   | 105.93966 | 102.5569054 | 99.30606635 | 96.18119366 | 93.17664646 | 90.28707203 | 87.50738918 | 84.83277265 | 82.2586385  |
| 210915A00018 | 9/15/2021                           | 0.74 | 9/16/2024  | 9/15/2021  | 100.02477 | 98.17743041 | 96.37405544 | 94.61332623 | 92.89397233 | 91.21476984 | 89.57453934 | 87.97214399 | 86.40648766 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 160212A00047 | 2/12/2016                           | 1.94 | 2/12/2026  | 2/12/2016  | 102.22538 | 100.4754857 | 98.77392959 | 97.11898197 | 95.50899032 | 93.94237324 | 92.41761683 | 90.93327131 | 89.48794784 |
| 170711A00010 | 7/11/2017                           | 2.38 | 7/12/2027  | 7/11/2017  | 104.75794 | 102.2489275 | 99.83130042 | 97.50094384 | 95.25395929 | 93.08665145 | 90.99551608 | 88.97722886 | 87.02863484 |
| 200514A00008 | 5/14/2020                           | 1.23 | 5/14/2030  | 5/14/2020  | 104.12149 | 98.22138736 | 92.73556085 | 87.63183955 | 82.88074516 | 78.45524936 | 74.33055689 | 70.48390895 | 66.89440492 |
| 170504A00049 | 5/4/2017                            | 2.63 | 5/6/2024   | 5/4/2017   | 102.98163 | 101.4239672 | 99.89783821 | 98.40234818 | 96.93663533 | 95.49987003 | 94.09125327 | 92.71001524 | 91.35541399 |
| 171207A00025 | 12/7/2017                           | 2.91 | 12/7/2027  | 12/7/2017  | 111.24242 | 106.4958516 | 101.9945932 | 97.72444578 | 93.67211874 | 89.82516252 | 86.17191036 | 82.70142464 | 79.40344712 |
| 200421A00026 | 4/21/2020                           | 1.34 | 4/19/2030  | 4/21/2020  | 104.77527 | 98.88757045 | 93.41011987 | 88.31129881 | 83.56210898 | 79.13594463 | 75.00838231 | 71.15699021 | 67.56115551 |
| 120807A00026 | 8/7/2012                            | 2.42 | 8/9/2027   | 8/7/2012   | 104.59154 | 102.051339  | 99.60477701 | 97.24759808 | 94.97576948 | 92.78547017 | 90.67307815 | 88.63515878 | 86.66845375 |
| 190205A00020 | 2/5/2019                            | 3.32 | 2/5/2029   | 2/5/2019   | 115.85637 | 110.0163306 | 104.5334028 | 99.38346938 | 94.54417156 | 89.99477222 | 85.71603033 | 81.69008544 | 77.90035176 |
| 190305A00017 | 3/5/2019                            | 3.12 | 3/5/2026   | 3/5/2019   | 107.81245 | 104.6355415 | 101.5749336 | 98.6257017  | 95.78315969 | 93.04284467 | 90.40050526 | 87.85209038 | 85.39373863 |
| 151120A00019 | 11/20/2015                          | 2.72 | 11/20/2030 | 11/20/2015 | 109.85086 | 105.4924657 | 101.3824847 | 97.50413779 | 93.84191822 | 90.38148437 | 87.10956394 | 84.01386672 | 81.08300497 |
| 180402A00013 | 4/2/2018                            | 2.99 | 4/3/2028   | 4/2/2018   | 111.0671  | 106.7262569 | 102.6081879 | 98.69982619 | 94.98895005 | 91.4641247  | 88.11464726 | 84.93049572 | 81.90228178 |
| 180713A00031 | 7/13/2018                           | 3.06 | 7/14/2025  | 7/13/2018  | 103.52324 | 102.0421801 | 100.5968353 | 99.1860493  | 97.80871258 | 96.46376028 | 95.1501701  | 93.8669602  | 92.61318724 |
| 160908A00025 | 9/8/2016                            | 2.21 | 9/8/2026   | 9/8/2016   | 105.86941 | 102.285115  | 98.84871357 | 95.55326048 | 92.39217839 | 89.35923276 | 86.44851205 | 83.65440922 | 80.97160442 |
| 170407A00001 | 4/6/2017                            | 2.97 | 4/6/2027   | 4/6/2017   | 109.61673 | 105.628347  | 101.8211901 | 98.18590461 | 94.71366925 | 91.39616563 | 88.22554666 | 85.1944073  | 82.29575714 |
| 181003A00019 | 10/3/2018                           | 3.44 | 10/3/2025  | 10/3/2018  | 107.98322 | 105.0555901 | 102.2255427 | 99.48926863 | 96.84312581 | 94.28363536 | 91.80747321 | 89.41146225 | 87.09256492 |
| 220308A00012 | 3/8/2022                            | 2.51 | 3/8/2032   | 3/8/2022   | 114.01051 | 106.4304785 | 99.48218324 | 93.10756401 | 87.25426406 | 81.87503852 | 76.92722748 | 72.37228596 | 68.1753645  |
| 150320A00019 | 3/20/2015                           | 2.25 | 3/20/2025  | 3/20/2015  | 103.52873 | 101.4332745 | 99.39548858 | 97.41341669 | 95.48518406 | 93.60899124 | 91.78311061 | 90.00588298 | 88.27571445 |
| 150803A00038 | 8/3/2015                            | 3.41 | 8/2/2030   | 8/3/2015   | 118.37716 | 111.631833  | 105.3674957 | 99.54616732 | 94.13308782 | 89.09643155 | 84.40704412 | 80.03820409 | 75.96540721 |
| 160608A00019 | 6/8/2016                            | 2.36 | 6/8/2026   | 6/8/2016   | 105.93966 | 102.5569054 | 99.30606635 | 96.18119371 | 93.17664654 | 90.28707215 | 87.50738934 | 84.83277283 | 82.25863871 |
| 190826A00032 | 8/26/2019                           | 1.72 | 8/24/2029  | 8/26/2019  | 104.64119 | 101.1005979 | 97.73470129 | 94.5331723  | 91.48637827 | 88.58532622 | 85.82161592 | 83.18739672 | 80.67532789 |
| 191008A00007 | 10/8/2019                           | 1.67 | 10/9/2029  | 10/8/2019  | 104.57254 | 100.9528162 | 97.51537101 | 94.24922666 | 91.1441553  | 88.19061999 | 85.37972321 | 82.70315962 | 80.15317256 |
| 200319A00035 | 3/19/2020                           | 1.72 | 3/18/2033  | 3/19/2020  | 107.8097  | 101.3812994 | 95.47294875 | 90.03645666 | 85.02849694 | 80.41008575 | 76.14611689 | 72.20494961 | 68.55804265 |
| 200910A00006 | 9/10/2020                           | 0.96 | 9/10/2027  | 9/10/2020  | 102.06134 | 97.64896921 | 93.46031257 | 89.48279011 | 85.70459853 | 82.11465551 | 78.70255205 | 75.45850806 | 72.3733312  |
| 190227A00033 | 2/27/2019                           | 2.65 | 2/27/2026  | 2/27/2019  | 103.73844 | 101.9581124 | 100.2270937 | 98.54361797 | 96.90599473 | 95.31260658 | 93.76190536 | 92.25240867 | 90.78269657 |
| 190403A00010 | 4/3/2019                            | 3.08 | 4/3/2029   | 4/3/2019   | 115.25363 | 109.1402754 | 103.4135737 | 98.04665518 | 93.01466195 | 88.29458789 | 83.86513107 | 79.70655885 | 75.80058431 |
| 160524A00028 | 5/24/2016                           | 2.06 | 5/24/2023  | 5/24/2016  | 101.04996 | 100.4041376 | 99.76659949 | 99.13718721 | 98.51574581 | 97.90212427 | 97.29617537 | 96.69775558 | 96.10672492 |
| 160908A00035 | 9/8/2016                            | 2.3  | 9/8/2031   | 9/8/2016   | 108.11083 | 103.4199616 | 99.01948693 | 94.88821904 | 91.00669138 | 87.35700967 | 83.92271366 | 80.68865187 | 77.64086821 |
| 161229A00018 | 12/29/2016                          | 2.46 | 12/29/2026 | 12/29/2016 | 104.29486 | 102.0872891 | 99.95217968 | 97.88654906 | 95.8875575  | 93.95250257 | 92.0788114  | 90.2640336  | 88.50583451 |
| 181129A00005 | 11/29/2018                          | 3.21 | 11/29/2023 | 11/29/2018 | 102.84606 | 101.6967375 | 100.5733773 | 99.47510771 | 98.40109217 | 97.35053087 | 96.3226589  | 95.31674434 | 94.3320865  |
| 191112A00024 | 11/12/2019                          | 2.09 | 11/12/2024 | 11/12/2019 | 102.8379  | 100.8006697 | 98.81458595 | 96.87801468 | 94.98938283 | 93.14717972 | 91.34995399 | 89.59631082 | 87.88490922 |
| 180716A00062 | 7/16/2018                           | 2.91 | 7/16/2025  | 7/16/2018  | 103.49223 | 102.0086774 | 100.5609683 | 99.14793876 | 97.76847364 | 96.42150283 | 95.10599899 | 93.82097551 | 92.56548454 |
| 160824A00019 | 8/24/2016                           | 1.98 | 8/25/2031  | 8/24/2016  | 107.1933  | 102.5669528 | 98.22541432 | 94.14800921 | 90.31574004 | 86.7111361  | 83.31811975 | 80.12188536 | 77.10878956 |
| 170713A00021 | 7/13/2017                           | 3.25 | 7/13/2037  | 7/13/2017  | 127.47101 | 115.3649433 | 104.7195619 | 95.34120707 | 87.06341053 | 79.74291201 | 73.25627914 | 67.49703749 | 62.37323167 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 181115A00044 | 11/15/2018                          | 3.26 | 11/15/2023 | 11/15/2018 | 102.80078 | 101.6928031 | 100.6090271 | 99.54865842 | 98.51094034 | 97.49514834 | 96.50058863 | 95.52659648 | 94.57253474 |
| 200317A00043 | 3/17/2020                           | 1.29 | 3/15/2030  | 3/17/2020  | 103.35982 | 99.57972359 | 95.99967566 | 92.60706259 | 89.39017015 | 86.33810955 | 83.44075355 | 80.6886779  | 78.0731077  |
| 190708A00032 | 7/8/2019                            | 2.58 | 7/2/2029   | 7/8/2019   | 112.59162 | 106.3926726 | 100.5988413 | 95.1810775  | 90.11258033 | 85.36860907 | 80.9263133  | 76.76457835 | 72.86388408 |
| 210217A00005 | 2/17/2021                           | 0.83 | 2/14/2031  | 2/17/2021  | 101.75176 | 97.59525774 | 93.68200862 | 89.99517892 | 86.51923513 | 83.23983778 | 80.14374125 | 77.21870256 | 74.4533984  |
| 210212A00006 | 2/12/2021                           | 0.77 | 2/12/2026  | 2/12/2021  | 100.3616  | 97.27119665 | 94.29433597 | 91.42624849 | 88.66238801 | 85.99842241 | 83.43022245 | 80.95385119 | 78.56555396 |
| 160705A00010 | 7/5/2016                            | 1.68 | 7/5/2023   | 7/5/2016   | 100.89677 | 100.1402615 | 99.39514273 | 98.66115307 | 97.93804406 | 97.22557462 | 96.52351079 | 95.83162539 | 95.14969787 |
| 190708A00026 | 7/8/2019                            | 2.21 | 7/1/2024   | 7/8/2019   | 102.56155 | 100.8623258 | 99.19975065 | 97.57270208 | 95.98010668 | 94.42093467 | 92.89419762 | 91.39894632 | 89.93426879 |
| 210423A00003 | 4/23/2021                           | 1.31 | 4/23/2031  | 4/23/2021  | 103.91412 | 99.58910347 | 95.52161225 | 91.69352545 | 88.08815181 | 84.69010274 | 81.48518144 | 78.46028209 | 75.60329826 |
| 151113A00035 | 11/13/2015                          | 1.8  | 11/14/2022 | 11/13/2015 | 100.28518 | 100.1794996 | 100.0740551 | 99.96884687 | 99.86387404 | 99.75913578 | 99.65463126 | 99.55035964 | 99.44632012 |
| 160307A00024 | 3/7/2016                            | 2.17 | 3/6/2026   | 3/7/2016   | 102.70476 | 100.9060167 | 99.1578621  | 97.45845913 | 95.80605516 | 94.1989738  | 92.63561092 | 91.11443104 | 89.63396385 |
| 200501A00009 | 5/4/2020                            | 0.67 | 5/1/2025   | 5/4/2020   | 99.970849 | 98.62192854 | 97.3042069  | 96.01670522 | 94.75848328 | 93.52863782 | 92.32630073 | 91.15063743 | 90.00084525 |
| 151223A00036 | 12/23/2015                          | 2.64 | 12/23/2025 | 12/23/2015 | 104.08877 | 101.9817366 | 99.94145509 | 97.96527512 | 96.05067015 | 94.19523305 | 92.39666946 | 90.65279161 | 88.96151245 |
| 190605A00023 | 6/5/2019                            | 2.64 | 6/5/2029   | 6/5/2019   | 112.84914 | 106.6987308 | 100.9464033 | 95.56388454 | 90.52506374 | 85.80581822 | 81.38385161 | 77.23854574 | 73.35082549 |
| 141015A00029 | 10/15/2014                          | 2.32 | 10/15/2024 | 10/15/2014 | 103.10444 | 101.3325354 | 99.60296227 | 97.91441701 | 96.26564464 | 94.65543801 | 93.08263564 | 91.54611965 | 90.04481368 |
| 200406A00029 | 4/6/2020                            | 1.61 | 4/5/2030   | 4/6/2020   | 107.04719 | 100.5259288 | 94.47369513 | 88.85374942 | 83.63243123 | 78.77888253 | 74.26480023 | 70.06421182 | 66.15327181 |
| 210809A00013 | 8/9/2021                            | 1.05 | 8/7/2026   | 8/9/2021   | 101.59094 | 98.18970938 | 94.92648214 | 91.79490302 | 88.78894006 | 85.90286943 | 83.1312581  | 80.4689475  | 77.91103827 |
| 150414A00037 | 4/14/2015                           | 2.34 | 4/14/2025  | 4/14/2015  | 102.2382  | 100.8989361 | 99.590046   | 98.31058518 | 97.05965035 | 95.83637342 | 94.6399198  | 93.46948677 | 92.32430206 |
| 180717A00021 | 7/17/2018                           | 3.34 | 7/17/2028  | 7/17/2018  | 113.96694 | 108.8868852 | 104.089167  | 99.55620788 | 95.27162275 | 91.2201348  | 87.38749456 | 83.76040513 | 80.32645338 |
| 150604A00039 | 6/4/2015                            | 2.82 | 6/4/2030   | 6/4/2015   | 109.76463 | 105.6233684 | 101.7075454 | 98.00257583 | 94.4949329  | 91.17206656 | 88.02232609 | 85.03488945 | 82.19969847 |
| 200406A00032 | 4/6/2020                            | 1.09 | 4/4/2025   | 4/6/2020   | 100.90557 | 98.54566725 | 96.25413925 | 94.02860601 | 91.86678115 | 89.76647205 | 87.72557538 | 85.74207284 | 83.81402718 |
| 131018A00006 | 10/18/2013                          | 3.28 | 10/20/2025 | 10/18/2013 | 107.38024 | 104.6445321 | 101.9988091 | 99.43955394 | 96.96340543 | 94.56715436 | 92.24773561 | 90.00222071 | 87.82781086 |
| 140821A00030 | 8/21/2014                           | 2.27 | 8/21/2024  | 8/21/2014  | 101.76174 | 100.7552662 | 99.76804061 | 98.79951866 | 97.84917832 | 96.91651706 | 96.00105091 | 95.10231362 | 94.21985584 |
| 170201A00016 | 2/1/2017                            | 2.49 | 2/1/2024   | 2/1/2017   | 102.43415 | 101.1261977 | 99.84138771 | 98.57915444 | 97.33895231 | 96.1202529  | 94.92254432 | 93.74533053 | 92.58813076 |
| 150617A00018 | 6/17/2015                           | 2.45 | 6/17/2025  | 6/17/2015  | 102.53499 | 101.1089818 | 99.7166799  | 98.35700745 | 97.02893172 | 95.73146121 | 94.46364356 | 93.22456378 | 92.01334236 |
| 170322A00033 | 3/22/2017                           | 3.61 | 3/24/2042  | 3/22/2017  | 127.71544 | 116.1455444 | 106.0003115 | 97.07868567 | 89.21043604 | 82.25114609 | 76.07805349 | 70.58659278 | 65.68751743 |
| 190315A00017 | 3/15/2019                           | 2.88 | 3/15/2034  | 3/15/2019  | 114.52653 | 108.2351815 | 102.4284174 | 97.06276293 | 92.09904656 | 87.50194232 | 83.23956279 | 79.28309791 | 75.60649415 |
| 150617A00030 | 6/17/2015                           | 2.91 | 6/16/2025  | 6/17/2015  | 105.46736 | 102.9915616 | 100.5900665 | 98.26013698 | 95.99916037 | 93.80463905 | 91.67418453 | 89.60551169 | 87.59643352 |
| 160413A00021 | 4/13/2016                           | 2.48 | 4/13/2026  | 4/13/2016  | 106.04283 | 102.7836191 | 99.64745667 | 96.62898326 | 93.72310124 | 90.92496358 | 88.22995991 | 85.6337036  | 83.13201953 |
| 170619A00096 | 6/16/2017                           | 2.79 | 6/16/2027  | 6/16/2017  | 109.70436 | 105.3884356 | 101.2784193 | 97.36322813 | 93.63243981 | 90.07625133 | 86.68543835 | 83.45131758 | 80.36571176 |
| 191004A00023 | 10/4/2019                           | 2.02 | 10/4/2029  | 10/4/2019  | 109.35049 | 103.0977489 | 97.26820434 | 91.83055083 | 86.75596951 | 82.01791563 | 77.59192761 | 73.45545295 | 69.58768974 |
| 210611A00007 | 6/11/2021                           | 0.61 | 6/11/2024  | 6/11/2021  | 99.798491 | 98.19058139 | 96.61655338 | 95.07539543 | 93.56613633 | 92.08784335 | 90.63962029 | 89.22060565 | 87.82997093 |
| 160608A00024 | 6/8/2016                            | 2.36 | 6/8/2026   | 6/8/2016   | 105.93966 | 102.5569055 | 99.30606634 | 96.18119358 | 93.17664631 | 90.28707181 | 87.50738891 | 84.83277232 | 82.25863811 |
| 170317A00044 | 3/17/2017                           | 3.11 | 3/17/2027  | 3/17/2017  | 110.05302 | 106.0940429 | 102.3130509 | 98.70095394 | 95.24917488 | 91.94962012 | 88.79464962 | 85.77704904 | 82.89000371 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 191101A00004 | 11/1/2019                           | 1.91 | 11/1/2029  | 11/1/2019  | 108.78265 | 102.9836841 | 97.56803836 | 92.50761283 | 87.77653063 | 83.35095236 | 79.20890466 | 75.33012397 | 71.69591433 |
| 160810A00029 | 8/10/2016                           | 2.17 | 8/10/2026  | 8/10/2016  | 105.58519 | 102.0720997 | 98.70142663 | 95.46660099 | 92.36139553 | 89.3799015  | 86.51651067 | 83.76589848 | 81.12300815 |
| 180925A00116 | 9/25/2018                           | 3.28 | 9/25/2028  | 9/25/2018  | 108.95298 | 105.7384853 | 102.6643907 | 99.72327057 | 96.90814842 | 94.21246666 | 91.63005844 | 89.15512175 | 86.78219531 |
| 190529A00061 | 5/29/2019                           | 2.46 | 5/29/2026  | 5/29/2019  | 103.40558 | 101.5104102 | 99.67053573 | 97.88389247 | 96.14850748 | 94.46249579 | 92.8240558  | 91.23146499 | 89.68307586 |
| 150825A00008 | 8/25/2015                           | 2.82 | 8/25/2025  | 8/25/2015  | 105.5905  | 102.9595749 | 100.4121712 | 97.94515728 | 95.55553505 | 93.24043554 | 90.99711258 | 88.82293688 | 86.7153903  |
| 180206A00048 | 2/6/2018                            | 2.72 | 2/6/2023   | 2/6/2018   | 100.95242 | 100.595725  | 100.241559  | 99.8898944  | 99.5407046  | 99.19396355 | 98.84964547 | 98.50772501 | 98.16817711 |
| 200330A00047 | 3/30/2020                           | 1.5  | 3/30/2035  | 3/30/2020  | 105.36304 | 99.12744894 | 93.40755489 | 88.15382009 | 83.32194426 | 78.87226889 | 74.76925431 | 70.98101928 | 67.47893518 |
| 210913A00014 | 9/13/2021                           | 1.15 | 9/13/2028  | 9/13/2021  | 101.75492 | 98.7605907  | 95.89675489 | 93.1565237  | 90.53342643 | 88.02137989 | 85.61466261 | 83.3078908  | 81.09599621 |
| 110701A00011 | 7/1/2011                            | 3.87 | 7/1/2026   | 7/1/2011   | 106.43996 | 104.406097  | 102.4335639 | 100.5200041 | 98.66317133 | 96.86092203 | 95.11120967 | 93.4120797  | 91.76166471 |
| 190131A00023 | 1/31/2019                           | 3.02 | 1/30/2034  | 1/31/2019  | 115.22173 | 108.9785299 | 103.2100851 | 97.87431279 | 92.93325266 | 88.35262828 | 84.10146153 | 80.15172999 | 76.47806205 |
| 210714A00012 | 7/14/2021                           | 1.12 | 7/14/2026  | 7/14/2021  | 101.83244 | 98.40098947 | 95.10772464 | 91.94629011 | 88.91066138 | 85.99512453 | 83.19425833 | 80.5029174  | 77.91621649 |
| 151124A00007 | 11/24/2015                          | 1.98 | 11/23/2022 | 11/24/2015 | 100.3213  | 100.2031727 | 100.085352  | 99.9678317  | 99.85061061 | 99.73368753 | 99.61706125 | 99.50073059 | 99.38469435 |
| 160104A00020 | 1/4/2016                            | 2.47 | 1/4/2023   | 1/4/2016   | 100.71121 | 100.4450805 | 100.1803646 | 99.91704727 | 99.65511747 | 99.39456422 | 99.1353767  | 98.87754416 | 98.62105598 |
| 191009A00009 | 10/9/2019                           | 1.8  | 10/9/2026  | 10/9/2019  | 102.41229 | 100.3318428 | 98.31738552 | 96.36627652 | 94.47600272 | 92.64416927 | 90.86849313 | 89.14679706 | 87.47700398 |
| 151229A00026 | 12/29/2015                          | 2.28 | 12/29/2025 | 12/29/2015 | 102.9165  | 101.2329937 | 99.59440587 | 97.99917381 | 96.44579801 | 94.93284254 | 93.45893185 | 92.02274774 | 90.62302655 |
| 160412A00029 | 4/12/2016                           | 2.48 | 4/14/2031  | 4/12/2016  | 108.58013 | 104.0770247 | 99.84136716 | 95.85438064 | 92.09876602 | 88.55857145 | 85.21907791 | 82.06669518 | 79.08886725 |
| 160923A00009 | 9/23/2016                           | 2.24 | 9/23/2031  | 9/23/2016  | 107.82375 | 103.1448972 | 98.75574087 | 94.63513905 | 90.76366839 | 87.12347467 | 83.69813481 | 80.47253193 | 77.43274206 |
| 191112A00022 | 11/12/2019                          | 2.36 | 11/13/2029 | 11/12/2019 | 111.67445 | 105.2317789 | 99.22990429 | 93.6358487  | 88.41928544 | 83.55230928 | 79.00923046 | 74.7663873  | 70.80197564 |
| 171204A00024 | 12/4/2017                           | 2.71 | 12/4/2024  | 12/4/2017  | 104.23957 | 102.1320691 | 100.0784664 | 98.07699313 | 96.12595539 | 94.22372832 | 92.36875272 | 90.55953183 | 88.79462823 |
| 200309A00081 | 3/9/2020                            | 1.18 | 3/8/2030   | 3/9/2020   | 104.15114 | 97.82760505 | 91.95577621 | 86.50054914 | 81.42973676 | 76.71380917 | 72.32566119 | 68.24040132 | 64.43516007 |
| 150803A00033 | 8/3/2015                            | 3.41 | 8/2/2030   | 8/3/2015   | 118.37716 | 111.6318331 | 105.3674958 | 99.54616732 | 94.13308777 | 89.09643146 | 84.40704399 | 80.03820393 | 75.96540701 |
| 151125A00037 | 11/25/2015                          | 2.41 | 11/25/2025 | 11/25/2015 | 102.84271 | 101.2051722 | 99.61042561 | 98.05700734 | 96.54351229 | 95.06859396 | 93.63096164 | 92.22937762 | 90.86265465 |
| 160328A00038 | 3/28/2016                           | 2.54 | 3/30/2026  | 3/28/2016  | 105.92256 | 102.8146287 | 99.82163053 | 96.9386287  | 94.16092848 | 91.48406285 | 88.90378004 | 86.41603193 | 84.01696306 |
| 181010A00025 | 10/10/2018                          | 3.48 | 10/10/2030 | 10/10/2018 | 113.09915 | 108.6565921 | 104.4649422 | 100.507397  | 96.76841712 | 93.23362147 | 89.88969264 | 86.72429084 | 83.72597524 |
| 190905A00021 | 9/5/2019                            | 2.08 | 9/5/2029   | 9/5/2019   | 109.653   | 103.4478    | 97.65822894 | 92.25386719 | 87.20667953 | 82.49081973 | 78.08244872 | 73.95956872 | 70.10187193 |
| 200612A00004 | 6/12/2020                           | 1.42 | 6/12/2040  | 6/12/2020  | 104.6885  | 95.8063002  | 87.94440143 | 80.96819188 | 74.76238841 | 69.22808645 | 64.28028305 | 59.84579346 | 55.86149581 |
| 160126A00004 | 1/26/2016                           | 2.52 | 1/26/2026  | 1/26/2016  | 106.28619 | 103.1271178 | 100.0819445 | 97.1459384  | 94.31458731 | 91.58359076 | 88.94884875 | 86.40645126 | 83.9526684  |
| 181119A00008 | 11/19/2018                          | 3.23 | 11/17/2023 | 11/19/2018 | 102.75793 | 101.6644896 | 100.5949017 | 99.54838147 | 98.52418273 | 97.52159122 | 96.53992295 | 95.57852267 | 94.63676233 |
| 190708A00029 | 7/8/2019                            | 2.57 | 7/2/2029   | 7/8/2019   | 112.5289  | 106.3326909 | 100.5414375 | 95.1261016  | 90.05989248 | 85.31807864 | 80.87781829 | 76.71800471 | 72.81912516 |
| 160713A00015 | 7/13/2016                           | 1.57 | 7/13/2026  | 7/13/2016  | 102.03919 | 100.0842355 | 98.18837627 | 96.34933665 | 94.56494825 | 92.8331418  | 91.15194184 | 89.51946184 | 87.93389948 |
| 220211A00010 | 2/11/2022                           | 1.99 | 2/11/2025  | 2/11/2022  | 102.28993 | 100.5350932 | 98.82481059 | 97.15764985 | 95.53223582 | 93.94724633 | 92.40140983 | 90.89350308 | 89.42234901 |
| 180322A00044 | 3/22/2018                           | 3.18 | 3/22/2033  | 3/22/2018  | 115.14924 | 109.3448646 | 103.9530659 | 98.93955063 | 94.27317986 | 89.92565809 | 85.87125264 | 82.08654231 | 78.55019234 |
| 200605A00018 | 6/5/2020                            | 0.91 | 6/5/2025   | 6/5/2020   | 100.50721 | 98.00551569 | 95.57976838 | 93.22716896 | 90.94504642 | 88.73084676 | 86.58212689 | 84.49654893 | 82.47187484 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 210512A00011 | 5/12/2021                           | 1.16 | 5/12/2026  | 5/12/2021  | 101.81501 | 98.52558955 | 95.36369648 | 92.32364446 | 89.40003816 | 86.58775359 | 83.88192266 | 81.27791883 | 78.7713436  |
| 171204A00009 | 12/4/2017                           | 2.23 | 12/4/2024  | 12/4/2017  | 101.92471 | 100.7916616 | 99.68176038 | 98.59433028 | 97.52872205 | 96.48431102 | 95.460496   | 94.45669811 | 93.47235983 |
| 181226A00030 | 12/26/2018                          | 2.91 | 12/26/2028 | 12/26/2018 | 108.10591 | 104.7883852 | 101.6208905 | 98.5952371  | 95.70374511 | 92.93920906 | 90.29486545 | 87.76436261 | 85.34173277 |
| 200103A00002 | 1/3/2020                            | 2.07 | 1/3/2030   | 1/3/2020   | 109.9065  | 103.9405099 | 98.37639451 | 93.18412518 | 88.33610206 | 83.80694032 | 79.57327994 | 75.61361291 | 71.9081261  |
| 170707A00007 | 7/7/2017                            | 2.65 | 7/8/2024   | 7/7/2017   | 103.35423 | 101.6321174 | 99.94745385 | 98.2991178  | 96.68603208 | 95.10716167 | 93.56151164 | 92.04812521 | 90.56608186 |
| 180925A00013 | 9/25/2018                           | 3.41 | 9/25/2028  | 9/25/2018  | 108.91395 | 105.7094122 | 102.644541  | 99.71196782 | 96.90476489 | 94.21641955 | 91.64080648 | 89.17216207 | 86.8050606  |
| 190829A00039 | 8/29/2019                           | 1.85 | 8/29/2034  | 8/29/2019  | 108.32144 | 102.1666631 | 96.50118602 | 91.27976342 | 86.4617632  | 82.01065831 | 77.89358015 | 74.08092363 | 70.54599756 |
| 191206A00005 | 12/6/2019                           | 2.18 | 12/7/2026  | 12/6/2019  | 106.43034 | 102.5070548 | 98.75561445 | 95.16748783 | 91.7346212  | 88.4494058  | 85.30465044 | 82.29355599 | 79.40969161 |
| 200430A00027 | 4/30/2020                           | 1.31 | 4/30/2035  | 4/30/2020  | 104.13898 | 97.9371725  | 92.25129529 | 87.03150948 | 82.23327286 | 77.81673546 | 73.74620824 | 69.98969558 | 66.51848344 |
| 200512A00013 | 5/12/2020                           | 1.17 | 5/12/2027  | 5/12/2020  | 102.77409 | 98.6034092  | 94.63188007 | 90.84886405 | 87.24435135 | 83.80891946 | 80.53369521 | 77.41031973 | 74.43091566 |
| 200716A00004 | 7/16/2020                           | 0.97 | 7/16/2027  | 7/16/2020  | 102.02618 | 97.73643908 | 93.65823035 | 89.77994027 | 86.09065577 | 82.58011868 | 79.23868286 | 76.05727423 | 73.02735381 |
| 181218A00040 | 12/18/2018                          | 3.23 | 6/18/2030  | 12/18/2018 | 110.8876  | 106.7168053 | 102.7725804 | 99.04029044 | 95.50636317 | 92.15820468 | 88.98412212 | 85.97325299 | 83.11550033 |
| 190905A00025 | 9/5/2019                            | 2.08 | 9/5/2029   | 9/5/2019   | 109.653   | 103.4477992 | 97.65822937 | 92.25386875 | 87.20668214 | 82.4908233  | 78.08245317 | 73.95957398 | 70.10187794 |
| 200327A00084 | 3/27/2020                           | 1.1  | 3/27/2025  | 3/27/2020  | 100.90032 | 98.62013535 | 96.40508683 | 94.25292372 | 92.16149027 | 90.12871826 | 88.15262286 | 86.23129869 | 84.36291618 |
| 220801A00066 | 8/1/2022                            | 2.93 | 7/30/2027  | 8/1/2022   | 111.54386 | 106.9474566 | 102.5773121 | 98.42101705 | 94.46690303 | 90.70399884 | 87.12198527 | 83.71115305 | 80.46236376 |
| 150729A00028 | 7/29/2015                           | 2.25 | 7/29/2025  | 7/29/2015  | 102.50341 | 101.0329286 | 99.59801399 | 98.1975111  | 96.83031352 | 95.49535942 | 94.19162931 | 92.91814407 | 91.67396294 |
| 180305A00030 | 3/5/2018                            | 3.12 | 3/5/2025   | 3/5/2018   | 105.69343 | 103.3325373 | 101.037799  | 98.8069778  | 96.63792921 | 94.52859375 | 92.47699302 | 90.48122603 | 88.53946565 |
| 200413A00009 | 4/13/2020                           | 0.77 | 4/13/2027  | 4/13/2020  | 100.62492 | 98.33471607 | 96.12439979 | 93.99050331 | 91.92973953 | 89.93898695 | 88.01528015 | 86.15580095 | 84.35787001 |
| 160523A00086 | 5/23/2016                           | 2.2  | 5/26/2026  | 5/23/2016  | 105.53463 | 102.3077173 | 99.20429753 | 96.21887577 | 93.34623606 | 90.58142588 | 87.91974105 | 85.35671167 | 82.88808887 |
| 170921A00055 | 9/21/2017                           | 2.82 | 9/21/2027  | 9/21/2017  | 110.38433 | 105.835724  | 101.5145834 | 97.40817267 | 93.50454169 | 89.79247021 | 86.26141943 | 82.90148697 | 79.70336515 |
| 180104A00041 | 1/4/2018                            | 3.08 | 1/4/2033   | 1/4/2018   | 121.83415 | 112.602997  | 104.2186196 | 96.59631662 | 89.66037846 | 83.3430877  | 77.58383213 | 72.32832076 | 67.52789025 |
| 160210A00054 | 2/10/2016                           | 1.78 | 2/10/2026  | 2/10/2016  | 102.16866 | 100.4163808 | 98.71258593 | 97.05553564 | 95.44357017 | 93.8751013  | 92.34860871 | 90.86263658 | 89.41579035 |
| 151013A00033 | 10/13/2015                          | 2.23 | 10/14/2025 | 10/13/2015 | 102.47404 | 100.8843338 | 99.33535194 | 97.82572161 | 96.3541259  | 94.91930217 | 93.52003944 | 92.15517579 | 90.82359605 |
| 160603A00029 | 6/3/2016                            | 2.18 | 6/3/2031   | 6/3/2016   | 107.99899 | 103.4218483 | 99.12179226 | 95.07902444 | 91.27532836 | 87.69393002 | 84.31937337 | 81.1374073  | 78.13488314 |
| 190813A00057 | 8/13/2019                           | 1.9  | 8/13/2024  | 8/13/2019  | 102.14536 | 100.3449957 | 98.58564659 | 96.8661368  | 95.18533035 | 93.54213091 | 91.93548024 | 90.3643565  | 88.82777286 |
| 191203A00010 | 12/3/2019                           | 2.21 | 12/3/2029  | 12/3/2019  | 110.75862 | 104.3146496 | 98.31471679 | 92.72537959 | 87.51590066 | 82.65801337 | 78.12571013 | 73.89505003 | 69.9439838  |
| 200406A00014 | 4/6/2020                            | 1.33 | 4/6/2035   | 4/6/2020   | 105.17874 | 98.88901563 | 93.12392339 | 87.83267758 | 82.96989982 | 78.49500077 | 74.37163695 | 70.56723284 | 67.0525601  |
| 160115A00011 | 1/15/2016                           | 2.18 | 1/15/2026  | 1/15/2016  | 102.58897 | 100.8738988 | 99.20533364 | 97.58163524 | 96.00123328 | 94.46262455 | 92.96436959 | 91.50508946 | 90.08346273 |
| 170124A00017 | 1/24/2017                           | 2.82 | 1/23/2032  | 1/24/2017  | 111.72103 | 106.6854086 | 101.9724532 | 97.55784341 | 93.41930158 | 89.53640501 | 85.89041795 | 82.46414001 | 79.2417692  |
| 151201A00004 | 12/1/2015                           | 2.44 | 12/1/2022  | 12/1/2015  | 100.51308 | 100.3408917 | 100.1692942 | 99.99828201 | 99.82785214 | 99.65800167 | 99.48872766 | 99.32002722 | 99.15189745 |
| 160608A00034 | 6/8/2016                            | 2.44 | 6/9/2031   | 6/8/2016   | 108.5525  | 103.9673124 | 99.65905318 | 95.6079746  | 91.7959035  | 88.20610317 | 84.82314952 | 81.63281877 | 78.62198549 |
| 190131A00013 | 1/31/2019                           | 3.48 | 1/31/2034  | 1/31/2019  | 125.57034 | 115.3508121 | 106.1448803 | 97.84294448 | 90.34794662 | 83.57387204 | 77.44443367 | 71.89191961 | 66.85618277 |
| 200406A00035 | 4/6/2020                            | 1.05 | 4/4/2025   | 4/6/2020   | 100.76866 | 98.53858411 | 96.37211117 | 94.26703493 | 92.2212424  | 90.23270701 | 88.29948448 | 86.4197089  | 84.59158906 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 160203A00017 | 2/3/2016                            | 2.07 | 2/3/2023   | 2/3/2016   | 100.71249 | 100.3643085 | 100.0185329 | 99.67514109 | 99.33410856 | 98.99541103 | 98.65902457 | 98.32492557 | 97.99309078 |
| 161116A00006 | 11/16/2016                          | 2.39 | 11/16/2026 | 11/16/2016 | 103.76099 | 101.6114686 | 99.53124852 | 97.51751533 | 95.56759445 | 93.67893863 | 91.84912102 | 90.07582858 | 88.35685599 |
| 171219A00009 | 12/19/2017                          | 2.3  | 12/19/2024 | 12/19/2017 | 102.07422 | 100.8994155 | 99.74909239 | 98.62252799 | 97.51902675 | 96.43791972 | 95.37856333 | 94.34033818 | 93.32264792 |
| 180717A00026 | 7/17/2018                           | 3.24 | 7/16/2025  | 7/17/2018  | 106.6186  | 104.0012466 | 101.4648175 | 99.0063147  | 96.62286881 | 94.31173496 | 92.07028665 | 89.8960097  | 87.78649671 |
| 200110A00037 | 1/10/2020                           | 2.32 | 1/10/2030  | 1/10/2020  | 111.60173 | 105.0401432 | 98.93588883 | 93.2541528  | 87.96295913 | 83.03292772 | 78.43705005 | 74.15048539 | 70.15037558 |
| 161014A00026 | 10/14/2016                          | 2.16 | 10/14/2031 | 10/14/2016 | 108.18837 | 103.4362716 | 98.98148292 | 94.80209874 | 90.8780098  | 87.19074601 | 83.72333107 | 80.46015087 | 77.38683441 |
| 170804A00005 | 8/4/2017                            | 1.94 | 8/5/2024   | 8/4/2017   | 101.42215 | 100.4208743 | 99.43870377 | 98.4750976  | 97.52953877 | 96.60152953 | 95.6905905  | 94.7962598  | 93.91809226 |
| 191004A00019 | 10/4/2019                           | 2.02 | 10/4/2029  | 10/4/2019  | 109.35049 | 103.0977491 | 97.26820415 | 91.83055025 | 86.75596856 | 82.01791436 | 77.59192604 | 73.45545111 | 69.58768765 |
| 170309A00042 | 3/9/2017                            | 2.18 | 3/11/2024  | 3/9/2017   | 101.35576 | 100.5605029 | 99.77909816 | 99.01116502 | 98.2563389  | 97.51426887 | 96.78461695 | 96.06705755 | 95.36127683 |
| 200512A00021 | 5/12/2020                           | 0.86 | 5/12/2025  | 5/12/2020  | 100.36735 | 97.92526577 | 95.5559757  | 93.25685718 | 91.02539883 | 88.8591966  | 86.75594833 | 84.71344867 | 82.72958428 |
| 121114A00020 | 11/14/2012                          | 1.74 | 11/14/2022 | 11/14/2012 | 100.31645 | 100.191615  | 100.0671055 | 99.94292058 | 99.81905887 | 99.69551909 | 99.57229994 | 99.44940013 | 99.32681838 |
| 140730A00037 | 7/30/2014                           | 2.83 | 1/30/2024  | 7/30/2014  | 101.71554 | 100.9970736 | 100.2908857 | 99.59663383 | 98.91398937 | 98.24263617 | 97.58227016 | 96.93259869 | 96.29334004 |
| 141017A00022 | 10/17/2014                          | 2.78 | 10/17/2024 | 10/17/2014 | 103.951   | 102.0518298 | 100.1987509 | 98.39033517 | 96.62520803 | 94.90204754 | 93.21958183 | 91.57658685 | 89.97188418 |
| 170619A00095 | 6/16/2017                           | 2.79 | 6/16/2027  | 6/16/2017  | 109.70437 | 105.3884377 | 101.27842   | 97.36322749 | 93.63243796 | 90.07624833 | 86.68543429 | 83.45131252 | 80.36570578 |
| 191004A00022 | 10/4/2019                           | 2.02 | 10/4/2029  | 10/4/2019  | 109.35049 | 103.0977503 | 97.26820331 | 91.83054759 | 86.75596425 | 82.01790856 | 77.59191889 | 73.45544276 | 69.58767821 |
| 210611A00012 | 6/11/2021                           | 1.02 | 6/11/2026  | 6/11/2021  | 101.40465 | 98.05837746 | 94.84418696 | 91.75607809 | 88.78836416 | 85.93565059 | 83.19281794 | 80.55500602 | 78.01759904 |
| 170406A00024 | 4/6/2017                            | 2.61 | 4/8/2024   | 4/6/2017   | 102.77894 | 101.3066254 | 99.86329428 | 98.44816054 | 97.06046347 | 95.69946937 | 94.36447029 | 93.05478291 | 91.76974746 |
| 200323A00090 | 3/23/2020                           | 1.55 | 3/23/2027  | 3/23/2020  | 102.34422 | 99.87993212 | 97.50529324 | 95.2162944  | 93.00913104 | 90.88019491 | 88.82606264 | 86.84348501 | 84.92937694 |
| 170524A00037 | 5/24/2017                           | 2.46 | 5/24/2024  | 5/24/2017  | 102.74098 | 101.1754093 | 99.64202009 | 98.13987721 | 96.66808121 | 95.22576716 | 93.81210298 | 92.42628788 | 91.06755086 |
| 200303A00028 | 3/3/2020                            | 1.54 | 3/4/2030   | 3/3/2020   | 105.95018 | 100.0819269 | 94.61675082 | 89.52402415 | 84.77562294 | 80.34571053 | 76.21053953 | 72.34827191 | 68.73881554 |
| 160414A00042 | 4/13/2016                           | 2.48 | 4/13/2026  | 4/13/2016  | 106.04283 | 102.7836191 | 99.64745667 | 96.62898327 | 93.72310127 | 90.92496362 | 88.22995997 | 85.63370367 | 83.13201961 |
| 190802A00011 | 8/2/2019                            | 2.01 | 8/2/2029   | 8/2/2019   | 105.6977  | 102.1222543 | 98.72314843 | 95.48997124 | 92.41300328 | 89.48317015 | 86.69199524 | 84.03155623 | 81.49444504 |
| 160629A00066 | 6/29/2016                           | 2.61 | 6/30/2036  | 6/29/2016  | 119.38785 | 108.5977428 | 99.03927844 | 90.55816146 | 83.02057693 | 76.3103522  | 70.32652392 | 64.98125344 | 60.1980391  |
| 200206A00027 | 2/6/2020                            | 2.15 | 2/6/2030   | 2/6/2020   | 110.54623 | 103.9773623 | 97.87077919 | 92.19101789 | 86.9055239  | 81.98439802 | 77.40016681 | 73.12757386 | 69.14339011 |
| 140703A00026 | 7/3/2014                            | 3.11 | 7/3/2024   | 7/3/2014   | 103.98091 | 102.3263645 | 100.7073097 | 99.12266972 | 97.57141391 | 96.05255304 | 94.56513704 | 93.10825314 | 91.6810239  |
| 160608A00023 | 6/8/2016                            | 2.36 | 6/8/2026   | 6/8/2016   | 105.93966 | 102.5569054 | 99.30606635 | 96.1811937  | 93.17664653 | 90.28707213 | 87.50738932 | 84.83277281 | 82.25863869 |
| 170224A00009 | 2/24/2017                           | 2.39 | 2/24/2023  | 2/24/2017  | 100.89971 | 100.494479  | 100.0925108 | 99.69376582 | 99.2982055  | 98.90579172 | 98.51648701 | 98.1302545  | 97.74705789 |
| 180913A00033 | 9/13/2018                           | 3.31 | 9/13/2033  | 9/13/2018  | 116.59699 | 110.4555294 | 104.7688716 | 99.49771352 | 94.60650437 | 90.06306149 | 85.83822599 | 81.90555569 | 78.24105126 |
| 150729A00041 | 7/29/2015                           | 2.44 | 7/29/2025  | 7/29/2015  | 102.59526 | 101.126218  | 99.69264665 | 98.29339691 | 96.92736696 | 95.59349933 | 94.29077866 | 93.01822967 | 91.77491528 |
| 180907A00013 | 9/7/2018                            | 3.27 | 9/8/2025   | 9/7/2018   | 107.20585 | 104.3920954 | 101.6698749 | 99.03569697 | 96.48621999 | 94.01824841 | 91.62872559 | 89.31472686 | 87.07345311 |
| 160908A00016 | 9/8/2016                            | 1.87 | 9/8/2023   | 9/8/2016   | 101.18402 | 100.2598131 | 99.35262514 | 98.46198983 | 97.58745573 | 96.72858773 | 95.88496631 | 95.0561868  | 94.2418588  |
| 190620A00033 | 6/20/2019                           | 2.1  | 6/20/2029  | 6/20/2019  | 105.87469 | 102.3757171 | 99.04577387 | 95.87506399 | 92.85443341 | 89.97532541 | 87.2297375  | 84.61018173 | 82.10964808 |
| 200309A00082 | 3/9/2020                            | 1.18 | 3/8/2030   | 3/9/2020   | 104.15114 | 97.82760524 | 91.9557769  | 86.50055031 | 81.42973834 | 76.71381113 | 72.3256635  | 68.24040394 | 64.43516297 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 200309A00084 | 3/9/2020                            | 1.06 | 3/9/2027   | 3/9/2020   | 102.20348 | 98.19166819 | 94.36550257 | 90.71537778 | 87.23223768 | 83.90753939 | 80.73322156 | 77.70167469 | 74.80571346 |
| 210212A00007 | 2/12/2021                           | 0.76 | 2/12/2026  | 2/12/2021  | 100.3236  | 97.27398058 | 94.33595982 | 91.50485187 | 88.77619662 | 86.14574387 | 83.60944223 | 81.16342881 | 78.80401941 |
| 210512A00012 | 5/12/2021                           | 1.16 | 5/12/2026  | 5/12/2021  | 101.81501 | 98.52558967 | 95.36369688 | 92.32364513 | 89.40003909 | 86.58775476 | 83.88192406 | 81.27792046 | 78.77134544 |
| 160908A00023 | 9/8/2016                            | 2.21 | 9/8/2026   | 9/8/2016   | 105.86941 | 102.2851149 | 98.8487136  | 95.55326063 | 92.39217865 | 89.35923313 | 86.44851252 | 83.65440979 | 80.97160508 |
| 190403A00014 | 4/3/2019                            | 3.05 | 4/3/2029   | 4/3/2019   | 114.58845 | 108.6760929 | 103.133568  | 97.93533194 | 93.05774327 | 88.47891496 | 84.17857492 | 80.13793852 | 76.33959176 |
| 190712A00016 | 7/12/2019                           | 2.39 | 7/12/2029  | 7/12/2019  | 106.49185 | 102.941509  | 99.56409945 | 96.34951915 | 93.28833658 | 90.37173982 | 87.59149166 | 84.9398881  | 82.40972024 |
| 200512A00001 | 5/12/2020                           | 1.17 | 5/12/2027  | 5/12/2020  | 102.77409 | 98.6034092  | 94.63187999 | 90.84886388 | 87.24435112 | 83.80891915 | 80.53369484 | 77.4103193  | 74.43091518 |
| 201110A00003 | 11/10/2020                          | 1.12 | 11/10/2027 | 11/10/2020 | 102.90257 | 98.32827868 | 93.99225454 | 89.88073422 | 85.98082182 | 82.28043248 | 78.76823685 | 75.43360971 | 72.26658242 |
| 120806A00015 | 8/6/2012                            | 2.38 | 8/6/2027   | 8/6/2012   | 104.48756 | 101.9500097 | 99.50599401 | 97.15126053 | 94.88178155 | 92.69374072 | 90.58352053 | 88.5476905  | 86.58299632 |
| 160606A00018 | 6/6/2016                            | 1.74 | 6/5/2026   | 6/6/2016   | 102.32086 | 100.4020296 | 98.54019956 | 96.73320772 | 94.97899158 | 93.27558172 | 91.62109698 | 90.01373976 | 88.45179175 |
| 191113A00013 | 11/13/2019                          | 2.17 | 11/13/2026 | 11/13/2019 | 106.26473 | 102.4025615 | 98.70742476 | 95.17114032 | 91.78597464 | 88.54461526 | 85.44014535 | 82.46601995 | 79.61604375 |
| 150603A00032 | 6/3/2015                            | 2.21 | 6/3/2025   | 6/3/2015   | 102.37103 | 100.9458363 | 99.5543461  | 98.19548477 | 96.8682195  | 95.57155865 | 94.30454978 | 93.06627779 | 91.85586308 |
| 160511A00016 | 5/11/2016                           | 2.48 | 5/12/2031  | 5/11/2016  | 108.66011 | 104.112031  | 99.83635434 | 95.81380689 | 92.02664054 | 88.45849972 | 85.09430225 | 81.9201311  | 78.92313612 |
| 190910A00044 | 9/10/2019                           | 2.02 | 9/10/2026  | 9/10/2019  | 105.36754 | 101.6787477 | 98.14403561 | 94.75612533 | 91.5081195  | 88.39348174 | 85.40601586 | 82.53984629 | 79.78939978 |
| 151102A00024 | 11/2/2015                           | 2.37 | 11/2/2022  | 11/2/2015  | 100.30387 | 100.2121459 | 100.1205875 | 100.0291985 | 99.93797871 | 99.84692749 | 99.75604442 | 99.66532903 | 99.57478087 |
| 160211A00038 | 2/11/2016                           | 1.83 | 2/11/2026  | 2/11/2016  | 102.02833 | 100.2818667 | 98.58364159 | 96.93193094 | 95.32508564 | 93.76152762 | 92.23974613 | 90.75829443 | 89.31578654 |
| 200318A00012 | 3/18/2020                           | 1.68 | 3/18/2033  | 3/18/2020  | 107.54722 | 101.1350953 | 95.24172878 | 89.81904612 | 84.82382758 | 80.21718516 | 75.96409908 | 72.03300655 | 68.39543673 |
| 220310A00008 | 3/10/2022                           | 2.22 | 3/10/2025  | 3/10/2022  | 103.56011 | 101.2268196 | 98.95930407 | 96.755332   | 94.61275939 | 92.52952774 | 90.50366009 | 88.53325722 | 86.61649416 |
| 160908A00030 | 9/8/2016                            | 2.21 | 9/8/2026   | 9/8/2016   | 105.86941 | 102.2851149 | 98.84871359 | 95.55326062 | 92.39217864 | 89.35923312 | 86.44851251 | 83.65440977 | 80.97160506 |
| 160908A00028 | 9/8/2016                            | 2.21 | 9/8/2026   | 9/8/2016   | 105.86941 | 102.2851149 | 98.84871357 | 95.5532605  | 92.39217844 | 89.35923283 | 86.44851214 | 83.65440933 | 80.97160454 |
| 200221A00012 | 2/21/2020                           | 2.14 | 2/21/2040  | 2/21/2020  | 111.29822 | 102.1219202 | 93.98295941 | 86.74661038 | 80.29718857 | 74.53519483 | 69.37490492 | 64.74233596 | 60.57352852 |
| 210331A00007 | 3/31/2021                           | 1.25 | 3/31/2031  | 3/31/2021  | 102.99968 | 98.76625672 | 94.78219035 | 91.03011235 | 87.49400758 | 84.15909927 | 81.01174452 | 78.03933925 | 75.23023173 |
| 210915A00025 | 9/15/2021                           | 1.09 | 9/15/2026  | 9/15/2021  | 101.81853 | 98.32871779 | 94.98394135 | 91.77735409 | 88.70246881 | 85.75313831 | 82.92353562 | 80.2081356  | 77.60169766 |
| 190905A00024 | 9/5/2019                            | 2.08 | 9/5/2029   | 9/5/2019   | 109.653   | 103.4477986 | 97.65822968 | 92.25386988 | 87.20668401 | 82.49082585 | 78.08245633 | 73.95957769 | 70.10188214 |
| 130206A00009 | 2/6/2013                            | 2.83 | 2/7/2028   | 2/6/2013   | 109.50444 | 105.330268  | 101.3649534 | 97.59655875 | 94.01389695 | 90.60648269 | 87.36448443 | 84.27868011 | 81.34041611 |
| 160401A00005 | 4/1/2016                            | 2.02 | 4/3/2023   | 4/1/2016   | 100.85642 | 100.3480966 | 99.84490774 | 99.34677394 | 98.85361926 | 98.36536924 | 97.88195093 | 97.40329279 | 96.92932468 |
| 170106A00030 | 1/6/2017                            | 2.39 | 1/6/2027   | 1/6/2017   | 104.22568 | 101.9791496 | 99.80744989 | 97.70746246 | 95.67622005 | 93.7109003  | 91.80881766 | 89.96741573 | 88.18426016 |
| 200206A00008 | 2/6/2020                            | 1.64 | 2/6/2025   | 2/6/2020   | 102.34359 | 100.1506391 | 98.01727399 | 95.94153574 | 93.92154564 | 91.95549734 | 90.04165352 | 88.17834289 | 86.36395727 |
| 200406A00027 | 4/6/2020                            | 1.31 | 4/5/2030   | 4/6/2020   | 105.43584 | 99.5151757  | 94.00629329 | 88.87751759 | 84.09979719 | 79.64647233 | 75.4930652  | 71.6170898  | 67.99787923 |
| 150714A00003 | 7/14/2015                           | 3.76 | 7/12/2030  | 7/14/2015  | 113.92847 | 109.5775533 | 105.4659399 | 101.5779983 | 97.8992454  | 94.41625323 | 91.1165642  | 87.98861436 | 85.02166305 |
| 170619A00089 | 6/16/2017                           | 2.79 | 6/16/2027  | 6/16/2017  | 109.70436 | 105.388437  | 101.2784197 | 97.3632277  | 93.63243857 | 90.07624932 | 86.68543563 | 83.45131419 | 80.36570775 |
| 200206A00038 | 2/6/2020                            | 1.78 | 2/6/2023   | 2/6/2020   | 100.61757 | 100.2612096 | 99.90737343 | 99.55603889 | 99.20717944 | 98.86076894 | 98.51678163 | 98.1751921  | 97.83597533 |
| 151001A00023 | 10/1/2015                           | 2.02 | 10/1/2025  | 10/1/2015  | 102.34019 | 100.7504364 | 99.2014514  | 97.69185525 | 96.22032898 | 94.78560801 | 93.38647951 | 92.02177983 | 90.69039215 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 170105A00012 | 1/5/2017                            | 2.68 | 1/5/2024   | 1/5/2017   | 102.38654 | 101.143929  | 99.93005371 | 98.74391999 | 97.58457588 | 96.45111278 | 95.34266301 | 94.25839752 | 93.19752377 |
| 201221A00022 | 12/21/2020                          | 0.51 | 12/19/2025 | 12/21/2020 | 99.884149 | 97.02060615 | 94.25735692 | 91.59025945 | 89.01537168 | 86.52894017 | 84.12738961 | 81.80731308 | 79.56546283 |
| 150929A00076 | 9/29/2015                           | 2.28 | 9/29/2025  | 9/29/2015  | 102.4896  | 100.9396338 | 99.42863798 | 97.95531706 | 96.51842718 | 95.11677529 | 93.74921668 | 92.41465262 | 91.11202814 |
| 151029A00008 | 10/29/2015                          | 2.28 | 10/29/2025 | 10/29/2015 | 102.55735 | 100.965263  | 99.41399839 | 97.90217841 | 96.42848157 | 94.9916409  | 93.59044127 | 92.22371693 | 90.89034903 |
| 200110A00043 | 1/10/2020                           | 2.32 | 1/10/2030  | 1/10/2020  | 111.60173 | 105.0401426 | 98.93588893 | 93.25415358 | 87.96296052 | 83.03292965 | 78.43705246 | 74.15048823 | 70.15037881 |
| 200414A00009 | 4/14/2020                           | 0.82 | 4/14/2025  | 4/14/2020  | 100.1758  | 98.86341933 | 97.58080246 | 96.32702516 | 95.10120228 | 93.9024831  | 92.73004972 | 91.58311551 | 90.46092366 |
| 210714A00016 | 7/14/2021                           | 0.75 | 7/12/2024  | 7/14/2021  | 100.04595 | 98.3745175  | 96.73959856 | 95.14011126 | 93.5750158  | 92.04331222 | 90.54403851 | 89.07626876 | 87.63911151 |
| 210809A00015 | 8/9/2021                            | 1.06 | 8/7/2026   | 8/9/2021   | 101.67164 | 98.19140404 | 94.85343647 | 91.65115801 | 88.5783288  | 85.62902835 | 82.79763754 | 80.07882172 | 77.46751481 |
| 170802A00013 | 8/2/2017                            | 2.5  | 8/2/2024   | 8/2/2017   | 103.19357 | 101.4114181 | 99.6692729  | 97.96600032 | 96.30050735 | 94.67173859 | 93.07867472 | 91.52033101 | 89.99575596 |
| 160329A00017 | 3/29/2016                           | 2.48 | 3/30/2026  | 3/29/2016  | 105.73263 | 102.629205  | 99.64056015 | 96.76176521 | 93.98813141 | 91.31519741 | 88.73871688 | 86.25464683 | 83.85913674 |
| 171207A00026 | 12/7/2017                           | 2.93 | 12/7/2027  | 12/7/2017  | 111.67316 | 106.7887638 | 102.1591398 | 97.76947537 | 93.60590168 | 89.65543033 | 85.90589221 | 82.34588118 | 78.96470189 |
| 200311A00015 | 3/11/2020                           | 1.26 | 3/11/2027  | 3/11/2020  | 103.04139 | 98.99971816 | 95.14516043 | 91.46803261 | 87.95919961 | 84.61004467 | 81.41243716 | 78.35870264 | 75.44159489 |
| 161102A00014 | 11/2/2016                           | 1.99 | 11/2/2023  | 11/2/2016  | 101.39912 | 100.327057  | 99.2778035  | 98.25063336 | 97.24485325 | 96.25979864 | 95.29483228 | 94.34934286 | 93.42274364 |
| 170309A00014 | 3/9/2017                            | 2.58 | 3/9/2027   | 3/9/2017   | 104.86255 | 102.5184291 | 100.2548336 | 98.06831641 | 95.9556058  | 93.91359307 | 91.93932319 | 90.02998613 | 88.18290874 |
| 190506A00026 | 5/6/2019                            | 3.03 | 5/4/2029   | 5/6/2019   | 115.11714 | 108.9395447 | 103.1568563 | 97.7413461  | 92.66738415 | 87.91126986 | 83.45107664 | 79.26650985 | 75.33877689 |
| 190913A00018 | 9/13/2019                           | 2.11 | 9/11/2026  | 9/13/2019  | 103.00435 | 100.9529052 | 98.96546961 | 97.03951762 | 95.17264361 | 93.36255376 | 91.60706014 | 89.90407504 | 88.25160569 |
| 170727A00003 | 7/27/2017                           | 1.97 | 7/29/2024  | 7/27/2017  | 101.40188 | 100.4391246 | 99.49442342 | 98.56726809 | 97.65717049 | 96.76366089 | 95.88628706 | 95.02461342 | 94.17822029 |
| 160210A00051 | 2/10/2016                           | 2.28 | 2/10/2031  | 2/10/2016  | 108.15627 | 103.7394201 | 99.58102158 | 95.66318468 | 91.96940805 | 88.48445861 | 85.19426513 | 82.08582137 | 79.14709796 |
| 200109A00008 | 1/9/2020                            | 1.95 | 1/9/2030   | 1/9/2020   | 105.82255 | 102.0355867 | 98.44513029 | 95.03901335 | 91.80592139 | 88.7353241  | 85.81741563 | 83.04305964 | 80.40373898 |
| 200220A00026 | 2/20/2020                           | 2.22 | 2/21/2040  | 2/20/2020  | 112.04934 | 102.8081449 | 94.61161874 | 87.32407656 | 80.8290181  | 75.02624252 | 69.82942094 | 65.16404857 | 60.96571475 |
| 200724A00011 | 7/24/2020                           | 1.41 | 7/26/2038  | 7/24/2020  | 106.15384 | 95.07092201 | 85.43381477 | 77.03701358 | 69.70577813 | 63.29134632 | 57.66691622 | 52.72427009 | 48.37093502 |
| 160908A00019 | 9/8/2016                            | 1.87 | 9/8/2023   | 9/8/2016   | 101.18402 | 100.2598131 | 99.35262514 | 98.46198982 | 97.58745572 | 96.72858772 | 95.88496628 | 95.05618678 | 94.24185877 |
| 181116A00006 | 11/16/2018                          | 3.18 | 11/17/2025 | 11/16/2018 | 104.13214 | 102.4747632 | 100.8606737 | 99.28839222 | 97.75649825 | 96.26363048 | 94.80848398 | 93.38980735 | 92.00640016 |
| 160812A00006 | 8/12/2016                           | 2.16 | 8/12/2026  | 8/12/2016  | 105.77331 | 102.3766785 | 99.11625135 | 95.98577227 | 92.97930872 | 90.09123133 | 87.31619677 | 84.64913173 | 82.08521774 |
| 210408A00007 | 4/8/2021                            | 1.05 | 4/8/2031   | 4/8/2021   | 102.75445 | 98.47787531 | 94.45590588 | 90.67063233 | 87.10555527 | 83.74546274 | 80.57632059 | 77.58517292 | 74.76005158 |
| 220310A00010 | 3/10/2022                           | 2.31 | 3/10/2027  | 3/10/2022  | 107.37933 | 103.2504217 | 99.31129017 | 95.55214664 | 91.96376129 | 88.53742663 | 85.26492518 | 82.13849929 | 79.15082303 |
| 150929A00087 | 9/29/2015                           | 2.09 | 9/29/2025  | 9/29/2015  | 102.39248 | 100.8410198 | 99.32863621 | 97.85402625 | 96.41594079 | 95.01318188 | 93.64460017 | 92.30909253 | 91.00559988 |
| 170313A00045 | 3/13/2017                           | 3.22 | 3/15/2032  | 3/13/2017  | 113.24927 | 108.0767635 | 103.2400443 | 98.71348378 | 94.47363326 | 90.49901923 | 86.76996281 | 83.26841663 | 79.97781778 |
| 160802A00026 | 8/2/2016                            | 1.84 | 8/2/2023   | 8/2/2016   | 101.07921 | 100.2479989 | 99.43051474 | 98.62641661 | 97.8353772  | 97.05707976 | 96.29121776 | 95.5374944  | 94.79562229 |
| 170317A00040 | 3/17/2017                           | 2.74 | 3/18/2024  | 3/17/2017  | 102.87758 | 101.4468185 | 100.0434394 | 98.66672418 | 97.31597716 | 95.99052651 | 94.68972312 | 93.41293966 | 92.15956965 |
| 190205A00021 | 2/5/2019                            | 3.32 | 2/5/2029   | 2/5/2019   | 115.85637 | 110.01633   | 104.5334025 | 99.38346943 | 94.54417191 | 89.99477286 | 85.71603123 | 81.69008659 | 77.90035315 |
| 180206A00046 | 2/6/2018                            | 2.72 | 2/6/2023   | 2/6/2018   | 100.95242 | 100.595725  | 100.241559  | 99.8898944  | 99.54070461 | 99.19396356 | 98.84964549 | 98.50772503 | 98.16817714 |
| 210809A00016 | 8/9/2021                            | 0.66 | 8/9/2024   | 8/9/2021   | 99.903898 | 98.35413552 | 96.83856946 | 95.35622528 | 93.90616304 | 92.4874758  | 91.09928821 | 89.74075519 | 88.41106066 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 150701A00056 | 7/1/2015                            | 2.34 | 7/1/2025   | 7/1/2015   | 102.63406 | 101.1639469 | 99.7293072  | 98.32899144 | 96.96189566 | 95.62696061 | 94.32316949 | 93.04954591 | 91.80515191 |
| 190813A00064 | 8/13/2019                           | 1.9  | 8/13/2024  | 8/13/2019  | 102.14536 | 100.3449957 | 98.58564668 | 96.86613698 | 95.18533062 | 93.54213127 | 91.93548068 | 90.36435703 | 88.82777347 |
| 201029A00004 | 10/29/2020                          | 1.49 | 10/29/2038 | 10/29/2020 | 106.97421 | 95.70448859 | 85.92185584 | 77.41233539 | 69.99438716 | 63.51379798 | 57.83940145 | 52.85949035 | 48.47880659 |
| 210714A00009 | 7/14/2021                           | 0.75 | 7/12/2024  | 7/14/2021  | 100.04477 | 98.35697687 | 96.70612411 | 95.09111501 | 93.51089711 | 91.96445829 | 90.45082483 | 88.9690596  | 87.51826026 |
| 190329A00067 | 3/29/2019                           | 2.61 | 3/29/2024  | 3/29/2019  | 102.66164 | 101.2525711 | 99.87085834 | 98.51576593 | 97.18658667 | 95.88263802 | 94.60326103 | 93.34781929 | 92.11569798 |
| 160201A00016 | 2/1/2016                            | 2.1  | 2/2/2026   | 2/1/2016   | 102.51072 | 100.7566889 | 99.05107786 | 97.39215605 | 95.77826942 | 94.207835   | 92.67933737 | 91.19132521 | 89.74240816 |
| 160908A00024 | 9/8/2016                            | 2.21 | 9/8/2026   | 9/8/2016   | 105.86941 | 102.2851148 | 98.8487136  | 95.55326065 | 92.39217869 | 89.35923319 | 86.44851259 | 83.65440988 | 80.97160518 |
| 181218A00089 | 12/18/2018                          | 3.05 | 6/19/2023  | 12/18/2018 | 101.8264  | 101.117858  | 100.419317  | 99.73056707 | 99.05140225 | 98.38162243 | 97.72103297 | 97.06944466 | 96.42667341 |
| 200522A00009 | 5/22/2020                           | 0.96 | 5/22/2030  | 5/22/2020  | 101.59183 | 97.76131378 | 94.14158929 | 90.71886152 | 87.48034962 | 84.41420639 | 81.50944337 | 78.75586256 | 76.14399389 |
| 200512A00018 | 5/12/2020                           | 0.85 | 5/12/2025  | 5/12/2020  | 100.33483 | 97.95876309 | 95.65298562 | 93.41496916 | 91.24229708 | 89.13265582 | 87.0838297  | 85.09369602 | 83.16022049 |
| 150219A00016 | 2/19/2015                           | 2.68 | 2/19/2025  | 2/19/2015  | 104.32127 | 102.1024782 | 99.94399698 | 97.84383374 | 95.80007476 | 93.8108806  | 91.87448271 | 89.98918032 | 88.15333738 |
| 161229A00019 | 12/29/2016                          | 2.46 | 12/29/2026 | 12/29/2016 | 104.29486 | 102.0872891 | 99.95217968 | 97.88654903 | 95.88755745 | 93.9525025  | 92.07881131 | 90.26403349 | 88.50583438 |
| 190205A00022 | 2/5/2019                            | 3.32 | 2/5/2029   | 2/5/2019   | 115.85637 | 110.0163317 | 104.5334033 | 99.3834694  | 94.54417111 | 89.99477134 | 85.71602904 | 81.69008379 | 77.90034979 |
| 110719A00017 | 7/19/2011                           | 3.68 | 7/20/2026  | 7/19/2011  | 106.05447 | 104.0267609 | 102.0602486 | 100.1525853 | 98.30152864 | 96.50493847 | 94.76077152 | 93.06707629 | 91.42198823 |
| 160908A00032 | 9/8/2016                            | 2.17 | 9/8/2026   | 9/8/2016   | 105.4778  | 102.0417341 | 98.74550461 | 95.58259049 | 92.54681423 | 89.63231896 | 86.83355004 | 84.14523776 | 81.56238118 |
| 200512A00020 | 5/12/2020                           | 0.86 | 5/12/2025  | 5/12/2020  | 100.36735 | 97.92526538 | 95.55597487 | 93.25685593 | 91.02539718 | 88.85919456 | 86.75594592 | 84.7134459  | 82.72958116 |
| 201103A00005 | 11/3/2020                           | 0.89 | 11/4/2030  | 11/3/2020  | 101.37849 | 97.36831189 | 93.58616219 | 90.01667604 | 86.64564718 | 83.45993443 | 80.44737442 | 77.59670187 | 74.89747707 |
| 190104A00034 | 1/4/2019                            | 3.18 | 1/4/2029   | 1/4/2019   | 112.57204 | 107.713762  | 103.1307604 | 98.80527713 | 94.72081337 | 90.86203359 | 87.21467672 | 83.76547443 | 80.50207614 |
| 191112A00023 | 11/12/2019                          | 2.36 | 11/13/2029 | 11/12/2019 | 111.67445 | 105.2317799 | 99.22990419 | 93.63584757 | 88.41928338 | 83.55230637 | 79.00922678 | 74.76638293 | 70.80197065 |
| 160106A00042 | 1/6/2016                            | 2.43 | 1/6/2026   | 1/6/2016   | 103.02634 | 101.304604  | 99.62952623 | 97.99946445 | 96.41284327 | 94.86815472 | 93.36395483 | 91.89886038 | 90.47154588 |
| 180906A00032 | 9/6/2018                            | 3.24 | 9/5/2025   | 9/6/2018   | 107.19496 | 104.352582  | 101.6027943 | 98.94206494 | 96.36701676 | 93.87442011 | 91.46118539 | 89.12435616 | 86.86110262 |
| 191008A00014 | 10/8/2019                           | 1.85 | 10/8/2026  | 10/8/2019  | 104.84814 | 101.1080992 | 97.52701866 | 94.09724941 | 90.81155716 | 87.66309346 | 84.64537286 | 81.75225168 | 78.97790804 |
| 110909A00006 | 9/9/2011                            | 2.26 | 9/9/2026   | 9/9/2011   | 103.31918 | 101.2616156 | 99.26824064 | 97.33652689 | 95.46406201 | 93.64854585 | 91.8877844  | 90.17968415 | 88.52224677 |
| 150824A00050 | 8/24/2015                           | 2.03 | 8/25/2025  | 8/24/2015  | 102.23505 | 100.7275053 | 99.25716177 | 97.82279266 | 96.42322611 | 95.05733773 | 93.7240483  | 92.42232161 | 91.15116233 |
| 200115A00013 | 1/15/2020                           | 2.18 | 1/15/2030  | 1/15/2020  | 108.68002 | 103.3673348 | 98.39539493 | 93.73947808 | 89.376816   | 85.28642993 | 81.44897955 | 77.8466255  | 74.46290424 |
| 160301A00012 | 3/1/2016                            | 2.02 | 3/1/2023   | 3/1/2016   | 100.76345 | 100.3445084 | 99.92905164 | 99.51703525 | 99.10841662 | 98.70315386 | 98.30120578 | 97.90253184 | 97.50709218 |
| 161214A00034 | 12/14/2016                          | 2.65 | 12/14/2026 | 12/14/2016 | 104.42841 | 102.2236398 | 100.0910686 | 98.02772952 | 96.0307999  | 94.09759303 | 92.2255507  | 90.41223615 | 88.65532742 |
| 210512A00008 | 5/12/2021                           | 0.66 | 5/10/2024  | 5/12/2021  | 99.875952 | 98.34596112 | 96.8471028  | 95.37848751 | 93.93925965 | 92.52859578 | 91.14570302 | 89.7898177  | 88.46020392 |
| 120517A00021 | 5/17/2012                           | 1.85 | 5/17/2024  | 5/17/2012  | 101.18471 | 100.3076746 | 99.44645392 | 98.60060873 | 97.76971794 | 96.95337617 | 96.1511931  | 95.36279271 | 94.58781264 |
| 180322A00040 | 3/22/2018                           | 3.16 | 3/21/2031  | 3/22/2018  | 114.56585 | 109.0162609 | 103.8383145 | 99.00324197 | 94.48472397 | 90.25866644 | 86.3029979  | 82.59748635 | 79.12357397 |
| 210714A00011 | 7/14/2021                           | 0.75 | 7/12/2024  | 7/14/2021  | 100.04477 | 98.35697687 | 96.70612413 | 95.09111504 | 93.51089714 | 91.96445833 | 90.45082488 | 88.96905965 | 87.51826032 |
| 160908A00027 | 9/8/2016                            | 2.21 | 9/8/2026   | 9/8/2016   | 105.86941 | 102.285115  | 98.84871355 | 95.5532604  | 92.39217826 | 89.35923258 | 86.44851181 | 83.65440894 | 80.97160409 |
| 190605A00024 | 6/5/2019                            | 2.64 | 6/5/2029   | 6/5/2019   | 112.84914 | 106.6987294 | 100.946403  | 95.56388535 | 90.52506551 | 85.80582088 | 81.38385508 | 77.23854997 | 73.35083043 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 150227A00011 | 2/27/2015                           | 2.33 | 2/27/2025  | 2/27/2015  | 103.62623 | 101.571395  | 99.57197341 | 97.62612694 | 95.73208918 | 93.88816321 | 92.0927184  | 90.34418738 | 88.64106317 |
| 190308A00016 | 3/8/2019                            | 3.18 | 3/8/2034   | 3/8/2019   | 123.00777 | 113.3531082 | 104.6424563 | 96.77422339 | 89.65845125 | 83.21541304 | 77.37439134 | 72.07260835 | 67.25428852 |
| 190813A00052 | 8/13/2019                           | 2.24 | 8/13/2029  | 8/13/2019  | 110.59703 | 104.3983488 | 98.61126786 | 93.20590691 | 88.1547162  | 83.43227919 | 79.01513685 | 74.88162734 | 71.01173948 |
| 220104A00006 | 1/4/2022                            | 1.76 | 1/4/2029   | 1/4/2022   | 107.47457 | 102.1157104 | 97.08100765 | 92.34872439 | 87.89871099 | 83.7122765  | 79.77207481 | 76.06200047 | 72.56709302 |
| 190515A00035 | 5/15/2019                           | 2.82 | 2/15/2029  | 5/15/2019  | 113.44942 | 107.5107988 | 101.9417061 | 96.71690042 | 91.81299872 | 87.20832871 | 82.88279534 | 78.81775819 | 74.99591901 |
| 200330A00058 | 3/30/2020                           | 1.49 | 3/29/2030  | 3/30/2020  | 105.66661 | 99.77492888 | 94.29098502 | 89.18354893 | 84.42396854 | 79.9859408  | 75.84530665 | 71.97986487 | 68.36920309 |
| 210107A00008 | 1/7/2021                            | 0.54 | 1/5/2024   | 1/7/2021   | 99.702181 | 98.48541163 | 97.29683384 | 96.13546819 | 95.00038002 | 93.89067727 | 92.80550809 | 91.74405857 | 90.70555066 |
| 191209A00005 | 12/9/2019                           | 2.22 | 12/10/2029 | 12/9/2019  | 109.88941 | 103.9912735 | 98.48656414 | 93.34615533 | 88.54325393 | 84.05319805 | 79.85327568 | 75.92255971 | 72.24175781 |
| 180104A00024 | 1/4/2018                            | 2.98 | 1/4/2028   | 1/4/2018   | 111.72952 | 106.9085421 | 102.3396095 | 98.0079716  | 93.89983101 | 90.00227266 | 86.30320225 | 82.79128928 | 79.45591445 |
| 200309A00034 | 3/9/2020                            | 0.96 | 3/9/2035   | 3/9/2020   | 102.77224 | 96.66390894 | 91.06212412 | 85.91812653 | 81.18831793 | 76.83367673 | 72.81924162 | 69.11365685 | 65.68877167 |
| 191004A00025 | 10/4/2019                           | 1.74 | 10/4/2024  | 10/4/2019  | 101.99962 | 100.0711999 | 98.18967368 | 96.35359694 | 94.56158459 | 92.81230357 | 91.10447053 | 89.43684956 | 87.80825009 |
| 200406A00037 | 4/6/2020                            | 0.9  | 4/6/2023   | 4/6/2020   | 100.2855  | 99.77069029 | 99.26116796 | 98.75685521 | 98.25767233 | 97.76354123 | 97.27438541 | 96.7901299  | 96.31070124 |
| 150311A00003 | 3/11/2015                           | 2.72 | 3/31/2025  | 3/11/2015  | 104.62067 | 102.3334881 | 100.1111874 | 97.9515313  | 95.85237327 | 93.81165431 | 91.82739863 | 89.89770973 | 88.02076665 |
| 190605A00007 | 6/5/2019                            | 2.47 | 6/5/2026   | 6/5/2019   | 106.50748 | 103.0163785 | 99.66244517 | 96.43948115 | 93.34160447 | 90.36323388 | 87.49907149 | 84.74408647 | 82.09349983 |
| 200110A00039 | 1/10/2020                           | 2.32 | 1/10/2030  | 1/10/2020  | 111.60173 | 105.0401423 | 98.93588898 | 93.2541539  | 87.96296108 | 83.03293043 | 78.43705344 | 74.15048939 | 70.15038013 |
| 210714A00013 | 7/14/2021                           | 1.12 | 7/14/2026  | 7/14/2021  | 101.83244 | 98.40098905 | 95.10772316 | 91.94628763 | 88.91065795 | 85.99512021 | 83.19425315 | 80.50291141 | 77.91620975 |
| 210809A00012 | 8/9/2021                            | 1.06 | 8/7/2026   | 8/9/2021   | 101.67164 | 98.19140394 | 94.85343613 | 91.65115744 | 88.57832802 | 85.62902737 | 82.79763638 | 80.07882038 | 77.4675133  |
| 150224A00010 | 2/24/2015                           | 2.34 | 2/24/2025  | 2/24/2015  | 102.36134 | 100.9237828 | 99.51926001 | 98.14675889 | 96.8053058  | 95.49396357 | 94.21182988 | 92.9580358  | 91.73174422 |
| 180718A00008 | 7/18/2018                           | 3.37 | 7/18/2028  | 7/18/2018  | 115.46716 | 109.8073164 | 104.4719014 | 99.44037984 | 94.69362844 | 90.21383045 | 85.98437952 | 81.98979115 | 78.21562105 |
| 190103A00020 | 1/3/2019                            | 3.12 | 1/5/2026   | 1/3/2019   | 107.69917 | 104.5476233 | 101.50791   | 98.57537085 | 95.74557679 | 93.01431123 | 90.37755847 | 87.8314926  | 85.37246719 |
| 200818A00012 | 8/18/2020                           | 0.97 | 8/18/2027  | 8/18/2020  | 102.07407 | 97.71163026 | 93.56783229 | 89.63052375 | 85.88829384 | 82.33042052 | 78.94682546 | 75.7280322  | 72.66512719 |
| 180813A00045 | 8/13/2018                           | 2.89 | 8/13/2025  | 8/13/2018  | 103.56031 | 102.0342596 | 100.5458256 | 99.09377381 | 97.67692047 | 96.29412965 | 94.94431098 | 93.6264175  | 92.33944354 |
| 160209A00006 | 2/9/2016                            | 1.91 | 2/9/2026   | 2/9/2016   | 102.17124 | 100.4224857 | 98.72202691 | 97.06813762 | 95.45916705 | 93.89353548 | 92.36973061 | 90.88630416 | 89.44186871 |
| 190205A00023 | 2/5/2019                            | 3.32 | 2/5/2029   | 2/5/2019   | 115.85637 | 110.0163303 | 104.5334026 | 99.38346941 | 94.54417174 | 89.99477255 | 85.71603079 | 81.69008603 | 77.90035248 |
| 150617A00017 | 6/17/2015                           | 2.27 | 6/17/2025  | 6/17/2015  | 102.46034 | 101.0327233 | 99.63890861 | 98.27781369 | 96.94840137 | 95.64967591 | 94.38068102 | 93.14049791 | 91.92824356 |
| 191203A00011 | 12/3/2019                           | 2.21 | 12/3/2029  | 12/3/2019  | 110.75862 | 104.3146499 | 98.31471667 | 92.72537907 | 87.51589977 | 82.65801214 | 78.12570859 | 73.89504821 | 69.94398173 |
| 160413A00020 | 4/13/2016                           | 2.48 | 4/13/2026  | 4/13/2016  | 106.04283 | 102.7836191 | 99.64745667 | 96.62898324 | 93.7231012  | 90.92496352 | 88.22995983 | 85.63370351 | 83.13201942 |
| 210611A00008 | 6/11/2021                           | 0.61 | 6/11/2024  | 6/11/2021  | 99.796111 | 98.17849802 | 96.59500601 | 95.0446154  | 93.52634772 | 92.03926329 | 90.58245921 | 89.15506759 | 87.75625378 |
| 170309A00016 | 3/9/2017                            | 2.39 | 3/8/2024   | 3/9/2017   | 101.52405 | 100.7279301 | 99.94566591 | 99.17687955 | 98.42120645 | 97.67829568 | 96.94780926 | 96.22942159 | 95.52281881 |
| 180905A00017 | 9/5/2018                            | 3.43 | 9/6/2033   | 9/5/2018   | 126.16113 | 116.2713796 | 107.3344517 | 99.2502127  | 91.92968305 | 85.29373614 | 79.27195416 | 73.80162254 | 68.82684541 |
| 171013A00024 | 10/13/2017                          | 2.47 | 10/15/2024 | 10/13/2017 | 103.39945 | 101.4806982 | 99.60864477 | 97.7818463  | 95.99891074 | 94.25849919 | 92.55932337 | 90.9001433  | 89.27976517 |
| 190702A00071 | 7/2/2019                            | 2.69 | 7/1/2039   | 7/2/2019   | 121.55933 | 108.8227947 | 97.78878678 | 88.20726656 | 79.86702606 | 72.58940486 | 66.22306061 | 60.63960861 | 55.72998185 |
| 190702A00068 | 7/2/2019                            | 2.69 | 7/1/2039   | 7/2/2019   | 121.55934 | 108.8227986 | 97.78878343 | 88.2072572  | 79.86701173 | 72.58938645 | 66.22303886 | 60.63958414 | 55.7299552  |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 151209A00024 | 12/9/2015                           | 2.22 | 12/9/2025  | 12/9/2015  | 102.81069 | 101.1302899 | 99.4946792  | 97.90229405 | 96.35164169 | 94.84129262 | 93.3698773  | 91.9360832  | 90.53865198 |
| 160603A00014 | 6/3/2016                            | 1.74 | 6/3/2026   | 6/3/2016   | 102.32063 | 100.4019262 | 98.54021416 | 96.7333316  | 94.97921665 | 93.27590043 | 91.62150227 | 90.01422505 | 88.4523509  |
| 160608A00025 | 6/8/2016                            | 2.36 | 6/8/2026   | 6/8/2016   | 105.93966 | 102.5569053 | 99.30606636 | 96.18119379 | 93.17664669 | 90.28707236 | 87.50738961 | 84.83277317 | 82.2586391  |
| 160908A00031 | 9/8/2016                            | 2.21 | 9/8/2026   | 9/8/2016   | 105.86941 | 102.2851149 | 98.84871358 | 95.55326057 | 92.39217855 | 89.35923299 | 86.44851234 | 83.65440958 | 80.97160483 |
| 191105A00012 | 11/5/2019                           | 2.07 | 11/3/2034  | 11/5/2019  | 109.86717 | 103.5024291 | 97.65296659 | 92.27030107 | 87.31097788 | 82.73600542 | 78.51036197 | 74.60256027 | 70.98426296 |
| 120330A00013 | 3/30/2012                           | 2.98 | 4/2/2024   | 3/30/2012  | 103.17607 | 101.7711146 | 100.3935176 | 99.0425375  | 97.71746275 | 96.41760667 | 95.14230654 | 93.89092248 | 92.66283647 |
| 140730A00035 | 7/30/2014                           | 2.67 | 1/30/2023  | 7/30/2014  | 100.64719 | 100.4340013 | 100.2218843 | 100.010834  | 99.80084164 | 99.59189833 | 99.38399544 | 99.17712438 | 98.97127668 |
| 190813A00067 | 8/13/2019                           | 1.9  | 8/13/2024  | 8/13/2019  | 102.14536 | 100.3449957 | 98.58564659 | 96.86613681 | 95.18533036 | 93.54213093 | 91.93548026 | 90.36435653 | 88.8277729  |
| 191015A00025 | 10/15/2019                          | 2.01 | 10/15/2029 | 10/15/2019 | 105.31724 | 101.6825586 | 98.23051085 | 94.95012507 | 91.83117083 | 88.8641075  | 86.04003304 | 83.35063684 | 80.78815638 |
| 220310A00009 | 3/10/2022                           | 2.31 | 3/10/2027  | 3/10/2022  | 107.37933 | 103.250422  | 99.31129012 | 95.55214625 | 91.96376056 | 88.5374256  | 85.26492386 | 82.1384977  | 79.15082117 |
| 150410A00021 | 4/10/2015                           | 2.27 | 4/10/2025  | 4/10/2015  | 102.14205 | 100.8044038 | 99.49708037 | 98.21914177 | 96.96968651 | 95.74784813 | 94.55279359 | 93.38372167 | 92.23986151 |
| 150803A00041 | 8/3/2015                            | 3.01 | 8/2/2030   | 8/3/2015   | 110.17934 | 105.950322  | 101.9552912 | 98.17887207 | 94.60682698 | 91.2259608  | 88.02403715 | 84.98970211 | 82.11241438 |
| 190308A00026 | 3/8/2019                            | 3.18 | 3/8/2034   | 3/8/2019   | 123.00777 | 113.3531081 | 104.6424562 | 96.77422341 | 89.65845132 | 83.21541316 | 77.3743915  | 72.07260855 | 67.25428875 |
| 170406A00026 | 4/6/2017                            | 2.61 | 4/8/2024   | 4/6/2017   | 102.77894 | 101.3066253 | 99.86329429 | 98.44816057 | 97.06046352 | 95.69946944 | 94.36447038 | 93.05478302 | 91.76974758 |
| 170615A00006 | 6/15/2017                           | 2.15 | 6/17/2024  | 6/15/2017  | 101.34947 | 100.4704604 | 99.60730299 | 98.75956244 | 97.92681599 | 97.10865676 | 96.30469298 | 95.51454728 | 94.73785599 |
| 181214A00030 | 12/14/2018                          | 3.47 | 12/14/2033 | 12/14/2018 | 126.75734 | 116.5105328 | 107.2731962 | 98.93692641 | 91.40565952 | 84.59419775 | 78.42692006 | 72.83665264 | 67.76367826 |
| 190708A00028 | 7/8/2019                            | 2.57 | 7/2/2029   | 7/8/2019   | 112.5289  | 106.3326901 | 100.5414374 | 95.12610221 | 90.05989372 | 85.31808047 | 80.87782067 | 76.71800759 | 72.81912851 |
| 200130A00046 | 1/30/2020                           | 1.81 | 1/29/2027  | 1/30/2020  | 102.61339 | 100.4051041 | 98.27030946 | 96.20594723 | 94.20910619 | 92.27701704 | 90.40704439 | 88.59667938 | 86.84353268 |
| 160801A00002 | 8/1/2016                            | 1.58 | 8/3/2026   | 8/1/2016   | 102.11037 | 100.1137111 | 98.17840091 | 96.30205458 | 94.48239388 | 92.71724548 | 91.00453541 | 89.34228377 | 87.7285998  |
| 170406A00034 | 4/6/2017                            | 3.01 | 4/6/2027   | 4/6/2017   | 110.24847 | 106.0717689 | 102.087768  | 98.28643961 | 94.65833148 | 91.19453269 | 87.88663982 | 84.72672517 | 81.70730728 |
| 210412A00008 | 4/12/2021                           | 0.66 | 4/12/2024  | 4/12/2021  | 99.868879 | 98.40905691 | 96.97813484 | 95.57532135 | 94.19985343 | 92.85099525 | 91.52803704 | 90.23029384 | 88.95710451 |
| 140924A00057 | 9/24/2014                           | 3.25 | 9/25/2028  | 9/24/2014  | 115.47199 | 109.9165772 | 104.6854368 | 99.7575873  | 95.1135171  | 90.73507692 | 86.60537771 | 82.70869655 | 79.03039011 |
| 170511A00011 | 5/11/2017                           | 2.41 | 5/11/2027  | 5/11/2017  | 104.6456  | 102.2227183 | 99.88558524 | 97.63043409 | 95.45369376 | 93.35197509 | 91.32206029 | 89.36089309 | 87.46556951 |
| 191224A00002 | 12/24/2019                          | 2.17 | 12/24/2029 | 12/24/2019 | 106.05952 | 102.316452  | 98.76530642 | 95.39433335 | 92.19259286 | 89.14989571 | 86.25674662 | 83.50429222 | 80.88427319 |
| 151030A00026 | 10/30/2015                          | 3.29 | 10/30/2030 | 10/30/2015 | 117.95925 | 111.0730995 | 104.6904743 | 98.77059028 | 93.2762156  | 88.17334273 | 83.43089158 | 79.02044155 | 74.91598938 |
| 160908A00026 | 9/8/2016                            | 2.21 | 9/8/2026   | 9/8/2016   | 105.86941 | 102.2851149 | 98.84871357 | 95.5532605  | 92.39217844 | 89.35923283 | 86.44851214 | 83.65440933 | 80.97160455 |
| 180410A00002 | 4/10/2018                           | 3.14 | 4/11/2033  | 4/10/2018  | 115.02442 | 109.1829754 | 103.7596238 | 98.71938306 | 94.03051129 | 89.66418322 | 85.59420037 | 81.79673203 | 78.25008343 |
| 161012A00011 | 10/12/2016                          | 1.53 | 10/12/2023 | 10/12/2016 | 100.65105 | 100.0781528 | 99.51466929 | 98.96034319 | 98.41492972 | 97.87819316 | 97.34990643 | 96.82985067 | 96.31781488 |
| 170619A00092 | 6/16/2017                           | 2.79 | 6/16/2027  | 6/16/2017  | 109.70436 | 105.3884365 | 101.2784196 | 97.36322789 | 93.63243907 | 90.07625012 | 86.68543671 | 83.45131553 | 80.36570934 |
| 180628A00068 | 6/28/2018                           | 3.12 | 6/28/2028  | 6/28/2018  | 112.04247 | 107.5252794 | 103.247229  | 99.19383673 | 95.35159495 | 91.70789527 | 88.2509632  | 84.96979783 | 81.85411636 |
| 190718A00012 | 7/18/2019                           | 2.55 | 7/18/2029  | 7/18/2019  | 111.38416 | 105.6895293 | 100.3569861 | 95.3609413  | 90.67776208 | 86.28561315 | 82.16431024 | 78.29518644 | 74.66097    |
| 210714A00018 | 7/14/2021                           | 0.75 | 7/12/2024  | 7/14/2021  | 100.04595 | 98.37451749 | 96.73959855 | 95.14011125 | 93.57501578 | 92.0433122  | 90.54403848 | 89.07626874 | 87.63911148 |
| 170105A00010 | 1/5/2017                            | 2.61 | 1/5/2027   | 1/5/2017   | 104.43242 | 102.1864328 | 100.0151233 | 97.915381   | 95.88424969 | 93.91891728 | 92.01670774 | 90.17507352 | 88.3915885  |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 200306A00058 | 3/6/2020                            | 1.06 | 3/6/2030   | 3/6/2020   | 101.92635 | 98.21019088 | 94.69023451 | 91.35413743 | 88.19043323 | 85.18846178 | 82.33830695 | 79.63073957 | 77.05716507 |
| 160608A00033 | 6/8/2016                            | 2.44 | 6/9/2031   | 6/8/2016   | 108.5525  | 103.9673131 | 99.65905317 | 95.60797393 | 91.79590224 | 88.20610137 | 84.82314724 | 81.63281606 | 78.62198239 |
| 161202A00001 | 12/2/2016                           | 2.65 | 12/1/2023  | 12/2/2016  | 102.20948 | 101.056665  | 99.93005839 | 98.82877249 | 97.75195838 | 96.69880483 | 95.66853614 | 94.66041023 | 93.67371684 |
| 170207A00055 | 2/7/2017                            | 2.36 | 2/8/2027   | 2/7/2017   | 104.24778 | 101.9589687 | 99.74759324 | 97.61038244 | 95.544229   | 93.54617869 | 91.61342173 | 89.74328471 | 87.93322305 |
| 200317A00009 | 3/17/2020                           | 1.61 | 3/16/2035  | 3/17/2020  | 106.07993 | 99.80230518 | 94.04381146 | 88.75458646 | 83.89003893 | 79.41024927 | 75.27944336 | 71.4655292  | 67.93968854 |
| 150925A00034 | 9/25/2015                           | 2.36 | 9/25/2025  | 9/25/2015  | 102.6156  | 101.0640463 | 99.55148795 | 98.07663127 | 96.638232   | 95.23509672 | 93.86608032 | 92.53008366 | 91.22605137 |
| 161004A00070 | 10/4/2016                           | 1.92 | 10/4/2023  | 10/4/2016  | 101.2791  | 100.282547  | 99.30571194 | 98.34801491 | 97.4088963  | 96.48781817 | 95.58426319 | 94.69773364 | 93.82775055 |
| 140618A00019 | 6/18/2014                           | 3.08 | 6/18/2024  | 6/18/2014  | 102.27367 | 101.3468979 | 100.4371134 | 99.54384428 | 98.66663357 | 97.80504145 | 96.95864457 | 96.12703525 | 95.30982073 |
| 191122A00003 | 11/22/2019                          | 2.32 | 11/22/2039 | 11/22/2019 | 115.53633 | 104.3905947 | 94.67277646 | 86.17798454 | 78.73276311 | 72.19003641 | 66.42489488 | 61.33108084 | 56.81805382 |
| 171207A00024 | 12/7/2017                           | 2.93 | 12/7/2027  | 12/7/2017  | 111.67316 | 106.7887639 | 102.1591399 | 97.76947532 | 93.60590156 | 89.65543014 | 85.90589196 | 82.34588087 | 78.96470152 |
| 180104A00023 | 1/4/2018                            | 2.91 | 1/4/2028   | 1/4/2018   | 109.97987 | 105.7419857 | 101.7155174 | 97.88841788 | 94.24939851 | 90.78788052 | 87.49394588 | 84.35829203 | 81.37219001 |
| 200206A00034 | 2/6/2020                            | 1.84 | 2/6/2025   | 2/6/2020   | 102.56537 | 100.3194074 | 98.1347543  | 96.00939477 | 93.94139489 | 91.92889505 | 89.97010661 | 88.06330876 | 86.20684557 |
| 200327A00094 | 3/27/2020                           | 1.6  | 3/27/2030  | 3/27/2020  | 106.33787 | 100.4169332 | 94.90535251 | 89.77180659 | 84.98755138 | 80.52619754 | 76.36350506 | 72.47719683 | 68.84678927 |
| 150929A00083 | 9/29/2015                           | 2.09 | 9/29/2025  | 9/29/2015  | 102.39248 | 100.8410198 | 99.32863621 | 97.85402625 | 96.41594079 | 95.01318188 | 93.64460017 | 92.30909253 | 91.00559988 |
| 160608A00030 | 6/8/2016                            | 2.36 | 6/8/2026   | 6/8/2016   | 105.93966 | 102.5569054 | 99.30606635 | 96.1811937  | 93.17664653 | 90.28707213 | 87.50738932 | 84.83277281 | 82.25863869 |
| 180628A00078 | 6/28/2018                           | 2.73 | 6/28/2023  | 6/28/2018  | 101.08693 | 100.6642529 | 100.2460027 | 99.83209934 | 99.42246758 | 99.0170339  | 98.6157266  | 98.21847568 | 97.82521285 |
| 181128A00011 | 11/28/2018                          | 3.27 | 11/28/2023 | 11/28/2018 | 102.91094 | 101.7636451 | 100.6422081 | 99.54576303 | 98.47347844 | 97.42455927 | 96.39824507 | 95.39380816 | 94.41055184 |
| 151228A00013 | 12/28/2015                          | 2.27 | 12/29/2025 | 12/28/2015 | 102.89935 | 101.2161182 | 99.57780223 | 97.98283489 | 96.42971687 | 94.91701249 | 93.44334641 | 92.00740066 | 90.60791179 |
| 160908A00036 | 9/8/2016                            | 2.3  | 9/8/2031   | 9/8/2016   | 108.11083 | 103.4199616 | 99.01948691 | 94.88821896 | 91.00669123 | 87.35700947 | 83.92271341 | 80.68865157 | 77.64086786 |
| 201207A00009 | 12/7/2020                           | 1.01 | 12/7/2027  | 12/7/2020  | 102.42111 | 97.80433453 | 93.43099439 | 89.28685749 | 85.35859994 | 81.63374656 | 78.10061198 | 74.74824621 | 71.56638416 |
| 190605A00027 | 6/5/2019                            | 2.64 | 6/5/2029   | 6/5/2019   | 112.84915 | 106.6987332 | 100.9464037 | 95.56388319 | 90.52506075 | 85.80581373 | 81.38384575 | 77.23853864 | 73.35081726 |
| 210611A00011 | 6/11/2021                           | 1.02 | 6/11/2026  | 6/11/2021  | 101.40465 | 98.05837742 | 94.84418684 | 91.75607789 | 88.78836389 | 85.93565025 | 83.19281753 | 80.55500555 | 78.01759852 |
| 160810A00025 | 8/10/2016                           | 2.17 | 8/10/2026  | 8/10/2016  | 105.58518 | 102.0720997 | 98.70142665 | 95.46660104 | 92.36139561 | 89.37990162 | 86.51651082 | 83.76589866 | 81.12300836 |
| 200109A00006 | 1/9/2020                            | 1.95 | 1/9/2030   | 1/9/2020   | 105.82255 | 102.0355881 | 98.44512957 | 95.0390107  | 91.80591696 | 88.73531803 | 85.81740803 | 83.04305062 | 80.40372867 |
| 150722A00033 | 7/22/2015                           | 2.47 | 7/22/2025  | 7/22/2015  | 102.63914 | 101.1700294 | 99.73637018 | 98.33701415 | 96.97086005 | 95.63685092 | 94.33397201 | 93.06124864 | 91.81774433 |
| 160810A00030 | 8/10/2016                           | 2.24 | 8/11/2031  | 8/10/2016  | 107.75592 | 103.1215834 | 98.77181672 | 94.68601431 | 90.84523334 | 87.23205004 | 83.830427   | 80.62559297 | 77.60393382 |
| 160908A00017 | 9/8/2016                            | 1.87 | 9/8/2023   | 9/8/2016   | 101.18402 | 100.2598131 | 99.35262513 | 98.4619898  | 97.58745569 | 96.72858768 | 95.88496624 | 95.05618673 | 94.24185872 |
| 171109A00016 | 11/9/2017                           | 2.94 | 11/9/2032  | 11/9/2017  | 120.29852 | 111.3169736 | 103.1504194 | 95.71826704 | 88.94838694 | 82.77617802 | 77.14374154 | 71.99914981 | 67.29579831 |
| 180215A00034 | 2/15/2018                           | 2.9  | 2/15/2023  | 2/15/2018  | 101.06205 | 100.6806078 | 100.3020584 | 99.92636913 | 99.55350755 | 99.1834417  | 98.81614011 | 98.45157181 | 98.08970625 |
| 180517A00024 | 5/17/2018                           | 3.46 | 5/17/2033  | 5/17/2018  | 117.031   | 111.0435586 | 105.4876418 | 100.3269015 | 95.52838079 | 91.06217    | 86.90110225 | 83.02048119 | 79.39783775 |
| 150803A00042 | 8/3/2015                            | 3.01 | 8/2/2030   | 8/3/2015   | 110.17934 | 105.9503219 | 101.9552912 | 98.17887211 | 94.60682706 | 91.22596091 | 88.02403731 | 84.9897023  | 82.11241461 |
| 160428A00028 | 4/28/2016                           | 2    | 4/28/2026  | 4/28/2016  | 102.69864 | 100.8537076 | 99.06176245 | 97.32085078 | 95.62910505 | 93.98474018 | 92.38604925 | 90.83139946 | 89.31922841 |
| 170619A00101 | 6/16/2017                           | 2.74 | 6/16/2027  | 6/16/2017  | 109.03346 | 104.9191305 | 100.998006  | 97.25977693 | 93.69474317 | 90.29377799 | 87.04829044 | 83.95019062 | 80.99185743 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 170406A00032 | 4/6/2017                            | 3.01 | 4/6/2027   | 4/6/2017   | 110.24847 | 106.071769  | 102.087768  | 98.28643959 | 94.65833139 | 91.19453255 | 87.88663962 | 84.72672491 | 81.70730697 |
| 200414A00024 | 4/14/2020                           | 1.37 | 4/14/2027  | 4/14/2020  | 103.55723 | 99.42488615 | 95.48717144 | 91.73382523 | 88.15518776 | 84.74215777 | 81.48615707 | 78.37909768 | 75.41335113 |
| 200623A00028 | 6/23/2020                           | 1.23 | 6/23/2038  | 6/23/2020  | 104.58135 | 96.91788496 | 90.02986983 | 83.82691133 | 78.23012465 | 73.17057173 | 68.58792175 | 64.42930168 | 60.64830873 |
| 160608A00020 | 6/8/2016                            | 2.36 | 6/8/2026   | 6/8/2016   | 105.93966 | 102.5569052 | 99.30606637 | 96.18119388 | 93.17664686 | 90.28707261 | 87.50738992 | 84.83277355 | 82.25863955 |
| 161014A00029 | 10/14/2016                          | 2.51 | 10/15/2031 | 10/14/2016 | 109.89528 | 105.0684758 | 100.543656  | 96.29856383 | 92.31277451 | 88.5675282  | 85.04558223 | 81.73107754 | 78.60941763 |
| 200330A00079 | 3/30/2020                           | 1.51 | 3/30/2035  | 3/30/2020  | 105.42808 | 99.18865052 | 93.46523759 | 88.20827017 | 83.37342082 | 78.92100669 | 74.8154663  | 71.02489886 | 67.52065819 |
| 180420A00011 | 4/20/2018                           | 2.74 | 4/20/2023  | 4/20/2018  | 100.91392 | 100.5788153 | 100.2464424 | 99.91676269 | 99.58974005 | 99.265339   | 98.94352471 | 98.62426304 | 98.30752045 |
| 180605A00031 | 6/5/2018                            | 3.37 | 6/5/2030   | 6/5/2018   | 111.47645 | 107.2840261 | 103.3193032 | 99.56757911 | 96.01521651 | 92.64956098 | 89.45886321 | 86.43220799 | 83.55944918 |
| 181128A00004 | 11/28/2018                          | 3.08 | 11/28/2023 | 11/28/2018 | 102.81695 | 101.6687834 | 100.5465255 | 99.44930824 | 98.37629757 | 97.32669611 | 96.29974124 | 95.29470317 | 94.31088325 |
| 190104A00038 | 1/4/2019                            | 3.25 | 1/4/2029   | 1/4/2019   | 115.26703 | 109.5194294 | 104.1192264 | 99.04315395 | 94.26963957 | 89.77867033 | 85.55167149 | 81.57139511 | 77.82181799 |
| 200309A00083 | 3/9/2020                            | 0.82 | 3/9/2023   | 3/9/2020   | 100.25537 | 99.81607803 | 99.38064189 | 98.94901274 | 98.52114069 | 98.09697672 | 97.67647267 | 97.25958118 | 96.84625574 |
| 130614A00018 | 6/14/2013                           | 2.83 | 6/14/2023  | 6/14/2013  | 101.08296 | 100.6650078 | 100.2513437 | 99.84189877 | 99.4366018  | 99.0353831  | 98.63817465 | 98.24491004 | 97.85552439 |
| 150803A00037 | 8/3/2015                            | 3.41 | 8/2/2030   | 8/3/2015   | 118.37716 | 111.631833  | 105.3674957 | 99.54616732 | 94.13308782 | 89.09643156 | 84.40704413 | 80.03820411 | 75.96540724 |
| 180809A00034 | 8/9/2018                            | 3.08 | 8/9/2023   | 8/9/2018   | 102.15682 | 101.3025247 | 100.4626299 | 99.63677263 | 98.82460192 | 98.02577853 | 97.23997436 | 96.46687199 | 95.70616427 |
| 201203A00007 | 12/3/2020                           | 0.58 | 12/1/2023  | 12/3/2020  | 99.80458  | 98.67331012 | 97.56780688 | 96.48719584 | 95.43064173 | 94.39734632 | 93.38654635 | 92.39751167 | 91.42954346 |
| 170526A00017 | 5/26/2017                           | 2.16 | 5/28/2024  | 5/26/2017  | 101.3031  | 100.4654811 | 99.64271949 | 98.83440882 | 98.04015591 | 97.25958226 | 96.49232333 | 95.73802794 | 94.99635758 |
| 190905A00019 | 9/5/2019                            | 2.08 | 9/5/2029   | 9/5/2019   | 109.653   | 103.4477992 | 97.65822935 | 92.25386869 | 87.20668203 | 82.49082316 | 78.082453   | 73.95957377 | 70.1018777  |
| 181218A00086 | 12/18/2018                          | 3.06 | 10/18/2023 | 12/18/2018 | 102.44574 | 101.4278947 | 100.4307236 | 99.45360092 | 98.49592194 | 97.5571063  | 96.63659656 | 95.73385715 | 94.84837325 |
| 190403A00013 | 4/3/2019                            | 3.05 | 4/3/2029   | 4/3/2019   | 114.58845 | 108.6760925 | 103.1335679 | 97.935332   | 93.05774354 | 88.47891541 | 84.17857555 | 80.1379393  | 76.33959267 |
| 151005A00084 | 10/5/2015                           | 2.25 | 10/5/2022  | 10/5/2015  | 100.0448  | 100.0309094 | 100.0170322 | 100.0031685 | 99.9893183  | 99.97548159 | 99.96165833 | 99.94784849 | 99.93405207 |
| 220407A00017 | 4/7/2022                            | 3.16 | 4/6/2029   | 4/7/2022   | 114.64019 | 108.9328074 | 103.5773409 | 98.54966746 | 93.82745275 | 89.39001214 | 85.21818025 | 81.29419121 | 77.60156908 |
| 160907A00041 | 9/7/2016                            | 1.83 | 9/7/2023   | 9/7/2016   | 101.1489  | 100.22318   | 99.31449519 | 98.42237326 | 97.54636335 | 96.68603091 | 95.84095689 | 95.01073709 | 94.19498147 |
| 180809A00032 | 8/9/2018                            | 3.08 | 8/9/2023   | 8/9/2018   | 102.15682 | 101.3025247 | 100.4626299 | 99.63677262 | 98.8246019  | 98.02577851 | 97.23997433 | 96.46687196 | 95.70616423 |
| 151223A00078 | 12/23/2015                          | 2.28 | 12/23/2025 | 12/23/2015 | 102.9156  | 101.2325256 | 99.5943425  | 97.9994888  | 96.44646663 | 94.93384158 | 93.4602395  | 92.02434351 | 90.62489119 |
| 200413A00013 | 4/13/2020                           | 1.19 | 4/12/2030  | 4/13/2020  | 102.45694 | 98.68158517 | 95.10750301 | 91.72191401 | 88.51295621 | 85.46960885 | 82.58162687 | 79.83948091 | 77.23430241 |
| 150213A00014 | 2/13/2015                           | 2.41 | 2/13/2025  | 2/13/2015  | 102.35675 | 101.0962721 | 99.8632085  | 98.65672923 | 97.4760395  | 96.32037506 | 95.18900075 | 94.0812091  | 92.99631911 |
| 151006A00050 | 10/6/2015                           | 2.21 | 10/6/2022  | 10/6/2015  | 100.05326 | 100.0365863 | 100.0199328 | 100.003296  | 99.98667583 | 99.97007231 | 99.95348542 | 99.93691511 | 99.92036137 |
| 200709A00018 | 7/9/2020                            | 0.59 | 7/7/2023   | 7/9/2020   | 100.05629 | 99.29788801 | 98.55099431 | 97.81535216 | 97.09070839 | 96.37681739 | 95.67344082 | 94.98034735 | 94.29731238 |
| 201228A00013 | 12/28/2020                          | 0.84 | 12/30/2030 | 12/28/2020 | 101.17895 | 97.13694869 | 93.32690158 | 89.73303822 | 86.3407922  | 83.13669822 | 80.10830118 | 77.24407316 | 74.53333793 |
| 160511A00015 | 5/11/2016                           | 2.42 | 5/11/2026  | 5/11/2016  | 105.99627 | 102.6746728 | 99.48051034 | 96.40813239 | 93.45217613 | 90.60754742 | 87.86940563 | 85.23314943 | 82.69440344 |
| 161207A00014 | 12/7/2016                           | 2.75 | 12/8/2031  | 12/7/2016  | 111.26864 | 106.2964317 | 101.6402813 | 97.27654853 | 93.18356262 | 89.34144426 | 85.73194455 | 82.33829945 | 79.14509822 |
| 200512A00017 | 5/12/2020                           | 0.85 | 5/12/2025  | 5/12/2020  | 100.33483 | 97.95876341 | 95.65298629 | 93.41497016 | 91.2422984  | 89.13265745 | 87.08383162 | 85.09369823 | 83.16022298 |
| 150722A00035 | 7/22/2015                           | 2.92 | 7/22/2025  | 7/22/2015  | 105.68053 | 103.1214112 | 100.641344  | 98.23741146 | 95.90682294 | 93.64690763 | 91.45510841 | 89.32897634 | 87.2661653  |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 150814A00029 | 8/14/2015                           | 2.39 | 8/14/2025  | 8/14/2015  | 102.58952 | 101.0804807 | 99.60857593 | 98.17259205 | 96.77136199 | 95.40376579 | 94.06872835 | 92.76521729 | 91.49224087 |
| 160413A00016 | 4/13/2016                           | 2.55 | 4/14/2031  | 4/13/2016  | 108.90175 | 104.3853593 | 100.1372043 | 96.13845261 | 92.37175413 | 88.82111016 | 85.47175837 | 82.31006857 | 79.3234478  |
| 200306A00048 | 3/6/2020                            | 1.04 | 3/6/2035   | 3/6/2020   | 103.28676 | 97.14801744 | 91.5183378  | 86.34871382 | 81.59533238 | 77.21897943 | 73.18452109 | 69.46044678 | 66.01846659 |
| 200306A00050 | 3/6/2020                            | 0.87 | 3/6/2030   | 3/6/2020   | 101.72751 | 98.00710105 | 94.48355816 | 91.14447618 | 87.97832841 | 84.97440024 | 82.12272629 | 79.41403279 | 76.83968486 |
| 190205A00019 | 2/5/2019                            | 2.94 | 2/5/2024   | 2/5/2019   | 102.89374 | 101.5774289 | 100.2845349 | 99.01448195 | 97.76671438 | 96.54069425 | 95.33590051 | 94.15182836 | 92.98798865 |
| 210412A00007 | 4/12/2021                           | 0.66 | 4/12/2024  | 4/12/2021  | 99.868879 | 98.4090569  | 96.97813482 | 95.57532133 | 94.1998534  | 92.85099522 | 91.52803699 | 90.23029379 | 88.95710445 |
| 190708A00025 | 7/8/2019                            | 2.21 | 7/1/2024   | 7/8/2019   | 102.56155 | 100.8623257 | 99.19975066 | 97.57270211 | 95.98010673 | 94.42093475 | 92.89419772 | 91.39894644 | 89.93426893 |
| 191031A00025 | 10/31/2019                          | 1.91 | 10/31/2024 | 10/31/2019 | 101.36069 | 100.2767734 | 99.21449925 | 98.17324551 | 97.15241355 | 96.15142723 | 95.16973183 | 94.20679301 | 93.26209592 |
| 200206A00033 | 2/6/2020                            | 2.15 | 2/6/2030   | 2/6/2020   | 110.54623 | 103.9773611 | 97.87077973 | 92.19102001 | 86.90552743 | 81.98440283 | 77.40017277 | 73.12758086 | 69.14339803 |
| 190104A00006 | 1/4/2019                            | 2.83 | 1/5/2026   | 1/4/2019   | 103.73025 | 101.9968752 | 100.3104732 | 98.66938802 | 97.07203371 | 95.51689232 | 94.00251025 | 92.5274951  | 91.09051257 |
| 190501A00015 | 5/1/2019                            | 2.78 | 5/1/2029   | 5/1/2019   | 107.70764 | 104.2015056 | 100.8625297 | 97.68113706 | 94.64837797 | 91.75587992 | 88.99580654 | 86.36081962 | 83.84404401 |
| 170921A00057 | 9/21/2017                           | 2.79 | 9/21/2027  | 9/21/2017  | 109.7433  | 105.4115342 | 101.292795  | 97.37526708 | 93.64785362 | 90.10013201 | 86.72230906 | 83.50517962 | 80.44008816 |
| 200311A00026 | 3/11/2020                           | 1.34 | 3/11/2030  | 3/11/2020  | 105.02935 | 98.86563212 | 93.13648361 | 87.80836207 | 82.85049649 | 78.2346462  | 73.93488005 | 69.92737586 | 66.19023825 |
| 151118A00037 | 11/18/2015                          | 2.75 | 11/18/2025 | 11/18/2015 | 105.38018 | 102.7849825 | 100.2749187 | 97.8466283  | 95.49690726 | 93.22269875 | 91.02108534 | 88.88928155 | 86.82462707 |
| 150812A00052 | 8/14/2015                           | 2.13 | 8/14/2025  | 8/14/2015  | 102.38741 | 100.8784837 | 99.40675232 | 97.97099857 | 96.57005162 | 95.20278806 | 93.86812958 | 92.56504075 | 91.29252701 |
| 190404A00015 | 4/4/2019                            | 2.88 | 4/3/2026   | 4/4/2019   | 107.53208 | 104.1674017 | 100.9300812 | 97.81458126 | 94.8156352  | 91.92823398 | 89.14761206 | 86.4692341  | 83.88878254 |
| 210714A00015 | 7/14/2021                           | 1.11 | 7/14/2026  | 7/14/2021  | 101.74973 | 98.39536178 | 95.17508585 | 92.08276292 | 89.11256718 | 86.25897248 | 83.51673517 | 80.88087778 | 78.34667398 |
| 161222A00013 | 12/22/2016                          | 2.93 | 12/22/2026 | 12/22/2016 | 109.31052 | 105.5436365 | 101.9387418 | 98.4878375  | 95.18336901 | 92.01819956 | 88.98558459 | 86.07914758 | 83.29285759 |
| 170406A00029 | 4/6/2017                            | 3.01 | 4/6/2027   | 4/6/2017   | 110.24847 | 106.0717701 | 102.0877685 | 98.28643938 | 94.65833057 | 91.19453116 | 87.88663769 | 84.72672248 | 81.70730407 |
| 190930A00026 | 9/30/2019                           | 1.95 | 9/30/2024  | 9/30/2019  | 102.35318 | 100.4700654 | 98.6323523  | 96.83865529 | 95.08764102 | 93.37802597 | 91.70857414 | 90.07809502 | 88.4854415  |
| 140821A00040 | 8/21/2014                           | 3.41 | 8/21/2031  | 8/21/2014  | 122.12914 | 114.1489263 | 106.811126  | 100.05898   | 93.84108287 | 88.11084978 | 82.82603938 | 77.94832594 | 73.44291576 |
| 150603A00012 | 6/3/2015                            | 2.77 | 6/3/2030   | 6/3/2015   | 109.55527 | 105.4219042 | 101.5135463 | 97.815638   | 94.31467866 | 90.99814241 | 87.85440101 | 84.87265322 | 82.04286023 |
| 190930A00028 | 9/30/2019                           | 1.95 | 9/30/2024  | 9/30/2019  | 102.35318 | 100.4700654 | 98.63235245 | 96.8386556  | 95.0876415  | 93.3780266  | 91.70857493 | 90.07809595 | 88.48544258 |
| 210107A00010 | 1/7/2021                            | 0.54 | 1/5/2024   | 1/7/2021   | 99.702181 | 98.48541176 | 97.29683405 | 96.13546848 | 95.00038039 | 93.89067772 | 92.80550861 | 91.74405917 | 90.70555132 |
| 121016A00013 | 10/16/2012                          | 1.64 | 10/14/2022 | 10/16/2012 | 100.10247 | 100.063579  | 100.0247396 | 99.98594777 | 99.94720345 | 99.90850653 | 99.86985692 | 99.83125454 | 99.79269928 |
| 160421A00016 | 4/21/2016                           | 2.26 | 4/21/2026  | 4/21/2016  | 105.56064 | 102.4059347 | 99.36960758 | 96.44649952 | 93.63170611 | 90.92056491 | 88.30864193 | 85.79171908 | 83.36578227 |
| 160810A00028 | 8/10/2016                           | 2.19 | 8/10/2026  | 8/10/2016  | 105.79461 | 102.1988294 | 98.74987016 | 95.44094238 | 92.26560406 | 89.2177433  | 86.29155965 | 83.48154663 | 80.78247529 |
| 190402A00005 | 4/2/2019                            | 2.77 | 4/2/2032   | 4/2/2019   | 113.96066 | 107.6218762 | 101.7575649 | 96.3269421  | 91.29305143 | 86.6223829  | 82.28452889 | 78.25187629 | 74.49933104 |
| 160608A00027 | 6/8/2016                            | 2.36 | 6/8/2026   | 6/8/2016   | 105.93966 | 102.5569053 | 99.30606636 | 96.18119376 | 93.17664663 | 90.28707228 | 87.50738951 | 84.83277304 | 82.25863896 |
| 160908A00037 | 9/8/2016                            | 1.4  | 9/8/2023   | 9/8/2016   | 100.68385 | 100.0084335 | 99.34375371 | 98.68953903 | 98.04552713 | 97.41146463 | 96.78710677 | 96.172217   | 95.56656664 |
| 181003A00032 | 10/3/2018                           | 3.23 | 10/3/2025  | 10/3/2018  | 104.10274 | 102.488717  | 100.916011  | 99.38323212 | 97.88904529 | 96.43217047 | 95.01137984 | 93.62549536 | 92.2733863  |
| 190829A00032 | 8/29/2019                           | 1.69 | 8/28/2026  | 8/29/2019  | 102.33815 | 100.3356247 | 98.39470724 | 96.51299212 | 94.68818851 | 92.91811131 | 91.20067545 | 89.53389061 | 87.91585621 |
| 160616A00029 | 6/16/2016                           | 1.58 | 6/16/2026  | 6/16/2016  | 102.00813 | 100.0944601 | 98.23766922 | 96.43559723 | 94.68618468 | 92.98746516 | 91.33756043 | 89.7346758  | 88.17709578 |

|              | Parallel-Shift Sensitivity Analysis |      |           |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |           |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY  | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 180517A00018 | 5/17/2018                           | 3.46 | 5/17/2033 | 5/17/2018  | 117.031   | 111.0435609 | 105.4876428 | 100.3269014 | 95.52837964 | 91.06216796 | 86.90109942 | 83.02047768 | 79.39783365 |
| 191004A00017 | 10/4/2019                           | 2.02 | 10/4/2029 | 10/4/2019  | 109.35049 | 103.0977512 | 97.26820267 | 91.83054557 | 86.755961   | 82.01790418 | 77.5919135  | 73.45543645 | 69.58767108 |
| 191101A00005 | 11/1/2019                           | 1.83 | 11/2/2026 | 11/1/2019  | 105.38533 | 101.562857  | 97.90515312 | 94.40417514 | 91.0523228  | 87.84240766 | 84.76762839 | 81.82154762 | 78.99807037 |
| 200610A00006 | 6/10/2020                           | 1.11 | 6/10/2027 | 6/10/2020  | 102.57736 | 98.34887726 | 94.32514211 | 90.49506651 | 86.84822337 | 83.37480676 | 80.06559115 | 76.91189366 | 73.90553894 |
| 150203A00027 | 2/3/2015                            | 2.26 | 2/4/2030  | 2/3/2015   | 107.11036 | 103.2358262 | 99.56430319 | 96.08311425 | 92.78047308 | 89.64541679 | 86.66774266 | 83.8379502  | 81.14718797 |
| 160906A00027 | 9/6/2016                            | 2.03 | 9/8/2031  | 9/6/2016   | 107.49442 | 102.8141688 | 98.42436039 | 94.30375446 | 90.43284464 | 86.79370313 | 83.36984155 | 80.14608505 | 77.10845827 |
| 190315A00029 | 3/15/2019                           | 2.88 | 3/15/2034 | 3/15/2019  | 114.52654 | 108.2351855 | 102.4284186 | 97.06276148 | 92.09904272 | 87.50193628 | 83.23955473 | 79.28308799 | 75.60648252 |
| 220407A00014 | 4/7/2022                            | 3.14 | 4/6/2029  | 4/7/2022   | 113.54005 | 108.2214567 | 103.2219796 | 98.52007713 | 94.09579634 | 89.93064309 | 86.00746726 | 82.31035772 | 78.82454599 |
| 180615A00021 | 6/15/2018                           | 3.02 | 6/15/2023 | 6/15/2018  | 101.78029 | 101.0832313 | 100.395869  | 99.71799597 | 99.04941556 | 98.38993656 | 97.73937296 | 97.09754384 | 96.46427312 |
| 190104A00035 | 1/4/2019                            | 3.1  | 1/5/2026  | 1/4/2019   | 107.52326 | 104.4191859 | 101.4247837 | 98.53549843 | 95.74699534 | 93.0551474  | 90.45602394 | 87.94587981 | 85.5211453  |
| 170602A00019 | 6/2/2017                            | 2.42 | 6/3/2024  | 6/2/2017   | 102.78054 | 101.1548008 | 99.56296197 | 98.00402296 | 96.47702282 | 94.98103819 | 93.51518136 | 92.07859853 | 90.67046821 |
| 190305A00015 | 3/5/2019                            | 3.32 | 3/5/2029  | 3/5/2019   | 116.03296 | 110.1214862 | 104.5755232 | 99.37010604 | 94.48211314 | 89.89011917 | 85.57426194 | 81.51612036 | 77.69860262 |
| 210913A00015 | 9/13/2021                           | 1.08 | 9/14/2026 | 9/13/2021  | 101.69237 | 98.34617131 | 95.13698271 | 92.05838712 | 89.10430241 | 86.26896363 | 83.54690472 | 80.93294134 | 78.42215483 |
| 150803A00036 | 8/3/2015                            | 3.41 | 8/2/2030  | 8/3/2015   | 118.37716 | 111.631833  | 105.3674957 | 99.54616732 | 94.13308781 | 89.09643154 | 84.40704411 | 80.03820408 | 75.9654072  |
| 160210A00049 | 2/10/2016                           | 1.78 | 2/10/2026 | 2/10/2016  | 102.16865 | 100.4163805 | 98.71258709 | 97.05553816 | 95.44357401 | 93.8751064  | 92.34861503 | 90.86264406 | 89.41579895 |
| 140917A00030 | 9/17/2014                           | 3.23 | 9/17/2029 | 9/17/2014  | 115.95158 | 110.1037412 | 104.629998  | 99.50359973 | 94.6998654  | 90.19601643 | 85.9710196  | 82.00544381 | 78.28132946 |
| 160711A00004 | 7/11/2016                           | 1.51 | 7/13/2026 | 7/11/2016  | 101.91903 | 99.96637125 | 98.07273324 | 96.23584843 | 94.45355096 | 92.72377396 | 91.0445443  | 89.41397762 | 87.83027372 |
| 200608A00001 | 6/8/2020                            | 1.34 | 6/7/2030  | 6/8/2020   | 104.82126 | 98.84432184 | 93.28983056 | 88.12476327 | 83.31887749 | 78.8444615  | 74.67610865 | 70.79051295 | 67.16628385 |
| 210423A00001 | 4/23/2021                           | 1.72 | 4/23/2036 | 4/23/2021  | 108.08466 | 101.1434652 | 94.8216871  | 89.05535094 | 83.78773173 | 78.96847337 | 74.55282186 | 70.5009563  | 66.77740433 |
| 160427A00004 | 4/27/2016                           | 2.09 | 4/27/2026 | 4/27/2016  | 102.62555 | 100.7857332 | 98.99865962 | 97.26238969 | 95.57506749 | 93.93491883 | 92.34024705 | 90.78942908 | 89.28091164 |
| 180309A00011 | 3/9/2018                            | 3.19 | 3/10/2025 | 3/9/2018   | 105.89159 | 103.5151075 | 101.2055461 | 98.96063529 | 96.77819472 | 94.65613085 | 92.59243309 | 90.58516991 | 88.63248526 |
| 200110A00053 | 1/10/2020                           | 1.99 | 1/10/2025 | 1/10/2020  | 102.82282 | 100.639945  | 98.51500153 | 96.44605746 | 94.43126057 | 92.46883446 | 90.55707469 | 88.6943453  | 86.87907545 |
| 160908A00033 | 9/8/2016                            | 2.17 | 9/8/2026  | 9/8/2016   | 105.4778  | 102.0417341 | 98.74550463 | 95.58259054 | 92.54681431 | 89.63231908 | 86.8335502  | 84.14523794 | 81.56238139 |
| 210319A00009 | 3/19/2021                           | 1.1  | 3/19/2026 | 3/19/2021  | 101.4851  | 98.32643532 | 95.28630961 | 92.35961989 | 89.54150934 | 86.8273561  | 84.21276058 | 81.69353348 | 79.26568455 |
| 201207A00021 | 12/7/2020                           | 1.85 | 12/7/2050 | 12/7/2020  | 110.70014 | 97.04573978 | 85.686005   | 76.18130936 | 68.18296883 | 61.41341423 | 55.65085974 | 50.71741699 | 46.46985419 |
| 200227A00046 | 2/27/2020                           | 1.52 | 3/1/2027  | 2/27/2020  | 102.00588 | 99.76989753 | 97.60949292 | 95.52147494 | 93.50281258 | 91.55062407 | 89.66216849 | 87.83483787 | 86.06614987 |
| 200806A00004 | 8/6/2020                            | 0.3  | 3/6/2024  | 8/6/2020   | 99.849069 | 99.06627287 | 98.29709623 | 97.54116663 | 96.79812588 | 96.06762915 | 95.34934438 | 94.64295161 | 93.94814246 |
| 140318A00003 | 3/17/2014                           | 3.08 | 3/18/2024 | 3/17/2014  | 103.53414 | 102.0997514 | 100.6928405 | 99.31268336 | 97.95858092 | 96.62985805 | 95.32586255 | 94.04596415 | 92.78955358 |
| 170829A00066 | 8/29/2017                           | 2.11 | 8/29/2024 | 8/29/2017  | 102.82779 | 100.9803179 | 99.17580317 | 97.41298379 | 95.69064557 | 94.00761777 | 92.36277122 | 90.75501656 | 89.18330256 |
| 190911A00016 | 9/11/2019                           | 1.9  | 9/11/2029 | 9/11/2019  | 105.36344 | 101.7576412 | 98.33156782 | 95.07449862 | 91.97643746 | 89.02805757 | 86.22065212 | 83.54608872 | 80.99676765 |
| 180126A00011 | 1/26/2018                           | 2.72 | 1/26/2028 | 1/26/2018  | 106.28255 | 103.4830423 | 100.7942361 | 98.21077429 | 95.72759927 | 93.33993403 | 91.04326457 | 88.83332368 | 86.70607569 |
| 200512A00014 | 5/12/2020                           | 1.17 | 5/12/2027 | 5/12/2020  | 102.77409 | 98.60340916 | 94.63187977 | 90.8488635  | 87.24435058 | 83.80891847 | 80.53369403 | 77.41031836 | 74.43091412 |
| 210915A00023 | 9/15/2021                           | 0.74 | 9/16/2024 | 9/15/2021  | 100.02477 | 98.17743022 | 96.37405506 | 94.61332567 | 92.8939716  | 91.21476894 | 89.57453828 | 87.97214277 | 86.40648629 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 151204A00011 | 12/4/2015                           | 2.28 | 12/4/2025  | 12/4/2015  | 102.91275 | 101.2310411 | 99.59413974 | 98.00048523 | 96.44858465 | 94.93700831 | 93.46438647 | 92.02940636 | 90.63080941 |
| 200709A00019 | 7/9/2020                            | 0.77 | 7/9/2025   | 7/9/2020   | 100.16039 | 97.58390293 | 95.08786632 | 92.66926542 | 90.3252206  | 88.05297948 | 85.84991034 | 83.71349584 | 81.64132725 |
| 150824A00033 | 8/24/2015                           | 2.22 | 8/25/2025  | 8/24/2015  | 102.32955 | 100.8234688 | 99.35448495 | 97.9213815  | 96.52299146 | 95.15819507 | 93.82591747 | 92.52512653 | 91.25483081 |
| 210512A00009 | 5/12/2021                           | 0.66 | 5/10/2024  | 5/12/2021  | 99.875952 | 98.34596109 | 96.84710274 | 95.37848742 | 93.93925954 | 92.52859564 | 91.14570286 | 89.78981751 | 88.46020371 |
| 161014A00019 | 10/14/2016                          | 2.39 | 10/15/2031 | 10/14/2016 | 108.61709 | 103.862618  | 99.40489499 | 95.22209526 | 91.29418579 | 87.6027634  | 84.13091043 | 80.86306417 | 77.78489858 |
| 190708A00030 | 7/8/2019                            | 2.57 | 7/2/2029   | 7/8/2019   | 112.5289  | 106.3326908 | 100.5414375 | 95.12610167 | 90.05989263 | 85.31807886 | 80.87781858 | 76.71800506 | 72.81912556 |
| 190510A00049 | 5/10/2019                           | 2.58 | 5/8/2026   | 5/10/2019  | 103.55063 | 101.6940966 | 99.89079958 | 98.13877417 | 96.43614703 | 94.78112732 | 93.17200247 | 91.60713421 | 90.08495474 |
| 200424A00022 | 4/24/2020                           | 1.39 | 4/24/2030  | 4/24/2020  | 105.0863  | 99.17591644 | 93.677854   | 88.56028796 | 83.79404066 | 79.352345   | 75.21063227 | 71.3463398  | 67.73873646 |
| 160608A00021 | 6/8/2016                            | 1.91 | 6/8/2023   | 6/8/2016   | 100.99395 | 100.3107621 | 99.63687148 | 98.97208813 | 98.31622779 | 97.6691112  | 97.03056389 | 96.40041599 | 95.77850212 |
| 190605A00025 | 6/5/2019                            | 2.64 | 6/5/2029   | 6/5/2019   | 112.84914 | 106.698731  | 100.9464033 | 95.56388448 | 90.52506359 | 85.80581799 | 81.3838513  | 77.23854536 | 73.35082506 |
| 180125A00027 | 1/25/2018                           | 2.69 | 1/24/2025  | 1/25/2018  | 102.74319 | 101.3836339 | 100.0547185 | 98.75550757 | 97.48509824 | 96.24262255 | 95.0272457  | 93.83816455 | 92.67460611 |
| 210714A00010 | 7/14/2021                           | 0.75 | 7/12/2024  | 7/14/2021  | 100.04477 | 98.35697674 | 96.70612386 | 95.09111465 | 93.51089663 | 91.9644577  | 90.45082414 | 88.9690588  | 87.51825936 |
| 190118A00006 | 1/18/2019                           | 3.14 | 1/18/2034  | 1/18/2019  | 115.97496 | 109.6913554 | 103.8855351 | 98.51515453 | 93.54201437 | 88.93162208 | 84.65280392 | 80.6773601  | 76.9797582  |
| 160504A00022 | 5/4/2016                            | 2    | 5/4/2023   | 5/4/2016   | 100.94529 | 100.3533731 | 99.76842077 | 99.19030581 | 98.61890863 | 98.05411247 | 97.49580326 | 96.94386953 | 96.39820238 |
| 190813A00051 | 8/13/2019                           | 2.19 | 8/13/2029  | 8/13/2019  | 110.2812  | 104.0966451 | 98.32283847 | 92.92996501 | 87.8905283  | 83.17916116 | 78.77245034 | 74.64877634 | 70.78816729 |
| 191004A00026 | 10/4/2019                           | 1.74 | 10/4/2024  | 10/4/2019  | 101.99962 | 100.0711999 | 98.18967351 | 96.35359661 | 94.56158411 | 92.81230294 | 91.10446975 | 89.43684864 | 87.80824904 |
| 210107A00009 | 1/7/2021                            | 0.54 | 1/5/2024   | 1/7/2021   | 99.702181 | 98.48541172 | 97.29683399 | 96.1354684  | 95.00038028 | 93.89067759 | 92.80550846 | 91.74405899 | 90.70555113 |
| 170406A00036 | 4/6/2017                            | 3.07 | 4/6/2032   | 4/6/2017   | 112.57296 | 107.3886151 | 102.5433998 | 98.01124725 | 93.76831943 | 89.79280011 | 86.06470855 | 82.56573175 | 79.27907305 |
| 200406A00030 | 4/6/2020                            | 1.61 | 4/5/2030   | 4/6/2020   | 107.04719 | 100.5259288 | 94.47369453 | 88.85374821 | 83.63242947 | 78.77888027 | 74.26479752 | 70.0642087  | 66.15326834 |
| 200406A00036 | 4/6/2020                            | 1.09 | 4/4/2025   | 4/6/2020   | 100.90557 | 98.54566743 | 96.25413969 | 94.0286067  | 91.86678207 | 89.7664732  | 87.72557676 | 85.74207444 | 83.81402898 |
| 140428A00015 | 4/28/2014                           | 2.35 | 4/29/2024  | 4/28/2014  | 101.56521 | 100.7243281 | 99.8983874  | 99.08697244 | 98.2896876  | 97.50615203 | 96.73599894 | 95.978875   | 95.23443966 |
| 160413A00033 | 4/13/2016                           | 2.32 | 4/13/2026  | 4/13/2016  | 104.83161 | 101.9731428 | 99.21797122 | 96.56169036 | 94.00011243 | 91.52925285 | 89.14531905 | 86.84470007 | 84.62395673 |
| 171207A00022 | 12/7/2017                           | 2.45 | 12/7/2022  | 12/7/2017  | 100.54908 | 100.3603853 | 100.1724075 | 99.98514233 | 99.79858588 | 99.61273405 | 99.42758281 | 99.24312818 | 99.05936619 |
| 200206A00032 | 2/6/2020                            | 2.15 | 2/6/2030   | 2/6/2020   | 110.54623 | 103.9773628 | 97.87077897 | 92.19101701 | 86.90552242 | 81.98439601 | 77.40016431 | 73.12757092 | 69.14338677 |
| 210714A00014 | 7/14/2021                           | 1.12 | 7/14/2026  | 7/14/2021  | 101.83244 | 98.40098949 | 95.10772467 | 91.94629015 | 88.91066143 | 85.99512459 | 83.1942584  | 80.50291748 | 77.91621659 |
| 161227A00073 | 12/27/2016                          | 2.83 | 12/28/2026 | 12/27/2016 | 108.08771 | 104.6718391 | 101.3980925 | 98.25956439 | 95.24973332 | 92.36243512 | 89.59184113 | 86.93243756 | 84.37900646 |
| 190926A00002 | 9/30/2019                           | 2.01 | 9/29/2034  | 9/30/2019  | 109.3847  | 103.1288953 | 97.37348479 | 92.07192767 | 87.18245194 | 82.66752956 | 78.49341223 | 74.62972113 | 71.04908409 |
| 200110A00038 | 1/10/2020                           | 2.32 | 1/10/2030  | 1/10/2020  | 111.60173 | 105.0401422 | 98.93588899 | 93.25415396 | 87.96296119 | 83.03293059 | 78.43705366 | 74.15048965 | 70.15038044 |
| 200116A00012 | 1/16/2020                           | 2.16 | 1/19/2027  | 1/16/2020  | 106.5609  | 102.5359975 | 98.69150835 | 95.01833853 | 91.50790028 | 88.15208345 | 84.94322627 | 81.87408803 | 78.9378236  |
| 200406A00033 | 4/6/2020                            | 1.09 | 4/4/2025   | 4/6/2020   | 100.90557 | 98.54566744 | 96.25413971 | 94.02860673 | 91.86678212 | 89.76647327 | 87.72557683 | 85.74207453 | 83.81402908 |
| 171219A00067 | 12/19/2017                          | 2.72 | 12/20/2027 | 12/19/2017 | 110.52661 | 105.9732384 | 101.6529361 | 97.55224001 | 93.65854806 | 89.96005699 | 86.44570694 | 83.10513024 | 79.92860391 |
| 180913A00062 | 9/13/2018                           | 3.05 | 9/13/2023  | 9/13/2018  | 102.30618 | 101.3653396 | 100.4420243 | 99.53574718 | 98.64603765 | 97.77244237 | 96.91452441 | 96.07186256 | 95.2440506  |
| 190322A00008 | 3/22/2019                           | 2.64 | 3/20/2026  | 3/22/2019  | 103.57332 | 101.7585362 | 99.99483282 | 98.28035383 | 96.61332787 | 94.99206064 | 93.41493097 | 91.88038711 | 90.38694329 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 150615A00024 | 6/15/2015                           | 2.26 | 6/16/2025  | 6/15/2015  | 102.44565 | 101.0183209 | 99.62478422 | 98.26395824 | 96.9348061  | 95.63633246 | 94.36758137 | 93.12763438 | 91.91560879 |
| 160209A00008 | 2/9/2016                            | 2.45 | 2/10/2031  | 2/9/2016   | 108.28386 | 103.8763652 | 99.72617103 | 95.81550274 | 92.12796315 | 88.64841299 | 85.3628655  | 82.25839051 | 79.32302721 |
| 190315A00019 | 3/15/2019                           | 2.88 | 3/15/2034  | 3/15/2019  | 114.52653 | 108.2351811 | 102.4284173 | 97.06276309 | 92.09904695 | 87.50194294 | 83.23956361 | 79.28309892 | 75.60649534 |
| 191011A00027 | 10/11/2019                          | 1.84 | 10/11/2029 | 10/11/2019 | 105.2061  | 101.5644786 | 98.10624289 | 94.82034665 | 91.69649976 | 88.72510718 | 85.89721725 | 83.20447409 | 80.63907387 |
| 200616A00005 | 6/16/2020                           | 0.74 | 6/17/2030  | 6/16/2020  | 101.26731 | 97.44492863 | 93.83070301 | 90.41115549 | 87.17379287 | 84.10702437 | 81.20009012 | 78.44299575 | 75.82645266 |
| 210611A00009 | 6/11/2021                           | 0.61 | 6/11/2024  | 6/11/2021  | 99.798491 | 98.19058142 | 96.61655343 | 95.07539549 | 93.56613641 | 92.08784345 | 90.63962041 | 89.22060578 | 87.82997109 |
| 140717A00027 | 7/17/2014                           | 3.14 | 7/17/2026  | 7/17/2014  | 108.3308  | 105.0148332 | 101.828117  | 98.76480907 | 95.8193666  | 92.98652897 | 90.26130171 | 87.63894147 | 85.11494178 |
| 200512A00011 | 5/12/2020                           | 1.48 | 5/10/2030  | 5/12/2020  | 106.21951 | 99.6689045  | 93.59462342 | 87.95896538 | 82.72742134 | 77.86838523 | 73.35289487 | 69.15439729 | 65.24853608 |
| 200428A00009 | 4/28/2020                           | 1.08 | 4/29/2030  | 4/28/2020  | 102.02653 | 98.26647727 | 94.70692451 | 91.33514021 | 88.13930458 | 85.10843631 | 82.2323273  | 79.50148284 | 76.90706678 |
| 160303A00035 | 3/3/2016                            | 2.14 | 3/3/2026   | 3/3/2016   | 102.76158 | 100.8819922 | 99.05637603 | 97.28273439 | 95.55915888 | 93.8838261  | 92.25499319 | 90.67099362 | 89.13023326 |
| 160810A00027 | 8/10/2016                           | 2.13 | 8/10/2026  | 8/10/2016  | 105.21181 | 101.8421805 | 98.60731349 | 95.50104032 | 92.51750596 | 89.65115379 | 86.89670876 | 84.24916158 | 81.70375395 |
| 180206A00045 | 2/6/2018                            | 2.71 | 2/6/2023   | 2/6/2018   | 100.94721 | 100.5912775 | 100.2378691 | 99.88695443 | 99.53850711 | 99.1925011  | 98.84891075 | 98.50771075 | 98.16887616 |
| 181105A00015 | 11/5/2018                           | 3.57 | 11/5/2025  | 11/5/2018  | 108.63329 | 105.6116686 | 102.6928456 | 99.87270762 | 97.14733553 | 94.51299054 | 91.96610477 | 89.50327226 | 87.12124056 |
| 151118A00025 | 11/18/2015                          | 2.4  | 11/18/2022 | 11/18/2015 | 100.4173  | 100.2813421 | 100.1457646 | 100.0105672 | 99.87574818 | 99.74130592 | 99.60723882 | 99.47354529 | 99.34022375 |
| 160119A00072 | 1/19/2016                           | 2.77 | 1/21/2031  | 1/19/2016  | 109.8944  | 105.2684711 | 100.9215516 | 96.83377925 | 92.98686805 | 89.36397185 | 85.94956106 | 82.7293107  | 79.6899986  |
| 160908A00034 | 9/8/2016                            | 2.17 | 9/8/2026   | 9/8/2016   | 105.4778  | 102.0417341 | 98.74550464 | 95.58259058 | 92.54681439 | 89.6323192  | 86.83355034 | 84.14523811 | 81.56238158 |
| 200212A00013 | 2/12/2020                           | 1.98 | 2/12/2027  | 2/12/2020  | 105.93759 | 101.8732759 | 97.9937825  | 94.28970091 | 90.75215149 | 87.37274989 | 84.14357688 | 81.05715016 | 78.10639804 |
| 210319A00008 | 3/19/2021                           | 0.63 | 3/19/2024  | 3/19/2021  | 99.822261 | 98.4227641  | 97.05011759 | 95.70361451 | 94.38257191 | 93.08633023 | 91.81425219 | 90.56572196 | 89.34014419 |
| 140908A00080 | 9/8/2014                            | 2.51 | 3/8/2024   | 9/8/2014   | 102.43167 | 101.1615867 | 99.91518086 | 98.6918344  | 97.49095074 | 96.3119536  | 95.15428622 | 94.01741052 | 92.9008063  |
| 170524A00027 | 5/24/2017                           | 2.32 | 5/24/2027  | 5/24/2017  | 104.42516 | 102.0067146 | 99.67389547 | 97.42294025 | 95.25028112 | 93.15253214 | 91.12647867 | 89.16906753 | 87.27739777 |
| 160404A00019 | 4/4/2016                            | 2.48 | 4/4/2031   | 4/4/2016   | 108.57971 | 104.0769053 | 99.84150022 | 95.85472638 | 92.09928975 | 88.55924299 | 85.219871   | 82.06758701 | 79.08983802 |
| 160608A00022 | 6/8/2016                            | 1.91 | 6/8/2023   | 6/8/2016   | 100.99395 | 100.3107621 | 99.6368715  | 98.97208817 | 98.31622785 | 97.66911128 | 97.03056399 | 96.40041611 | 95.77850225 |
| 160908A00022 | 9/8/2016                            | 2.21 | 9/8/2026   | 9/8/2016   | 105.86941 | 102.2851149 | 98.84871358 | 95.55326057 | 92.39217855 | 89.35923299 | 86.44851234 | 83.65440957 | 80.97160482 |
| 150427A00014 | 4/27/2015                           | 2.98 | 4/27/2035  | 4/27/2015  | 115.34273 | 108.4763993 | 102.1811641 | 96.40186197 | 91.08919463 | 86.19905649 | 81.69194674 | 77.53245198 | 73.68879053 |
| 150803A00039 | 8/3/2015                            | 3.01 | 8/2/2030   | 8/3/2015   | 110.17933 | 105.9503198 | 101.9552905 | 98.1788726  | 94.60682871 | 91.22596363 | 88.02404102 | 84.98970695 | 82.11242011 |
| 190129A00073 | 1/29/2019                           | 3.11 | 1/29/2029  | 1/29/2019  | 108.41989 | 105.0594342 | 101.8523625 | 98.79023013 | 95.86512364 | 93.06962214 | 90.39676323 | 87.84001154 | 85.39322966 |
| 211007A00005 | 10/7/2021                           | 0.86 | 10/7/2024  | 10/7/2021  | 100.26615 | 98.36394873 | 96.50810549 | 94.69719376 | 92.92983976 | 91.20472153 | 89.5205666  | 87.87614974 | 86.27029088 |
| 160719A00026 | 7/19/2016                           | 1.87 | 7/20/2026  | 7/19/2016  | 102.38356 | 100.4257198 | 98.5269748  | 96.68505482 | 94.89779449 | 93.1631272  | 91.47907989 | 89.8437681  | 88.25539134 |
| 210212A00004 | 2/12/2021                           | 1.1  | 2/12/2036  | 2/12/2021  | 103.69047 | 97.10659337 | 91.10390452 | 85.62300127 | 80.61114679 | 76.02146608 | 71.81224715 | 67.94633027 | 64.39057383 |
| 120808A00006 | 8/8/2012                            | 2.06 | 8/9/2027   | 8/8/2012   | 104.02082 | 101.4881    | 99.04893426 | 96.69906027 | 94.43444199 | 92.2512556  | 90.14587686 | 88.11486932 | 86.15497333 |
| 160608A00028 | 6/8/2016                            | 2.36 | 6/8/2026   | 6/8/2016   | 105.93966 | 102.5569054 | 99.30606635 | 96.1811937  | 93.17664653 | 90.28707213 | 87.50738931 | 84.83277281 | 82.25863868 |
| 180403A00014 | 4/3/2018                            | 3.11 | 4/3/2025   | 4/3/2018   | 105.84164 | 103.4070218 | 101.0425856 | 98.74589488 | 96.51460882 | 94.34648251 | 92.23936224 | 90.19118125 | 88.19995557 |
| 190502A00016 | 5/2/2019                            | 2.87 | 5/1/2026   | 5/2/2019   | 107.69438 | 104.257198  | 100.9522203 | 97.77360111 | 94.71578582 | 91.77349699 | 88.94171867 | 86.21568184 | 83.59085076 |

|              | Parallel-Shift Sensitivity Analysis |      |           |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|-----------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |           |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY  | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 210915A00026 | 9/15/2021                           | 1.1  | 9/15/2026 | 9/15/2021  | 101.90759 | 98.33483202 | 94.9117069  | 91.6311219  | 88.48635967 | 85.4710556  | 82.57917744 | 79.80500607 | 77.14311759 |
| 180913A00012 | 9/13/2018                           | 3.31 | 9/13/2033 | 9/13/2018  | 116.59699 | 110.4555274 | 104.7688707 | 99.49771378 | 94.60650557 | 90.06306352 | 85.83822876 | 81.9055591  | 78.24105524 |
| 160413A00014 | 4/13/2016                           | 2.55 | 4/14/2031 | 4/13/2016  | 108.90175 | 104.3853594 | 100.1372043 | 96.13845252 | 92.37175396 | 88.82110991 | 85.47175805 | 82.31006818 | 79.32344735 |
| 170301A00031 | 3/1/2017                            | 2.11 | 3/1/2024  | 3/1/2017   | 101.24886 | 100.4925006 | 99.74917529 | 99.01852931 | 98.3002175  | 97.59390776 | 96.89928042 | 96.21602763 | 95.54385278 |
| 170317A00039 | 3/17/2017                           | 2.73 | 3/18/2024 | 3/17/2017  | 102.84418 | 101.4238658 | 100.0307102 | 98.6640018  | 97.32305052 | 96.00718976 | 94.71577552 | 93.44818543 | 92.2038178  |
| 170406A00033 | 4/6/2017                            | 3.01 | 4/6/2027  | 4/6/2017   | 110.24847 | 106.0717683 | 102.0877677 | 98.28643971 | 94.65833189 | 91.19453339 | 87.88664079 | 84.7267264  | 81.70730875 |
| 190905A00023 | 9/5/2019                            | 2.08 | 9/5/2029  | 9/5/2019   | 109.653   | 103.447799  | 97.65822947 | 92.25386911 | 87.20668273 | 82.49082411 | 78.08245418 | 73.95957516 | 70.10187929 |
| 191203A00009 | 12/3/2019                           | 2.21 | 12/3/2029 | 12/3/2019  | 110.75862 | 104.3146505 | 98.31471653 | 92.72537833 | 87.51589848 | 82.65801036 | 78.12570638 | 73.89504562 | 69.94397879 |
| 170112A00015 | 1/12/2017                           | 2.32 | 1/12/2027 | 1/12/2017  | 104.06632 | 101.8228825 | 99.65419753 | 97.5571423  | 95.52875252 | 93.56620865 | 91.66682778 | 89.82805605 | 88.04746148 |
| 200326A00032 | 3/26/2020                           | 1.49 | 3/26/2030 | 3/26/2020  | 103.59676 | 99.8194046  | 96.24152789 | 92.85057906 | 89.63489619 | 86.58363777 | 83.68671933 | 80.93475528 | 78.31900567 |
| 160212A00006 | 2/12/2016                           | 1.57 | 2/13/2023 | 2/12/2016  | 100.42652 | 100.180549  | 99.93600796 | 99.69288214 | 99.45115812 | 99.21082267 | 98.97186275 | 98.73426545 | 98.49801808 |
| 161005A00016 | 10/5/2016                           | 2.32 | 10/6/2031 | 10/5/2016  | 108.27741 | 103.537977  | 99.09433077 | 94.92471996 | 91.0091783  | 87.32936368 | 83.86841443 | 80.61081916 | 77.54229894 |
| 200306A00057 | 3/6/2020                            | 0.92 | 3/8/2027  | 3/6/2020   | 102.02084 | 98.1981992  | 94.54966705 | 91.06630622 | 87.73968493 | 84.56184744 | 81.52528456 | 78.62290626 | 75.84801603 |
| 190205A00017 | 2/5/2019                            | 3.36 | 2/5/2029  | 2/5/2019   | 116.08999 | 110.2404235 | 104.7484938 | 99.59005215 | 94.74270838 | 90.18569639 | 85.89974814 | 81.86697804 | 78.07077687 |
| 190925A00009 | 9/25/2019                           | 2    | 9/25/2026 | 9/25/2019  | 105.10088 | 101.5468265 | 98.14040134 | 94.87461181 | 91.74283618 | 88.73880143 | 85.85656293 | 83.09048536 | 80.43522493 |
| 200512A00010 | 5/12/2020                           | 1.48 | 5/10/2030 | 5/12/2020  | 106.21951 | 99.66890455 | 93.59462456 | 87.9589675  | 82.72742434 | 77.86838903 | 73.35289938 | 69.15440245 | 65.2485418  |
| 210915A00024 | 9/15/2021                           | 1.1  | 9/15/2026 | 9/15/2021  | 101.90759 | 98.33483202 | 94.91170701 | 91.63112211 | 88.48635997 | 85.471056   | 82.57917791 | 79.80500661 | 77.14311819 |
| 140219A00005 | 2/19/2014                           | 3.13 | 2/20/2029 | 2/19/2014  | 109.09705 | 105.6634615 | 102.3886736 | 99.26384227 | 96.28068259 | 93.43143081 | 90.70880807 | 88.10598675 | 85.61655948 |
| 190315A00023 | 3/15/2019                           | 2.88 | 3/15/2034 | 3/15/2019  | 114.52652 | 108.2351769 | 102.4284164 | 97.06276504 | 92.09905148 | 87.50194973 | 83.23957242 | 79.2831095  | 75.60650748 |
| 200520A00009 | 5/20/2020                           | 1.63 | 5/20/2038 | 5/20/2020  | 108.77546 | 97.70397328 | 88.05066071 | 79.6169233  | 72.23351796 | 65.7560376  | 60.06111351 | 55.04321854 | 50.61197302 |
| 210714A00017 | 7/14/2021                           | 0.73 | 7/12/2024 | 7/14/2021  | 100.01975 | 98.43712842 | 96.88871304 | 95.37349473 | 93.8905023  | 92.43880173 | 91.01749445 | 89.62571558 | 88.26263238 |
| 200206A00031 | 2/6/2020                            | 2.15 | 2/6/2030  | 2/6/2020   | 110.54623 | 103.977363  | 97.87077886 | 92.19101662 | 86.90552177 | 81.98439512 | 77.40016321 | 73.12756962 | 69.14338529 |
| 170303A00004 | 3/3/2017                            | 2.8  | 3/4/2024  | 3/3/2017   | 102.88705 | 101.4912578 | 100.1215418 | 98.77723261 | 97.4576827  | 96.16226597 | 94.89037704 | 93.64143038 | 92.41485949 |
| 200501A00002 | 5/1/2020                            | 1.3  | 5/1/2035  | 5/1/2020   | 104.08035 | 97.84418691 | 92.12976595 | 86.88641774 | 82.0688825  | 77.63669259 | 73.55362731 | 69.78723334 | 66.30840271 |
| 210420A00035 | 4/20/2021                           | 1.92 | 4/20/2034 | 4/20/2021  | 108.63753 | 101.6057426 | 95.18794443 | 89.32277362 | 83.95554365 | 79.03746661 | 74.52497503 | 70.37912598 | 66.56507671 |
| 180914A00049 | 9/14/2018                           | 3.37 | 9/14/2033 | 9/14/2018  | 116.96526 | 110.8044448 | 105.0998677 | 99.81210005 | 94.90547856 | 90.34771909 | 86.10957073 | 82.16450789 | 78.48845555 |
| 200814A00003 | 8/14/2020                           | 0.96 | 8/14/2035 | 8/14/2020  | 102.75726 | 96.45948153 | 90.69931897 | 85.42356225 | 80.58478924 | 76.14068956 | 72.05347286 | 68.28934968 | 64.81807553 |
| 211208A00013 | 12/8/2021                           | 1.63 | 12/8/2026 | 12/8/2021  | 104.2655  | 100.3807559 | 96.66683965 | 93.11524937 | 89.71796166 | 86.4673971  | 83.35639295 | 80.37817767 | 77.5263471  |
| 170406A00027 | 4/6/2017                            | 2.61 | 4/8/2024  | 4/6/2017   | 102.77894 | 101.3066253 | 99.86329429 | 98.44816058 | 97.06046355 | 95.69946948 | 94.36447043 | 93.05478308 | 91.76974766 |
| 210809A00014 | 8/9/2021                            | 1.06 | 8/7/2026  | 8/9/2021   | 101.67164 | 98.19140396 | 94.85343622 | 91.65115759 | 88.57832822 | 85.62902762 | 82.79763667 | 80.07882071 | 77.46751368 |
| 200429A00030 | 4/29/2020                           | 1.41 | 4/29/2030 | 4/29/2020  | 105.53021 | 99.2521912  | 93.42322266 | 88.00813365 | 82.97470525 | 78.29340752 | 73.93716111 | 69.88112118 | 66.10248145 |
| 150601A00396 | 6/1/2015                            | 3.61 | 1/3/2029  | 6/1/2015   | 109.35233 | 106.1475476 | 103.085423  | 100.1582395 | 97.35876076 | 94.68019477 | 92.11616323 | 89.66067363 | 87.3080932  |
| 150601A00739 | 6/1/2015                            | 2.35 | 5/6/2025  | 6/1/2015   | 102.13718 | 100.8405787 | 99.57345906 | 98.33490246 | 97.12402928 | 95.9399943  | 94.781985   | 93.64922003 | 92.54094776 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 150601A01051 | 6/1/2015                            | 4.91 | 2/7/2025   | 6/1/2015   | 109.52291 | 107.2392744 | 105.0173237 | 102.8550336 | 100.7504616 | 98.70173997 | 96.70707241 | 94.76473099 | 92.87305306 |
| 150601A00477 | 6/1/2015                            | 3.21 | 6/1/2029   | 6/1/2015   | 110.39497 | 106.5237822 | 102.8440841 | 99.3446636  | 96.01504586 | 92.84544259 | 89.82670246 | 86.95026542 | 84.20812059 |
| 160928A00033 | 9/28/2016                           | 2.46 | 9/29/2036  | 9/28/2016  | 112.64429 | 105.1117576 | 98.27041233 | 92.04638872 | 86.37450638 | 81.1971765  | 76.4634527  | 72.1282074  | 68.15141639 |
| 150601A00919 | 6/1/2015                            | 7.41 | 6/7/2030   | 6/1/2015   | 129.55712 | 124.6696855 | 120.0479812 | 115.6748684 | 111.5344511 | 107.6119762 | 103.8937439 | 100.3670246 | 97.0199838  |
| 220610A00068 | 6/10/2022                           | 3.09 | 6/10/2025  | 6/10/2022  | 103.60797 | 102.1837991 | 100.7931691 | 99.43501524 | 98.10831092 | 96.8120705  | 95.54534729 | 94.3072317  | 93.09684943 |
| 150601A00871 | 6/1/2015                            | 6.74 | 7/31/2028  | 6/1/2015   | 119.68598 | 116.2361405 | 112.9334755 | 109.7703937 | 106.7397478 | 103.8348101 | 101.0492445 | 98.37708126 | 95.81269324 |
| 200225A00049 | 2/25/2020                           | 1.79 | 2/24/2040  | 2/25/2020  | 109.11868 | 100.7062068 | 93.20623778 | 86.50406752 | 80.50076884 | 75.11087682 | 70.26043175 | 65.8853217  | 61.92987671 |
| 150601A00950 | 6/1/2015                            | 6.76 | 12/18/2031 | 6/1/2015   | 131.89522 | 126.0227209 | 120.5224987 | 115.3668119 | 110.5302234 | 105.9893901 | 101.7228754 | 97.71097981 | 93.93558754 |
| 150601A00966 | 6/1/2015                            | 4.84 | 2/3/2023   | 6/1/2015   | 100.91814 | 100.7376536 | 100.5581126 | 100.3795069 | 100.2018284 | 100.0250692 | 99.84922144 | 99.67427729 | 99.50022908 |
| 080423A00066 | 4/23/2008                           | 4.41 | 4/24/2023  | 4/23/2008  | 102.34863 | 101.7737873 | 101.2054142 | 100.6434011 | 100.0876415 | 99.53803128 | 98.99446864 | 98.45685401 | 97.92509    |
| 150601A00864 | 6/1/2015                            | 7.37 | 3/31/2028  | 6/1/2015   | 120.51051 | 117.2175077 | 114.0591641 | 111.028782  | 108.1200458 | 105.3269986 | 102.644019  | 100.0658002 | 97.58733018 |
| 970806A00018 | 8/1/1997                            | 6.7  | 10/23/2026 | 8/1/1997   | 112.6811  | 110.4830992 | 108.3536302 | 106.2899761 | 104.28955   | 102.3498861 | 100.4686331 | 98.64354822 | 96.87249125 |
| 200401A00011 | 4/1/2020                            | 0.68 | 4/3/2023   | 4/1/2020   | 100.19504 | 99.86940689 | 99.54633008 | 99.22578095 | 98.90772708 | 98.59213662 | 98.27897826 | 97.9682213  | 97.65983553 |
| 150601A00953 | 6/1/2015                            | 6.6  | 6/10/2032  | 6/1/2015   | 133.47876 | 127.1176553 | 121.1825751 | 115.6401839 | 110.4600367 | 105.6143094 | 101.0775545 | 96.82648077 | 92.83975514 |
| 150601A00964 | 6/1/2015                            | 5.25 | 1/6/2033   | 6/1/2015   | 124.21662 | 118.5423928 | 113.2498994 | 108.3086614 | 103.6909189 | 99.37136535 | 95.32691217 | 91.53647714 | 87.98079447 |
| 110414A00007 | 4/14/2011                           | 3.95 | 1/21/2025  | 4/14/2011  | 104.86595 | 103.3269928 | 101.8227306 | 100.3521068 | 98.91410539 | 97.50774944 | 96.13209873 | 94.7862483  | 93.46932678 |
| 191231A00027 | 12/31/2019                          | 1.9  | 4/28/2023  | 12/31/2019 | 100.40364 | 100.2332277 | 100.0634852 | 99.89440711 | 99.72598925 | 99.55822737 | 99.39111729 | 99.22465488 | 99.05883602 |
| 200210A00007 | 2/10/2020                           | 1.78 | 2/10/2025  | 2/10/2023  | 102.40836 | 100.425907  | 98.49591759 | 96.61668428 | 94.78656279 | 93.00397235 | 91.26739286 | 89.57536214 | 87.92647339 |
| 191114A00013 | 11/14/2019                          | 1.9  | 11/14/2022 | 11/14/2019 | 100.28739 | 100.1817785 | 100.0763988 | 99.97125436 | 99.86634424 | 99.76166765 | 99.65722376 | 99.55301178 | 99.44903089 |
| 150601A00906 | 6/1/2015                            | 6.2  | 11/1/2029  | 6/1/2015   | 122.1811  | 117.9072917 | 113.8505689 | 109.997784  | 106.3366917 | 102.8558773 | 99.54469438 | 96.39320837 | 93.39214358 |
| 150601A00261 | 6/1/2015                            | 3.19 | 2/11/2033  | 6/1/2015   | 119.95402 | 111.9288237 | 104.5981954 | 97.89499822 | 91.7590658  | 86.13644062 | 80.97869585 | 76.24233501 | 71.88826004 |
| 150601A00459 | 6/1/2015                            | 2.42 | 5/16/2024  | 6/1/2015   | 101.44875 | 100.6328117 | 99.8314402  | 99.04423445 | 98.27080811 | 97.51078929 | 96.76381987 | 96.0295548  | 95.30766154 |
| 190102A00015 | 1/2/2019                            | 2.97 | 1/3/2034   | 1/2/2019   | 114.15196 | 108.258025  | 102.801691  | 97.74473887 | 93.05265356 | 88.69423525 | 84.64125503 | 80.86814848 | 77.35174311 |
| 160928A00042 | 9/28/2016                           | 3.05 | 9/29/2036  | 9/28/2021  | 116.98013 | 109.2293149 | 102.185971  | 95.77474781 | 89.92913291 | 84.59034195 | 79.70635438 | 75.23107624 | 71.12361274 |
| 150601A00736 | 6/1/2015                            | 2.87 | 5/1/2030   | 6/1/2015   | 108.61789 | 104.772434  | 101.1292896 | 97.67571164 | 94.39985771 | 91.29072167 | 88.33806861 | 85.53237542 | 82.8647763  |
| 200130A00027 | 1/31/2020                           | 1.79 | 1/31/2025  | 1/31/2020  | 101.35067 | 100.1519715 | 98.97873146 | 97.83019278 | 96.7056257  | 95.60432845 | 94.52562587 | 93.46886815 | 92.43342968 |
| 150601A01013 | 6/1/2015                            | 5.21 | 9/29/2023  | 6/1/2015   | 104.52283 | 103.5327011 | 102.5617638 | 101.6094607 | 100.675256  | 99.75863413 | 98.85909924 | 97.97617389 | 97.10939833 |
| 150601A00897 | 6/1/2015                            | 6.15 | 5/28/2029  | 6/1/2015   | 120.32756 | 116.4057249 | 112.6710162 | 109.1127341 | 105.720873  | 102.4860716 | 99.39956626 | 96.45314958 | 93.6391308  |
| 150601A00024 | 6/1/2015                            | 5.58 | 11/8/2022  | 6/1/2015   | 100.68972 | 100.5812675 | 100.4730568 | 100.3650914 | 100.2573702 | 100.1498924 | 100.0426572 | 99.93566372 | 99.8289111  |
| 150601A01048 | 6/1/2015                            | 5.27 | 1/3/2025   | 6/1/2015   | 109.92004 | 107.719426  | 105.5761506 | 103.488292  | 101.4540117 | 99.47154757 | 97.53921067 | 95.65538106 | 93.81850447 |
| 160928A00032 | 9/28/2016                           | 2.52 | 9/29/2036  | 9/28/2016  | 113.08522 | 105.5304922 | 98.66860474 | 92.42554388 | 86.73599383 | 81.54224418 | 76.79323931 | 72.44375338 | 68.45367365 |
| 170130A00043 | 1/30/2017                           | 2.64 | 1/29/2027  | 1/30/2017  | 104.68692 | 102.3404421 | 100.0737055 | 97.88335294 | 95.76619013 | 93.71917811 | 91.73942487 | 89.82417728 | 87.97081358 |
| 190823A00009 | 8/23/2019                           | 1.8  | 8/23/2029  | 8/23/2019  | 104.82639 | 101.3473299 | 98.03840679 | 94.88961808 | 91.89162946 | 89.03572419 | 86.31375804 | 83.71811765 | 81.24168232 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 191115A00029 | 11/15/2019                          | 2.07 | 11/15/2029 | 11/15/2019 | 105.4677  | 101.8696976 | 98.45240319 | 95.20492741 | 92.11712014 | 89.17951874 | 86.38329666 | 83.72021623 | 81.18258534 |
| 050823A00088 | 8/23/2005                           | 4.78 | 8/25/2025  | 8/23/2005  | 111.3041  | 108.5440909 | 105.8712865 | 103.2824278 | 100.7743928 | 98.34419401 | 95.98897132 | 93.70598625 | 91.49261584 |
| 150601A00270 | 6/1/2015                            | 3.12 | 3/21/2031  | 6/1/2015   | 118.72385 | 111.27518   | 104.40267   | 98.05734119 | 92.19466601 | 86.77414352 | 81.75891381 | 77.11541142 | 72.81305354 |
| 110824A00006 | 8/24/2011                           | 2.69 | 8/24/2026  | 8/24/2011  | 105.23796 | 102.782051  | 100.4079674 | 98.11235802 | 95.89203157 | 93.74394816 | 91.66521113 | 89.65305939 | 87.70486024 |
| 070518A00023 | 5/18/2007                           | 5.46 | 5/18/2027  | 5/18/2007  | 112.91769 | 110.1272833 | 107.4399152 | 104.8508371 | 102.3555601 | 99.9498352  | 97.6296387  | 95.39115837 | 93.23078103 |
| 160930A00032 | 9/30/2016                           | 2.15 | 9/30/2031  | 9/30/2016  | 107.16101 | 102.6453223 | 98.40534391 | 94.42111911 | 90.67430865 | 87.14804641 | 83.82681034 | 80.69630556 | 77.74335843 |
| 150601A01041 | 6/1/2015                            | 5.99 | 10/2/2036  | 6/1/2015   | 141.83048 | 132.4757199 | 123.9790338 | 116.2494375 | 109.2065177 | 102.7791195 | 96.90420445 | 91.52585768 | 86.59442318 |
| 190520A00020 | 5/20/2019                           | 2.39 | 5/20/2026  | 5/20/2019  | 103.47004 | 101.5960878 | 99.77659077 | 98.00951754 | 96.29292853 | 94.62497062 | 93.00387261 | 91.427941   | 89.89555596 |
| 130207A00012 | 2/7/2013                            | 2.9  | 2/7/2033   | 2/7/2013   | 112.2846  | 106.704949  | 101.5227653 | 96.70468692 | 92.22045844 | 88.04261825 | 84.14621967 | 80.50858162 | 77.1090657  |
| 050812A00050 | 8/12/2005                           | 4.97 | 8/12/2025  | 8/12/2005  | 108.16633 | 106.2186353 | 104.3232956 | 102.4785361 | 100.6826503 | 98.93400069 | 97.23101545 | 95.57218525 | 93.95606048 |
| 120410A00005 | 4/10/2012                           | 2.35 | 4/12/2027  | 4/10/2012  | 104.814   | 102.206099  | 99.69409816 | 97.27361876 | 94.94051629 | 92.69086471 | 90.52094336 | 88.42722487 | 86.40636375 |
| 150601A00690 | 6/1/2015                            | 2.34 | 2/28/2025  | 6/1/2015   | 101.97061 | 100.7715387 | 99.59839028 | 98.45038943 | 97.32678601 | 96.22685868 | 95.14991355 | 94.09528286 | 93.06232376 |
| 170130A00046 | 1/30/2017                           | 2.52 | 1/30/2026  | 1/30/2017  | 103.37874 | 101.5411939 | 99.75473419 | 98.01755196 | 96.32791661 | 94.6841698  | 93.08472202 | 91.52804928 | 90.01269002 |
| 150601A00448 | 6/1/2015                            | 2.61 | 4/26/2024  | 6/1/2015   | 101.56225 | 100.7693414 | 99.99045723 | 99.22520904 | 98.47322638 | 97.73415267 | 97.00764447 | 96.29337089 | 95.59101298 |
| 160928A00041 | 9/28/2016                           | 3.26 | 9/29/2036  | 9/30/2019  | 118.5234  | 110.6948862 | 103.5796444 | 97.10179088 | 91.19433896 | 85.7980788  | 80.86060752 | 76.33548718 | 72.18151313 |
| 150601A00943 | 6/1/2015                            | 6.44 | 5/9/2031   | 6/1/2015   | 128.57359 | 123.1315857 | 118.0171694 | 113.2071342 | 108.6801088 | 104.4163982 | 100.3978403 | 96.60767602 | 93.03043068 |
| 050823A00085 | 8/23/2005                           | 4.78 | 8/25/2025  | 8/23/2005  | 111.30408 | 108.5440753 | 105.8712759 | 103.2824219 | 100.7743915 | 98.34419699 | 95.98897844 | 93.70599734 | 91.49263073 |
| 170130A00039 | 1/30/2017                           | 2.74 | 1/31/2028  | 1/30/2017  | 106.07689 | 103.2150168 | 100.4679456 | 97.83006169 | 95.29606505 | 92.86095053 | 90.51998981 | 88.26871428 | 86.10289918 |
| 200310A00067 | 3/10/2020                           | 0.94 | 3/10/2025  | 3/10/2020  | 100.32911 | 99.06027211 | 97.81953969 | 96.60605938 | 95.41900764 | 94.2575927  | 93.12105301 | 92.00865586 | 90.91969604 |
| 150601A00905 | 6/1/2015                            | 6.14 | 10/29/2029 | 6/1/2015   | 121.69367 | 117.4797604 | 113.4779355 | 109.6754608 | 106.0604677 | 102.6218859 | 99.34938493 | 96.23331932 | 93.26467843 |
| 150601A00993 | 6/1/2015                            | 5.37 | 6/9/2034   | 6/1/2015   | 131.15333 | 123.7874025 | 117.0003305 | 110.7392574 | 104.956646  | 99.60970141 | 94.65986136 | 90.07234511 | 85.81575323 |
| 181220A00006 | 12/20/2018                          | 2.93 | 12/20/2022 | 12/20/2018 | 100.55322 | 100.3927343 | 100.2328267 | 100.0734942 | 99.91473323 | 99.75654065 | 99.5989131  | 99.44184733 | 99.28534009 |
| 150601A00473 | 6/1/2015                            | 2.22 | 5/31/2024  | 6/1/2015   | 101.42056 | 100.5805695 | 99.7557424  | 98.94566237 | 98.14992457 | 97.36813935 | 96.59993156 | 95.84493984 | 95.10281596 |
| 150601A00527 | 6/1/2015                            | 2.5  | 7/26/2024  | 6/1/2015   | 101.67493 | 100.7602548 | 99.8626391  | 98.98160535 | 98.11669294 | 97.26745868 | 96.43347585 | 95.61433348 | 94.80963557 |
| 150601A00893 | 6/1/2015                            | 6.49 | 4/6/2029   | 6/1/2015   | 121.4333  | 117.5058885 | 113.764141  | 110.197537  | 106.7962346 | 103.5510198 | 100.4532622 | 97.49487388 | 94.66827198 |
| 190327A00030 | 3/27/2019                           | 2.9  | 3/27/2036  | 3/27/2019  | 114.7501  | 107.8486255 | 101.5411423 | 95.7677977  | 90.4753963  | 85.61660276 | 81.1492471  | 77.03571733 | 73.24242783 |
| 200317A00024 | 3/17/2020                           | 1.09 | 3/17/2025  | 3/17/2020  | 100.52453 | 99.25337168 | 98.01039069 | 96.79472552 | 95.6055501  | 94.44207022 | 93.30352205 | 92.18917067 | 91.09830879 |
| 150601A00030 | 6/1/2015                            | 5.28 | 11/26/2027 | 6/1/2015   | 122.06104 | 117.1530407 | 112.4925611 | 108.0654887 | 103.8586005 | 99.85950097 | 96.05656563 | 92.43888846 | 88.99623335 |
| 140911A00033 | 9/11/2014                           | 3.02 | 9/13/2027  | 9/11/2014  | 108.70482 | 105.0632287 | 101.5837538 | 98.25794525 | 95.07784573 | 92.03596121 | 89.12523122 | 86.33900116 | 83.67099662 |
| 150601A01040 | 6/1/2015                            | 5.4  | 10/2/2026  | 6/1/2015   | 117.62005 | 113.8000208 | 110.1370316 | 106.6236652 | 103.2528953 | 100.018066  | 96.91287038 | 93.93132978 | 91.06777518 |
| 150601A00928 | 6/1/2015                            | 5.94 | 8/21/2030  | 6/1/2015   | 121.49372 | 117.1512783 | 113.0418403 | 109.1503788 | 105.4629645 | 101.9666752 | 98.64951536 | 95.50034369 | 92.50880552 |
| 130624A00019 | 6/24/2013                           | 3.4  | 6/26/2023  | 6/24/2013  | 102.15871 | 101.3975956 | 100.6476411 | 99.90860476 | 99.18024974 | 98.46234606 | 97.7546703  | 97.05700536 | 96.36914025 |
| 150601A00931 | 6/1/2015                            | 7.13 | 9/20/2030  | 6/1/2015   | 129.26888 | 124.2385669 | 119.4895628 | 115.0032407 | 110.7623606 | 106.7509523 | 102.9542137 | 99.35841666 | 95.95082175 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 130206A00004 | 2/6/2013                            | 2.14 | 2/7/2028   | 2/6/2013   | 104.91697 | 101.9938772 | 99.19001702 | 96.49947314 | 93.91666896 | 91.43634249 | 89.05352651 | 86.76353021 | 84.56192197 |
| 170130A00036 | 1/30/2017                           | 3.11 | 1/31/2033  | 1/30/2017  | 113.28936 | 107.7889226 | 102.6704531 | 97.90266177 | 93.45711037 | 89.30792846 | 85.43156224 | 81.80654961 | 78.41331862 |
| 150601A00946 | 6/1/2015                            | 6.28 | 8/22/2031  | 6/1/2015   | 128.71207 | 123.0937504 | 117.8228381 | 112.8741067 | 108.2243719 | 103.8523096 | 99.73829402 | 95.86425029 | 92.21352084 |
| 160928A00044 | 9/28/2016                           | 2.89 | 9/29/2036  | 9/28/2023  | 115.80431 | 108.1126892 | 101.1241246 | 94.76366738 | 88.96516639 | 83.67016149 | 78.82692341 | 74.38962028 | 70.31759339 |
| 210514A00010 | 5/14/2021                           | 1.34 | 5/14/2031  | 5/14/2021  | 104.00348 | 99.71308986 | 95.67811809 | 91.88054895 | 88.30378833 | 84.93254217 | 81.75270527 | 78.75126034 | 75.91618625 |
| 150601A00875 | 6/1/2015                            | 7.14 | 9/29/2028  | 6/1/2015   | 121.51498 | 117.9365784 | 114.514138  | 111.2394486 | 108.1047925 | 105.1029133 | 102.2269844 | 99.47058134 | 96.82765494 |
| 150601A00900 | 6/1/2015                            | 6.06 | 6/28/2024  | 6/1/2015   | 104.76302 | 103.8781232 | 103.0092894 | 102.1560717 | 101.3180401 | 100.4947809 | 99.68589589 | 98.89100145 | 98.10972794 |
| 181211A00042 | 12/11/2018                          | 3.7  | 12/11/2028 | 12/11/2023 | 115.7724  | 110.5119854 | 105.5569738 | 100.8874062 | 96.484751   | 92.33179367 | 88.41253538 | 84.71210008 | 81.21664923 |
| 970806A00059 | 8/1/1997                            | 8.25 | 9/22/2025  | 8/1/1997   | 111.44359 | 109.831173  | 108.2585837 | 106.7245126 | 105.2277044 | 103.7669551 | 102.3411085 | 100.9490549 | 99.58972821 |
| 150601A00883 | 6/1/2015                            | 6.21 | 11/30/2028 | 6/1/2015   | 118.84604 | 115.2638633 | 111.8413466 | 108.5699062 | 105.441486  | 102.4485201 | 99.58389998 | 96.84094331 | 94.21336581 |
| 150601A00899 | 6/1/2015                            | 7.07 | 6/14/2029  | 6/1/2015   | 121.48753 | 117.79148   | 114.2673579 | 110.9054421 | 107.6966404 | 104.6324426 | 101.7048796 | 98.90648518 | 96.23026035 |
| 150601A00976 | 6/1/2015                            | 6.8  | 9/22/2033  | 6/1/2015   | 137.82711 | 130.6734623 | 124.04628   | 117.9002582 | 112.1944091 | 106.8916153 | 101.9582349 | 97.36374969 | 93.08045096 |
| 200331A00056 | 3/31/2020                           | 0.96 | 3/29/2030  | 3/31/2020  | 102.04782 | 98.35742876 | 94.86135567 | 91.54738294 | 88.4041627  | 85.4211453  | 82.58851761 | 79.89714641 | 77.33852659 |
| 150601A00939 | 6/1/2015                            | 5.79 | 1/17/2031  | 6/1/2015   | 123.85865 | 118.8800513 | 114.1891815 | 109.7663812 | 105.5934919 | 101.6537335 | 97.93159056 | 94.41270765 | 91.08379468 |
| 171206A00020 | 12/6/2017                           | 2.62 | 12/6/2027  | 12/6/2017  | 105.37505 | 102.7061177 | 100.1401134 | 97.67215515 | 95.29762676 | 93.0121639  | 90.81163872 | 88.69214534 | 86.64998645 |
| 150601A00929 | 6/1/2015                            | 5.91 | 8/30/2030  | 6/1/2015   | 123.68513 | 118.8572482 | 114.2997414 | 109.9946953 | 105.9255289 | 102.0768832 | 98.43452266 | 94.98524515 | 91.71679976 |
| 210409A00010 | 4/9/2021                            | 1.05 | 4/9/2031   | 4/9/2021   | 102.71107 | 98.49643914 | 94.53106376 | 90.79748028 | 87.27959635 | 83.96257192 | 80.83271282 | 77.87737406 | 75.08487198 |
| 150601A00019 | 6/1/2015                            | 5.64 | 10/3/2022  | 6/1/2015   | 100.05504 | 100.0466938 | 100.0383565 | 100.0300269 | 100.0217051 | 100.0133909 | 100.0050844 | 99.99678561 | 99.98849447 |
| 150601A00678 | 6/1/2015                            | 2.12 | 1/30/2025  | 6/1/2015   | 101.67013 | 100.5003377 | 99.35547668 | 98.23480551 | 97.13760828 | 96.06319658 | 95.01090809 | 93.98010538 | 92.97017476 |
| 181029A00097 | 10/29/2018                          | 3.53 | 10/27/2028 | 10/29/2018 | 114.86367 | 109.7543735 | 104.9358576 | 100.3894768 | 96.09789419 | 92.04498123 | 88.21572642 | 84.59615194 | 81.17323668 |
| 190102A00020 | 1/2/2019                            | 2.97 | 1/3/2034   | 1/2/2019   | 114.15186 | 108.2579739 | 102.801684  | 97.74476995 | 93.05271733 | 88.69432704 | 84.64137074 | 80.86828455 | 77.3518964  |
| 200428A00018 | 4/28/2020                           | 1.33 | 4/27/2035  | 4/28/2020  | 104.17689 | 98.13020845 | 92.58026322 | 87.47943505 | 82.78514001 | 78.45925643 | 74.46762145 | 70.77958805 | 67.36763451 |
| 120827A00052 | 8/27/2012                           | 2.01 | 8/27/2027  | 8/27/2012  | 104.51367 | 101.6079993 | 98.81703532 | 96.13529066 | 93.55757936 | 91.07899838 | 88.69491029 | 86.40092721 | 84.19289576 |
| 970806A00017 | 8/1/1997                            | 7.02 | 7/23/2026  | 8/1/1997   | 112.50067 | 110.4374036 | 108.4352992 | 106.4920308 | 104.6053792 | 102.7732255 | 100.9935465 | 99.2644089  | 97.58396535 |
| 150601A00038 | 6/1/2015                            | 5.77 | 6/2/2023   | 6/1/2015   | 103.56979 | 102.8928365 | 102.224851  | 101.5656556 | 100.915077  | 100.2729463 | 99.63909933 | 99.01337585 | 98.39561985 |
| 191114A00014 | 11/14/2019                          | 1.9  | 11/14/2023 | 11/14/2019 | 100.88912 | 100.264443  | 99.64959077 | 99.04430499 | 98.4483382  | 97.86145188 | 97.28341608 | 96.71400901 | 96.15301669 |
| 150601A00018 | 6/1/2015                            | 4.91 | 9/5/2025   | 6/1/2015   | 111.74567 | 108.9132835 | 106.1720375 | 103.5184739 | 100.9492828 | 98.46129902 | 96.05149424 | 93.71697062 | 91.45495429 |
| 200402A00050 | 4/6/2020                            | 0.73 | 4/5/2024   | 4/6/2020   | 100.09147 | 99.26885373 | 98.46077148 | 97.6668296  | 96.88664514 | 96.11984937 | 95.36608713 | 94.62501616 | 93.89630654 |
| 150601A01016 | 6/1/2015                            | 5.73 | 10/28/2025 | 6/1/2015   | 114.40669 | 111.4531339 | 108.5975527 | 105.83609   | 103.1650617 | 100.5809515 | 98.08040188 | 95.66020635 | 93.31730125 |
| 150601A00971 | 6/1/2015                            | 6.42 | 6/20/2033  | 6/1/2015   | 134.76665 | 127.7464438 | 121.2385414 | 115.1994067 | 109.5895936 | 104.3733289 | 99.51814286 | 94.9945394  | 90.77570183 |
| 150601A00888 | 6/1/2015                            | 5.92 | 3/1/2029   | 6/1/2015   | 118.85609 | 115.0915068 | 111.5022685 | 108.0785673 | 104.8112158 | 101.6916064 | 98.71167096 | 95.86384311 | 93.14102373 |
| 121120A00010 | 11/20/2012                          | 1.93 | 11/22/2027 | 11/20/2012 | 103.93929 | 101.2631887 | 98.69698764 | 96.23518784 | 93.87260498 | 91.60435159 | 89.42581791 | 87.33265411 | 85.32075384 |
| 150601A00023 | 6/1/2015                            | 5.46 | 10/30/2037 | 6/1/2015   | 140.39246 | 130.3845548 | 121.3612185 | 113.2109368 | 105.8359944 | 99.15065171 | 93.07957711 | 87.55649482 | 82.52301865 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 120217A00007 | 2/17/2012                           | 2.25 | 2/20/2024  | 2/17/2012  | 101.97187 | 100.7652015 | 99.57974063 | 98.41496168 | 97.27035944 | 96.14544495 | 95.03974484 | 93.95280068 | 92.88416844 |
| 130925A00035 | 9/25/2013                           | 1.53 | 6/25/2025  | 9/25/2013  | 101.68311 | 99.94209374 | 98.24572639 | 96.59247337 | 94.9808643  | 93.40949217 | 91.87700997 | 90.38212763 | 88.92360902 |
| 180529A00057 | 5/29/2018                           | 3.09 | 5/30/2028  | 5/29/2018  | 109.61437 | 105.9503805 | 102.4615266 | 99.13790023 | 95.97022755 | 92.94982129 | 90.06853967 | 87.31874866 | 84.693287   |
| 210514A00007 | 5/14/2021                           | 0.95 | 5/15/2028  | 5/14/2021  | 101.43142 | 98.62291045 | 95.93081566 | 93.34925195 | 90.87268032 | 88.49588102 | 86.21393296 | 84.0221946  | 81.91628612 |
| 150601A01005 | 6/1/2015                            | 5.82 | 3/10/2025  | 6/1/2015   | 111.76651 | 109.4083187 | 107.1155073 | 104.8858714 | 102.7172909 | 100.6077305 | 98.5552353  | 96.55792746 | 94.61400232 |
| 191231A00021 | 12/31/2019                          | 1.9  | 2/28/2023  | 12/31/2019 | 100.40364 | 100.2332353 | 100.0634969 | 99.89442288 | 99.72600905 | 99.55825117 | 99.39114508 | 99.22468664 | 99.05887173 |
| 150601A00948 | 6/1/2015                            | 6.04 | 10/22/2031 | 6/1/2015   | 124.31645 | 119.300958  | 114.5869452 | 110.1527579 | 105.9784915 | 102.0458336 | 98.3379254  | 94.83923478 | 91.53544248 |
| 150601A00395 | 6/1/2015                            | 2.86 | 1/3/2024   | 6/1/2015   | 101.4589  | 100.8226204 | 100.1971568 | 99.58219891 | 98.97745277 | 98.38263597 | 97.79747707 | 97.22171507 | 96.65509884 |
| 121220A00023 | 12/20/2012                          | 1.82 | 12/20/2022 | 12/20/2012 | 100.50447 | 100.2757015 | 100.0479724 | 99.82127495 | 99.59560192 | 99.37094636 | 99.14730134 | 98.92465998 | 98.70301549 |
| 150601A00001 | 6/1/2015                            | 5.43 | 6/15/2037  | 6/1/2015   | 139.21318 | 129.5163283 | 120.7525399 | 112.8183711 | 105.6229192 | 99.08619577 | 93.13772516 | 87.71533358 | 82.76410057 |
| 150601A00425 | 6/1/2015                            | 2.64 | 2/21/2024  | 6/1/2015   | 101.43164 | 100.7285223 | 100.0374371 | 99.35805413 | 98.69005545 | 98.03313496 | 97.38699801 | 96.75136087 | 96.12595019 |
| 150601A00426 | 6/1/2015                            | 3.37 | 2/21/2029  | 6/1/2015   | 108.80779 | 105.546359  | 102.4329157 | 99.45932088 | 96.61794601 | 93.90163792 | 91.30368594 | 88.81779143 | 86.43803969 |
| 121120A00011 | 11/20/2012                          | 2.22 | 11/22/2027 | 11/20/2012 | 106.93444 | 103.0896057 | 99.43198977 | 95.95111683 | 92.63716687 | 89.48092733 | 86.47375176 | 83.6075216  | 80.8746108  |
| 120621A00009 | 6/21/2012                           | 3.18 | 6/21/2032  | 6/21/2012  | 117.02851 | 110.0771886 | 103.6775052 | 97.77970958 | 92.33892117 | 87.31462093 | 82.67019954 | 78.37255494 | 74.39173368 |
| 180126A00018 | 1/26/2018                           | 2.34 | 1/26/2023  | 1/26/2018  | 100.57172 | 100.3616384 | 100.152596  | 99.94458374 | 99.7375934  | 99.53161664 | 99.32664529 | 99.12267123 | 98.91968647 |
| 150601A00927 | 6/1/2015                            | 6.08 | 8/7/2030   | 6/1/2015   | 121.93585 | 117.6018686 | 113.499353  | 109.6134437 | 105.9303561 | 102.4372986 | 99.12239361 | 95.97460581 | 92.98367639 |
| 200316A00008 | 3/16/2020                           | 1.31 | 3/15/2030  | 3/16/2020  | 102.84422 | 99.15184526 | 95.65304719 | 92.33569974 | 89.18853373 | 86.2010703  | 83.36355996 | 80.66692675 | 78.10271702 |
| 150601A00872 | 6/1/2015                            | 7.42 | 7/31/2028  | 6/1/2015   | 121.62484 | 118.1633155 | 114.8486366 | 111.6732513 | 108.630051  | 105.7123432 | 102.9138241 | 100.2285537 | 97.65093229 |
| 150601A00558 | 6/1/2015                            | 2.51 | 8/30/2024  | 6/1/2015   | 101.76423 | 100.8014548 | 99.85708138 | 98.9305871  | 98.0214732  | 97.12925947 | 96.25348346 | 95.3936996  | 94.54947845 |
| 120119A00015 | 1/19/2012                           | 2.27 | 1/19/2024  | 1/19/2012  | 101.84063 | 100.7196212 | 99.62028965 | 98.54199329 | 97.48411949 | 96.44607984 | 95.42730893 | 94.42726321 | 93.44541993 |
| 160928A00029 | 9/28/2016                           | 2.52 | 9/29/2036  | 9/28/2016  | 113.08522 | 105.5304922 | 98.66860474 | 92.42554388 | 86.73599383 | 81.54224418 | 76.79323931 | 72.44375338 | 68.45367365 |
| 140414A00009 | 4/14/2014                           | 2.32 | 4/30/2024  | 4/14/2014  | 101.93449 | 100.8378026 | 99.7607019  | 98.70266931 | 97.66320925 | 96.64184359 | 95.63811091 | 94.65156569 | 93.68177765 |
| 030605A00010 | 6/5/2003                            | 3.97 | 6/5/2023   | 6/5/2003   | 102.47539 | 101.7845716 | 101.1030804 | 100.4307252 | 99.76732286 | 99.11269535 | 98.46666919 | 97.82907547 | 97.19974967 |
| 150601A00952 | 6/1/2015                            | 6.34 | 2/13/2032  | 6/1/2015   | 130.80761 | 124.7784428 | 119.1408439 | 113.8650519 | 108.9238141 | 104.2921611 | 99.94719852 | 95.86792016 | 92.03503864 |
| 190102A00022 | 1/2/2019                            | 2.97 | 1/3/2034   | 1/2/2019   | 114.15176 | 108.2579258 | 102.8016775 | 97.74479923 | 93.05277742 | 88.69441353 | 84.64147978 | 80.86841275 | 77.35204084 |
| 150601A00865 | 6/1/2015                            | 6    | 4/3/2028   | 6/1/2015   | 115.10672 | 112.1580136 | 109.3266556 | 106.6069015 | 103.9933295 | 101.4808221 | 99.06454752 | 96.73994156 | 94.50269086 |
| 160928A00030 | 9/28/2016                           | 2.52 | 9/29/2036  | 9/28/2016  | 113.08522 | 105.5304922 | 98.66860474 | 92.42554388 | 86.73599383 | 81.54224418 | 76.79323931 | 72.44375338 | 68.45367365 |
| 150601A00035 | 6/1/2015                            | 5.73 | 4/1/2038   | 6/1/2015   | 138.29916 | 129.3006451 | 121.1555224 | 113.7685948 | 107.0563967 | 100.9456397 | 95.37187812 | 90.2783596  | 85.61503396 |
| 120827A00048 | 8/27/2012                           | 2.01 | 8/27/2027  | 8/27/2012  | 104.51367 | 101.6079983 | 98.81703548 | 96.13529188 | 93.55758157 | 91.0790015  | 88.69491426 | 86.40093197 | 84.19290126 |
| 121217A00009 | 12/17/2012                          | 2.02 | 12/17/2027 | 12/17/2012 | 104.30963 | 101.5451657 | 98.89547003 | 96.35471846 | 93.9174303  | 91.57844339 | 89.33289328 | 87.17619385 | 85.10401933 |
| 150601A00033 | 6/1/2015                            | 5.96 | 12/24/2025 | 6/1/2015   | 116.08993 | 112.9206308 | 109.8608936 | 106.9062195 | 104.0523219 | 101.2951193 | 98.63072341 | 96.05542895 | 93.56570349 |
| 200311A00028 | 3/11/2020                           | 1.04 | 3/12/2024  | 3/11/2020  | 100.35801 | 99.4962186  | 98.65018862 | 97.81946356 | 97.00360912 | 96.20220802 | 95.41485919 | 94.64117692 | 93.88079015 |
| 200326A00037 | 3/26/2020                           | 1.78 | 3/26/2035  | 3/26/2020  | 106.96915 | 100.846921  | 95.22273526 | 90.04923122 | 85.28401956 | 80.88912158 | 76.8304748  | 73.07749746 | 69.60270448 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 150601A00509 | 6/1/2015                            | 2.52 | 7/8/2024   | 6/1/2015   | 101.64891 | 100.7605972 | 99.88864518 | 99.03259553 | 98.19200673 | 97.366454   | 96.55552849 | 95.75883651 | 94.97599882 |
| 150601A00832 | 6/1/2015                            | 7.17 | 8/28/2025  | 6/1/2015   | 109.35786 | 107.8377998 | 106.3547297 | 104.9074412 | 103.4947772 | 102.1156274 | 100.7689257 | 99.4536485  | 98.16881232 |
| 150601A00475 | 6/1/2015                            | 3.04 | 6/1/2029   | 6/1/2015   | 108.11487 | 104.7325587 | 101.5095192 | 98.43669018 | 95.50559829 | 92.70831469 | 90.03741622 | 87.48594967 | 85.04739876 |
| 150601A01012 | 6/1/2015                            | 5.43 | 9/15/2023  | 6/1/2015   | 104.57616 | 103.6220763 | 102.6858138 | 101.7668702 | 100.8647649 | 99.97903514 | 99.1092351  | 98.25493495 | 97.41572029 |
| 170929A00046 | 9/29/2017                           | 2.49 | 9/30/2027  | 9/29/2017  | 104.76601 | 102.2283729 | 99.78486822 | 97.43118066 | 95.16322447 | 92.9771301  | 90.86923133 | 88.83605314 | 86.8743005  |
| 150601A00955 | 6/1/2015                            | 5.84 | 7/15/2032  | 6/1/2015   | 126.01023 | 120.5281003 | 115.3990706 | 110.5960706 | 106.0943537 | 101.8712789 | 97.90611561 | 94.17986806 | 90.67511654 |
| 160930A00033 | 9/30/2016                           | 1.8  | 9/30/2026  | 9/30/2016  | 102.32983 | 100.3134638 | 98.35978052 | 96.46631421 | 94.63071176 | 92.8507295  | 91.1242273  | 89.44916304 | 87.82358746 |
| 150601A00851 | 6/1/2015                            | 7.12 | 4/30/2027  | 6/1/2015   | 116.09073 | 113.4481159 | 110.8982201 | 108.4370088 | 106.0606515 | 103.7655109 | 101.5481328 | 99.40523474 | 97.33369669 |
| 150601A01047 | 6/1/2015                            | 5.35 | 12/30/2024 | 6/1/2015   | 110.04532 | 107.8529484 | 105.7174683 | 103.6369733 | 101.609635  | 99.63370157 | 97.70749462 | 95.82940479 | 93.99788845 |
| 220629A00034 | 6/29/2022                           | 3.51 | 6/29/2027  | 6/29/2022  | 106.97547 | 104.5243265 | 102.1601123 | 99.87898768 | 97.6773142  | 95.5516398  | 93.49868815 | 91.51534841 | 89.59866573 |
| 150601A00868 | 6/1/2015                            | 7.08 | 6/5/2028   | 6/1/2015   | 120.31341 | 116.9192791 | 113.6676706 | 110.5513272 | 107.563415  | 104.6974961 | 101.9475033 | 99.30771589 | 96.77273776 |
| 111007A00007 | 10/7/2011                           | 3.92 | 10/7/2031  | 10/7/2011  | 122.22373 | 114.8963638 | 108.1430786 | 101.9136895 | 96.16273198 | 90.84899274 | 85.93508818 | 81.38708643 | 77.1741689  |
| 150601A00005 | 6/1/2015                            | 4.84 | 6/9/2025   | 6/1/2015   | 110.63741 | 108.0352657 | 105.511129  | 103.0621391 | 100.6855612 | 98.37877994 | 96.13929403 | 93.96470979 | 91.85273588 |
| 130624A00017 | 6/24/2013                           | 3.4  | 6/26/2023  | 6/24/2013  | 102.15871 | 101.3975956 | 100.6476411 | 99.90860476 | 99.18024974 | 98.46234606 | 97.7546703  | 97.05700536 | 96.36914025 |
| 150601A00410 | 6/1/2015                            | 2.68 | 1/24/2024  | 6/1/2015   | 101.39118 | 100.7278888 | 100.0759476 | 99.43503789 | 98.8048529  | 98.18509764 | 97.57548852 | 96.97575271 | 96.38562766 |
| 150601A00988 | 6/1/2015                            | 4.57 | 3/22/2024  | 6/1/2015   | 102.92878 | 102.1770204 | 101.438285  | 100.7122141 | 99.99846503 | 99.29670799 | 98.60662534 | 97.92791107 | 97.26027026 |
| 170313A00041 | 3/13/2017                           | 3.21 | 3/15/2032  | 3/13/2017  | 112.56793 | 107.6487847 | 103.0422    | 98.72463035 | 94.67451424 | 90.87209032 | 87.29923368 | 83.9393082  | 80.77703316 |
| 150601A00889 | 6/1/2015                            | 6.55 | 3/2/2029   | 6/1/2015   | 121.54793 | 117.6366233 | 113.9087871 | 110.3541082 | 106.9629349 | 103.7262268 | 100.6355112 | 97.68284425 | 94.86077387 |
| 200203A00046 | 2/3/2020                            | 1.98 | 2/3/2040   | 2/3/2020   | 110.74956 | 102.247777  | 94.66607512 | 87.88896891 | 81.81684074 | 76.36361434 | 71.45478794 | 67.02576828 | 63.02045735 |
| 150601A01015 | 6/1/2015                            | 5.61 | 10/28/2025 | 6/1/2015   | 114.07145 | 111.1229304 | 108.2722671 | 105.5155987 | 102.8492452 | 100.2696942 | 97.77359219 | 95.35773613 | 93.01906588 |
| 150601A00935 | 6/1/2015                            | 6.46 | 11/21/2030 | 6/1/2015   | 126.74663 | 121.7098167 | 116.9600187 | 112.4779007 | 108.2455881 | 104.2465447 | 100.4654626 | 96.88816304 | 93.50150476 |
| 150601A00022 | 6/1/2015                            | 5.43 | 10/26/2037 | 6/1/2015   | 135.20809 | 126.5849046 | 118.7623231 | 111.6529488 | 105.1799229 | 99.27556109 | 93.88017552 | 88.94105656 | 84.41159243 |
| 150601A00918 | 6/1/2015                            | 5.62 | 4/28/2025  | 6/1/2015   | 106.5375  | 105.1997597 | 103.8919916 | 102.6132773 | 101.3627316 | 100.1395036 | 98.94277517 | 97.77175943 | 96.6256991  |
| 150601A00496 | 6/1/2015                            | 2.27 | 6/27/2024  | 6/1/2015   | 101.51611 | 100.6414747 | 99.78287363 | 98.93985513 | 98.11198729 | 97.2988546  | 96.50005712 | 95.71520977 | 94.94394156 |
| 200521A00005 | 5/21/2020                           | 0.75 | 5/21/2030  | 5/21/2020  | 101.27803 | 97.52911265 | 93.98158537 | 90.62256177 | 87.44007975 | 84.42303282 | 81.56110291 | 78.8446989  | 76.26490027 |
| 140311A00039 | 3/11/2014                           | 3.06 | 3/11/2024  | 3/11/2014  | 103.05732 | 101.7248371 | 100.4168684 | 99.13278726 | 97.87198824 | 96.63388589 | 95.41791416 | 94.22352549 | 93.05019009 |
| 190628A00007 | 6/28/2019                           | 2.28 | 6/28/2034  | 6/28/2019  | 110.51085 | 104.5540926 | 99.05604913 | 93.97529911 | 89.27456153 | 84.92024924 | 80.88207376 | 77.13269513 | 73.64741127 |
| 130913A00018 | 9/13/2013                           | 3.72 | 9/13/2028  | 9/13/2013  | 110.95852 | 107.3114145 | 103.8312191 | 100.5087737 | 97.33548976 | 94.30331072 | 91.40467547 | 88.63248458 | 85.98006912 |
| 150601A00912 | 6/1/2015                            | 5.96 | 11/30/2029 | 6/1/2015   | 121.28332 | 117.0270497 | 112.9873968 | 109.1512285 | 105.5063086 | 102.0412317 | 98.74536127 | 95.60877245 | 92.62219972 |
| 150601A00411 | 6/1/2015                            | 3.38 | 1/24/2029  | 6/1/2015   | 108.72267 | 105.5031792 | 102.4282057 | 99.48987983 | 96.68081977 | 93.99409996 | 91.42321945 | 88.96207301 | 86.60492431 |
| 190102A00024 | 1/2/2019                            | 2.97 | 1/3/2034   | 1/2/2019   | 114.1518  | 108.2579476 | 102.8016805 | 97.74478596 | 93.05275018 | 88.69437433 | 84.64143035 | 80.86835464 | 77.35197536 |
| 150601A00960 | 6/1/2015                            | 6.49 | 12/16/2032 | 6/1/2015   | 130.32849 | 124.4801454 | 119.0206862 | 113.9193395 | 109.1480567 | 104.6812499 | 100.495557  | 96.56963108 | 92.88395038 |
| 150601A00978 | 6/1/2015                            | 6.32 | 11/24/2033 | 6/1/2015   | 131.99414 | 125.5791792 | 119.6240845 | 114.0897474 | 108.9407686 | 104.1450752 | 99.6735811  | 95.49988498 | 91.60000095 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 160210A00041 | 2/10/2016                           | 1.97 | 2/10/2023  | 2/10/2016  | 100.69743 | 100.3285073 | 99.96228911 | 99.59874641 | 99.23784992 | 98.87957078 | 98.52388052 | 98.17075111 | 97.8201549  |
| 160520A00017 | 9/20/2017                           | 2.34 | 9/20/2024  | 9/20/2017  | 103.20435 | 101.2459491 | 99.33463413 | 97.46898182 | 95.64762281 | 93.86923815 | 92.1325571  | 90.43635504 | 88.77945141 |
| 180518A00046 | 5/25/2018                           | 3.62 | 5/18/2027  | 5/25/2018  | 114.38075 | 109.6194006 | 105.0877709 | 100.7735122 | 96.66500455 | 92.75131363 | 89.022146   | 85.46780804 | 82.07916761 |
| 191002A00038 | 1/13/2020                           | 1.76 | 1/13/2023  | 1/13/2020  | 100.54909 | 100.257624  | 99.96785512 | 99.67977027 | 99.39335476 | 99.10859402 | 98.82547367 | 98.54397948 | 98.2640974  |
| 191002A00044 | 2/3/2020                            | 1.75 | 2/3/2023   | 2/3/2020   | 100.60279 | 100.2533194 | 99.90627517 | 99.56162841 | 99.21935436 | 98.87942861 | 98.54182706 | 98.20652597 | 97.87350189 |
| 190329A00012 | 3/29/2019                           | 2.61 | 3/29/2024  | 3/29/2019  | 102.79677 | 101.3091152 | 99.85053968 | 98.42026582 | 97.01754272 | 95.64164555 | 94.29187437 | 92.96755311 | 91.66802852 |
| 130211A00016 | 2/11/2013                           | 2.27 | 2/15/2023  | 2/11/2013  | 100.82506 | 100.4420901 | 100.0620375 | 99.68486419 | 99.31053746 | 98.93902511 | 98.5702954  | 98.2043171  | 97.84105942 |
| 190829A00080 | 8/29/2019                           | 1.8  | 12/29/2023 | 8/29/2019  | 101.27622 | 100.0367392 | 98.82744023 | 97.64723116 | 96.49507263 | 95.36997427 | 94.27099179 | 93.1972244  | 92.14781231 |
| 141215A00062 | 12/15/2014                          | 2.65 | 12/16/2024 | 12/15/2014 | 104.58548 | 102.3743519 | 100.2209129 | 98.12323438 | 96.0794727  | 94.08786073 | 92.14670418 | 90.25437786 | 88.4093222  |
| 160212A00037 | 2/12/2016                           | 3.03 | 2/12/2031  | 2/12/2016  | 120.23436 | 111.6219286 | 103.7071434 | 96.42950436 | 89.7340576  | 83.57086067 | 77.89450205 | 72.6636691  | 67.84075904 |
| 160712A00019 | 7/12/2017                           | 2.32 | 7/12/2027  | 7/12/2017  | 108.68164 | 103.9051534 | 99.36740774 | 95.0552054  | 90.95614695 | 87.05858136 | 83.35155657 | 79.82477369 | 76.46854445 |
| 180618A00036 | 6/18/2018                           | 3.89 | 6/18/2048  | 6/18/2018  | 162.31036 | 135.590062  | 114.2685477 | 97.17382803 | 83.39845138 | 72.23816962 | 63.14513056 | 55.69209163 | 49.54501122 |
| 180621A00068 | 6/21/2018                           | 3.32 | 6/23/2025  | 6/21/2018  | 107.15154 | 104.4035531 | 101.7405129 | 99.15923953 | 96.65669404 | 94.2299735  | 91.87630353 | 89.59303165 | 87.37762086 |
| 170412A00019 | 4/12/2017                           | 2.56 | 4/12/2024  | 4/12/2017  | 102.79872 | 101.2730059 | 99.77756013 | 98.31155254 | 96.87418399 | 95.4646838  | 94.08230853 | 92.72634076 | 91.39608794 |
| 180726A00046 | 7/26/2018                           | 3.2  | 12/26/2023 | 7/26/2018  | 103.02337 | 101.7802695 | 100.5671696 | 99.38299002 | 98.22670508 | 97.09733705 | 95.99395346 | 94.91566446 | 93.86162045 |
| 190829A00078 | 8/29/2019                           | 1.8  | 12/15/2023 | 8/29/2019  | 101.25547 | 100.053047  | 98.87905314 | 97.73248517 | 96.61239079 | 95.51786134 | 94.4480293  | 93.40206604 | 92.37917962 |
| 190515A00032 | 5/15/2019                           | 2.49 | 5/15/2024  | 5/15/2019  | 102.86402 | 101.2490662 | 99.66722695 | 98.11755029 | 96.5991194  | 95.11105213 | 93.65249941 | 92.22264365 | 90.82069731 |
| 190501A00014 | 5/1/2019                            | 2.62 | 5/1/2024   | 5/1/2019   | 103.00069 | 101.4215582 | 99.8743246  | 98.35809371 | 96.87199916 | 95.41520663 | 93.98691231 | 92.58634152 | 91.21274736 |
| 190621A00035 | 6/21/2019                           | 2.19 | 12/15/2023 | 6/21/2019  | 101.73161 | 100.5261218 | 99.34910589 | 98.19956505 | 97.0765456  | 95.97913759 | 94.90647227 | 93.85771982 | 92.83208716 |
| 160210A00053 | 2/10/2016                           | 1.99 | 2/10/2023  | 2/10/2016  | 100.70482 | 100.3358829 | 99.96964784 | 99.60608844 | 99.24517534 | 98.88687967 | 98.53117298 | 98.17802723 | 97.82741476 |
| 180911A00007 | 9/11/2018                           | 3.12 | 9/8/2023   | 9/11/2018  | 102.39028 | 101.4422325 | 100.5117321 | 99.59829749 | 98.70146198 | 97.82077581 | 96.95580537 | 96.10613243 | 95.2713535  |
| 081219A00006 | 12/19/2008                          | 3.88 | 12/22/2023 | 12/19/2008 | 103.98157 | 102.7407475 | 101.5296034 | 100.3470841 | 99.19218234 | 98.06393759 | 96.96143343 | 95.8837951  | 94.83018707 |
| 160830A00068 | 11/30/2016                          | 1.95 | 11/30/2023 | 11/30/2016 | 101.4102  | 100.2464444 | 99.10927374 | 97.99778763 | 96.91112393 | 95.84845865 | 94.8090039  | 93.79200594 | 92.79674334 |
| 171110A00019 | 5/4/2018                            | 2.46 | 5/4/2023   | 5/4/2018   | 101.22719 | 100.6292945 | 100.0384537 | 99.45453893 | 98.87742882 | 98.30700495 | 97.7431516  | 97.1857557  | 96.63470678 |
| 200131A00031 | 1/31/2020                           | 1.74 | 1/31/2024  | 1/31/2020  | 101.2959  | 99.97678106 | 98.68094559 | 97.40782952 | 96.1568877  | 94.92759192 | 93.71943026 | 92.53190652 | 91.36453961 |
| 170822A00023 | 8/23/2017                           | 3.95 | 8/23/2028  | 8/23/2017  | 120.32179 | 114.1405101 | 108.3255171 | 102.8530961 | 97.70118596 | 92.8492573  | 88.27819813 | 83.97020939 | 79.90870826 |
| 160819A00015 | 10/12/2016                          | 2.3  | 10/13/2026 | 10/12/2016 | 107.00905 | 102.9915977 | 99.14801834 | 95.46986599 | 91.94914901 | 88.57830512 | 85.35017591 | 82.25798299 | 79.29530572 |
| 170614A00019 | 6/14/2017                           | 2.48 | 6/13/2025  | 6/14/2017  | 104.79609 | 102.107645  | 99.50185621 | 96.97565558 | 94.52610734 | 92.15040568 | 89.84586795 | 87.60992818 | 85.44013112 |
| 160225A00024 | 2/25/2016                           | 2.22 | 2/26/2024  | 2/25/2016  | 102.0713  | 100.6736005 | 99.30174783 | 97.95508576 | 96.63298089 | 95.33482062 | 94.06001225 | 92.80798221 | 91.57817528 |
| 180925A00033 | 9/25/2018                           | 3.26 | 9/25/2023  | 9/25/2018  | 102.61414 | 101.6191948 | 100.6435446 | 99.68662813 | 98.74790947 | 97.82687277 | 96.92302161 | 96.03587796 | 95.1649814  |
| 180821A00029 | 8/21/2018                           | 3.01 | 8/21/2023  | 8/21/2018  | 102.18831 | 101.2899353 | 100.4073457 | 99.54013074 | 98.68789095 | 97.85024065 | 97.02680724 | 96.21723077 | 95.42116334 |
| 190829A00075 | 8/29/2019                           | 1.8  | 6/15/2023  | 8/29/2019  | 100.94587 | 100.2345537 | 99.53323575 | 98.8417081  | 98.15976676 | 97.48721331 | 96.82385479 | 96.16950351 | 95.52397683 |
| 180328A00042 | 3/28/2018                           | 2.95 | 3/28/2023  | 3/28/2018  | 101.3049  | 100.8081221 | 100.3162072 | 99.82908716 | 99.34669207 | 98.86895348 | 98.39580422 | 97.92717839 | 97.46301137 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 160223A00012 | 2/23/2016                           | 1.89 | 2/23/2023  | 2/23/2016  | 100.73398 | 100.3288344 | 99.92694748 | 99.52827769 | 99.13278651 | 98.740436   | 98.35118885 | 97.9650083  | 97.58185822 |
| 181206A00018 | 12/6/2018                           | 3.13 | 12/6/2023  | 12/6/2018  | 102.833   | 101.6443671 | 100.4832017 | 99.34856199 | 98.23954628 | 97.15529318 | 96.09497958 | 95.05781852 | 94.04305721 |
| 190830A00020 | 8/31/2020                           | 1.67 | 8/31/2023  | 8/31/2020  | 100.99918 | 100.0797159 | 99.17691467 | 98.29032466 | 97.4195126  | 96.56406054 | 95.72356514 | 94.89763708 | 94.08590043 |
| 150731A00016 | 7/31/2015                           | 3.04 | 7/31/2025  | 7/31/2015  | 106.63157 | 103.7900498 | 101.0393207 | 98.37600559 | 95.79687372 | 93.29883103 | 90.87891369 | 88.53428185 | 86.26221382 |
| 171228A00023 | 12/28/2017                          | 2.69 | 3/29/2024  | 12/28/2017 | 102.91752 | 101.4289143 | 99.96940853 | 98.53822048 | 97.13459885 | 95.75781836 | 94.40717869 | 93.08200336 | 91.78163877 |
| 161125A00002 | 11/25/2016                          | 2.62 | 11/27/2023 | 11/25/2016 | 102.19101 | 101.0303292 | 99.89595487 | 98.78700294 | 97.70262585 | 96.64201343 | 95.60439074 | 94.58901623 | 93.59517993 |
| 191002A00046 | 2/14/2020                           | 1.75 | 2/14/2023  | 2/14/2020  | 100.62373 | 100.2439878 | 99.86711178 | 99.49307166 | 99.12183549 | 98.75337177 | 98.38764945 | 98.02463796 | 97.66430717 |
| 160520A00018 | 9/20/2017                           | 2.34 | 9/20/2024  | 9/20/2017  | 103.20435 | 101.2459491 | 99.33463413 | 97.46898182 | 95.64762281 | 93.86923815 | 92.1325571  | 90.43635504 | 88.77945141 |
| 181220A00041 | 12/20/2018                          | 3.36 | 12/18/2026 | 12/20/2018 | 111.88397 | 107.5897239 | 103.4868118 | 99.56562597 | 95.81709846 | 92.23266747 | 88.80424594 | 85.52419223 | 82.38528281 |
| 190815A00040 | 8/15/2019                           | 1.86 | 8/15/2023  | 8/15/2019  | 101.13764 | 100.2605626 | 99.39864709 | 98.55150567 | 97.71876081 | 96.90004778 | 96.09501406 | 95.30331888 | 94.52463271 |
| 190829A00076 | 8/29/2019                           | 1.81 | 6/30/2023  | 8/29/2019  | 100.99253 | 100.2403112 | 99.49924763 | 98.76909722 | 98.04962046 | 97.34058481 | 96.64176444 | 95.95293998 | 95.27389829 |
| 160210A00042 | 2/10/2016                           | 2.57 | 2/10/2026  | 2/10/2016  | 106.45509 | 103.0995681 | 99.86808    | 96.75540491 | 93.75656732 | 90.86682606 | 88.08166204 | 85.3967666  | 82.80803067 |
| 180615A00039 | 6/15/2018                           | 3.49 | 6/15/2028  | 6/15/2018  | 117.07891 | 111.1770704 | 105.6163365 | 100.3750852 | 95.43318354 | 90.7718762  | 86.3736836  | 82.2223081  | 78.30254768 |
| 191002A00043 | 2/3/2020                            | 1.75 | 2/3/2023   | 2/3/2020   | 100.60279 | 100.2533194 | 99.90627517 | 99.56162841 | 99.21935436 | 98.87942861 | 98.54182706 | 98.20652597 | 97.87350189 |
| 150601A00356 | 6/1/2015                            | 3.66 | 9/22/2023  | 6/1/2015   | 102.94265 | 101.954051  | 100.984455  | 100.0333208 | 99.10012435 | 98.18436109 | 97.28554539 | 96.40320945 | 95.5369026  |
| 160210A00036 | 2/10/2016                           | 1.77 | 2/10/2023  | 2/10/2016  | 100.65633 | 100.2871295 | 99.9206365  | 99.5568257  | 99.19566771 | 98.8371335  | 98.48119447 | 98.12782243 | 97.77698962 |
| 180709A00081 | 7/9/2018                            | 3.05 | 7/7/2023   | 7/9/2018   | 101.96524 | 101.1899989 | 100.4265413 | 99.67459848 | 98.93391116 | 98.20422783 | 97.48530442 | 96.77690403 | 96.07879671 |
| 160222A00018 | 2/22/2016                           | 2.59 | 2/23/2026  | 2/22/2016  | 106.61722 | 103.2213752 | 99.95233479 | 96.80470714 | 93.7733559  | 90.85338926 | 88.04014695 | 85.32918806 | 82.7162795  |
| 160222A00019 | 2/22/2016                           | 3.09 | 2/21/2031  | 2/22/2016  | 120.78671 | 112.1261691 | 104.1687079 | 96.85320376 | 90.12415125 | 83.93111975 | 78.22826575 | 72.97389422 | 68.13006386 |
| 190829A00073 | 8/29/2019                           | 1.81 | 3/15/2023  | 8/29/2019  | 100.70905 | 100.2495697 | 99.79427903 | 99.34312473 | 98.89605049 | 98.45300103 | 98.01392206 | 97.57876028 | 97.14746332 |
| 180131A00022 | 1/31/2018                           | 2.96 | 1/30/2025  | 1/31/2018  | 105.25321 | 102.921614  | 100.653498  | 98.44678647 | 96.29948502 | 94.20967558 | 92.17551298 | 90.19522174 | 88.26709306 |
| 171222A00037 | 12/22/2017                          | 2.71 | 12/29/2023 | 12/22/2017 | 102.42227 | 101.175182  | 99.95840871 | 98.77085033 | 97.61146405 | 96.47925613 | 95.37327909 | 94.29262904 | 93.23644318 |
| 160210A00021 | 2/10/2016                           | 1.97 | 2/10/2023  | 2/10/2016  | 100.69743 | 100.3285073 | 99.96228911 | 99.59874641 | 99.23784992 | 98.87957078 | 98.52388052 | 98.17075111 | 97.8201549  |
| 160209A00049 | 2/9/2016                            | 1.92 | 2/9/2023   | 2/9/2016   | 100.67657 | 100.3104467 | 99.94698407 | 99.58615668 | 99.22793592 | 98.87229358 | 98.51920183 | 98.16863325 | 97.82056083 |
| 180912A00017 | 9/12/2018                           | 3.13 | 9/12/2023  | 9/12/2018  | 102.42204 | 101.4630262 | 100.5219725 | 99.59837346 | 98.69174629 | 97.80162598 | 96.92756435 | 96.06912932 | 95.2259042  |
| 181203A00039 | 12/3/2018                           | 3.27 | 12/1/2023  | 12/3/2018  | 102.97285 | 101.7966646 | 100.6473455 | 99.52397919 | 98.42569346 | 97.35165492 | 96.30106672 | 95.2731666  | 94.26722503 |
| 160714A00024 | 9/20/2016                           | 2.5  | 9/20/2028  | 9/20/2016  | 111.94117 | 105.9284401 | 100.2804191 | 94.97307117 | 89.98406033 | 85.29262584 | 80.87946342 | 76.72661593 | 72.81737285 |
| 180518A00042 | 5/25/2018                           | 3.42 | 5/19/2025  | 5/25/2018  | 107.15889 | 104.5053917 | 101.9316456 | 99.43475512 | 97.0119498  | 94.66057852 | 92.3781034  | 90.16209414 | 88.01022255 |
| 190815A00041 | 8/15/2019                           | 1.86 | 8/15/2024  | 8/15/2019  | 102.12898 | 100.2768734 | 98.46729525 | 96.69901667 | 94.97085629 | 93.28167405 | 91.63036945 | 90.01587997 | 88.4371795  |
| 181001A00031 | 10/1/2018                           | 3.23 | 9/29/2023  | 10/1/2018  | 102.60745 | 101.6017635 | 100.6157849 | 99.64893467 | 98.70066007 | 97.77042941 | 96.85773112 | 95.96207282 | 95.08298041 |
| 190327A00027 | 3/27/2019                           | 2.66 | 1/15/2025  | 3/27/2019  | 104.47188 | 102.1889545 | 99.9672893  | 97.8048447  | 95.69966772 | 93.64988406 | 91.65369427 | 89.70937015 | 87.81525134 |
| 161118A00026 | 12/20/2016                          | 3.03 | 12/21/2026 | 12/20/2016 | 110.51599 | 106.2424863 | 102.1600461 | 98.25905342 | 94.53043079 | 90.96560877 | 87.55649422 | 84.29544077 | 81.17522143 |
| 180518A00048 | 5/25/2018                           | 3.65 | 5/18/2028  | 5/25/2018  | 117.7524  | 111.9081547 | 106.3974803 | 101.1994814 | 96.29468635 | 91.6649391  | 87.29330378 | 83.16397602 | 79.2622014  |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 171110A00007 | 11/10/2017                          | 2.38 | 11/10/2022 | 11/10/2017 | 100.36027 | 100.2462576 | 100.1325149 | 100.0190429 | 99.90584059 | 99.79290706 | 99.68024127 | 99.56784225 | 99.45570903 |
| 170327A00080 | 3/27/2019                           | 3.43 | 3/27/2029  | 3/27/2019  | 118.8916  | 112.1617642 | 105.8673527 | 99.97777668 | 94.46475091 | 89.30210929 | 84.46563582 | 79.93290968 | 75.68316338 |
| 171228A00024 | 12/28/2017                          | 2.71 | 6/28/2024  | 12/28/2017 | 103.48383 | 101.744953  | 100.0435672 | 98.37852154 | 96.74871622 | 95.15309623 | 93.59064901 | 92.06040234 | 90.56142224 |
| 160211A00036 | 2/11/2016                           | 2.41 | 2/11/2026  | 2/11/2016  | 105.9222  | 102.5727917 | 99.34737547 | 96.24072836 | 93.24787112 | 90.36405928 | 87.58477081 | 84.90569448 | 82.32271892 |
| 180316A00031 | 3/16/2018                           | 2.96 | 12/16/2022 | 3/16/2018  | 100.7111  | 100.4967999 | 100.2834271 | 100.070973  | 99.85943184 | 99.64879758 | 99.43906435 | 99.23022632 | 99.02227771 |
| 181029A00051 | 2/5/2019                            | 3.69 | 2/5/2029   | 2/5/2019   | 120.1585  | 113.528342  | 107.3178017 | 101.498017  | 96.0422555  | 90.92574583 | 86.12552475 | 81.62029644 | 77.39030354 |
| 190726A00014 | 7/26/2019                           | 2.23 | 7/24/2024  | 7/26/2019  | 102.73444 | 100.9341382 | 99.17400547 | 97.45288621 | 95.76966772 | 94.12327705 | 92.51267929 | 90.93687591 | 89.39490324 |
| 161017A00007 | 10/17/2016                          | 1.99 | 10/18/2023 | 10/17/2016 | 101.39093 | 100.3411979 | 99.31312617 | 98.30604974 | 97.31933039 | 96.35235553 | 95.40453694 | 94.47530956 | 93.56413038 |
| 190621A00039 | 6/21/2019                           | 2.21 | 6/17/2024  | 6/21/2019  | 102.55333 | 100.8527271 | 99.18832976 | 97.55905078 | 95.96384239 | 94.40169884 | 92.87165418 | 91.37278027 | 89.9041849  |
| 190422A00030 | 4/22/2019                           | 2.93 | 12/22/2025 | 4/22/2019  | 107.30332 | 104.0676551 | 100.9471204 | 97.93692165 | 95.03249779 | 92.22950711 | 89.5238152  | 86.91148341 | 84.38875819 |
| 170327A00079 | 3/27/2019                           | 3.19 | 3/29/2027  | 3/27/2019  | 112.0228  | 107.4496193 | 103.0924782 | 98.94001389 | 94.98152582 | 91.20692868 | 87.606714   | 84.17191408 | 80.89406837 |
| 181016A00019 | 10/18/2018                          | 3.32 | 10/16/2023 | 10/18/2018 | 102.79145 | 101.7391329 | 100.708371  | 99.69850682 | 98.70890906 | 97.73897149 | 96.78811188 | 95.85577083 | 94.94141062 |
| 190917A00033 | 1/10/2020                           | 2.03 | 1/10/2023  | 1/10/2020  | 100.61708 | 100.3337666 | 100.0520554 | 99.77193399 | 99.49338886 | 99.21640667 | 98.9409742  | 98.66707843 | 98.39470644 |
| 160729A00017 | 7/31/2017                           | 2.47 | 7/31/2029  | 7/31/2017  | 113.27329 | 106.3912551 | 99.97863252 | 94.00093723 | 88.42638721 | 83.22567549 | 78.37176591 | 73.83970661 | 69.60645978 |
| 170918A00051 | 12/18/2017                          | 2.24 | 12/19/2022 | 12/18/2017 | 100.57252 | 100.3501297 | 100.1287305 | 99.90831963 | 99.68889049 | 99.47043646 | 99.25295101 | 99.03642765 | 98.82085996 |
| 180201A00022 | 2/1/2018                            | 2.99 | 2/3/2025   | 2/1/2018   | 105.35062 | 103.0064864 | 100.7264484 | 98.50840634 | 96.3503416  | 94.25031289 | 92.20645272 | 90.21696416 | 88.28011781 |
| 180518A00071 | 5/25/2018                           | 3.56 | 5/18/2026  | 5/25/2018  | 110.70335 | 107.0100362 | 103.4616952 | 100.05181   | 96.77419994 | 93.62299759 | 90.5926304  | 87.67780421 | 84.87348751 |
| 170327A00078 | 3/27/2019                           | 3.04 | 3/27/2026  | 3/27/2019  | 108.39678 | 104.8852072 | 101.5076251 | 98.25819766 | 95.13137673 | 92.12188512 | 89.22470167 | 86.43504739 | 83.74837239 |
| 190530A00049 | 5/30/2019                           | 2.44 | 5/30/2023  | 5/30/2019  | 101.33393 | 100.6646564 | 100.0042002 | 99.35238848 | 98.70905241 | 98.07402757 | 97.44715378 | 96.82827492 | 96.21723886 |
| 180403A00024 | 4/3/2018                            | 2.96 | 4/3/2023   | 4/3/2018   | 101.34383 | 100.8304687 | 100.3223015 | 99.8192498  | 99.32123663 | 98.82818658 | 98.34002574 | 97.85668163 | 97.37808324 |
| 180515A00022 | 5/15/2018                           | 3.19 | 5/15/2023  | 5/15/2018  | 101.73809 | 101.1083182 | 100.4863523 | 99.87204266 | 99.26524843 | 98.66583206 | 98.07365938 | 97.48859946 | 96.91052451 |
| 190829A00028 | 8/29/2019                           | 1.78 | 8/29/2024  | 8/29/2019  | 102.03921 | 100.1511353 | 98.30718292 | 96.50606048 | 94.74652099 | 93.02736197 | 91.34742352 | 89.70558648 | 88.1007708  |
| 190917A00030 | 1/10/2020                           | 2.03 | 1/10/2023  | 1/10/2020  | 100.61708 | 100.3337666 | 100.0520554 | 99.77193399 | 99.49338886 | 99.21640667 | 98.9409742  | 98.66707843 | 98.39470644 |
| 180328A00015 | 3/28/2018                           | 2.93 | 3/28/2023  | 3/28/2018  | 101.29496 | 100.7982064 | 100.3063201 | 99.81922834 | 99.33686141 | 98.85915078 | 98.38602929 | 97.91743103 | 97.4532914  |
| 190621A00034 | 6/21/2019                           | 2.17 | 6/15/2023  | 6/21/2019  | 101.2108  | 100.4984309 | 99.79606835 | 99.10350645 | 98.42054102 | 97.74697347 | 97.08261069 | 96.42726481 | 95.78075306 |
| 190520A00048 | 5/20/2019                           | 2.53 | 5/20/2024  | 5/20/2019  | 102.95557 | 101.3266543 | 99.73131217 | 98.1685735  | 96.63750254 | 95.13719927 | 93.66679764 | 92.22546401 | 90.8123956  |
| 191002A00042 | 1/13/2020                           | 1.76 | 1/13/2023  | 1/13/2020  | 100.54909 | 100.257624  | 99.96785512 | 99.67977027 | 99.39335476 | 99.10859402 | 98.82547367 | 98.54397948 | 98.2640974  |
| 190426A00023 | 4/26/2019                           | 2.91 | 6/24/2026  | 4/26/2019  | 108.62518 | 104.8699683 | 101.2659656 | 97.80620602 | 94.48408973 | 91.29336035 | 88.22808481 | 85.28263447 | 82.45166738 |
| 180727A00017 | 7/27/2018                           | 3.16 | 7/27/2023  | 7/27/2018  | 102.17362 | 101.3430907 | 100.5260575 | 99.72219106 | 98.93117498 | 98.15270279 | 97.38647771 | 96.63221228 | 95.88962798 |
| 180312A00014 | 3/12/2018                           | 3    | 3/13/2023  | 3/12/2018  | 101.24679 | 100.7913321 | 100.339976  | 99.89266831 | 99.44935462 | 99.00998145 | 98.5744963  | 98.1428476  | 97.71498468 |
| 200131A00029 | 1/31/2020                           | 1.78 | 10/31/2024 | 1/31/2020  | 102.21686 | 100.1607232 | 98.15601338 | 96.20110442 | 94.2944306  | 92.43448731 | 90.61982811 | 88.84906206 | 87.12085113 |
| 150601A00677 | 6/1/2015                            | 2.39 | 1/30/2025  | 6/1/2015   | 104.13574 | 101.8112588 | 99.55025521 | 97.35065451 | 95.21045817 | 93.12774428 | 91.10066409 | 89.12743888 | 87.20635678 |
| 160211A00034 | 2/11/2016                           | 1.82 | 2/10/2023  | 2/11/2016  | 100.64199 | 100.2731909 | 99.90709863 | 99.54368119 | 99.18290929 | 98.82475405 | 98.46918704 | 98.11618021 | 97.76570594 |

|              | Parallel-Shift Sensitivity Analysis |      |            |            |           |             |             |             |             |             |             |             |             |
|--------------|-------------------------------------|------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |            |            | Price     |             |             |             |             |             |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY   | First/Next | -400      | -300        | -200        | -100        | Base        | 100         | 200         | 300         | 400         |
| 160714A00018 | 9/6/2016                            | 2.28 | 9/4/2026   | 9/6/2016   | 106.69289 | 102.7851622 | 99.0426161  | 95.45741745 | 92.02214548 | 88.72976791 | 85.57361851 | 82.54737607 | 79.64504479 |
| 170609A00052 | 6/11/2018                           | 2.9  | 6/9/2027   | 6/11/2018  | 111.21152 | 106.463968  | 101.9489472 | 97.65379138 | 93.56659481 | 89.67616319 | 85.97196705 | 82.44409834 | 79.08323016 |
| 160222A00005 | 2/22/2016                           | 2.79 | 2/22/2028  | 2/22/2016  | 112.38803 | 106.9213482 | 101.7573657 | 96.87774628 | 92.26535515 | 87.90417474 | 83.77922629 | 79.87649739 | 76.18287502 |
| 180625A00012 | 6/25/2018                           | 3.07 | 6/23/2023  | 6/25/2018  | 101.90419 | 101.1672345 | 100.440933  | 99.7250555  | 99.01937852 | 98.32368508 | 97.63776426 | 96.96141107 | 96.29442621 |
| 160303A00020 | 3/3/2016                            | 2.97 | 3/3/2031   | 3/3/2016   | 121.11331 | 112.3536548 | 104.3094125 | 96.91805828 | 90.12284026 | 83.87222184 | 78.1193779  | 72.82174199 | 67.94059914 |
| 190621A00037 | 6/21/2019                           | 2.21 | 5/15/2024  | 6/21/2019  | 102.4053  | 100.7942263 | 99.21620336 | 97.67027549 | 96.15552764 | 94.67107947 | 93.21608359 | 91.78972409 | 90.39121501 |
| 130211A00026 | 2/11/2013                           | 2.27 | 2/15/2023  | 2/11/2013  | 100.82506 | 100.4420901 | 100.0620375 | 99.68486419 | 99.31053746 | 98.93902511 | 98.5702954  | 98.2043171  | 97.84105942 |
| 141117A00011 | 11/17/2014                          | 3.81 | 11/17/2034 | 11/17/2014 | 134.89837 | 121.9832975 | 110.4968301 | 100.2706063 | 91.15703017 | 83.02660977 | 75.7656482  | 69.27423963 | 63.46452882 |
| 171016A00016 | 10/16/2017                          | 2.23 | 10/17/2022 | 10/16/2017 | 100.15231 | 100.105064  | 100.0578807 | 100.0107592 | 99.96369919 | 99.91670068 | 99.86976353 | 99.82288761 | 99.77607279 |
| 190826A00046 | 8/26/2019                           | 1.77 | 8/26/2024  | 8/26/2019  | 102.01084 | 100.1308602 | 98.29465337 | 96.50094072 | 94.74848968 | 93.0361114  | 91.36265897 | 89.72702561 | 88.12814305 |
| 180123A00067 | 1/23/2018                           | 2.67 | 1/23/2023  | 1/23/2018  | 100.86852 | 100.5488242 | 100.2311565 | 99.91550139 | 99.60183987 | 99.29015298 | 98.9804221  | 98.6726288  | 98.3667549  |
| 191002A00045 | 2/14/2020                           | 1.75 | 2/14/2023  | 2/14/2020  | 100.62373 | 100.2439878 | 99.86711178 | 99.49307166 | 99.12183549 | 98.75337177 | 98.38764945 | 98.02463796 | 97.66430717 |
| 170327A00077 | 3/27/2019                           | 2.74 | 3/27/2024  | 3/27/2019  | 102.9817  | 101.4978431 | 100.0428889 | 98.61606864 | 97.21663825 | 95.84387937 | 94.49709825 | 93.1756247  | 91.87881112 |
| 190325A00022 | 3/25/2019                           | 2.55 | 11/25/2022 | 3/25/2019  | 100.48929 | 100.3335332 | 100.1782637 | 100.0234805 | 99.86918121 | 99.71536363 | 99.5620255  | 99.40916459 | 99.25677867 |
| 181031A00070 | 3/1/2019                            | 3.77 | 3/1/2029   | 3/1/2019   | 120.88075 | 114.1572949 | 107.8633328 | 101.9690384 | 96.44680789 | 91.27108257 | 86.41818745 | 81.86618326 | 77.59473087 |
| 160524A00015 | 11/25/2016                          | 2.71 | 11/25/2026 | 11/25/2016 | 108.97871 | 104.8062649 | 100.8181144 | 97.005104   | 93.35858778 | 89.87039602 | 86.5328062  | 83.33851586 | 80.28061719 |
| 190805A00031 | 8/5/2020                            | 1.77 | 8/4/2023   | 8/5/2020   | 101.03463 | 100.1876886 | 99.35488747 | 98.53587928 | 97.73032363 | 96.93789125 | 96.15826351 | 95.39113206 | 94.63619834 |
| 150601A00998 | 6/1/2015                            | 5.37 | 10/25/2034 | 6/1/2015   | 152.23836 | 138.3894866 | 126.0358827 | 115.0040168 | 105.1415203 | 96.31449941 | 88.40520015 | 81.30998028 | 74.93754523 |
| 180104A00016 | 1/4/2018                            | 2.56 | 1/4/2023   | 1/4/2018   | 100.73689 | 100.4699398 | 100.2044031 | 99.94027125 | 99.67753309 | 99.41617758 | 99.15619383 | 98.89757106 | 98.64029857 |
| 160307A00029 | 3/7/2016                            | 3.21 | 3/7/2031   | 3/7/2016   | 121.86689 | 113.1242916 | 105.0935089 | 97.71243582 | 90.92469913 | 84.6790994  | 78.92911196 | 73.63243801 | 68.75060094 |
| 081028A00036 | 10/30/2008                          | 4.22 | 10/30/2023 |            | 103.85248 | 102.7565333 | 101.6837488 | 100.6334184 | 99.60484441 | 98.59735573 | 97.61031086 | 96.64309665 | 95.69511861 |
| 180406A00015 | 4/10/2018                           | 2.61 | 4/10/2028  | 4/10/2023  | 114.53106 | 109.0623788 | 104.5629956 | 101.2784835 | 99.45481372 | 98.64700691 | 98.1235802  | 97.62309866 | 97.12782479 |
| 180925A00059 | 9/25/2018                           | 3.01 | 9/25/2028  | 9/25/2023  | 117.92896 | 111.8505515 | 106.6629724 | 102.5149708 | 99.60000778 | 97.85748327 | 96.78582382 | 95.88880099 | 95.0173558  |
| 190522A00029 | 5/22/2019                           | 2.41 | 5/22/2024  | 5/22/2023  | 103.10573 | 101.5686322 | 100.3266287 | 99.41272569 | 98.72005457 | 98.09890666 | 97.4916879  | 96.89209923 | 96.29988166 |
| 190523A00048 | 5/23/2019                           | 2.32 | 5/23/2024  | 5/23/2023  | 102.97424 | 101.4491883 | 100.2293212 | 99.33870664 | 98.65487663 | 98.03323204 | 97.42385194 | 96.82209866 | 96.22777265 |
| 190613A00024 | 6/13/2019                           | 2.18 | 6/13/2024  | 6/13/2023  | 102.89031 | 101.3232876 | 100.0739614 | 99.1462914  | 98.41403939 | 97.74117827 | 97.0819799  | 96.43171171 | 95.79014277 |
| 190725A00018 | 7/25/2019                           | 1.78 | 7/25/2024  | 10/25/2022 | 102.60648 | 101.0646362 | 100.1489446 | 99.97546047 | 99.90641931 | 99.8374826  | 99.76865014 | 99.6999215  | 99.63129663 |
| 191121A00031 | 11/21/2019                          | 1.54 | 11/21/2024 | 11/21/2022 | 102.94774 | 101.1600952 | 100.1772049 | 99.8917209  | 99.74666195 | 99.60377634 | 99.46139303 | 99.31936623 | 99.17776486 |
| 191209A00045 | 12/9/2019                           | 1.56 | 12/9/2024  | 12/9/2022  | 103.08588 | 101.2608135 | 100.2037094 | 99.82226871 | 99.62263312 | 99.43126983 | 99.24055319 | 99.0505146  | 98.861239   |
| 191211A00013 | 12/11/2019                          | 1.57 | 12/11/2024 | 12/12/2022 | 103.09241 | 101.2609569 | 100.2003527 | 99.81139145 | 99.60359161 | 99.4041329  | 99.2053998  | 99.00741873 | 98.81026195 |
| 200131A00023 | 1/31/2020                           | 1.56 | 1/31/2025  | 1/31/2023  | 103.03303 | 101.1324789 | 100.0159067 | 99.51058238 | 99.16891649 | 98.83707392 | 98.50746158 | 98.1800372  | 97.85477934 |
| 200207A00008 | 2/7/2020                            | 1.35 | 2/7/2025   | 2/7/2023   | 102.9472  | 101.0579107 | 99.95192875 | 99.42422605 | 99.06149814 | 98.71123933 | 98.36346679 | 98.01807686 | 97.67512634 |
| 200221A00041 | 2/21/2020                           | 1.53 | 2/21/2025  | 2/21/2023  | 103.06791 | 101.1165334 | 99.937088   | 99.35342299 | 98.95208601 | 98.56593408 | 98.18286777 | 97.80275334 | 97.42558401 |

|              | Parallel-Shift Sensitivity Analysis |      |           |            |           |             |             |             |             |            |             |             |             |
|--------------|-------------------------------------|------|-----------|------------|-----------|-------------|-------------|-------------|-------------|------------|-------------|-------------|-------------|
| 9/30/2022    |                                     |      |           |            | Price     |             |             |             |             |            |             |             |             |
| REFERENCE    | SETTLEMENT                          | Rate | MATURITY  | First/Next | -400      | -300        | -200        | -100        | Base        | 100        | 200         | 300         | 400         |
| 200227A00025 | 2/27/2020                           | 1.09 | 2/27/2025 | 2/27/2023  | 102.4708  | 100.6637645 | 99.67625287 | 99.17748109 | 98.76932415 | 98.3674467 | 97.96882985 | 97.57342953 | 97.18121097 |
| 200303A00035 | 3/3/2020                            | 0.81 | 3/3/2025  | 3/3/2023   | 102.00624 | 100.3401569 | 99.48925692 | 99.0153068  | 98.59890981 | 98.1873428 | 97.77911356 | 97.37422143 | 96.97268735 |