PIMCO

FHLB Des Moines Insurance Conference – Forward Momentum
14 May 2019

Economic Outlook – and a Contrarian Take on Demographics

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Biography

Matt Tracey, CFA, CAIA

Mr. Tracey is a senior vice president and account manager in the New York office, focusing on portfolio strategy and investment solutions for insurance companies and banks. Mr. Tracey also collaborates with PIMCO's economic strategists on secular macroeconomic research and publications. Prior to joining PIMCO in 2014, he was an investment banker with Stifel, Nicolaus & Co. in San Francisco, working with municipalities and public infrastructure authorities. Mr. Tracey began his career with UBS Investment Bank in 2007. He has nine years of investment and financial services experience and holds a bachelor's degree from Vassar College and an MBA from the University of Chicago's Booth School of Business, where he specialized in macroeconomics and investment management.

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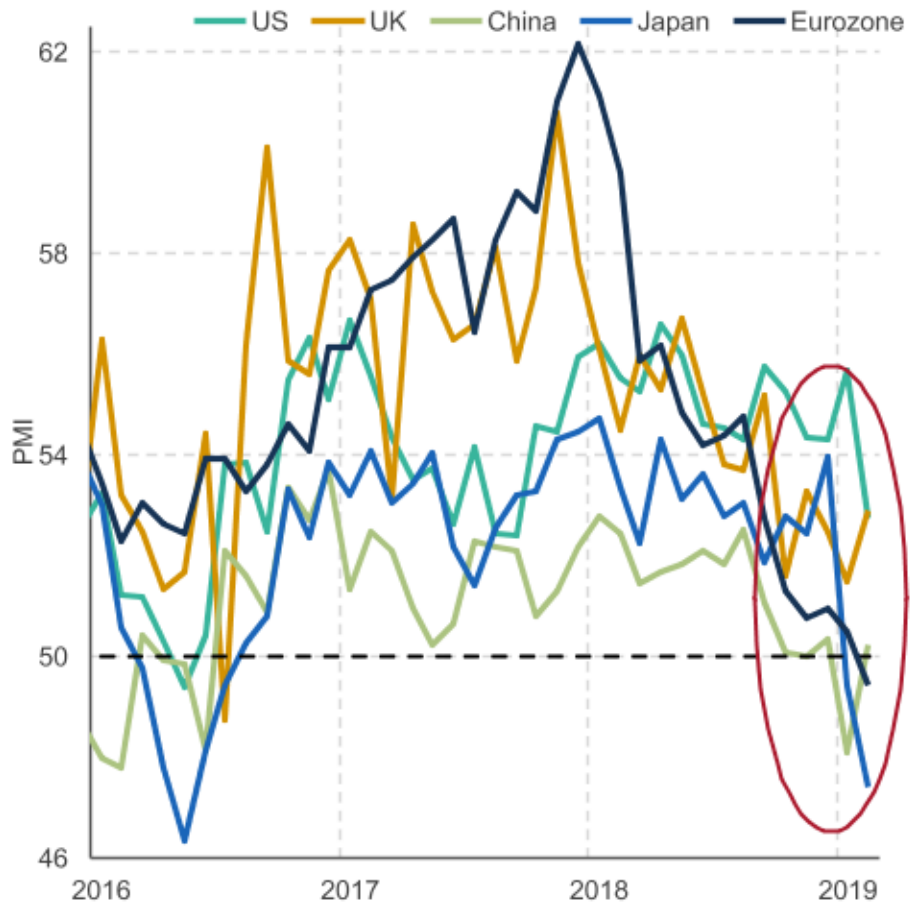
1.

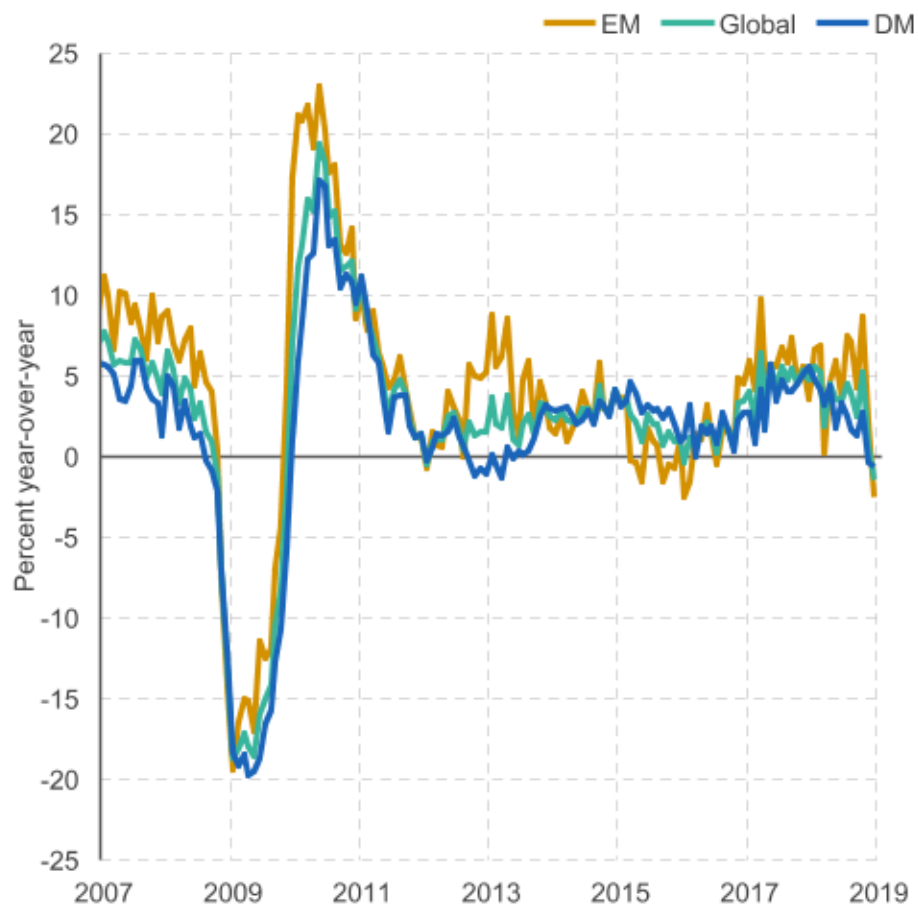
Economic Outlook

Global growth "synching lower" and a slumping global trade cycle

G5 Manufacturing Output



Global Trade Volumes



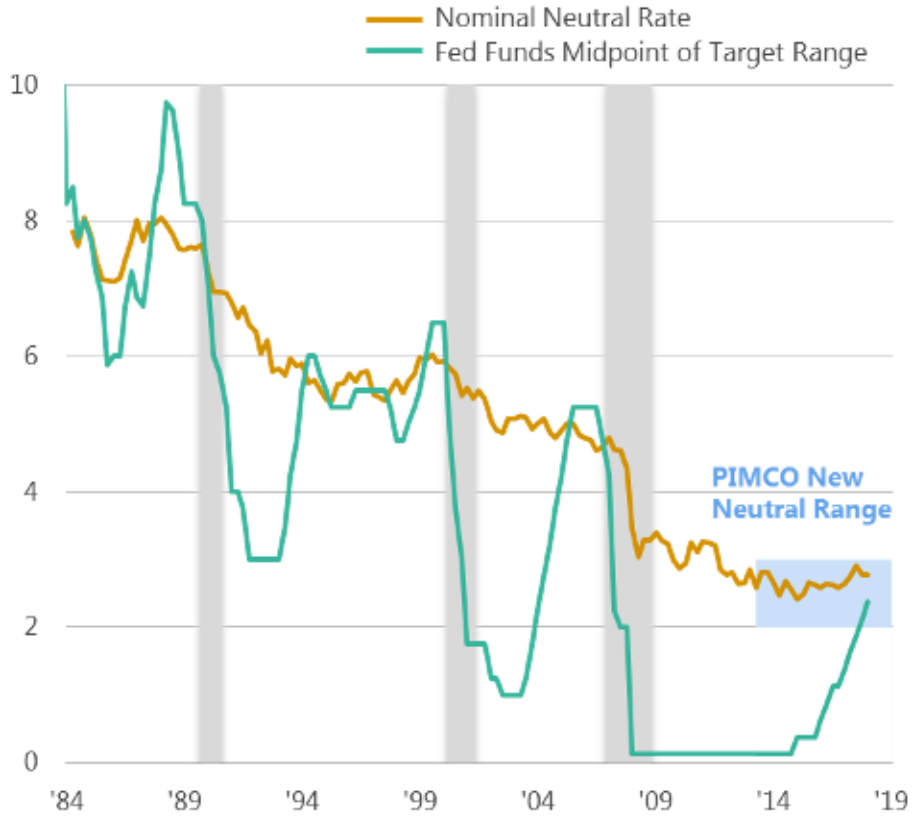
Left chart as of February 2019. Right chart as of December 2018.
SOURCE: IHS Markit, China Federation of Logistics & Purchasing, Haver Analytics, CPB Netherlands Bureau for Economic Policy Analysis.
See CPB for country classifications: https://www.cpb.nl/sites/default/files/omnidownload/CPB-Background-Document-September2016-The-CPB-World- Trade-Monitor-technical-description_28.pdf

Cyclical Outlook 2019: Flatlining at The New Neutral

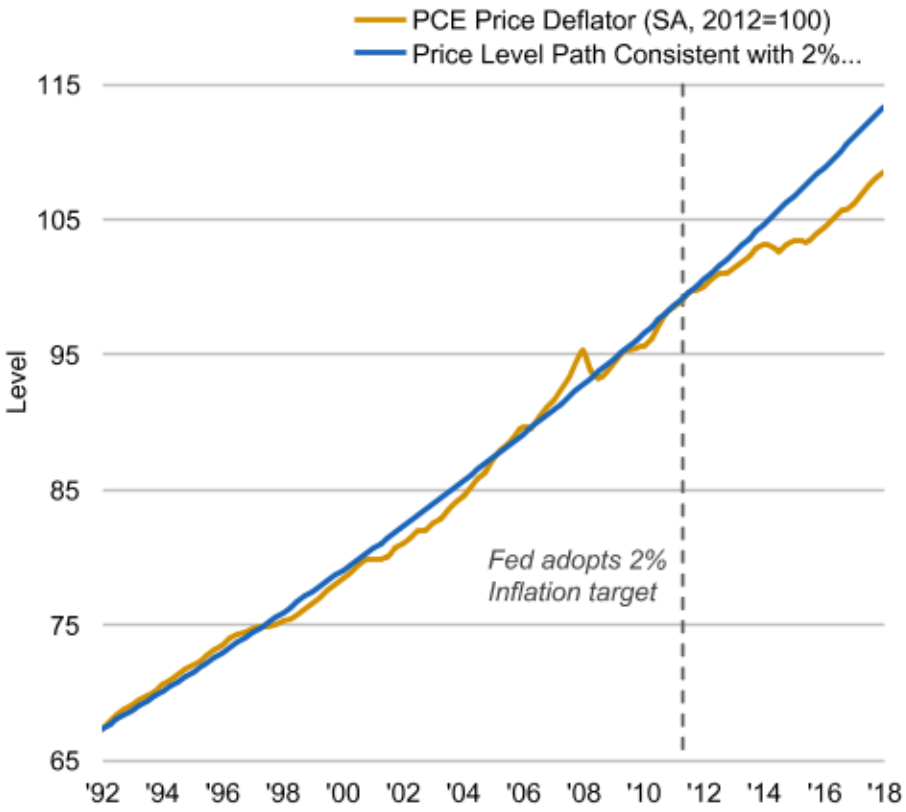
The Fed embraces The New Neutral

Market consensus is that the Fed has finished its tightening cycle.
We see a relatively high hurdle to both rate hikes and rate cuts for the remainder of this year.

Fed Funds is now within PIMCO's New Neutral range



PCE vs. Path Consistent with 2% inflation target



Left Chart as of December 2018. SOURCE: Bloomberg, Federal Reserve Bank of New York, Holston, Laubach, and Williams, 2017, "Measuring the Natural Rate of Interest: International Trends and Determinants," PIMCO calculations. Right Chart as of December 2018. SOURCE: Haver, Bloomberg, PIMCO Calculations

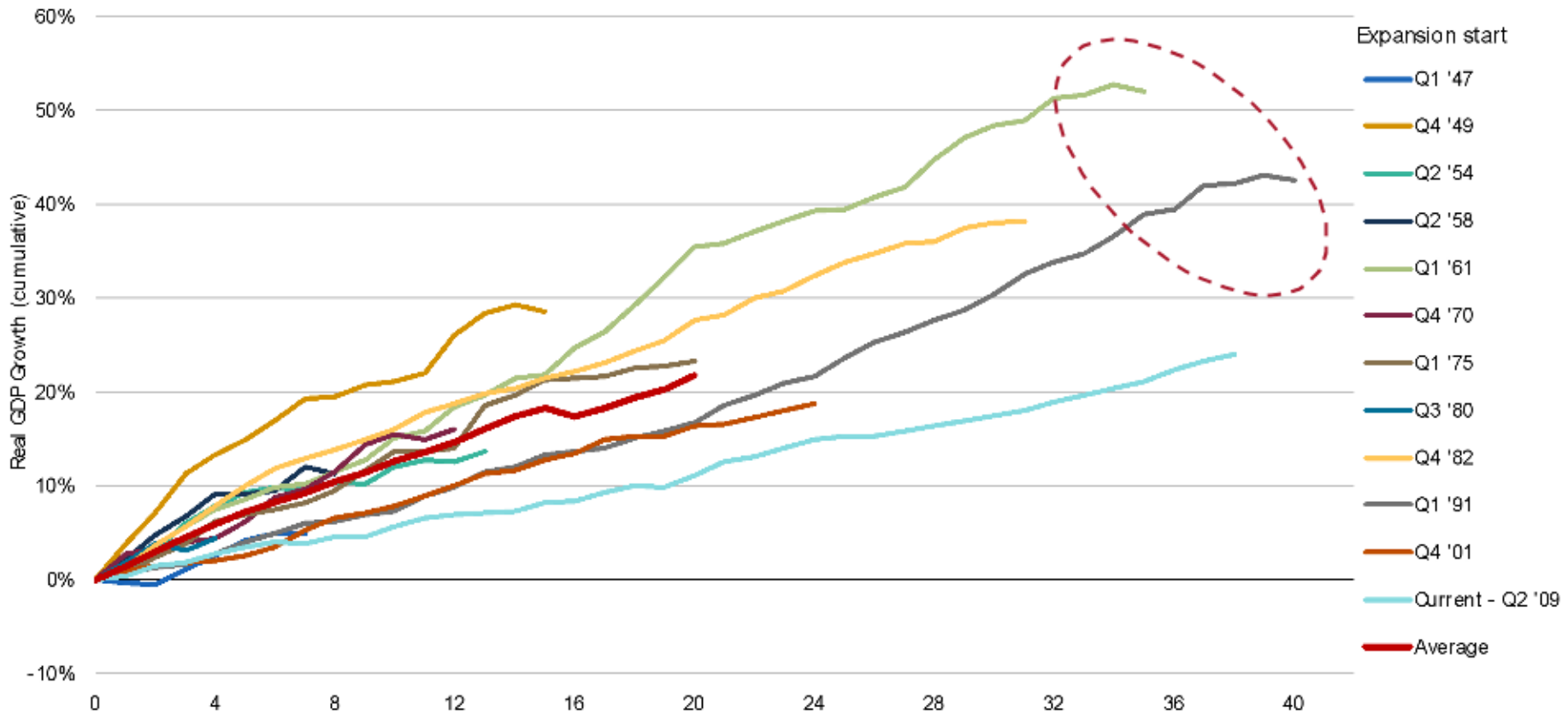
For illustration purposes only.

Refer to Appendix for additional outlook and risk information.

Long expansion, shallow recession?

From July 2019, the current expansion will be the longest on record for the U.S.
The long expansions of the 1960s and 1990s were followed by relatively shallow recessions.
This expansion has been much shallower – with less traditional overheating – and could mean a shallower recession ahead.

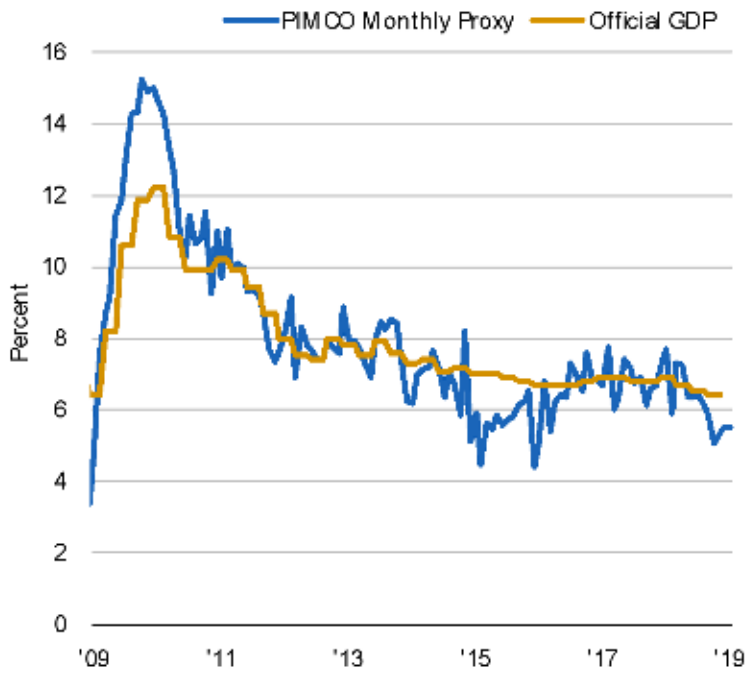
Length and strength of U.S. expansions



As of December 2018. SOURCE: NBER, Bureau of Economic Analysis, PIMCO

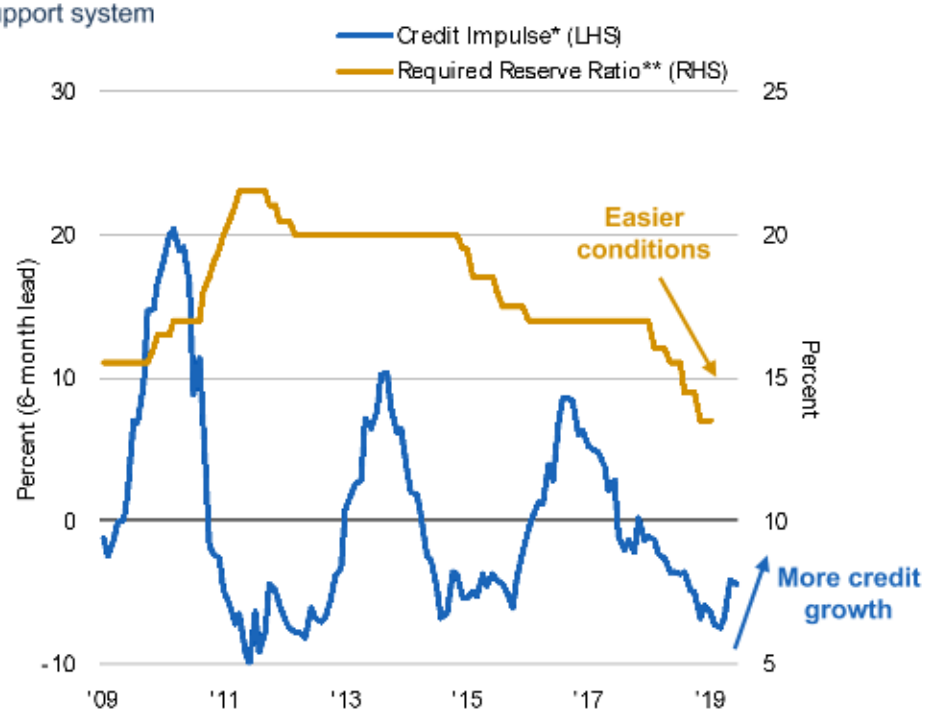
China: Growth could stabilize as policymakers increase stimulus efforts

Hitting slump



The recent slowdown in growth may have been more pronounced than official data would suggest

Support system



However, China's policymakers have the tools to prevent a "hard landing" and are taking steps to add monetary and fiscal stimulus

The global expansion should be supported by more stability in China's growth trajectory later this year

As of 31 March 2019 or latest available. SOURCE: PIMCO, NBS, BEA, PBOC, Haver,
*China credit impulse is the year-over-year growth in economy-wide-debt flows as a % of GDP, smoothed. Economy-wide-debt flows are based on UBS calculations.
**Required reserve ratio for large depository institutions.

Left tail for markets defined by politics
Policy risks ahead

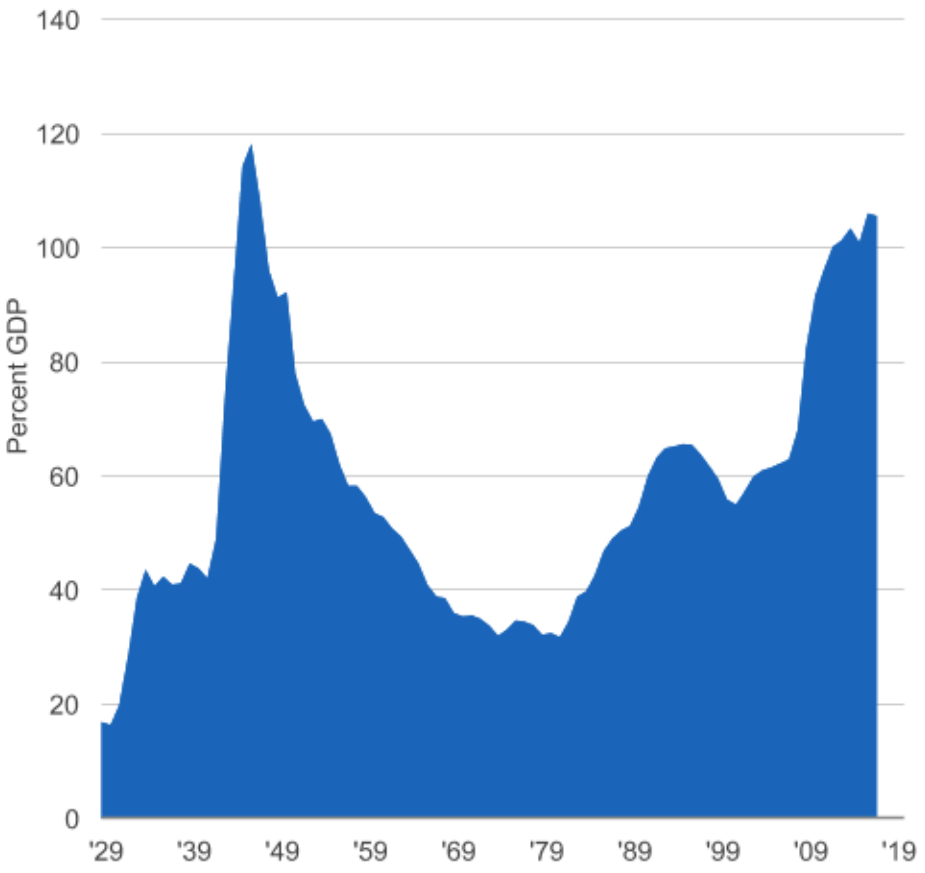
Date	Region	Event
May 18	US	Deadline for White House to take action (if at all) on auto tariffs
May 23–26	Europe	EU elections
Summer	Europe	Nominations of ECB, EUC, Council and EP Presidents
Jun 4	US	Fed conference on monetary policy frameworks
Jun 28–29	China	G20 summit in Osaka, possible Xi-Trump summit
July	China	Politburo summer meeting to review 1H economy and policies
Q3	China	Possible 4th Plenary session of Communist Party
Jul	Japan	Upper house election expected
Aug	US	Jackson Hole
Summer/early fall	US	Deadline to raise the debt ceiling
Sep 30	US	Deadline to avoid fiscal cliff
Oct 1	EM	1st round of Argentina elections
Oct 1	China	70th anniversary of PRC founding, President Xi Keynote speech
Oct	Japan	Scheduled VAT tax hike to be implemented
Oct 31	Europe	Draghi's and the current Commission's term ends
Late November/early December	China	Central Economic Work Conference setting 2020 policy
???	Europe	Italian Elections?
???	EM	Brazil pension reform discussions in Congress and Senate?
???	EM	US sanctions on Russia?
???	EM	Pemex downgrade?

As of 20 March 2019. SOURCE: PIMCO, Public Sources

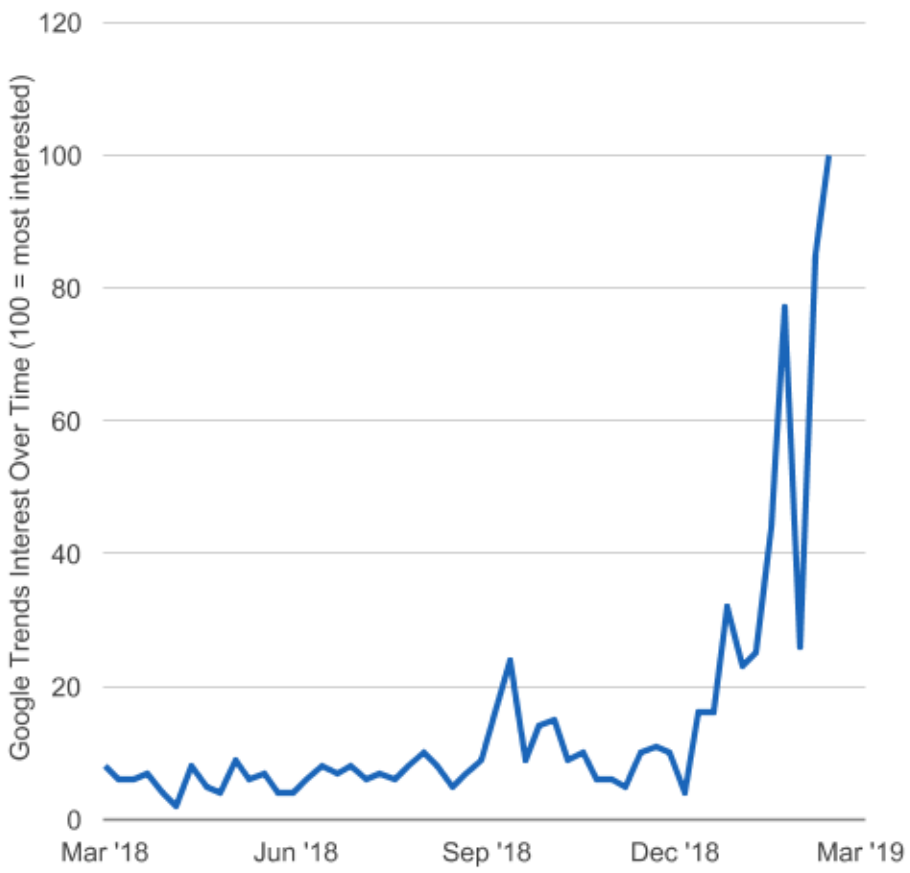
Left tail for markets defined by politics

Is fiscal the new monetary?

U.S. Public Debt Outstanding (% GDP)

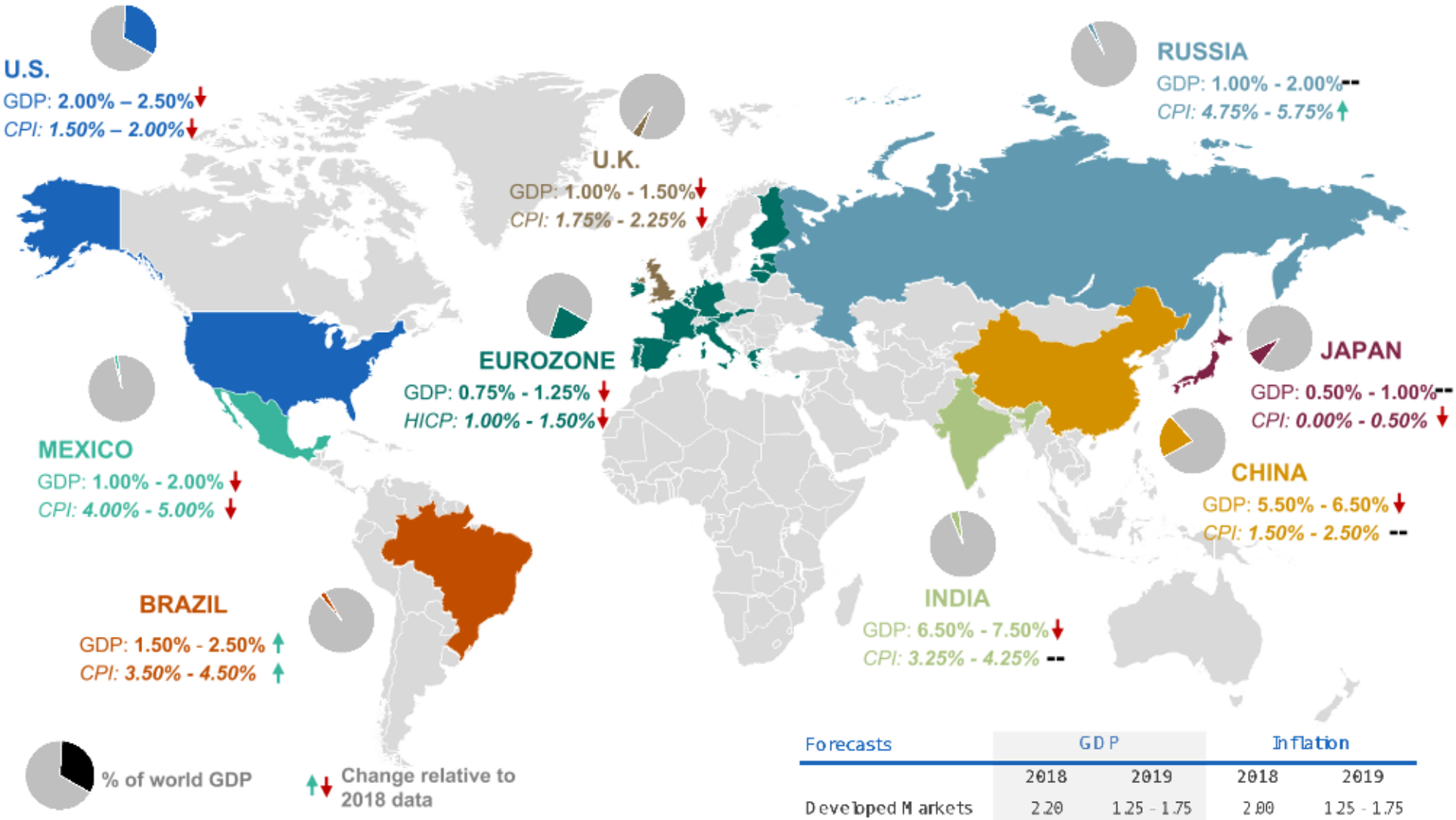


Modern Monetary Theory Ascendant



As of December 2018. SOURCE: Haver, U.S. Treasury, Google. RHS chart shows the trend of google searches that is how frequently a given search term is entered into Google's search engine relative to the site's total search volume over a given period of time. The above chart shows results for the term "Modern Monetary Theory".

PIMCO's 2019 Cyclical Outlook



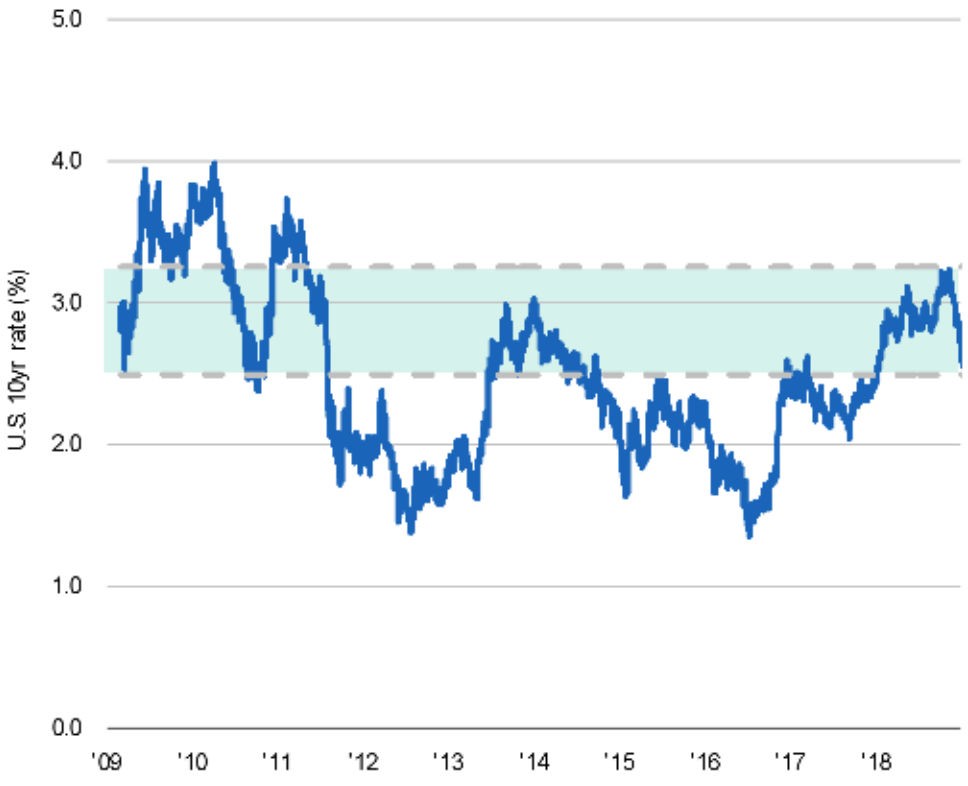
Forecasts	GDP		Inflation	
	2018	2019	2018	2019
Developed Markets	2.20	1.25 - 1.75	2.00	1.25 - 1.75
Emerging Markets	5.10	4.50 - 5.50	2.80	2.25 - 3.25
World	3.30	2.50 - 3.00	2.20	1.50 - 2.00

For illustrative purposes only.
PIMCO forecast ranges as of March 2019
Real GDP and inflation projections reflect the midpoints of PIMCO's forecast ranges.

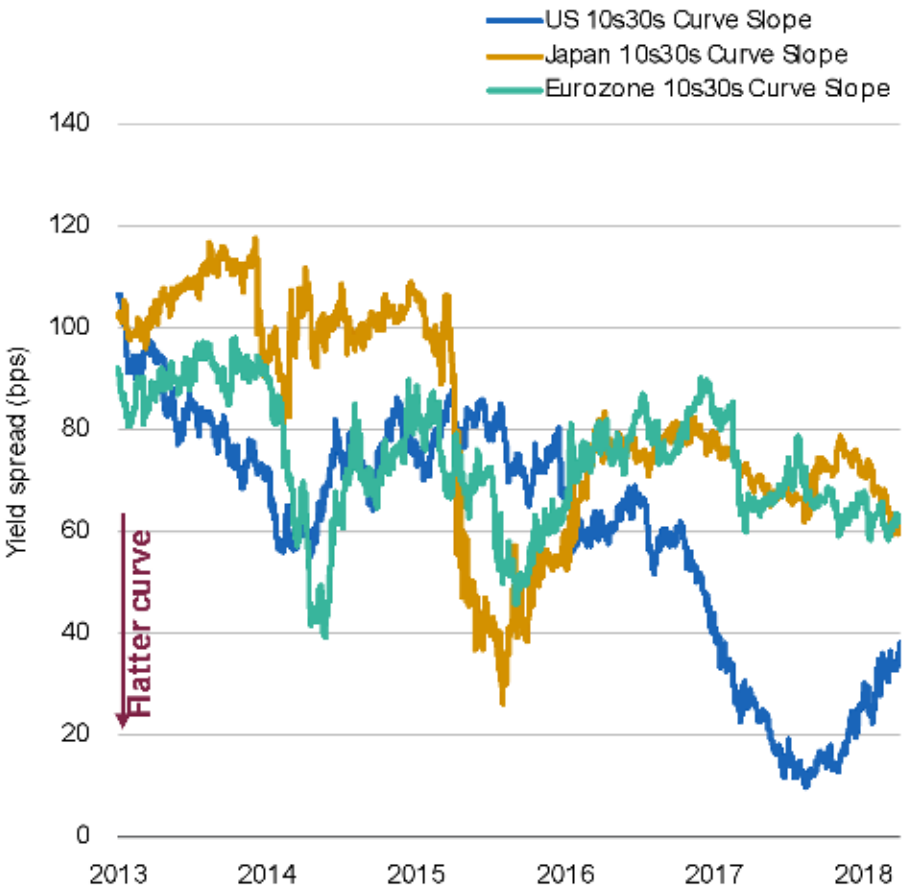
Investment Implications

Rates likely remain range-bound, with modestly steeper curves

U.S. 10yr rate

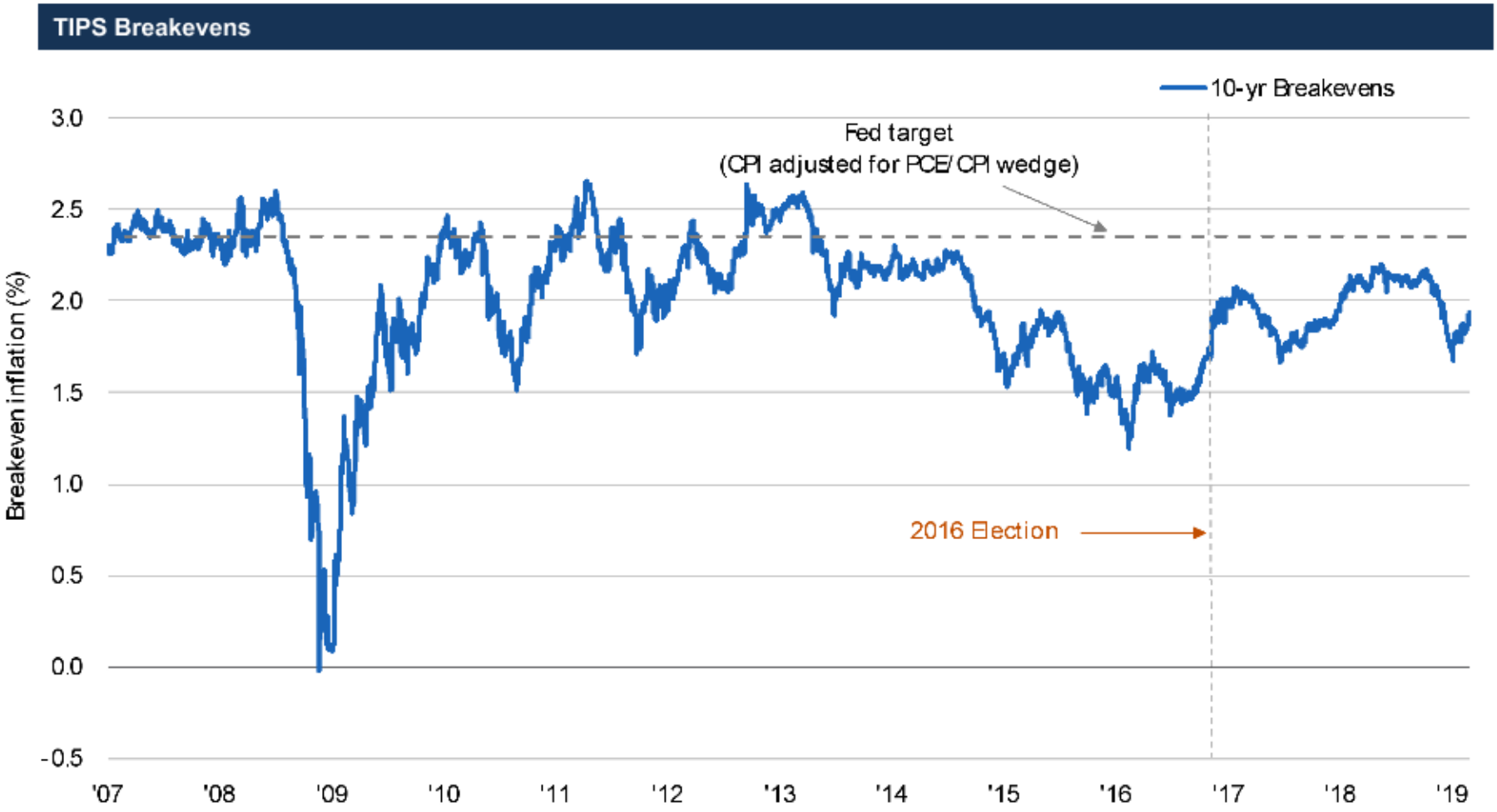


Yield spread



As of 28 February 2019. SOURCE: Bloomberg, Haver Analytics, PIMCO
Refer to Appendix for additional outlook information.

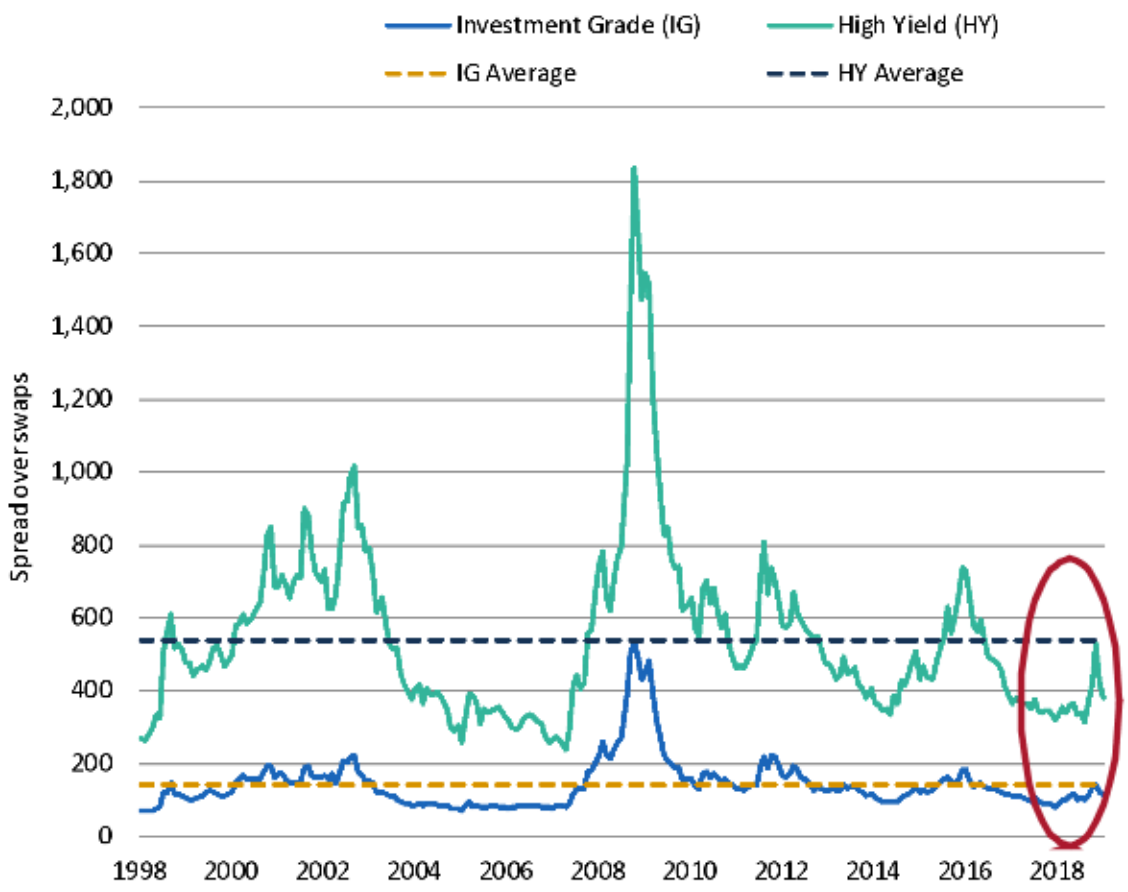
Hedge positions against upside inflation surprises may be attractively priced



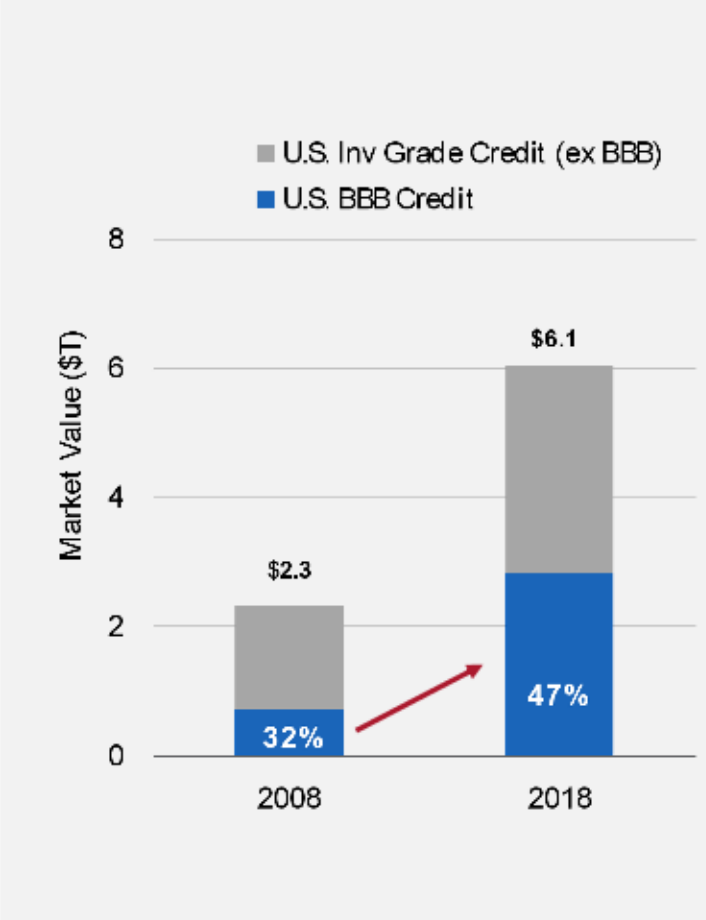
As of 28 February 2018
SOURCE: PIMCO, Bloomberg
Treasury Inflation-Protected Securities (TIPS) are Inflation-linked bonds issued by the U.S. government.
Refer to Appendix for additional outlook and risk information

Cautious on generic corporate credit exposure

Valuations remain less compelling



Tremendous growth in BBB market

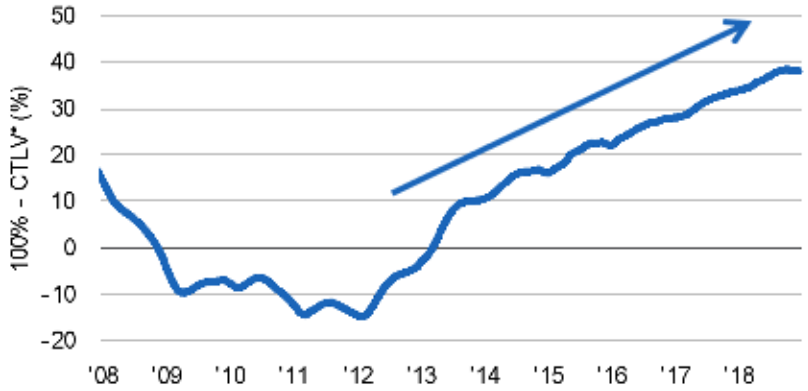


As of 28 February 2019
SOURCE: Bloomberg. IG is represented by the Bloomberg Barclays Investment Grade Index. HY is represented by the Bloomberg Barclays US High Yield Index. Investment Grade average is the average OAS of the Bloomberg Barclays Investment Grade Index since 12/31/1996. High Yield average is the average OAS of the Bloomberg Barclays US High Yield Index since 12/31/1996 .
Refer to Appendix for additional index, investment strategy, outlook and risk information .

Overweight structured credit

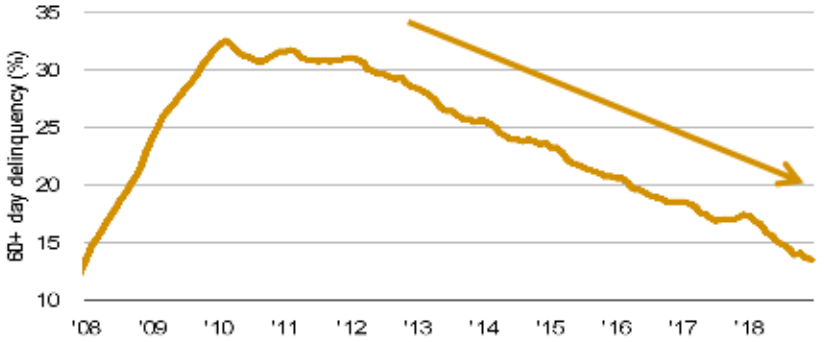
2004 – 2007 Vintage Non-Agency Residential Mortgage Characteristics

Increasing homeowner equity



Lower rates of default

Fewer delinquent borrowers

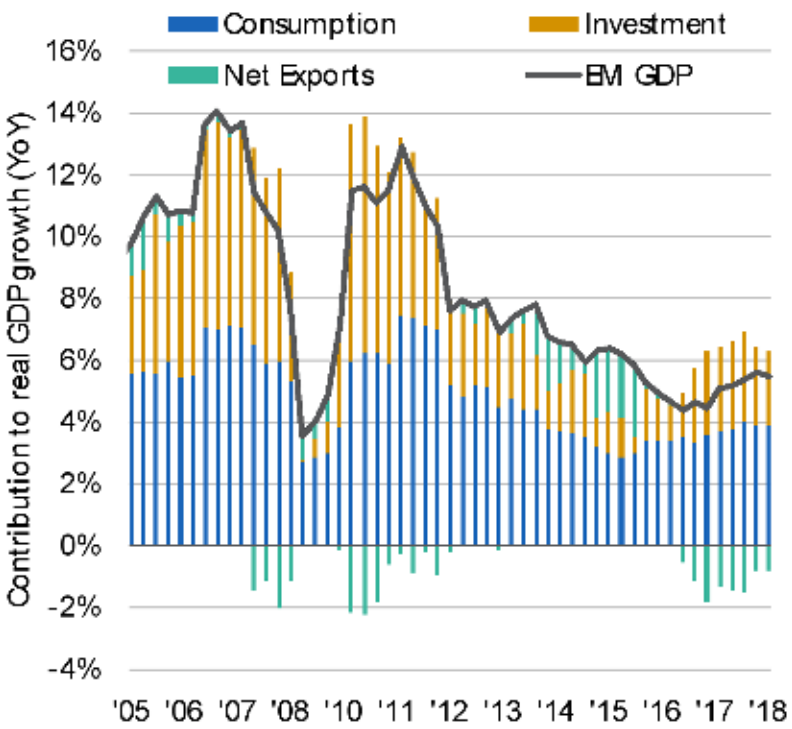


Improved borrower credit quality

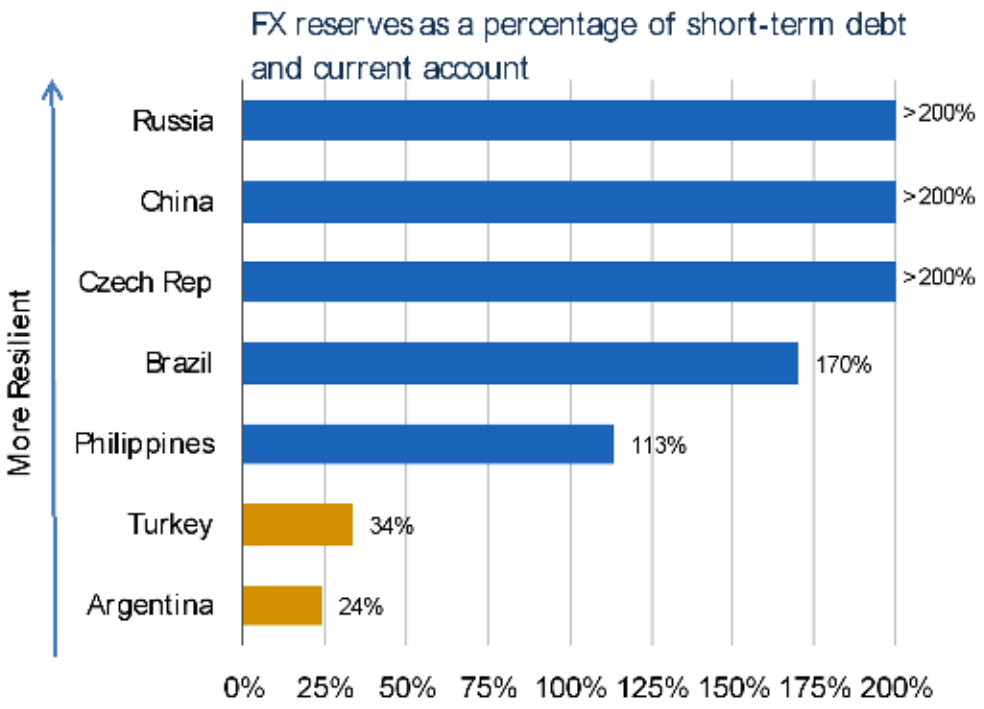
For illustration purposes only. As of 31 December 2018. Source: PIMCO
*CLTV: Combined loan-to-value ratio, which is the ratio of all loans secured by a property to the property's value
Refer to Appendix for additional investment strategy and risk information .

EM fundamentals provide some resiliency

Diversified sources of growth



Healthy balance sheets & savings buffers



As of 31 December 2018. SOURCE: PIMCO, Bloomberg, Haver Analytics, Bank for International Settlements, International Monetary Fund, World Bank
EM aggregate is based on data from the following countries: Brazil, Russia, India, Mexico, Korea, Indonesia, Turkey, Poland, Taiwan, Colombia, Thailand, South Africa, Malaysia, Singapore, Hong Kong, Philippines, Chile, Peru, Czech Republic, Hungary.
Refer to Appendix for additional index, outlook and risk information

2.

“70 is the New 65” A Contrarian Take on Demographics

Executive summary: "70 is the New 65"

Some financial-market observers believe:

- Globally, we've just gone over a demographic cliff ("static" dependency ratios rising in most economically significant countries)
- Share of high-saving adult workers is declining relative to "dissaving" elderly
- Global savings glut will reverse as the demand for saving falls; global neutral rate will rise
- Waves of retiring Baby Boomers in U.S. will compound the problem as they sell down their financial assets (including bonds) to fund consumption, driving U.S. fixed income yields higher

Our thesis: a demographics-induced structural rise in U.S. interest rates remains at least a decade away

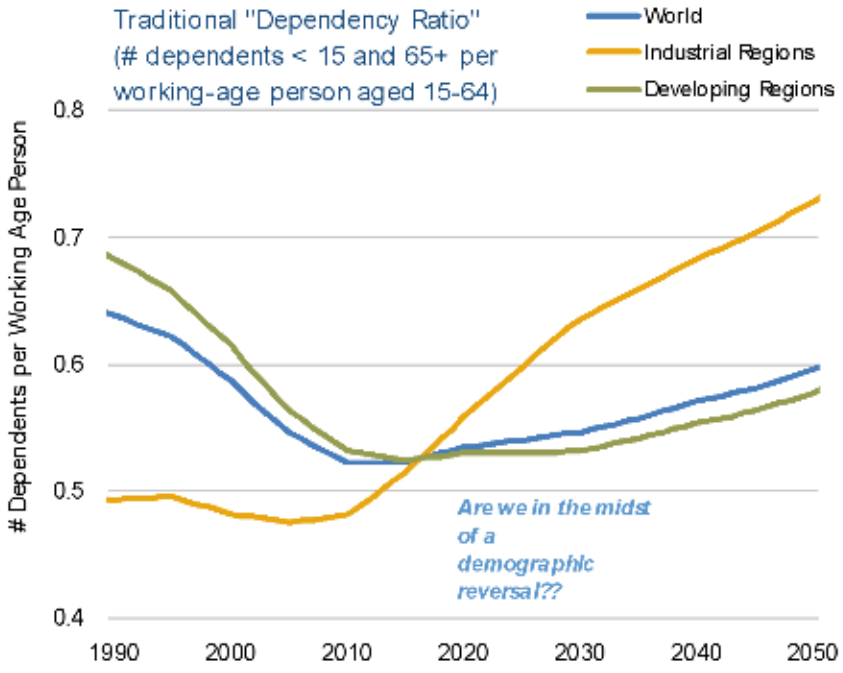
- Global demand for saving will likely remain robust, supporting a low global neutral interest rate (the "anchor" for fixed income yields)
- Similar trends can be observed in economically significant economies outside the U.S.
- We argue for a **dynamic** ratio of "Peak Savers" (mature adults) to elderly that accounts for how working and saving behaviors are changing; our dynamic ratio foreshadows strong demographic support for saving over the next decade (and a low neutral rate, all else equal)
- In financial markets, the demographics of U.S. household financial asset ownership represent at least a decade-long tailwind for bonds.

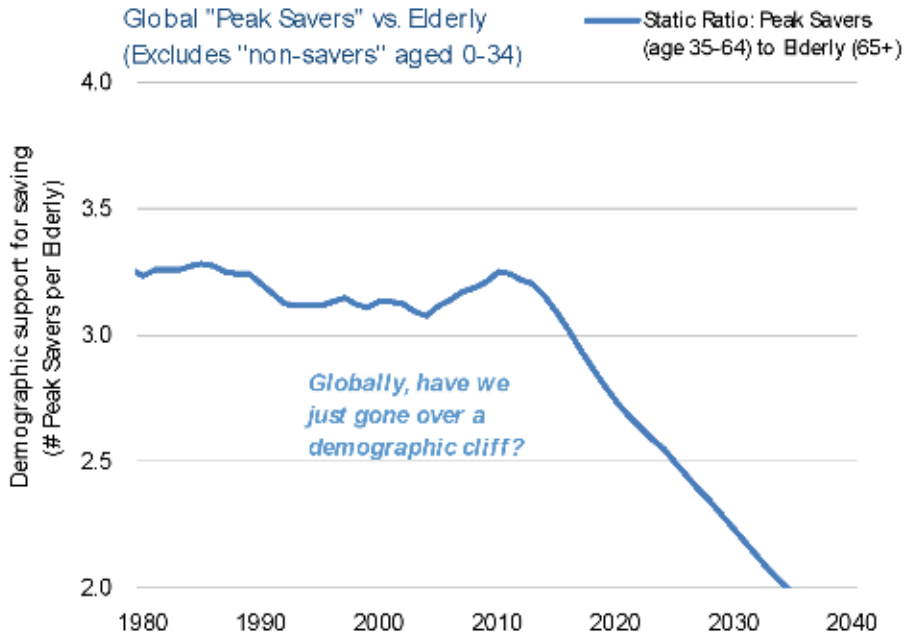
…combine a low global neutral rate and strong domestic demand for bonds, and what do you get? *Lower for longer* in U.S.

Based on February 2016 Demographics study: "70 is the New 65" (Matt Tracey & Joachim Fels).

What *some* observers believe about global demand for saving (not us!)

- World just went over "demographic cliff" ("static" dependency ratios rising in most economically significant countries)
- Share of high-saving adult workers declining relative to "dissaving" elderly
- Global savings glut will reverse as the demand for saving falls; global neutral rate will rise, per savings-investment equilibrium





As of October 2015.
Source: Haver Analytics (UN World Population Prospects). Industrial and Developing regions follow UN definitions. Includes N.America, EU, China, Japan, S. Korea, India, Brazil, Mexico, Australia, Russia, & Indonesia. Each weighted by current US$ GDP. These countries/regions drive the lion's share of global saving.

Our views? Argument 1: global demand for saving will remain robust

Strong global demand for saving >> low global neutral rate ("anchor" for U.S. market yields)

- Traditional dependency ratios use *static* age definitions—which are flawed (…they don't account for how working and saving behaviors are *changing*)
- U.S. elderly—especially the highest earners—are working and saving later in life. Why?
  - *Ability* to work later in life is increasing (jobs less labor-intensive; advances in health care boost functional age in life's later stages)
  - *Willingness* (and incentives) to work longer also rising (retirement age, globally, not keeping pace with rising longevity…unsustainable)
- High earners matter a lot because they control the lion's share of personal income (and saving)

High Earners Are Working *Longer*						
U.S. Labor Force Participation Rate - Top Income Quintile						
Age group	1998	2001	2004	2007	2010	2013
<35	99%	99%	98%	98%	100%	97%
35-44	99%	99%	99%	100%	100%	100%
45-54	98%	97%	97%	98%	97%	94%
55-64	81%	88%	84%	89%	86%	84%
65-74	42%	49%	51%	53%	62%	61%
>=75	13%	21%	29%	27%	31%	32%
Total	88%	90%	89%	90%	89%	87%

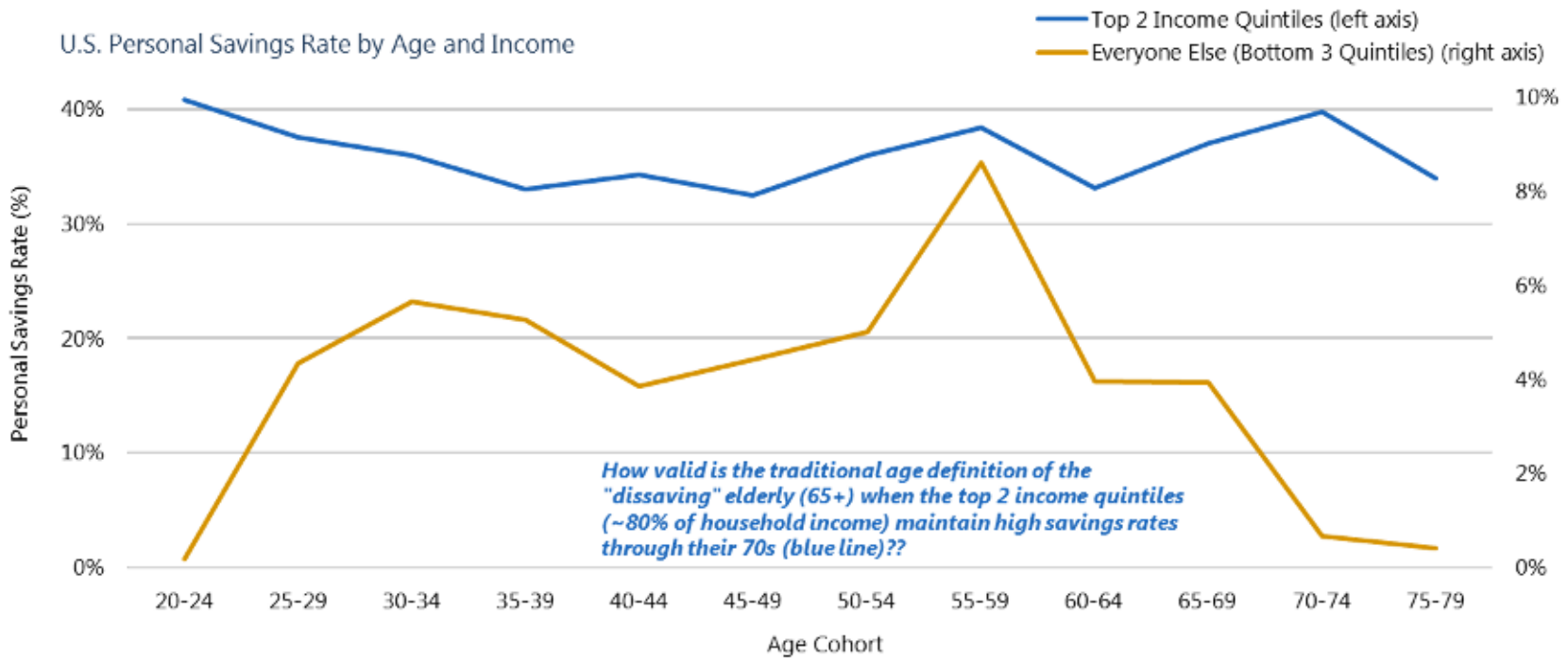
Top-income-quintile households earn nearly two-thirds of U.S. household income and own over 80% of household financial assets! *And they're working later and later in life...*

As of October 2015.
Source: Federal Reserve Survey of Consumer Finances, 2013.

Argument 1: global demand for saving will remain robust (contd.)

Strong global demand for saving >> low global neutral rate ("anchor" for U.S. market yields)

- Top two U.S. income quintiles (~80% of total household income) maintain *very* high and stable savings rates even into 70s…



Source: BLS Consumer Expenditure Survey, 2014 & Federal Reserve Survey of Consumer Finances, 2013. PIMCO calculations.

Argument 1: global demand for saving will remain robust (contd.)

What about trends in the rest of the world? Data availability precludes similarly granular analysis of other countries' trends, but consider…

- Elderly labor force participation rising in Europe, U.K., and Japan
- China contemplating gradual rise in retirement age (some think this will be inevitable)
- Japan went over (apparent) demographic cliff years ago; over past decade, "working-age" population 15-64 has shrunk 8% *yet labor force has shrunk less than 1%* (…senior labor-force participation has been rising)

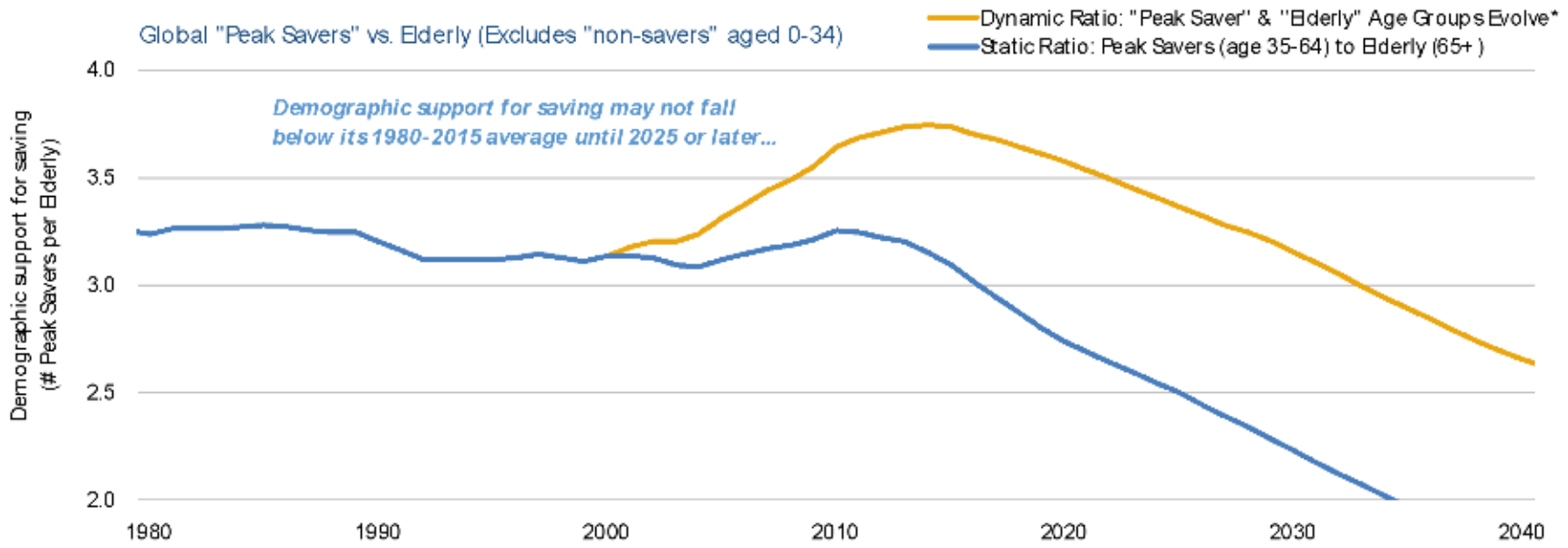
...patterns like these are likely to repeat in other aging countries as societies adapt to meet their demographic challenges.

As of October 2015.
Source: Haver Analytics

Argument 1: global demand for saving will remain robust (contd.)

Let's revisit "Peak Savers" (mature adults) vs. Elderly chart…and introduce our "dynamic" ratio

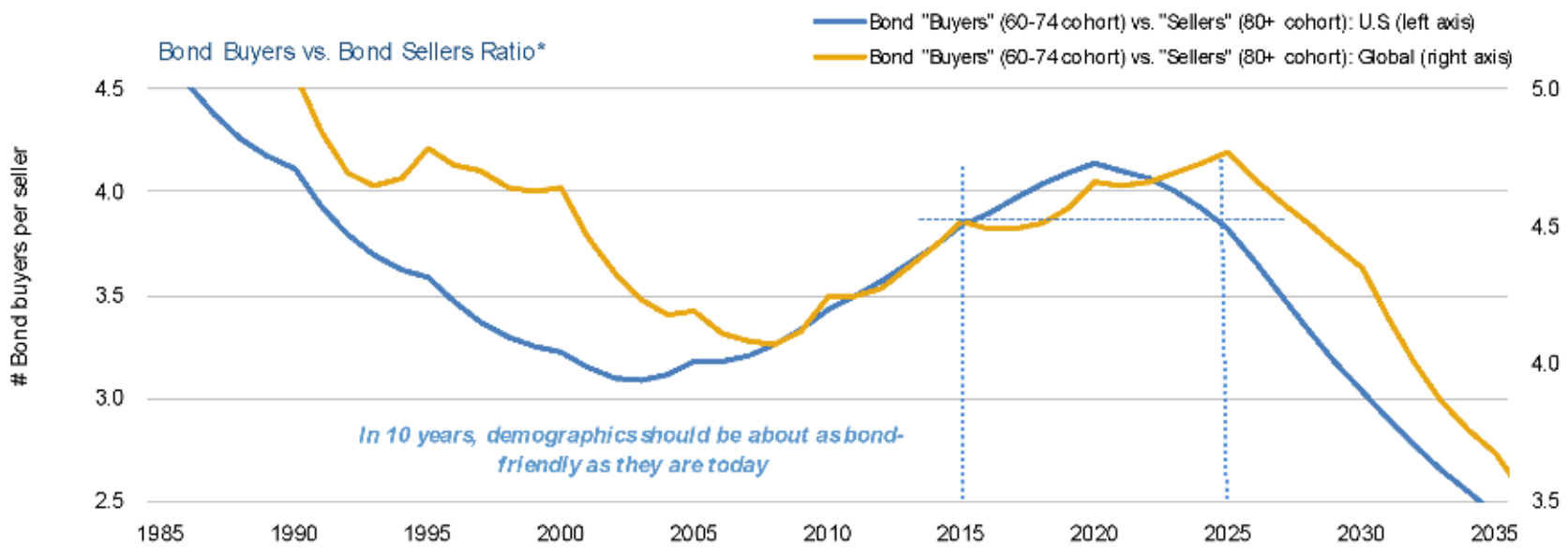
- Dynamic ratio (age groups *evolve* over time to account for trend toward longer working lives) suggests that demographic support for saving may be as strong over the *next* decade as it has been over the past several
- Chart illustrates extent to which traditional *static* ratios may be flawed
- What a different picture the orange line paints!



Source: PIMCO, Haver Analytics (UN World Population Prospects).
Includes N.America, EU, China, Japan, S. Korea, India, Brazil, Mexico, Australia, Russia, & Indonesia. Each weighted by current US$ GDP.
* Assumes "Peak Saver" and "Elderly" groups defined traditionally (35-64 and 65+, respectively) starting 1960. Then, starting year 2000, age ranges evolve gradually over 50-year period to reach 35-69 and 70+, respectively, by 2050.

Argument 2: demographics of U.S. household financial asset ownership represent at least a decade-long *tailwind* for (U.S.) fixed income

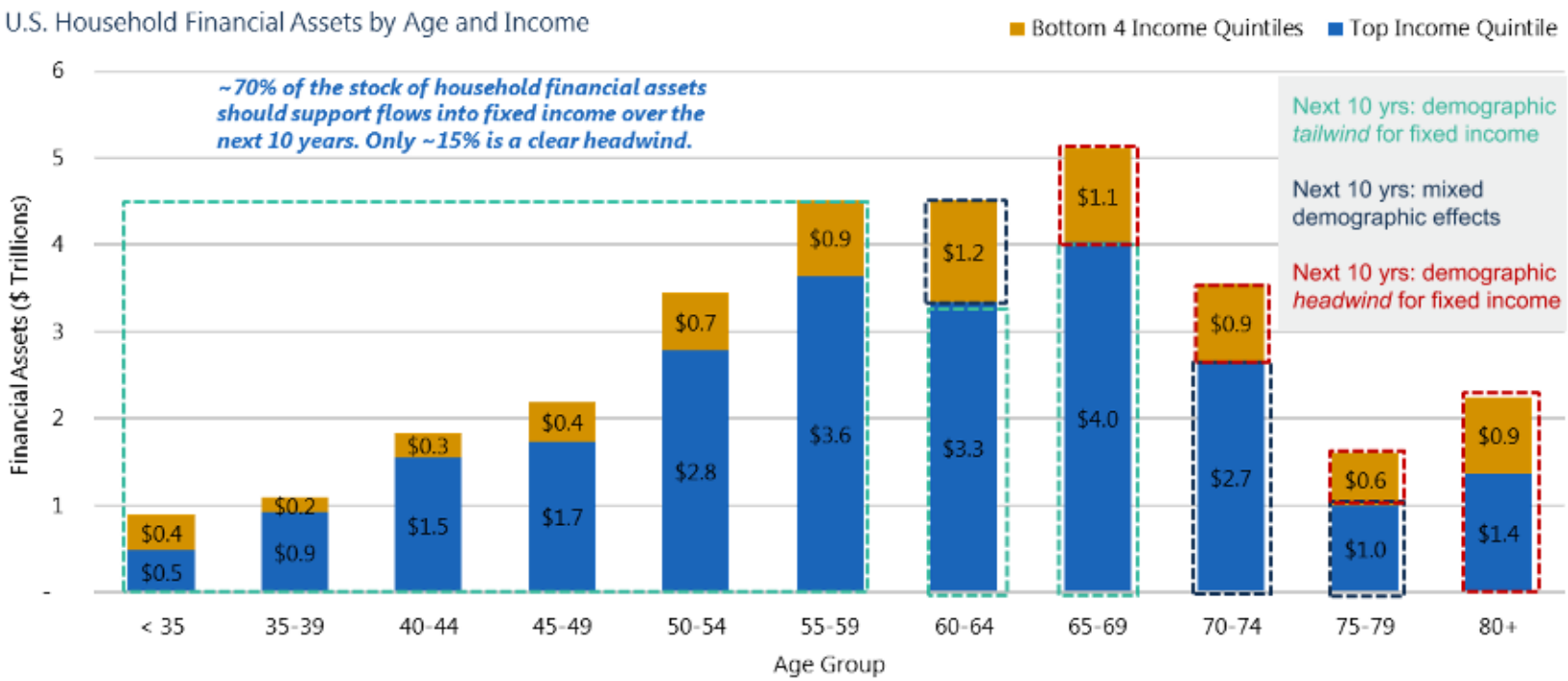
- *Some* observers think waves of retiring Baby Boomers in the U.S. will drive market yields higher as they sell down their financial assets (including bonds) to fund consumption
- We say *not anytime soon*. U.S. demographics will *boost* net demand for bonds and help maintain low ceiling for market yields over next decade, all else equal
- 2 key observations about top-income-quintile individuals (who own over 80% of U.S. household financial assets):
  - Bond buying tends to peak during individuals' 60s and early 70s (de-risking)
  - Financial asset drawdowns tend to begin around age 80 (and typically intensify only *very* gradually)



As of October 2015.
Source: Haver Analytics (UN World Population Prospects). Global ratio includes N.America, EU, China, Japan, S. Korea, India, Brazil, Mexico, Australia, Russia, & Indonesia. Each weighted by current US$ GDP.
* Based on Investing/Drawdown Behaviors of Top U.S. Income Quintile (~80% of U.S. Household Financial Assets)

Argument 2: demographics of U.S. household financial asset ownership represent at least a decade-long *tailwind* for (U.S.) fixed income (contd.)

- Lion's share of the ~$31 trillion[1] in cumulative household financial assets is currently held within—or over the next 10 years will be held within—age cohorts that typically need to grow their fixed income allocation
- ~70% of total U.S. household financial assets should generally support fixed income over the next decade



Source: Federal Reserve Survey of Consumer Finances, 2013.

[1] U.S. household financial assets, as depicted in the Federal Reserve's 2013 Survey of Consumer Finances, total $31 trillion across all age groups. Excludes value of DB pension entitlements and certain other asset types.

Key conclusions / speed read

Thesis: a demographics-induced structural rise in U.S. interest rates, if it occurs, remains at least a decade away

- Global demand for saving will likely remain more robust than many expect, supporting a low global neutral interest rate (the "anchor" for U.S. fixed income yields).
  - The elderly, globally, are working later in life—especially in the U.S. and especially the influential high-earners.
  - Dependency ratios, *dynamically* defined, indicate continued demographic support for saving—for 10+ years.
- In financial markets, the demographics of U.S. household financial asset ownership represent at least a decade-long *tailwind* for U.S. fixed income.
  - Lion's share of the $31 trillion in cumulative household financial assets is currently held within—or over the next 10 years will be held within—age cohorts that typically need to *grow* their fixed income allocation.
  - Top-income-quintile households own *over 80%* of this $31 trillion, and high earners typically sell financial assets *very gradually* in retirement to fund consumption. Most of this group's de-risking lies ahead.
  - The *inflection point* when (demographics-driven) fixed income flows turn net-negative does not appear likely to occur until the early 2030s. Possibly later.

…combine a low global neutral rate and strong domestic demand for bonds, and what do you get? *Lower for longer* in the U.S.

As of October 2015
Source: Haver Analytics; Federal Reserve Survey of Consumer Finances, 2013; PIMCO calculations and modeling.

Disclosures

Past performance is not a guarantee or a reliable indicator of future results.

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