Marginal Cost of Funds

Whether creating a new account type for a niche market or simply responding in lockstep with your competitors' rate movements, it's important to understand your marginal cost of funds to avoid overpaying for deposits. Whether through cannibalization of your existing accounts or overpaying for deposits that you were never in danger of losing, a quantitative framework for evaluating the relative attractiveness of your various funding options is vital.

The Federal Home Loan Bank of Des Moines has developed a tool that can help assess your true cost of funds. The Marginal Cost of Funds Tool is designed to help you quantify the marginal cost of deposit growth and/or retention strategies compared to the use of advances. What the following examples demonstrate is the true marginal cost of raising new or retaining existing deposits and the related difficultly and unexpected results that may arise.

Raise New Deposits

Offer a promotional rate of 4.40% on a one-year certificate of deposit (CD) in an effort to raise $5 million.

To assess the marginal cost of this strategy, you need to estimate the value of four variables:

1. **Promotional Rate:** The rate you are going to pay on the new promotional account
2. **Cannibalization Rate:** The proportion of existing accounts that will transfer to the new promotional account
3. **Current Rate on Repriced Accounts:** The weighted average rate on existing accounts that will transfer to the new promotional account (reflects the cannibalization that occurs)
4. **FHLB Des Moines Advance Rate:** The rate on an advance of similar tenor to the new promotional account

Of the four variables, the cannibalization rate and the current rate on repriced accounts are the most difficult to estimate and can have a significant impact on the results of the analysis. Let's look at those variables a little more closely.

Cannibalization Rate and Current Rate on Repriced Accounts

Let's assume that when you launch the new promotional CD that, in addition to attracting new funds, 4.5% of your existing depositors will transfer their funds to the new account in order to take advantage of the higher rate.

Table 1 illustrates the existing deposit profile of a hypothetical institution, the relative proportion of each deposit type expected to transfer to the new account, and the current rate on each account. In this example, 0.94% represents the weighted average rate of all existing deposit accounts that are expected to transfer to the promotional account. In other words, $4.5 million of existing deposits with a weighted average rate of 0.94% are expected to reprice.

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Table 1. Hypothetical Existing Deposit Base and Relative Proportions of Transferred Deposits

Account Type	Amount	Rate	Transferred Balance	% Transferred	Transferred Interest
Non-Interest Checking	10,000,000	0.00%	500,000	11%	-
Interest Checking	7,000,000	0.21%	500,000	11%	1,050
MMDA	60,000,000	0.85%	2,500,000	56%	21,250
Other Savings	6,000,000	0.60%	500,000	11%	3,000
Time Deposit <$100k	7,000,000	2.25%	100,000	2%	2,250
Time Deposit >=$100k	10,000,000	2.25%	400,000	9%	9,000
	100,000,000	**0.94%**	**4,500,000**	**100%**	**0.81%**

Cost to You: Assuming a 4.5% cannibalization rate and 0.94% rate on repriced accounts, Table 2 shows the marginal cost of attracting $5 million in new one-year deposits with a promotional rate of 4.40%, exposing the hidden costs of this strategy.

Table 2. Marginal Cost of Promotional Strategy

Source of Funds	Amount	Current Rate	Rate Increase	Marginal Cost
Cannibalized Deposits	4,500,000	0.94%	3.46%	**155,700**
New Deposits	5,000,000	-	4.40%	**220,000**
Total	9,500,000			**375,700**
Marginal Cost				**7.51%**

Under these assumptions, the true cost of raising $5 million in new deposits is $375,700 or 7.51%. Mathematically, this is the increase in total cost ($375,700) divided by the change in new deposit growth ($5 million). Assuming the rate of a one-year FHLB Des Moines advance is less than the marginal cost of growing your deposits, a call to the Money Desk may be in order.

Replace Funds that are at Risk to Other Sources of Funding

Let's consider an environment where deposits are more transient, and the focus is on maintaining existing funding levels versus growing deposits. Perhaps your competitors are increasing rates on one-year CDs, and you need to evaluate whether to respond in lockstep. In this type of analysis, you need to estimate the percentage of your institution's maturing one-year time deposit accounts that will move to the competition unless you match the competition's rate. This percentage is defined as the rate-sensitive portion of that segment of the deposit base. Table 3 shows the rate-sensitive and non-rate-sensitive portions of the maturing one-year CD accounts for our hypothetical institution. Here we assume that 80% of the account holders are rate-sensitive.

Table 3. Rate-Sensitive and Non-Rate-Sensitive Portions of Maturing One-Year CD Accounts

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Deposit Type	Amount	Rate	Cost
Non-Rate Sensitive	2,000,000	0.94%	18,864
Rate Sensitive	8,000,000	0.94%	75,456
Total	10,000,000	0.94%	94,320
Marginal Cost			1.18%

Option 1: "Pay-up" or increase rates in order to retain the maturing deposits.

Table 4. Shows the marginal cost of the strategy

Deposit Type	Amount	Rate	New Rate	Rate Increase	Marginal Cost
Non-Rate Sensitive	2,000,000	0.94%	4.40%	3.46%	69,136
Rate Sensitive	8,000,000	0.94%	4.40%	3.46%	276,544
Total	10,000,000				345,680
Marginal Cost					4.32%

Under these assumptions, the true cost of retaining the $8 million in rate-sensitive deposits is $345,680 or 4.32%. Mathematically, this is the increase in total cost ($345,680) divided by the rate-sensitive deposits ($8 million).

Option 2: "Stand pat" and let the "hot" money go.

Table 5. Shows the marginal cost of holding rates constant and replacing the runoff with a one-year FHLB Des Moines advance at a rate of 3.96%.

Deposit Type	Amount	Rate	Rate Increase	Marginal Cost
Non-Rate Sensitive	2,000,000	0.94%	0.00%	-
1-Year FHLB Advance	8,000,000	3.96%	3.02%	241,344
Total	10,000,000			241,344
Marginal Cost				3.02%

Here we can see that, given the assumed parameters, a substantial savings can be realized by allowing the rate sensitive deposits to runoff and replacing them with on-demand funding from the Federal Home Loan Bank of Des Moines.

In addition to the marginal cost analysis, it is important to remember the activity stock dividend of any FHLB Des Moines advance. If it makes sense from both a business and marginal cost perspective to not chase deposit specials, the activity stock dividend represents additional savings to your bottom line. As a reminder, the most activity stock dividend paid was 9.75%[1] and the activity stock requirement for any advance is 4.5%[2].

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Contact your relationship manager to find out how you can access our Marginal Cost of Funds Analytics and analyze a variety of scenarios tailored for your unique circumstances.

[1]Second quarter 2025 dividend paid on August 12, 2025 at an annualized rate of 9.75% on average activity-based stock. FHLB Des Moines does NOT project dividend payments and makes no representation that the dividend assumption provided will occur over the life of any advance.

[2]Activity stock requirement is subject to change.