



MARGINAL COST OF DEPOSITS CONCEPT

Hello everyone. Thank you for joining us once again here at Seifried&Brew. For this week's webcast, I just want to cover the *marginal cost of deposits concept*. This is going to become more and more important as we move throughout 2017 into 2018 with the prospect of having to increase overall deposit rates. We're going to look at what marginal cost of deposits actually is [Slide 2] and then walk through an example of the calculation and then the output of those calculations.

The marginal cost of deposit is basically taking into consideration the overall net increase of your deposits and how much it's truly costing you to fund those new deposits. Now this concept comes into play when we start to offer new accounts or special promotions on deposits, and we start to see some of the money flow from our current accounts into this new account as well as additional money from outside of the bank.

What we want to look at is the net cost of the overall increase in those deposits. So the calculation for the net or marginal cost of deposits (*MCOD*)/[Slide 3] is basically the increase in the interest expense (whatever additional interest expense we're taking on) divided by the net new funds. These are new funds that are totally new to the institution, not those funds that have been transferred from one account to another. This is a basic calculation we want to walk through when we're looking at the marginal cost of deposits.

So let's look at an example here [Slide 4]. In this example, in the current period we have total deposits at this institution of about \$100 million. The average cost of those deposits is just 40 basis points (bps) which is pretty typical for this time period. We want to look at a deposit promotion in which the special rate is a 1% rate. And then the total fund collected in this deposit account is \$11 million. So about 11 percent of the funds are now going to be inside of the total deposit. So at the end of the period we should have a pretty good deposit concentration with inside of this account.

So now let's look at the impact of the new account based off of the amount of funds that are flowing into this account from internal accounts versus external funds or that net new loan/net new deposit here. So we look at the marginal cost of deposits and we look at this matrix [Slide 5] that we can see here. If we take this top part/the internal money flow, (so these are the funds that are coming from other accounts at the bank), and then we look at the special rate that we're offering which is that 1% rate. So when we look at this matrix here, if we take zero funds from inside the institution (essentially all new funds here, or that \$11 million, that we raised in this account), would be at that marginal cost of 1%. No new money or no money internally flowed into this account would just simply mean that the rate that you're offering is a marginal cost of deposits here.

Now once we start to see inflows from other accounts (which we call internal money flow or also known as the cannibalization of the accounts) the overall marginal cost of deposit starts to increase. For instance, if we look at \$1 million and say we have \$10 million coming in from outside sources, \$1 million flowing in from internal deposits, you can see that cost of deposit/that marginal cost, is now 1.06%. So we increase that cost by six bps for that \$10 million. But as we move up the scale here (we look at higher levels of internal money flows), we can see that the overall marginal cost of deposits starts to increase here rather quickly. For example, if we go up to \$4 million, so we're looking at \$7 million coming in from outside sources and we have \$4 million flowing in from inside sources, you can see here that that marginal cost now jumps up to 1.34%. And then we walk all the way over to \$10 million and at the \$10 million mark (so this would indicate that you have \$10 million flowing in from other accounts at the institution and only \$1million in new money). You can see that marginal cost then for that \$1 million is 7%.



We need to keep an eye on how this is impacting the overall structure of the bank because this is going to determine what the actual spread or net margin is going to do based off of this funding matrix and then the assets that you're putting on the books.

We want to take the marginal cost of deposits and we want to compare that to some alternative funds such as the **Federal Home Loan Bank**. So at around a 1% we're just under that overnight borrowing rate. If we look at the 1.06% for the \$1 million of internal funds we're just around that right now at that overnight borrowing rate. But as we move out on the curve here and we start to see more and more money flow into this new account from internal sources, you can see here with the increase now we're getting up to that 2% at that \$7 million and that would be closer to some longer-term borrowing of funds from the Federal Home Loan Bank.

As you go through this analysis what you want to make sure you're doing is that these marginal cost of deposits do not get too high above the **alternative funding methods**. And if you can match price items with the Federal Home Loan Bank (rather than going out to deposits), that might be a good idea in order to stay away from the cannibalization and the increasing cost from this marginal cost of deposits.

But overall that's why we wanted to see banks who are offering new accounts require new money come into the bank in order to gain that new interest rate. It's going to help you in your marginal cost of deposits and it's going to help you overall when you're looking at the share a wallet you have with that client as well as your overall net interest margin as we move through the next couple of years here.

That's what we have for you today. We hope to see you back here next week everyone. Have a great week.



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