THE KAFAFIAN GROUP

TKG PERSPECTIVE

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How has the Fed's battle against inflation impacted bank profitability?

By Gregg J. Wagner, Managing Director

The Federal Reserve began its battle against inflation with a 25 basis point warning shot in the first quarter of 2022. By year-end the Fed increased rates six more times, ending the year at 4.5%. As of the end of Q3 2022, these increases have helped to improve community bank performance. The average community bank Q3 2022 net interest margin increased 32 basis points from Q3 2021, per the FDIC's Q3 2022 Quarterly Banking Profile report. This increase was due to the yield on earning assets increasing 49 basis points to 4.09% in Q3 2022 while the cost of funds only increased 17 basis points to 0.46%. Historically we know that during a Fed tightening, yields on loans tend to increase faster than deposit rates. Using TKG's Q3 2022 PEER data, let's see how the rate increases by the Fed have impacted the profitability of loan and deposit products. *You may be surprised to find out which products are really driving the higher net interest margin.*

Through our **Performance Measurement** service, we provide institutions with product profitability reports that include the "net spread" for each loan product. A "cost of funds" (COF) for loans is calculated to provide a funding cost and a net loan spread. The COF is based on the actual maturity and interest rate characteristics of each loan. We use the FHLB Fixed-Rate Advance curve to calculate the COF.

A review of the Commercial Mortgage product Net Spread during the last year illustrates the impact of the increase in market rates. As you will note, the Net Spread did not change from Q3 2021 through Q1 2022, but it significantly decreased during the last 2 quarters. The 18 basis point decrease in TKG's average PEER Commercial Mortgage portfolio net spread will reduce the profit of each loan by $1,300!

Chart A	Commercial Mortgages - TKG PEER					
	Q3 2022	Q2 2022	Q1 2022	Q4 2021	Q3 2021	Q3 2022 vs. Q3 2021
Yield	4.47%	4.20%	4.13%	4.12%	4.18%	0.29%
Cost of Funds	2.00%	1.71%	1.48%	1.49%	1.53%	0.47%
Net Spread	2.47%	2.49%	2.65%	2.63%	2.65%	-0.18%

Chart B shows the actual Commercial Mortgage Loan spreads on loans generated by a sample of our clients during the last 3 quarters. The lower spreads are a byproduct of banks not adjusting their loan pricing to fully reflect the increase in rates and to the timing issues related to banks committing to rates on loans and not settling the loans for a few weeks. If the Fed increased rates 75 basis points between the commitment letter date and the actual settlement date, the bank's net spread would be lower than originally planned.

Chart B	Commercial Mortgage Net Interest Spreads (TKG PEER)				
Quarter	# New Loans	Balance	Yield	Funding Cost	Net Spread
Q3 2022	285	$ 171,469,719	5.50%	3.66%	1.83%
Q2 2022	370	$ 212,405,378	4.61%	3.23%	1.38%
Q1 2022	298	$ 205,691,871	4.07%	2.05%	2.03%

Chart C on the next page shows how far banks should have increased rates during the first nine months of 2022 in order to maintain a 250 basis point spread on new loans originated.

Performance Measurement | Strategic Management | Profit & Process Improvement | Management Advisory | Financial Advisory

TEACHING & SPEAKING ENGAGEMENTS

ICBA Live 2023
Hilton Hawaiian Village
Honolulu, HI • March 12
Simple Rules for Strategy Execution

CONFERENCES, CONVENTIONS & OTHER EVENTS

New Jersey Bankers Economic Leadership Forum
The Palace at Somerset Park
Somerset, NJ • January 20

Northern New Jersey Community Bankers Meeting
Sanzari's New Bridge Inn
New Milford, NJ • January 26

Bank Director Acquire or be Acquired Conference
JW Marriot Phoenix Desert Ridge
Phoenix, AZ • January 29-31

FMS Philadelphia Virtual Meeting
Virtual • February 8

PA Bankers Economic Forecast & Business Leadership Summit
Sheraton Harrisburg Hershey
Harrisburg, PA • February 9

FMS NY/NJ Dinner Meeting & Mini-Session
Il Villaggio
Carlstadt, NJ • February 15

IFI March Luncheon Meeting
1912 Club
Plymouth, Meeting PA
March 2

PA Bankers Women in Banking Conference
Hershey Lodge & Convention Center
Hershey, PA • March 12-13

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Chart C	Pricing: Commercial Real Estate Loan				
	12/31/2021	3/31/2022	6/30/2022	9/30/2022	9/30/2022 vs. 12/31/21
Rate	*4.17%*	5.35%	5.98%	*6.62%*	2.45%
Cost of Funds	1.67%	2.85%	3.48%	4.12%	2.45%
Net Spread	2.50%	2.50%	2.50%	2.50%	0.00%

While the increase in the Fed Fund rate negatively impacted loan spreads, deposit product spreads have experienced a significant increase. In a rising interest rate environment, the value of deposits increases since banks do not have the pressure to increase their rates at the same level as the Fed Funds rate.

For our reporting, we calculate a "credit for funds" (CFF) for deposits to provide interest income and a net deposit spread. The CFF is based on the average life of a bank's deposit products. Since the average life of a core deposit is higher than a 1-year CD, it has a higher CFF and is thus more valuable. We use the FHLB Fixed-Rate Advance curve to calculate the CFF.

Below are the changes in the net spread of money market accounts from Q3 2021 through Q3 2022 (Chart D). Even when the Fed began to increase rates during the first half of 2022, banks were still flush with liquidity and did not need to increase rates to hold on to or attract deposits. Once the outflows of deposits began in earnest during Q3 2022, institutions became more aggressive with their deposit rates. TKG's PEER average money market rate grew from 0.23% in Q2 2022 to 0.44% in Q3 2022. As a result of banks lagging their increase in deposit rates, they were able to grow their spread on money market accounts by 59 basis points from Q3 2021 to Q3 2022, resulting in a $1,000 increase in profitability per account!

Chart D	Money Market - TKG PEER					Q3 2022 vs. Q3 2021
	Q3 2022	Q2 2022	Q1 2022	Q4 2021	Q3 2021	
Credit for Funds	1.92%	1.42%	1.13%	1.08%	1.11%	0.81%
Interest Expense	0.44%	0.23%	0.19%	0.20%	0.22%	0.22%
Net Spread	1.48%	1.19%	0.94%	0.88%	0.89%	0.59%

Time Deposits have also experienced a significant increase in their net spread during the past year. TKG client's have used Time Deposits to provide additional funding during the last few quarters as a result of the outflow of excess liquidity accumulated in core deposits during COVID and the lower funding cost they provide compared to FHLB borrowings. Spreads on time deposits remain healthy. A 24-month CD with a rate of 1.07% (FDIC National Rate data for December 2022) would provide a spread of 3.63% over a 2 year FHLB Borrowing with a rate of 4.70%! Chart E shows that the spread on time deposits grew from 14 basis points in Q3 2021 to 138 basis points in Q3 2022. As a result of the changes in the loan and deposit spreads resulting from the increase in the Fed Funds rate and the changes in the balance sheet structure of banks, the TKG PEER's Interest Rate GAP has become even more asset sensitive during the last year.

Chart E	Time Deposits - TKG PEER					Q3 2022 vs. Q3 2021
	Q3 2022	Q2 2022	Q1 2022	Q4 2021	Q3 2021	
Credit for Funds	2.13%	1.41%	1.01%	0.90%	0.93%	1.20%
Interest Expense	0.75%	0.62%	0.65%	0.73%	0.79%	-0.04%
Net Spread	1.38%	0.79%	0.36%	0.17%	0.14%	1.24%

The changes in loan and deposit product spreads have also changed the profitability of branch and loan organizations within TKG's PEER.

Chart F provides an overview of the changes in the Branch and Lending Organization's profitability. The Branch profitability performance improved substantially from Q3 2021 which was negatively impacted by the low interest rate environment initiated during COVID. While banks lowered their deposit interest rates during this period, they could not lower them below zero. As the Fed increased rates, banks could then experience an increase in deposit spreads and thus improve the profitability of their entire Branch Organization. The lending organization was negatively impacted by the decrease in loan spreads and the decrease in fees related to residential mortgage sales.

Chart F	Branch Organization - TKG PEER					Q3 2022 vs. Q3 2021
	Q3 2022	Q2 2022	Q1 2022	Q4 2021	Q3 2021	
Income	2.57%	2.21%	1.95%	1.64%	1.63%	0.94%
Expense	1.78%	1.77%	1.76%	1.63%	1.67%	0.11%
Pretax Profit	0.79%	0.44%	0.19%	0.01%	-0.04%	0.83%
	Lending Organization - TKG PEER					Q3 2022 vs. Q3 2021
	Q3 2022	Q2 2022	Q1 2022	Q4 2021	Q3 2021	
Income	2.50%	2.63%	2.85%	2.95%	2.99%	-0.49%
Expense	1.15%	1.14%	1.19%	1.09%	1.06%	0.09%
Pretax Profit	1.35%	1.49%	1.66%	1.86%	1.93%	-0.58%

The Fed has stated that they anticipate interest rates to continue to rise and that we will experience higher rates for "some time." TKG expects the spread on loans to recover as banks and customers become more accustomed to the higher rate environment. Historically there is a lag in the increase of deposit rates during an increasing rate environment that has led to an accelerated rise in deposits rates in Q4 2022 that will continue into 2023. These are the factors why most economists and bank analysts are projecting banks to experience a decrease in their net interest margins in 2023.

Our **Performance Measurement** service is designed to provide institutions with profitability information for their organizational profit centers and for the products they offer. Our clients also use data from these profitability systems to feed customer level data into their MCIF and CRM systems. Over the years we have provided this service to hundreds of institutions, so they can foster an accountability culture and improve their bottom line results. One of the most valuable components of our service is compiling PEER information our clients can use to measure against their own performance.

Are you interested in learning more about how your institution can utilize performance measurement information to make more informed decisions to enhance the profitability of your organization and products? If so, please contact me at gwagner@kafafiangroup.com or give me a call at 973.299.0300 ext. 114.