Core Deposits and Bank ALM: Money Market Deposit Growth

This article is the first of a three-part series on issues related to the treatment of core deposits in bank asset/liability management. The growth in bank money market deposit accounts (MMDA) over the past decade has served as an incremental funding source for many banks. This article reviews this growth in a qualitative manner. The second article, more quantitative in nature, will discuss approaches to modeling the interest rate sensitivity of MMDAs and other core deposits. The third article will review balance sheet-related issues related to modeling core deposits, including estimating cash flows, average lives, durations, and core premiums.

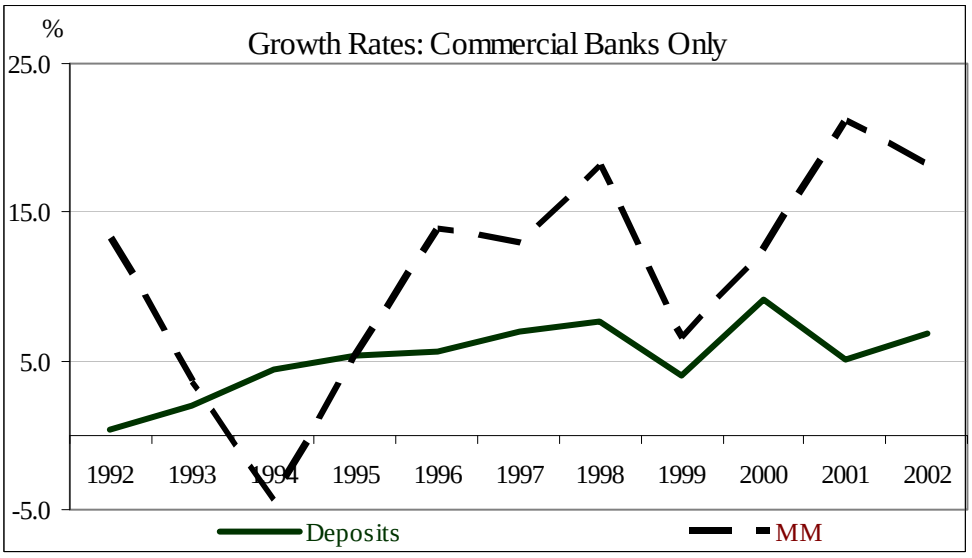
MMDA Growth in the Past Decade

Over the past decade (1993-2002), MMDAs have been the fastest growing deposit source for the commercial banking sector. While total bank deposits grew at a simple average of 5.7% annually, MMDA have grown about twice as fast at 10.8%. When total deposit growth is adjusted for MMDA growth, the MMDA growth rate is over twice as fast as other deposit growth. Over the past two years, the growth rate for MMDAs has averaged about 20%.

When reviewing long-term deposit growth rates it is worth considering interest credited, as core deposit account growth is based on a combination of new money growth plus interest credited. Over the past ten years, the average interest cost of deposits has been 4.0%. If we conservatively assume that one-half of the interest cost is credited to the account, the annualized growth rate of all deposits decreases from 5.7% to 3.7% annually. Overall deposit growth at banks is in line with growth in the overall economy, as measured by GDP and the GDP deflator.

Viewed graphically, it is clear that MMDA balances tend to be more volatile than are total bank deposits. Projecting a simple trend line forward may be adequate for balance sheet planning for some deposit types, but it is probably questionable for MMDAs. Before projecting that the current trend will continue, it is worth considering some plausible reasons for the current rapid growth in MMDAs.

Growth Rates: Bank Deposits & MMDAs



A number of reasons have been posited for the recent high growth rates in MMDA:

- Reintermediation given equity market declines
- A shift in the rate relationship between insured bank MMDAs and uninsured broker MMDAs
- A flight to safety, given geopolitical risks
- The increase in above-market rates offered for bank MMDAs
- Alternative approaches to core deposit pricing

These topics will be discussed in turn.

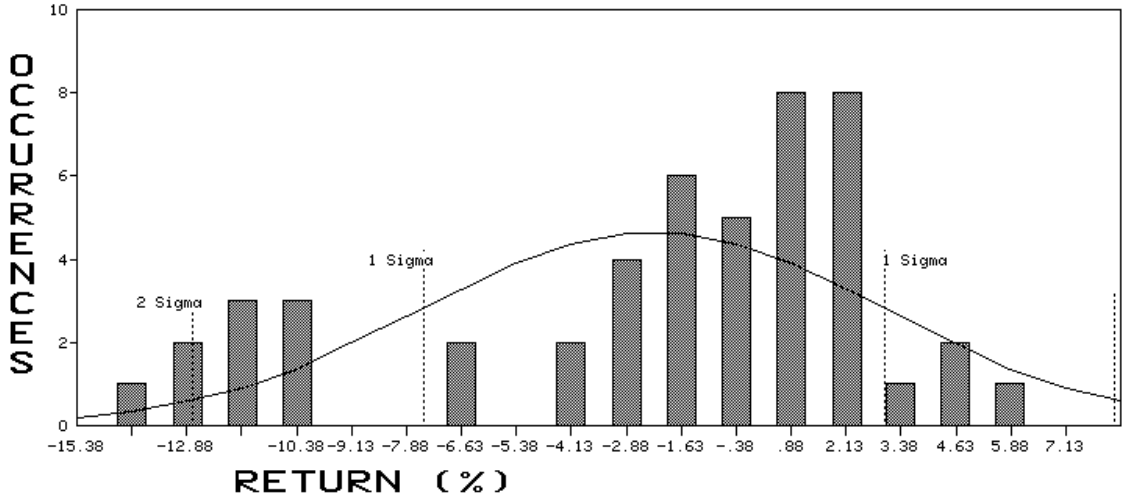
Reintermediation given equity market declines

The decline in equity markets is frequently cited as a reason for growth in bank deposits. While most evidence is anecdotal or intuitive, macro-level data shows a correlation (perhaps spurious) between the equity market decline, as measured by the S&P indexes, NASDAQ, or the broader Wilshire index, and increases in bank deposits. Of course, over the same time period, we can show a strong correlation (likely spurious) between growth in bank deposits and the increased sales of DVDs.

Another approach that may have some intuitive appeal lies in behavioral finance theory, resting on the hypothesis that most people are risk averse. A traditional measure of risk in finance and portfolio management is to measure the dispersion of total returns. The more volatile the total return profile, the more risky the alternative.

The following histograms contrast the monthly returns of the national average of bank MMDAs and the NASDAQ (CCMP) index over the past four years (from June 1999 – June 2003. The first chart, showing the bank MMDA profile, shows that the possible outcomes are dominated by positive returns just under 1% to over 2%. In statistical terms, it is positively skewed and is indicative of a relatively certain return.

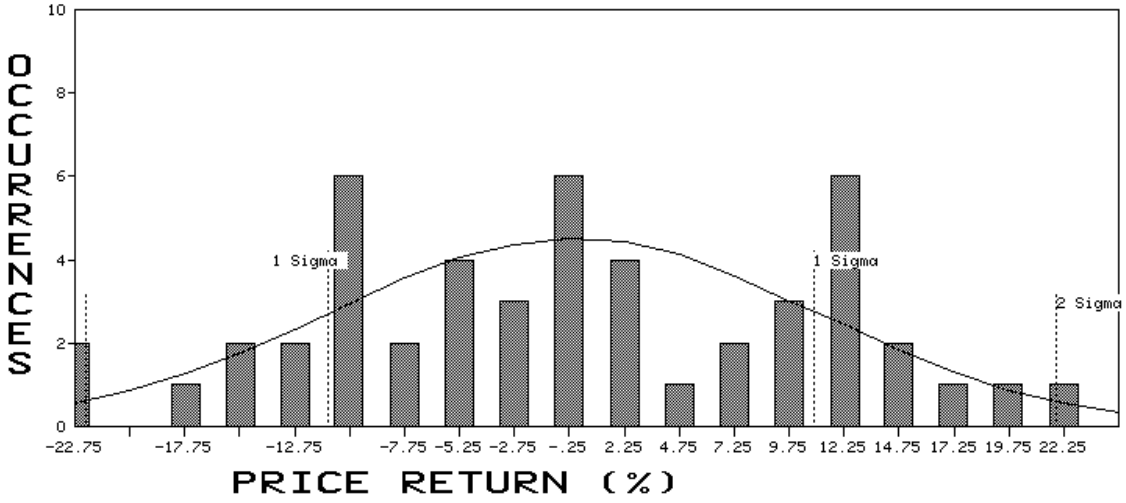
Bank MMDA Return Profile: June 1999-June 2003



In contrast, the second chart, that of the CCMP index, illustrates that over the same time frame, three outcomes were almost equally likely in NASDAQ-indexed accounts (note that the NASDAQ profile over the past few years is quite similar to that of games of chance):

- Lose a lot, about -12%
- Breakeven
- Win a lot, about +12%

NASDQ Index Profile: June 1999-June 2003



These three occurrences are less dominant than the likely outcomes of bank MMDAs, but certainly define the profile for NASDAQ-indexed accounts. The more volatile return profile of the NASDAQ CCMP index is amplified by a standard deviation of returns, or sigma, that is more than twice that of bank MMDAs. Given the very different return profiles over the past four years, it is not unlikely that many investors and depositors may have migrated to bank MMDAs.

Shift in the rate relationship between bank and broker MMDAs

Over the same ten year time frame, we compared the national average bank MMDA rate to a well-known brokerage (Merrill Lynch Ready Asset) money market rate. Banks on average, over the last ten years, have paid 168 basis points less than the brokerage rate. Beginning in 2002, however, banks began to pay higher rates, on average, than the reference broker rate. Over the past year, banks, on average, have been paying about 25 basis points more for insured deposits than a comparable uninsured account.

Again, it is intuitive to posit that depositors would prefer insured deposits over uninsured deposits. In addition, in consumer surveys convenience is frequently cited as reason for preferring one channel or institution over another. Bank branch locations, whether brick and mortar or ATM, are usually more accessible than their brokerage competitors.

A flight to safety, given geopolitical risks

It has been noted that that many banks experienced a surge in deposits in the period following 9/11. This effect was most pronounced on the east coast especially in New York and New Jersey.

One suggestion was that this represented a flight to safety in uncertain times. (See a relevant and insightful article entitled "Adjusting Core Deposits for Surge Growth" at www.mpsaz.com.)

Increase in above-market rates offered for bank MMDAs

Across the U.S., many larger banks have been promoting above-market (above LIBOR) rate MMDA or SuperNOW products. In some regions, these promotions were initiated by the U.S. subsidiaries of European banks (e.g., ING and Citizens on the east coast). In other regions, they were initiated by large regional banks and thrifts that were expanding geographically. Typically, these promotions offered a "headline" rate of 2.50% to 3.00%. Many banks then treated these as "teaser" rates, subsequently dropping the rates 25, or more, basis points. In other cases, banks have marketed these high rates to new customers and only for high tier MMDA accounts that were bundled with a "free checking" account. In many cases these approaches have initially been successful in garnering market share. Banks that have lost market share in the process have frequently wondered "how can they do it?"

Alternative approaches to core deposit pricing

Banks that have offered the promotional accounts at 2.50% when Fed Funds and short LIBOR rates were at 1.25% had various objectives. One, as noted above, was building market share in new or relatively new markets. A second objective was to build franchise value via the core funding base. Conceptually, building the core franchise based on initial premium pricing is not dissimilar to acquiring deposits via acquisition. One component of success via deposit acquisitions or premium deposit pricing may well be the consideration of a plausible range of retention ratios based on various pricing tactics. Two of the many ways that banks look at profitability are on an Economic Value Added (EVA©) basis or on a Funds Transfer Pricing (FTP) basis. Organizational behavior, in this case product pricing, is frequently dependent on performance metrics that are tied to incentive-based compensation. Larger organizations frequently use FTP and/or EVA© approaches to measure performance and determine compensation. Two simplistic examples follow.

Consider the case where a MMDA is initially priced at 2.50%, or 125 basis points above market (vs. Fed Funds, LIBOR, or average MMDA rates). Six months later, the account is repriced to 2.00%, or 75 basis points above market. Over the first year, the deposit was priced, on average, 100 basis points above market. Even if operating expenses are ignored, this pricing behavior does not appear to be profitable. Assume that new deposit balances are measured on an EVA© basis with an assigned "value-add" for new MMDA balances of 3.00%. In this case, the bank has "added value" of 2.00% of new deposit balances, which is equal to the 3.00% "add-on" less the 1.00% above market pricing. This EVA© "add-on" of 3.00% could alternatively be viewed as an originated "core premium" for money markets. In this simplistic, and admittedly misleading, EVA© framework, this strategy creates value. But what about deposit runoff if the bank institutes market-based pricing?

In this simple example, assume that at the end of year one all promotional accounts are repriced from 2.00% down to a market rate of 1.25%. What runoff rate is "breakeven" in this EVA analysis? At an instantaneous 67% runoff rate on day one of year two, the bank "breaks even" in an EVA analysis. That is, the 1.00% incremental cost is offset by the 33% * 3.00% = 1.00% EVA "add on",

or core premium. If runoff is less than 67%, this approach has "added value" in this theoretical EVA framework.

When we move to an FTP-based performance measurement system, the concept of average life for a MMDA becomes relevant. As an aside, while we usually advocate a relatively high rate sensitivity for this account type (please see the first-follow up article), we also generally agree with those that suggest somewhat longer lives (please see the second-follow up article). Using an average-life-based FTP methodology, deposit profitability is dependent on the average life funding assumption. For example, if a MMDA is match-funded to the one-month FHLB curve, it may be assigned a 1.15% rate (as of July, 2003). On the other hand, if it is assigned to the 3.5 year point on the FHLB curve, the match-funded rate is 2.37% (again, as of July, 2003). Banks that transfer price at the short-end may well choose the 1.25% in the previous example. Banks that choose a longer average life may choose to price at the higher promotional rate.

While the above examples are admittedly biased, they do illustrate that deposit product pricing remains idiosyncratic versus pricing for financial products that have liquid and efficient markets. In this sense, deposit pricing, much like bank ALM, remains part art and part science.

Notes
Return charts and national average rates per Bloomberg Financial. Deposit growth and costs per SNL.

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