

# COMMENTARY – SPECIAL TOPICS

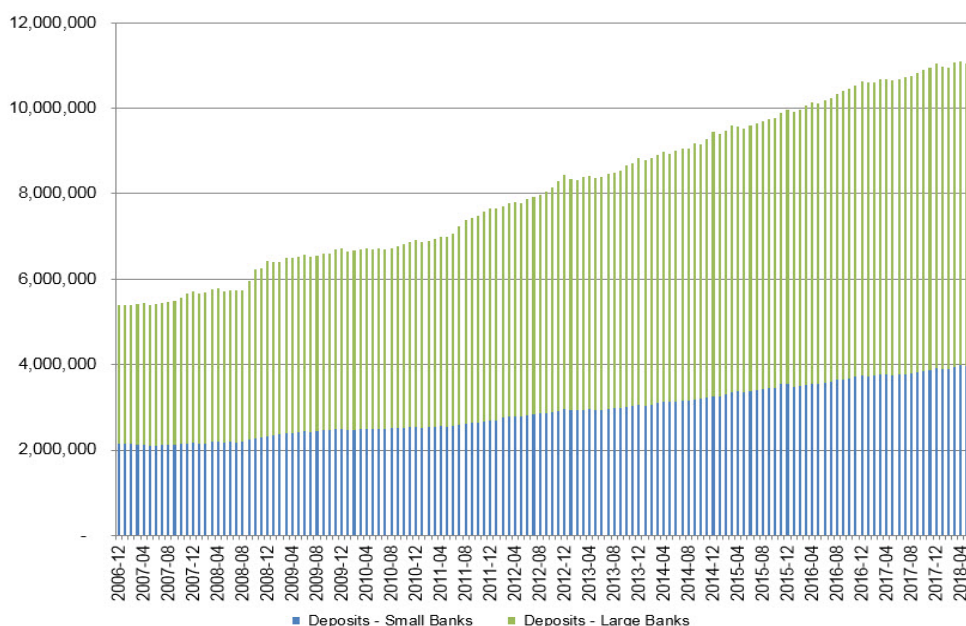
August 2018

## U.S. Banking System Health and Profitability

On June 13<sup>th</sup>, the Federal Reserve Bank (Fed) increased its target range for the federal funds (fed funds) rate by 0.25%, while simultaneously increasing the interest rate that it pays on member bank excess reserves held on deposit by only 0.20% to 1.95%. The following day, the effective federal funds rate (EFFR) increased to 1.90%, where it remained for three days. On June 20<sup>th</sup>, the EFFR increased to 1.92%, prompting some media outlets to contemplate the possibility that the domestic banking sector was in the early stages of experiencing funding stress, with specific institutions being forced to find overnight funding in the fed funds market as they experienced attrition in their deposit bases. Given that the U.S. economy is in its ninth year of expansion and the Fed is 2½ years into an interest rate tightening cycle, those concerns are not entirely unwarranted. At this point in time, however, they appear highly premature. As we will discuss in detail, the liquidity profile of the banking system as a whole remains healthy and that of the cohort including our coverage universe is exceptionally deep.

At the end of May 2018, domestically chartered banks' deposit bases exceeded \$11 trillion vs. approximately \$5.7 trillion at the end of 2007, representing a 93% increase. Large banks experienced a full 100% increase in total deposits over that time frame. Small banks also participated in the funding windfall that followed the Fed's program of Quantitative Easing (QE) as their deposit bases increased by 82%. While the level of growth in deposits appears to have tapered in recent months, total system deposits have not begun to meaningfully wash back out of the system as illustrated in the following chart.

Total Federal Reserve Bank System Deposits by Bank Size



Source Data: Federal Reserve



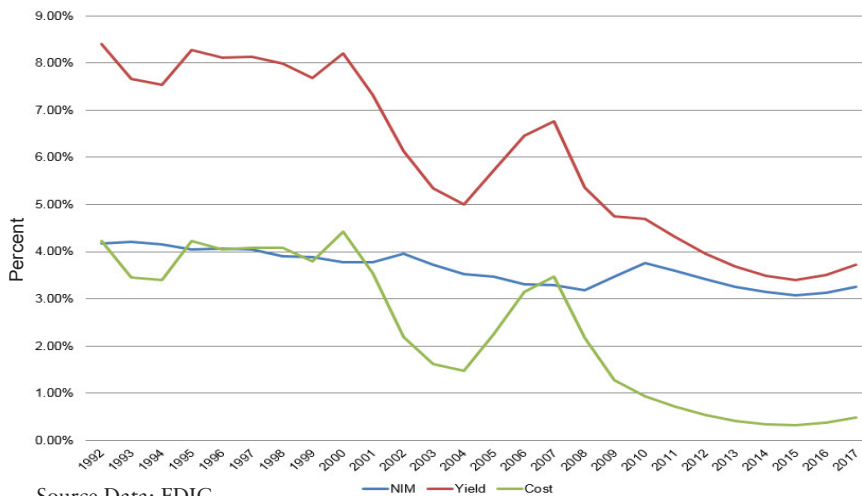
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Large banks vs. small banks is a binary classification. Large banks are defined as the cohort of any chartered bank having \$300 million or more in total balance sheet assets. Small banks are defined as the cohort of chartered banks with less than \$300 million in total balance sheet assets.

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The stability in deposit balances is occurring even as increases in deposit rates have lagged increases in fed funds rates. Per FDIC data, the average cost of funding across the domestic system at the end of 2017 was 0.48% vs. 0.33% at the end of 2015. The 0.15% increase in average funding cost against the 1.25% increase in the targeted fed funds rate (through 12/31/2017) implies a 12% average “deposit beta” system-wide. Meanwhile, average asset yields have risen from 3.40% at the end of 2015 to 3.73% at the end of 2017, supporting system profitability and equity capital accumulation by extension. As detailed in the following chart, the system’s net interest margin (NIM), despite being visibly lower than levels observed prior to 2000, has been closely aligned with the average yield on earning assets since 2011. That relationship reveals an unprecedented level of investment efficiency, as a very modest portion of the realized asset yield is being consumed by funding costs – and the correlation has both held and does not appear to be in any imminent danger of breaking.

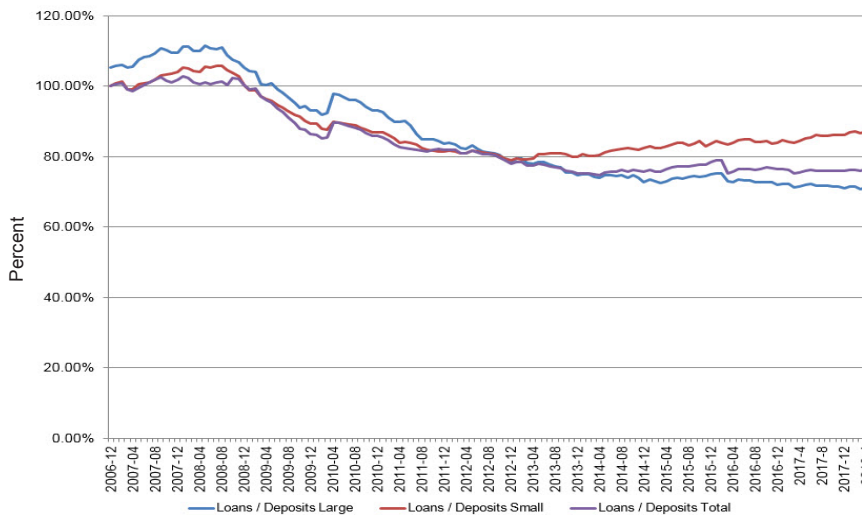
FDIC Yield on Earning Assets vs. Funding Cost



Source Data: FDIC

While stability in the system’s deposit base is clearly positive, gross positions do not fully substantiate the depth of the banking system’s liquidity position when viewed in isolation. The following chart details total system loans vs. deposits for large and small banks, as well as for the system as a whole.

Gross Loans % Deposits by Bank Size



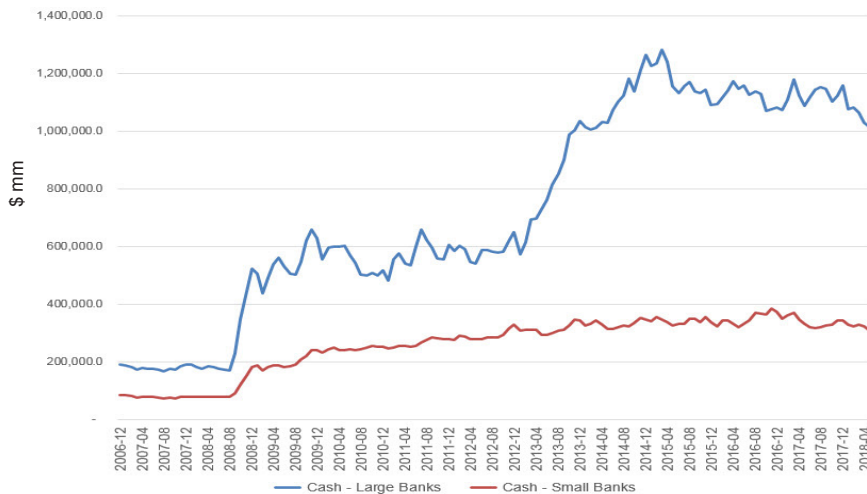
Source Data: Federal Reserve



At the end of 2006, total system loans and deposits were roughly in balance at 100.15%. Small banks reported a similar ratio, while large banking institutions reported a ratio exceeding 105%. Both cohorts experienced faster loan than deposit growth across 2007 into 2008, with the large banks' ratio peaking at roughly 112% at the end of May 2008, while the ratio at the small banks peaked at 106% at the end of August of the same year. The recession that followed the collapse of the housing market in late 2008 sharply squeezed loan demand, while the Fed's QE program flooded the banking system with liquidity. The gross loans to deposits ratio for the system consequently shrank to a trough level just below 75% in early 2014, and while the ratio at the large banks has broadly stabilized around 72%, the total system loans to deposits ratio has increased to roughly 84%. The increase has been driven by loan growth at small banks, where gross outstanding loan balances have increased by 55% vs. 31% at large institutions. The loans to deposits ratio at small banks remains visibly lower – and healthier – currently than at the end of 2006 despite the increase in the ratio. In aggregate, the system had a surplus of deposits relative to loans of approximately \$2.5 trillion at the end of May 2018, of which \$2 trillion was held by large banks.

In addition to an ample supply of available deposits to fund loans, the Fed's QE program has left the banking system in possession of an unprecedented hoard of cash – either held on-balance sheet or on deposit with the Fed or other commercial banks – that exceeded \$1.3 trillion at the end of May 2018. While large banks hold the majority of the cash (78%), small banks have managed to mushroom their holdings by roughly 267% since the end of 2006 as illustrated in the following chart.

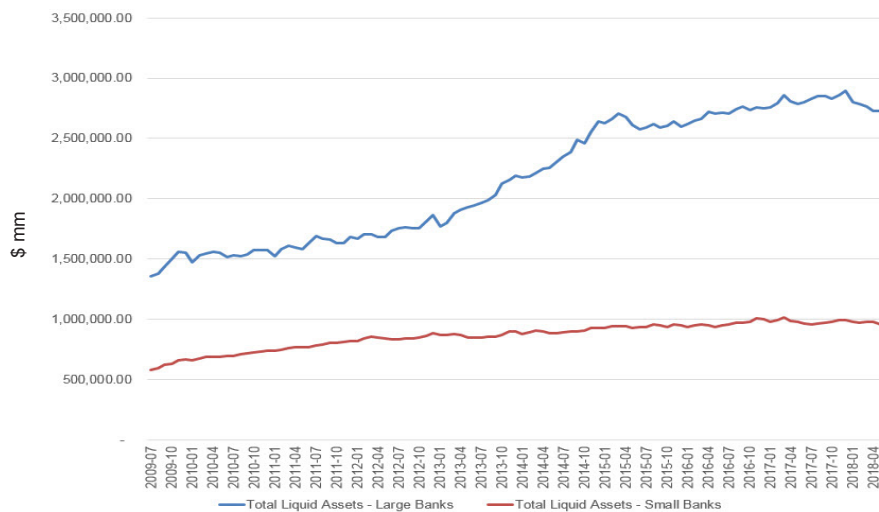
**Cash Held On-Balance Sheet and on Deposit with Central & Commercial Banks**



Source Data: Federal Reserve

Finally, the deposit surplus referenced above has not simply been sitting idle in bank vaults over the last several years. Regulations addressing capital, asset risk-weightings and liquidity that have come on-line since 2009 have driven increased investment in U.S. Treasury and agency obligations, approximately three-quarters of which are held by large banks. When layered on top of cash assets, total available liquid assets in the system approach \$3.7 trillion and are roughly equivalent to 22% of total system assets. By contrast, at the end of July 2009 (the first period in which small bank Treasury and agency securities holdings were reported by the Fed) total liquid assets totaled \$1.9 trillion and accounted for 16% of total system assets. See the following chart for details.

## Cash Plus Treasury &amp; Agency Securities



Source Data: Federal Reserve

While we continue to maintain a positive outlook on the domestic banking sector over the foreseeable horizon, we are also cognizant that pressures on deposit funding levels and costs will eventually emerge as the Fed's tightening cycle matures. Those pressures, however, will impact the smallest banks well before they become problematic for the banks in our investable universe, as financial intermediation is ultimately a commodity business and those institutions that can most efficiently source the required raw material (i.e. cash) enjoy a distinct competitive advantage. Our current coverage of domestic banks consists of roughly 20 institutions, the smallest of which ranks 33<sup>rd</sup> in the system by total assets and operates a network of roughly 440 branches spanning five states. Ultimately observing the experience of smaller institutions caught within the deposit deficit / asset yield vice should provide sufficient visibility of any emerging deposit attrition well before any potential impact to our investable universe.

## Sources:

<https://www.federalreserve.gov/>

<https://www.fdic.gov/>

<https://fred.stlouisfed.org/series/USNUM>

<https://apps.newyorkfed.org/markets/autorates/fed%20funds>

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