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# Between deluge and drought: The future of US bank liquidity and funding

Rebalancing the balance sheet during turbulent times

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# Between deluge and drought: The future of US bank liquidity and funding<sup>1</sup>

Rebalancing the balance sheet during turbulent times

The funding structure of large US financial institutions is undergoing a dynamic shift. Traditional wholesale funding models have become prohibitively expensive as a consequence of both regulatory and market pressures. Meanwhile, banks have been reshaping their balance sheets in these ways:

- Increased deposit funding. Bank deposits have swelled since 2007, increasing from 37 percent to 49 percent of liabilities. This is partly due to a "derisking" of customer balance sheets and a slowdown in corporate investments, as well as a return to longer-term funding models. However, the growth in deposits is also part of a concerted effort by banks to reshape their liabilities.
- Less wholesale funding, but at a longer tenor. Wholesale funding—including repurchasing-agreement funding (repo) and trading liabilities—has decreased from 18 percent to 10 percent since 2002, and the remaining wholesale funding has shifted to longer-dated tenors. Over the same period, repo funding has decreased from 11 percent to 6 percent of liabilities. However, the average time to maturity of wholesale debt on banks' balance sheets has increased from 7.9 to 9.4 years since 2002, an increase of almost 19 percent.

At the same time that banks are issuing longer-dated, more expensive wholesale funding and fighting for deposits, structural changes are occurring on the asset side, as banks continue to derisk their balance sheets with the following:

- **Increased liquid assets.** Liquid assets have increased from 24 percent to 30 percent of total assets over the last decade.
- **Fewer loans.** Loans have decreased from 50 percent of industry assets to 46 percent since 2002; at the same time, the loan-to-deposit ratio (LDR) has decreased to 82 percent.

Regulatory influences have been pushing banks toward longer-term, stable liabilities deployed against increasingly short-term liquid assets, a trend that is likely to continue and therefore create more significant headwinds in the future.

Two regulations—the liquidity-coverage ratio (LCR) and the net stable-funding ratio (NSFR)—can particularly affect bank funding and net-interest margins (NIMs). The LCR creates a shortfall in liquid assets of approximately \$360 billion, even after the latest recalibration, and has been a major concern of US banks since it was first proposed. In early January 2013, several important changes to the LCR were announced that will raise the weighted average industry LCR to over 100 percent and decrease the cumulative liquid-asset shortfall from \$840 billion to \$360 billion. The rule could still cost the industry about \$1.5 billion to \$2.5 billion annually in lost income or negative carry. The average NSFR in the United States is still below 100 percent, but the ratio is likely to change significantly before final implementation. We believe that the NSFR requires a fundamental redesign.

This working paper is the third of three related papers on bank funding and liquidity, following *McKinsey Working Papers on Risk*, Number 41: "Between deluge and drought: The divided future of European bank-funding markets," March 2013, (mckinsey.com) and *McKinsey Working Papers on Risk*, Number 45: "Between deluge and drought: Liquidity and funding for Asian banks," April 2013.

As a result of these structural changes to assets and liabilities, and new regulatory pressures, bank NIMs are being compressed. NIM at US commercial banks has shrunk by 14 percent in the last ten years (from 4 percent to 3.4 percent), with further compression to below 3 percent in the near-to-medium term likely. In addition, fee income is down, partly as a result of new regulation (for example, Regulation E), so there is no easy way for banks to recoup the lost revenue.

The confluence of these regulatory and market pressures presents a serious challenge to bank corporate treasuries, which face a difficult path to meeting both regulatory and market expectations.

Some banks have balance sheets that are unprepared for this new environment, with low-yielding assets supported by expensive liabilities. This is particularly true for some capital-markets franchises, but many regional banks also lend at scales and margins that do not cover their cost of capital. From a funding-and-balance-sheet perspective, banks should do three things to address these market trends:

- Strategic balance-sheet steering. While banks must continue to address levers within each business (for example, repricing and cost cutting), more significant balance-sheet steering is required to succeed in this environment. This is not a time for incremental change. Banks need to make bold moves to position themselves for success: some businesses should be abandoned to competitors that are better able to fund the assets and achieve the necessary scale; other businesses should be aggressively grown. The net result will be banks competing where they have natural advantages.
- Funding optimization. By reducing their cost of funds, banks can gain a significant lift in margin, which will directly improve the bottom line. Through maximizing low-cost deposit funding, retiring high-cost debt instruments, and repositioning secured funding portfolios, it is possible for many banks to lower their funding costs by 10 to 15 basis points.
- Liquidity optimization. Banks will continue to hold significant liquidity into the foreseeable future. Banks that make the best use of these liquid assets and eliminate the most costly contingent liabilities that drive the need for this liquidity will reap significant rewards. Given the many banks with excess liquidity, there is an opportunity for banks to reduce their liquid assets by more than \$100 billion through improved management of contingent liquidity needs and liquidity forecasting. There is a further opportunity to increase revenue by \$1.5 billion to \$2.5 billion through improved investment of the remaining liquid-asset buffer (within a conservative risk appetite) by changing the mix of agencies and cash and/or treasuries.

# A structural shift is already occurring on both sides of the balance sheet

### Liabilities

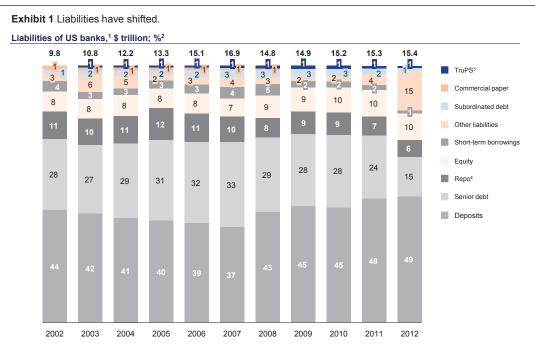
The profile of bank liabilities has undergone a substantial shift over the past decade (Exhibit 1). Equity across the industry has steadily increased over the past few years and deposits have trended back toward more historical levels. Deposits had shrunk to 37 percent of total bank liabilities in 2007 and have now grown back to 49 percent, which is the highest level in over 15 years. Based on our discussions with bank executives and investor reports, all banks have plans to shift further toward deposit-based funding models, and we expect this trend to continue and perhaps to gather momentum.

Growth in bank deposits has expanded at an impressive compounded rate of 7 percent per year for the past decade. The four trillionaires (Bank of America, Citibank, J.P. Morgan, and Wells Fargo) have outperformed the industry in capturing this deposit growth, though that trend has started to stabilize in the last couple of years (Exhibit 2). Much of this deposit growth is due to the economic environment. Only once the economy and investments start to grow more rapidly will it become clear which banks have captured the most stable deposits.

A bank's ability to compete for retail and corporate deposits has a significant impact on its funding costs. Average funding costs across banks are primarily driven by:

- share of deposits versus wholesale funding
- demand versus time deposits
- maturity profile of wholesale debt

An examination of current liability structures at large US regional banks shows a significant difference across deposit-funding models (Exhibit 3). The banks' ability to attract DDA, negotiable order-of-withdrawal accounts,

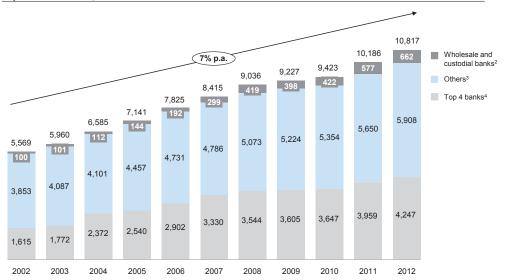


- Includes operating and acquired or defunct institutions for prior years 2 May not sum to 100, due to rounding.
   Trust-preferred security.

4 Repurchase agreement Source: SNL Financial

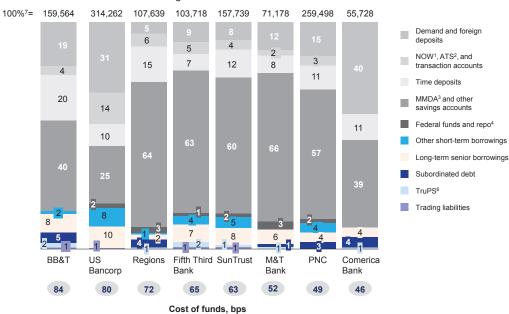
Exhibit 2 Deposit growth has clearly slowed.

### Deposits of US banks,1 \$ billion



- Includes operating and acquired or defunct institutions for prior years, based on all FDIC insured institutions.
   Includes Morgan Stanley, Goldman Sachs, The Bank of New York Mellon, State Street, Discover Bank, Citibank, and GE Capital.
   Includes their institutions excluding "top 4" and "wholesale".
   Includes Bank of America, Citibank, J.P. Morgan, and Wells Fargo. Prior years adjusted for major acquisitions i.e. Countrywide, Wachovia and Merrill Lynch. Source: SNL Financial: FDIC

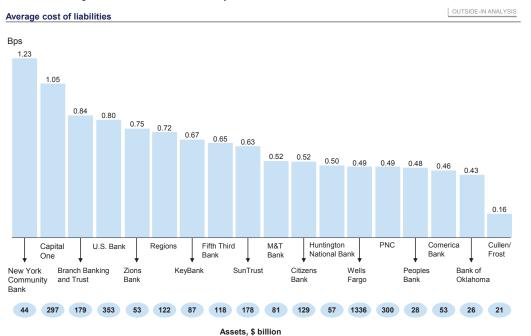
Exhibit 3 The structure of bank funding varies.



- Negotiable order of withdrawal.
   Automatic-transfer service.
- 3 Money-market demand account.
- Source: SNL Financial, Federal Reserve, Securities and Exchange Commission

- 4 Repurchase agreement. 5 Commercial paper. 6 Trust-preferred security. 7 Numbers may not sum to 100, due to rounding.

Exhibit 4: Average cost of liabilities varies widely across banks.



Source: SNL Financial

time-deposit accounts, and MMDA has a significant impact on their funding costs. While the cost-of-funds differential might appear relatively small across most regional players (ranging from a 16- to over 100-basis-point average), the economic impact of this gap is significant (Exhibit 4). A 20-basis-point gap in average funding cost on a \$100 billion balance sheet saves \$200 million in interest expense (before tax effects). This is an incredibly powerful lever, although as we discuss below, there's no free lunch.

In addition to deposit funding, there have been two noteworthy changes in wholesale funding.

### Increased maturity of unsecured funding

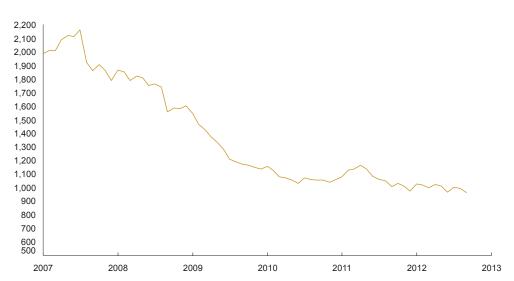
Following the financial crisis, bank reliance on short-term wholesale funding has dramatically declined. Commercial paper as a percentage of total liabilities has declined from almost 17 percent at its peak in July of 2007 to an average of 6.5 percent since 2010. Total commercial paper outstanding has dropped by 50 percent, and there is no expectation of returning to 2006–07 levels, particularly given regulatory changes and the increased focus of rating agencies on liquidity risk (Exhibit 5).

Overall term-debt issuance has also experienced a shift (Exhibit 6). The United States witnessed a quadrupling of issuance in the run-up to the financial crisis (2002–07), followed by a reversion to longer-term averages in the post-crisis environment (2010–12). In particular, there has been a shift away from shorter maturity issuance (one to three years) toward the longer end of the spectrum (greater than ten years). From a range of 25–50 percent of total issuance between 1998 and 2007, short-dated issuance has declined to 13–25 percent since 2010.

As changes in issuance affect the total term debt outstanding, longer-maturity debt as a share of total outstanding has almost doubled since its nadir in 2001 (Exhibit 7). Shorter-term debt has declined from a peak of 46 percent of total debt outstanding in 2001 to 33 percent in 2012. Concurrently, long-duration debt outstanding has increased from a low in 2001 of 22 percent to 32 percent in 2012.

Exhibit 5: There is less reliance on commercial paper as a source of funding.

Commercial paper outstanding (Jan 2007-Sept 2012), \$ billion

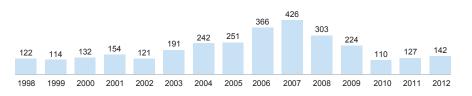


Source: Securities Industry and Financial Markets Association

Exhibit 6 Term-debt issuance has shifted.

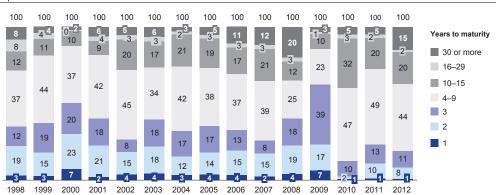
### Total term-debt issuance1

\$ billion



### Term-debt issuance by maturity

% p.a.



<sup>1</sup> Includes Bonds, Medium Term Note and Preferred Shares issued by banks. Source: Dealogic

% of total outstanding Years to maturity 100 🔳 30 or more 95 90 16-29 85 80 75 10-15 70 65 60 55 4–9 50 45 40 35 30 25 20 2 15 10 5 2004 2006 2010 2012

Exhibit 7 Longer-maturity debt has increased.

### Decreased reliance and structural challenges for the repo-funding model

Even more dramatic has been the decline of repos to fund investment portfolios and trading books. Repos have exhibited a 46 percent decline since the peak of their use in 2008 to their low in 2009, from \$2.8 trillion to \$1.5 trillion. The share of less-liquid collateral approached 30 percent of the collateral funded in the market at the peak and has decreased to less than 20 percent in 2010.<sup>2</sup>

Since the middle of 2010, the volume of the tri-party repo market has remained relatively constant, ranging between \$1.6 trillion and \$1.8 trillion. Although volumes have trended marginally upward, they remain far below the peak volumes prior to the financial crisis.

The stability in repo volumes suggests that markets may have reverted toward a historical mean, where repo transactions are used to financing the market-making activities of broker dealers and the short-term cash-flow needs of institutional investors, rather than serving as a cheap source of financing for the traditional corporate and investment-banking balance sheet (for example, corporate lending, debt and equity underwriting). Unfortunately, the complexity of disaggregated data in the repo market prior to 2010 makes this observation exceedingly difficult to confirm.

### Overview of bank assets

Source: Dealogic

Banks' asset profiles have also undergone a substantial shift (Exhibit 8). Since loan demand remains tepid during the economic recovery and there is uncertainty surrounding new regulatory liquidity requirements, banks have taken a defensive posture by parking a significant portion of their balance sheets in highly liquid

<sup>2</sup> Adam Copeland, Antoine Martin, and Michael Walker, "The tri-party repo market before the 2010 reforms," Federal Reserve Bank of New York Staff Reports, Number 477, November 2010 (newyorkfed.org).

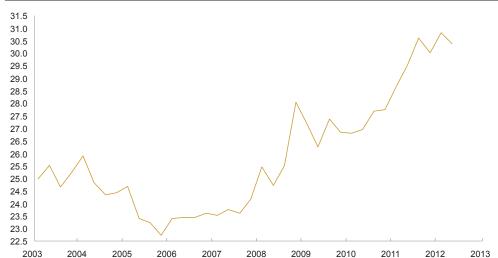
Exhibit 8 Highly liquid assets are part of banks' defensive posture.

Assets of US banks,1 \$ trillion; %2 12.7 14.9 15.5 17.0 6.4 7.1 9.1 10.0 11.4 13.7 14.3 Treasury securities Cash and balances due Federal funds sold and reverse repo<sup>3</sup> Mortgage-backed securities Trade-account assets Other investment Other assets Net loans and leases 

Source: SNL Financial

Exhibit 9 Liquid assets are more than one-third of the total.



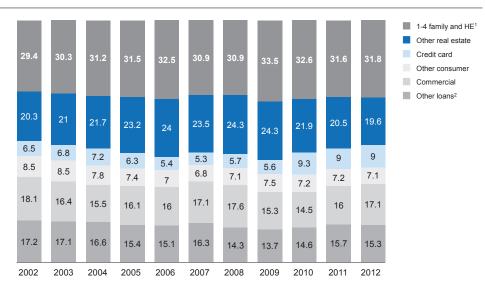


<sup>1</sup> Liquid assets: (cash and balance due + securities + federal funds and repurchase agreements + trading accounts – pledged securities)/total assets.

<sup>1</sup> Including bank holding companies and commercial and savings banks, excluding Morgan Stanley and Goldman Sachs. 2 May not sum to 100, due to rounding. 3 Repurchase agreement.

Exhibit 10 The asset mix within loans and leases is shifting.

### Loan-portfolio-composition trend



1 Home equity. 2 Includes loans to depositories, foreign loans, and agricultural loans

Source: SNL Financial

assets (Exhibit 9). From a pre-crisis average of 22 percent, US banks have increased the share of liquid assets on the balance sheet to more than 30 percent.

This has occurred in lockstep with a decline in the industry LDR. For the eight years preceding the financial crisis, the LDR for banks active in commercial lending averaged 89 percent, with a through-the-business-cycle variation of just four percentage points. Following the crisis, the LDR for the same banks has declined by 18 points to a level outside the normal variation range, back to the historical LDR trough of the early 1990s.

As the LDR has declined, banks have shifted the loan composition toward higher-yielding assets (Exhibit 9). Lower-yielding loans, including one-to-four-family loans (5.76 percent average yield) and other real estate<sup>3</sup> (3.81 percent average yield), have declined by more than five percentage points of the total loan book. Concurrently, higher-yielding credit-card loans (12.09 percent average yield) have gained approximately 3.5 percentage points in share since the advent of the crisis. Commercial and industrial loans have regained pre-crisis share, indicative of the value of both the loan yield (4.46 percent average yield) and the overall corporate relationship (Exhibit 10).

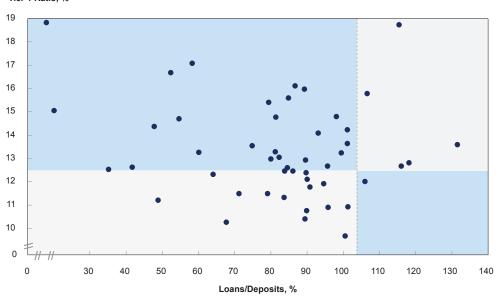
Most US banks demonstrate very strong balance sheets from both a capital and funding perspective (Exhibit 11). Of the top 50 US banks, 14 percent have more deposits than loans and more than 12.5 percent Tier 1 capital (under Basel I). A decade ago only 2 percent of banks fell into this category.

While regulators may feel more comfortable with these levels, the trends of increased capital and liquidity are squeezing bank return on equity (ROE) from both directions.

Includes commercial real estate, multifamily, and construction loans. Average yields are calculated from 2012 Call Report fillings.

Exhibit 11 Comparison of top 50 banks based on LDR and Tier 1 ratio.

Tier 1 Ratio, %



Source: SNL Financial

# Regulatory requirements are pushing towards longerterm, stable liabilities deployed against increasingly short-term, liquid assets

### The LCR is pushing banks towards liquid assets

The LCR has been a major concern of US banks since it was first proposed. However, several important changes were made to the LCR in early January 2013, which will raise the weighted average industry LCR to over 100 percent and decrease the cumulative liquid-asset shortfall from \$840 billion to \$360 billion. This is a relief to the industry. The major changes announced in January include:

- The deadline for 100 percent implementation was moved from 2015 to 2019 (60 percent implementation is now required in 2015).
- Lower outflows were assumed for insured retail deposits, nonoperational corporate deposits, and credit/ liquidity lines:
  - Insured retail deposits now receive a 3 percent factor, compared with the previous factor of 5 percent;
     this provides a modest improvement in the LCR (about two percentage points in the United States).
  - Nonoperational deposits from corporates previously had a 75 percent runoff factor, which was significantly higher than banks actually experienced during the crisis. Nonoperational deposits will now have a 20 percent runoff if they are insured and a 40 percent runoff if they are uninsured. This improves the industry LCR by about six percentage points in the United States.
  - Committed liquidity facilities to corporates were previously assumed to draw 100 percent during a crisis
    and now have a 30 percent factor. This improves the industry LCR by about six percentage points in the
    United States. Committed but unfunded interfinancial credit and liquidity facilities will now have a factor
    of 40 percent, compared with 100 percent before. This improves the industry LCR by about seven
    percentage points in the United States.
- There was a change in definition of high-quality liquid assets providing credit for residential mortgage-backed securities (rated AA or higher), corporate debt (rated A+ to BBB), and unencumbered equities. Each of these assets previously had 0 percent factors and now get factors of 75 percent, 50 percent, and 50 percent, respectively. These assets are subject to a cap of 15 percent after assets as part of Level 2B assets.

# The NSFR will push banks toward long-term liabilities, such as stable deposits and medium-to long-term debt issuance

Although there is still uncertainty regarding the final NSFR requirements, it is clear the proposed changes to regulation will place a premium on stable deposits and medium- to long-term debt funding. Since the proposed Basel II changes were announced in 2010, nonmaturity deposits as a share of total liabilities has risen from 64 percent to 71 percent. In addition, the share of long-term debt issued (as a percentage of total term debt) has risen from 43 percent to 49 percent. Even with these changes, the US industry currently has an average NSFR of 87 percent.

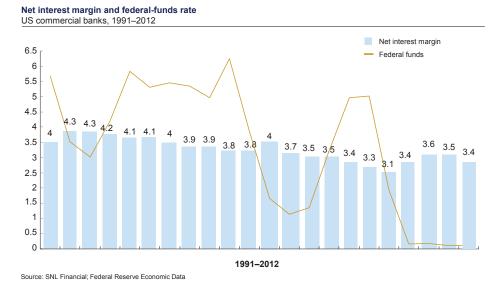
# Margins are under pressure at a time when they are becoming increasingly important

As a result of these structural changes to assets and liabilities, bank NIMs are being compressed. Average NIM has gone from 4 percent in 2002 to 3.4 percent in 2012, with projected further compression to 2.5 to 3 percent through 2016. Given an expected environment of low interest rates, it is likely the industry will face average NIMs below 3 percent, a situation not seen since the early 1980s. Looking to the top 50 US bank-holding companies, a 50-basis-point reduction in NIM would translate to two to seven percentage points of return on common equity (ROCE).

Compressed margins will be highly correlated with the Federal Reserve Bank's interest-rate policy (Exhibit 12). Without sustained improvement in macroeconomic conditions, market interest rates could remain at current levels through 2019. As a result, banks that are unable to shift to higher yielding assets, or further reduce funding costs, could expect a four-percentage-point reduction in their ROCE over the next six years.

The rapid decline in the federal-funds rate provided a brief bump in the NIM following the financial crisis. However, maturing assets will place continued pressure in the near future, as higher-yielding assets run off and are replaced by lower-yielding loans and investments. From 2010 to 2012, the average yield on loans and the average yield on investments fell from 5.8 percent to 5.3 percent and 3.1 percent to 2.7 percent, respectively (Exhibit 13). We believe further reduction in yields on assets could translate into a NIM between 2.5 and 3.0 percent through 2016<sup>5</sup>. The shift in assets from fewer liquid loans to more liquid investments will exacerbate the contraction, as loans as a percentage of average earning assets have declined by more than five percentage points since 2007 (2012 loans represent 60 percent of average earning assets).



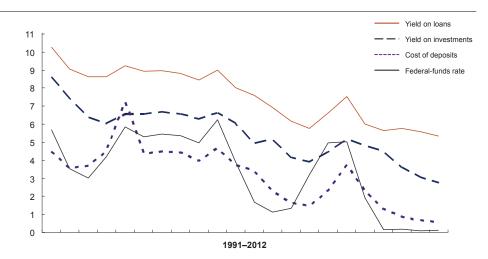


<sup>4</sup> This assumes that the current statement by the board that interest rates will remain at current levels until the unemployment rate is 6.5 percent will hold and that monthly job creation will normalize at the ten-year historical average, which the Atlanta Federal Reserve Board's jobs calculator indicates will result in 6.5 percent unemployment in 72 months.

Using the prime rate of 3.25 percent as a floor for loans and the US Treasury ten-year rate of 1.6 percent for investments, there is the potential for an additional decline of at least 100 basis points in yield for each asset class. Holding costs of funds constant.

Exhibit 13 Margins have shrunk and will continue dropping as the Federal-funds rate pulls down asset yields.

# **Net-interest-income components and federal-funds rate** US commercial banks, 1991–2012

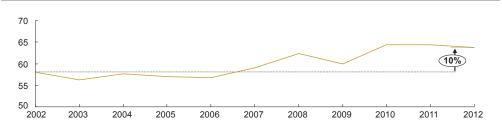


Source: SNL Financial; Federal Reserve Economic Data

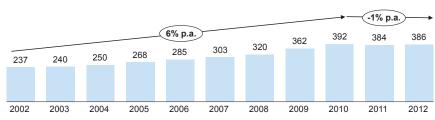
Exhibit 14 Net interest income has risen.

### Net-interest-income share of total revenue, US commercial banks

% of total revenue



## Net-interest-income volume, US commercial banks \$ billion



Source: SNL Financial

Structurally, there has been a shift from non-interest income toward a greater contribution from net-interest income (NII) to total revenue (Exhibit 14). Between 2002 and 2010, NII as a share of total revenue has gained six percentage points. Through the same period, the volume of NII grew steadily at an annual rate of 5 to 6 percent, before the most recent NIM compression began in 2010. Since 2010 the total volume of NII has flat-lined, exhibiting -1 percent in growth (Exhiibit 14). Total revenue growth faces an additional headwind from noninterest income, as changing regulations limit the amount of it that banks can generate from sources such as proprietary trading, over-the-counter derivatives, and debit-card interchange and overdraft fees. Over and above any hit from shedding proprietary trading, we estimate the impact from debit-card interchange and overdraft fees alone will be to reduce total non-interest-income revenue by 5 to 10 percent.

With margin compression and a structural shift toward NII, finding ways to optimize the NIM will become increasingly important in the short-to-medium term (Exhibit 15). Improving or preventing a contraction of just 10 basis points on the NIM can add or save an additional 0.5 to 1.0 percentage points on ROCEs.

# Banks need a more strategic approach to steer balance sheets towards greater profitability

Banks need a more strategic approach to steer their balance sheets towards greater profitability. Many banks have appropriately focused on restructuring their lending and fee businesses for the new environment. However, fewer banks have also optimized their liabilities as part of this process, setting a new strategic direction based on a full view of the balance sheet. Finance and the treasury function should play a critical role in this strategic balance sheet optimization. The success of these efforts will depend on the ability of treasury to develop a governance approach that ensures that emerging trends and regulatory changes are analyzed in a timely fashion and that the appropriate implications are inferred for overall business and treasury strategies. There are four primary functions where finance and treasury should drive strategic balance-sheet steering:

- Business-unit evaluation. Finance and treasury can provide a strategic-review function in determining which business holds a long-term competitive advantage versus which should be exited. Both institutions with large capital-markets franchises (universal and investment banks) and large commercial and consumer banks (including regional banks) have business units with margins that do not cover the cost of capital. Notably for capital-markets franchises, margins on fixed income, currencies, and commodities have dramatically contracted following the wake of Dodd—Frank and the Volcker Rule. Regional banks have also been hit, as low yields have particularly disadvantaged trade finance, high-credit-quality auto finance, and mortgage businesses. Institutions that cannot successfully identify which businesses they can fund competitively in the long term are likely to misallocate investments in the near term.
- External pricing (for example, wholesale deposits). Treasury can add tremendous value by working more closely with businesses on market pricing for deposits. The business benefits from this coordination by setting prices better linked to the underlying economics of the deposits; Treasury benefits by increasing its share of desired deposits and through deeper understanding of the bank's liquidity risks. One way of coordinating this exercise is through a deposit pricing committee. Such a committee ensures a consistent view of deposit pricing across the Bank and iis also a natural mechanism to ensure the appropriate modifications to deposit pricing in light of the impact from the LCR.
- Internal pricing (notably, funds transfer). Treasury must ensure the robustness of the funds-transfer pricing (FTP) approach to encourage the right product and pricing behavior for customers across business units. Banks make many trade-offs in setting their FTP methodology (transparency, marginal vs. average pricing, number of currencies priced, frequency of refresh, centralized vs. decentralized authority, operational complexity, etc.). While there is no single "right" FTP approach for all banks, we find that most banks have significant opportunities to improve their methodologies and processes. Common opportunities include better incorporating market conditions into FTP (vs theoretical approach), increasing treasury steering of the whole balance sheet (e.g., treasury "owns" all deposits), behavioral modeling of deposits for more granular segments, incorporating contingent liquidity charges, adding additional currency curves and stopping internal arbitrage (particularly for larger banks). The opportunities are more acute at the moment, as market conditions and regulation have changed (and will continue to move) banking economics.
- Collateral management and enablement. Treasury can play a role in ensuring that all eligible collateral is captured and managed centrally. The treasury function can steer the necessary investment in new systems and provide overall governance to ensure that business are rewarded for originating assets with desired collateral criteria, that all eligible assets are captured and are used effectively for funding.

### Winning the war for deposits

Deposit funding is critical to lowering the cost of liabilities and can become an enduring source of competitive advantage. A bank's strategy for capturing stable deposit funding is therefore central to

steering the balance sheet towards greater profitability. And banks have captured significant value through concerted efforts to win deposits. In one case, a universal bank identified levers to reduce its average cost of funds by 20 to 30 percent by shifting the mix of wholesale versus deposit funding and the types of deposits held. The impact on funding costs can be even greater for banks that are more reliant on wholesale funding, although it also often requires more significant upfront investment in infrastructure and capabilities to grow the deposit franchise.

Even regional banks that are already primarily deposit-funded can still benefit from more purposeful optimization of their funding profiles, across Corporate, SME and Retail.

### Corporate

Executives have divergent views on the value of corporate deposits. Some bank treasurers pay an FTP of more than 200 bps for these deposits (even in the current interest rate environment), whereas others pay only 20 bps and some have even started charging clients to deposit their excess funds. This variance across the industry reflects bank funding profiles and investment opportunities, but also fundamental disagreements about the stability of corporate deposits and how much of the recent deposit growth is core vs. non-core.

We have found that corporate deposits tied to operational relationships are historically stable sources of funding for most institutions. During the crisis, a typical bank's wholesale deposits remained within 10% of baseline between 2007 and 2009; banks that failed during the crisis had larger wholesale deposit run-offs, but operational wholesale deposits had similar run-offs to retail deposits at the most effected institutions.

A recent cash-management survey conducted by McKinsey & Company found that 64 percent of banks are focused on cross-selling fee income products and sales-force effectiveness as the primary lever for growth in their cash-management business. This makes sense, given that banks with top-quartile sales forces bring in almost twice the revenue as their bottom-quartile equivalents. However, many banks have an opportunity to put more emphasis on corporate deposits as a source of funding. Bank treasurers need to ensure that FTP compensates the business for the real value of that funding source, which often requires improving the deposit segmentation and modeling beyond current capabilities.

### **SME**

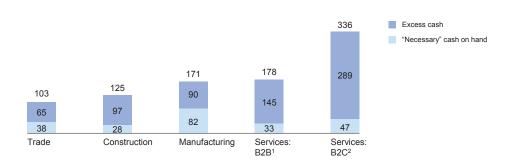
SMEs represent an opportunity for growth in low-cost, stable funding. Wedged between the commodity strategies of the retail business and the high-touch relationship strategies of the corporate business, banks have yet to find an optimal strategy (Exhibit 15). But SMEs represent roughly 30 percent of the overall deposit market, are holding significant excess cash, and are largely dissatisfied with the current cash-management services in the market.

Bank treasuries can partner with the SME business line to offer simple, technology-enabled cash-flow offerings that help business owners plan investment and dividend decisions. The benefits of such a partnership are twofold:

- Nonmaturity deposits from SMEs have a low relative cost, as historical regulatory prohibitions against interest payments on business DDAs have mooted competition based on rates. In addition, the competitive landscape for SME deposits is highly fragmented across national, regional, and community players.
- Cash-flow-management services can be bundled with lending-product offerings. Banks that design and deliver the right cash-flow-management product will gain the advantage in capturing low-cost funding and higher-yielding assets.

Exhibit 15 Optimizing the deposit strategy for small-to-medium-size enterprises is a significant opportunity.

Average cash balance per small-to-medium-size enterprise (\$1 million-\$5 million in annual revenue), 2007, \$ thousand



- 1 Business to business. 2 Business to consumer

Source: Internal Revenue Service: financial statements

### Retail

Significant changes are under way within the retail market. To offset compressed margins, banks have embarked on substantial efforts to reduce their retail cost to serve. As a result, the primary focus has been on reducing the operational costs of the branch footprint versus reducing the cost of deposits. In most instances, these efforts have focused on rethinking the physical distribution network, traditionally the largest single line item in retail-banking costs. Banks have made substantial headway in a first wave of network transformations, including migrating transactions away from tellers and conducting related branch consolidations, closures, and staffing rationalizations.

The next wave of cost reduction, however, will prove more difficult. Several obstacles stand in the way of further progress:

- Of the remaining transaction volumes in branches, a large portion are actually driven by small-business and commercial clients, and most banks do not yet have an effective way of migrating those transactions to self-service. Success on this front will require real innovation in servicing capabilities and servicing equipment (for example, self-service with mixed cash/check/coin-deposit capabilities and lower-cost remote cash-deposit products).
- In most bank customer bases, high- and low-value segments are not especially highly concentrated in certain branches (with some exceptions at the extremes), and most banks do not have branches in extremely lowvalue geographies, making a segment-differentiated strategy difficult to execute for cost purposes.
- The realities of local real-estate markets and existing branch leases mean that reformatting and reducing the average square footage of the network, which will eventually be a powerful lever to improve profitability, will take quite some time to hit the bottom line.
- Most branches operate quite leanly from a head count standpoint; for security and customer-service reasons, it is often difficult to conduct additional staff reductions, even if transaction volumes can be further reduced.
- Most banks are still largely dependent on the branch for acquisition, and most acquisitions still happen very close to customers' homes and businesses; even if they can solve their servicing challenges, banks still need to incur the costs to be under consideration for acquisitions.

Because of these dynamics, some banks have arrived at the conclusion that having eliminated the "easy costs" from their networks, the strategic game is now one of acquisition and cross-sell, not further cost reduction. Some have gone as far as to actively encourage customers to come to branches, because they know that's where they can best drive revenue. This approach can have the added benefit of growing the deposit base.. Additionally, as banks acquire a greater share of customer wallet, the stickiness of customer deposits generally increases, all else being equal.

Winning in the acquisition game will require banks to build capabilities on several dimensions that are not traditional strengths for most institutions:

- They must have an effective multiproduct-acquisition conversation that doesn't alienate customers with its sales feel.
- They will need to identify key points of leakage in the sales funnel and systematically address them.
- It is necessary to bring additional revenue-generating offerings on board, especially those that allow the bank to provide a true end-to-end financial-services solution; on this front, bancassurance is likely to gain renewed interest, in addition to standard credit and retirement/investment offerings.

### *Retiring high-cost debt instruments*

In the current low-interest-rate environment, with both a flat yield curve and stable expectations in the near-to-medium term, institutions with redeemable trust-preferred securities or other higher-cost term debt should consider retiring or replacing those instruments. Even with potential prepayment penalties, there is a compelling case to endure the pain now, as even marginal improvements in the blended cost of funds will have significant impact on ROE over the next three years. In one case example, we estimate that an institution can reduce its cost of funds by 0.5 to 1.0 basis points by retiring outstanding redeemable trust-preferred securities.

### Repositioning secured-funding portfolios

Institutions with larger capital-markets franchises may have the opportunity to shave additional basis points from their cost of funds by optimizing repo book tenor and collateral profiles. The cost of banks' repo funding varies widely, from a few bps to more than 100 bps – this is due partly to differences in credit rating, but more significantly derives from the approach to secured funding.

### Liquid-asset optimization

There are three main levers banks can use to optimize their holdings of liquid assets:

- Minimize extra holdings. Treasury functions should set up a well-defined structure for the liquidity buffer, which will include optimal sorting of products and positions into different buckets. In addition, treasury should partner with business lines to revise product characteristics so that they fit new regulatory requirements (for example, omnibus agreements and credit lines versus liquidity lines). Furthermore, treasury should conduct or lead a thorough scrubbing of customer data with high-risk products (for example, credit and liquidity lines, corporate deposits) to ensure proper classification and treatment (for example, ensuring that operational deposits are not characterized as nonoperational).
- Reallocate to Level 2 assets. Treasury functions can facilitate the transition from Level 1 assets to Level 2 assets, as well as optimize across Level 2 assets. In the near term, substitution from US treasuries to US agency MBS, agency debt, or highly rated corporate debt may be prudent. We estimate for one institution a potential lift of about 0.5 basis points under current guidance. In the medium-to-long term, there are two

additional sources of potential value. One is to gain yield on buffer assets through actively managing credit spreads on eligible assets (for example, where there are similarly rated eligible assets, sell marginally lower-yielding ones and replace with higher yields). Another is to keep a careful eye on buffer-eligibility standards promulgated by the regulators. Should the buffer become more inclusive with regard to eligible assets, treasury functions should quickly reallocate accordingly.

■ Manage the buffer to 100 percent. For all institutions, maintaining an LCR above 100 percent will be a negative drain on margins, unless driven by other business requirements. Yet most institutions we speak to plan to hold a substantial buffer, with many targeting 110 percent. We estimate that holding a buffer greater than ten percentage points above the required minimum has cost one institution almost 2 basis points in margin (and tens of millions of dollars). Though regulators will undoubtedly prefer LCRs significantly above 100 percent, institutions should try to balance this tension with strong governance over liquidity management.

• • •

US banks face a challenging future on many fronts. Although on the face of it they are up against less immediate funding and liquidity pressures than, say, their European counterparts, these aspects of their business have assumed greater strategic importance in recent years, and this trend seems set to continue. As the structure of their balance sheets alters, so they must adjust their operations and risk-management systems in pursuit of economically viable business models. In this environment, treasury functions assume a growing responsibility for leadership in understanding and optimizing the bank's funding and liquidity profile. But ultimately the reshaping of the balance sheet is something that confronts the entire organization. Those banks that rise most effectively to the challenge have an opportunity to outperform less adaptable rivals.

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