[HPS] LEADING THINKING

Hamilton Place Strategies
www.hamiltonplacestrategies.com
202-822-1205

The Boring Balance Sheet: Large Banks Today

"Banking should be boring… the things that you and I rely on every day should be safe from the sort of high-risk activities that broke our economy."

- Senator Elizabeth Warren

Findings:

- **Despite critics' claims, the largest banks have profoundly changed their structure and activities**
- **Changes include**
  - **More than doubling loss absorbing capacity and tripling of liquidity**
  - **Reduced trading activity and safer lending**
  - **Less market share since the crisis due to stagnant asset growth**
- **However, boring banks have their costs - less lending, reduced liquidity, and risk migration**

HPS counts large banks among its clients; however, this paper reflects the views of the authors alone.

Russ Grote
Marshall Schraibman
Taylor Thomas
David Wylie
Justin Levine

With apologies to Upton Sinclair, it's difficult to get a politician to acknowledge a fact when their political success depends upon that fact not being true. Five years ago many in Washington were unwavering in their call to make big banks boring, and by almost any metric, they got what they asked for. Yet, today, the cottage industry of large bank bashing is busy pretending they've failed. Their argument that "nothing has changed" says more about their politics than the actual facts on banking.

With apologies to Upton Sinclair, it's difficult to get a politician to acknowledge a fact when their agenda depends upon that fact not being true.

The changes in banks are easy for anyone to see. Close your eyes and drop your finger anywhere on a bank balance sheet and it likely looks radically different than it did in 2007. America's largest banks have responded to policy prescriptions from Washington, often implementing changes years in advance of deadlines.

Worse, boring isn't always boring. By discounting or ignoring these massive changes, critics kill any public debate on adjustments.

Politically palatable policy doesn't necessarily mean prudent policy. In the end, any regulatory framework has tradeoffs. But what if, in some cases, you get nothing in return? This paper analyzes changes to banks' funding and assets as well as provides an overview of emerging risks in the financial system.

Funding Analysis

Equity: Higher Quality, Higher Quantity

Following the enactment of Dodd-Frank, there have been tremendous changes to the capital structure of banks, most notably in regards to the improved quality and quantity of equity capital. Dodd-Frank implemented new capital rules, collectively known as Basel III, that have not only raised the amount of required capital, but strengthened the very definition of what's considered loss-absorbing. Brand new requirements like the supplementary leverage ratio have also provided additional backstops to ensure banks, not taxpayers, absorb losses in a crisis.

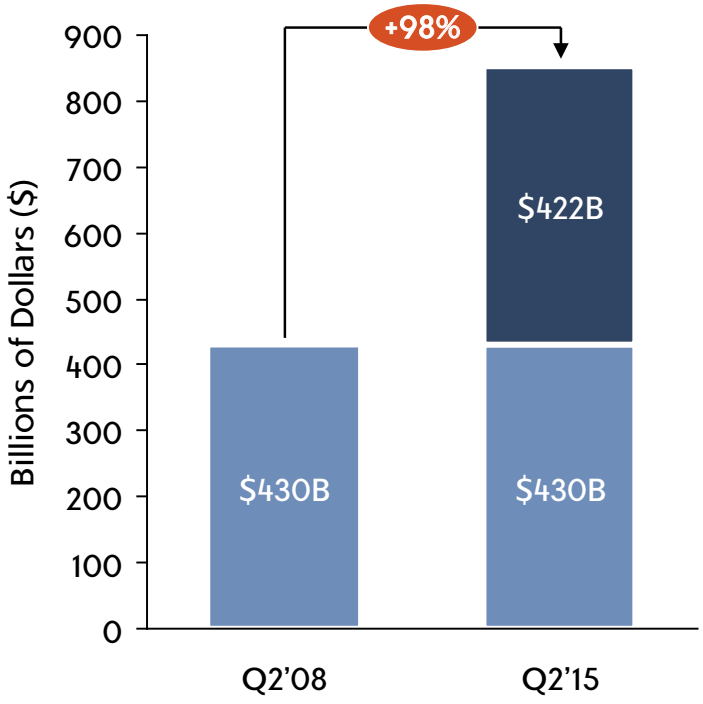
By any capital metric, big banks are much better off than they were in 2008. Tier 1 capital, considered by most to be the gold standard for loss-absorbing capacity, has increased by 98 percent at the six largest banks since the crisis (Fig. 1).

By any capital metric, large banks are much better off...Tier 1 capital has increased by 98 percent.

Even those skeptical of risk-weighting, a regulatory process used to adjust capital needs based on the riskiness of assets, can rest easy. Big banks' leverage ratios are also up over 40 percent since 2008.

Fig. 1: Global U.S. Banks' Capital Increased 98 Percent Since Mid-2008

Aggregate Tier 1 Capital For The Six Largest Banks



Source: Bloomberg, HPS Calculations

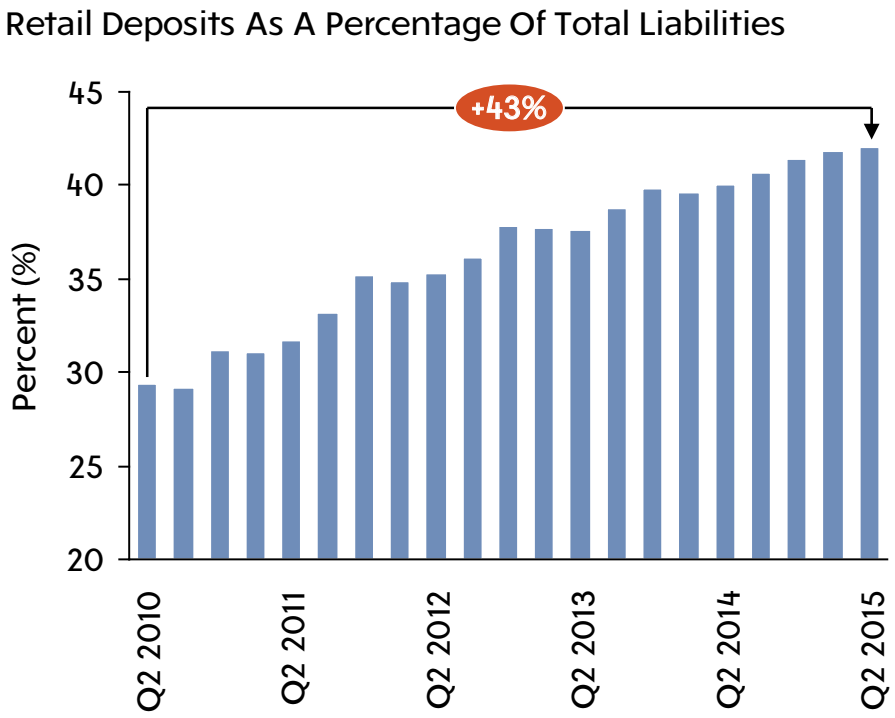
Deposits: The Retail Renewal

One factor implicated in the financial crisis was the prevalence of nondeposit liabilities on bank balance sheets, particularly short-term debt. While useful for funding asset growth when deposit acquisition slows, it can pose problems in a crisis. If credit markets dry up and short-term debt matures, banks find themselves with a serious funding problem. As Federal Reserve Governor Daniel Tarullo notes, "For the largest U.S. financial firms, nondeposit liabilities today are highly correlated with the systemic risk measures used at the Federal Reserve Board to measure interconnectedness and complexity."[1]

As a result, banks have sought to finance more of their operations through retail deposits. Since the enactment of Dodd-Frank, the six largest banks have increased their retail deposit ratio, the ratio of retail deposits to total liabilities, by 43 percent.

Retail deposits promote a long-term, sustainable funding structure that ensures the integrity of a bank's liquidity position.

Fig. 2: The Largest Banks Have Increased Their Retail Deposit Ratio By 43% Since The Enactment Of Dodd-Frank



Source: Bloomberg

From Rolling Short-Term Debt To Long-Term Convertible Debt

The emphasis on more quality equity capital extends to debt liabilities as well. The Financial Stability Board (FSB) has outlined total-loss absorbing capacity (TLAC) rules that increase long-term debt requirements significantly and require that they be convertible to equity during a crisis to facilitate a single point of entry resolution.

In total, the largest banks will be required to maintain TLAC levels equal to 18 percent of risk-weighted assets by 2022, requiring the 30 largest to raise up to $1.19 trillion more of loss-absorbing securities. The Wall Street Journal reported that The Clearing House "found that with a cushion set at 16 percent of risk-weighted assets — the low end of the FSB's proposed range — U.S. banks would have been able to absorb losses 4.4 times greater than they would suffer under the 'severely adverse' scenario of the Fed's 2014 'stress test' — a hypothetical economic downturn featuring a 50 percent drop in the stock market and an unemployment rate that soars above 11 percent."[2]

...under low end of proposed rules – U.S. banks would have been able to absorb losses 4.4 times greater than they would suffer under the 'severely averse scenario'...

Moreover, when combined with higher equity requirements, HPS estimates that large banks' simple leverage ratio will effectively double from six percent under Basel I to 13 percent.

Funding-Side Conclusion

Banks fund themselves with a mix of equity, debt, and deposits. Prior the crisis, there was too little equity and too much debt — especially short-term debt. On all three of these metrics, we've seen real progress that shows up in stress tests ever year. Yet, critics — such as FDIC Vice Chair Thomas Hoenig—still charge that large banks are "woefully undercapitalized" and "are the least well capitalized of any group of banks operating in the United States today."[3]

Contrary to Hoenig's statement, two primary measures of capital adequacy show the largest banks are better capitalized than the industry. The largest banks' median Tier 1 Common ratio is 12.3 percent, ahead of every other asset class. The largest banks' median Tier 1 ratio is 13.1 percent, second only to banks under $10 billion in assets (Fig. 3).

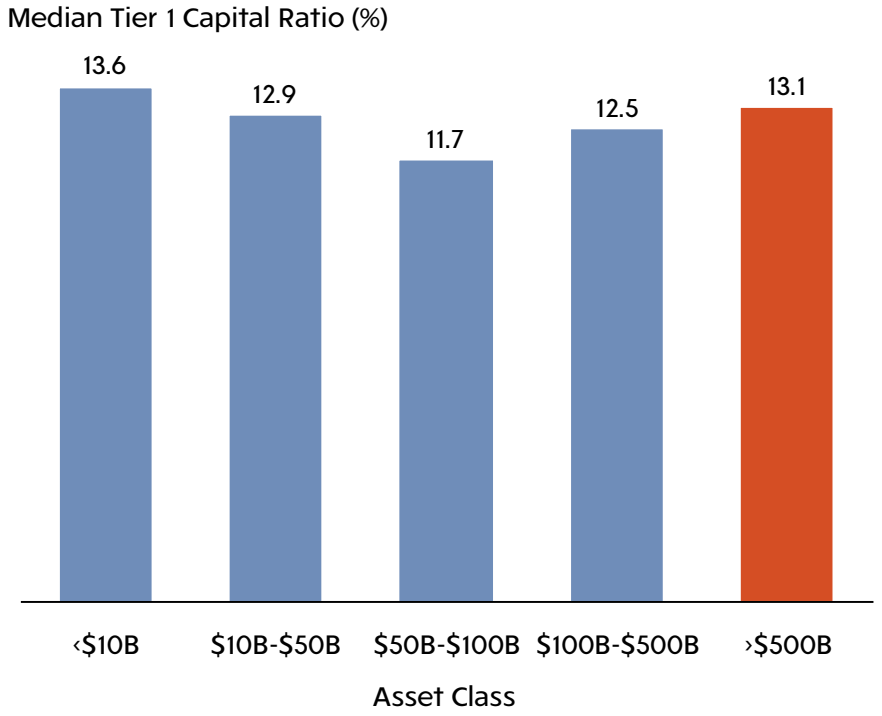
Further, this analysis ignores long-term debt require-

ments, improvements in derivative regulations including transparency and margin requirements, and other asset-side regulations, all of which are targeted towards the largest institutions.

Hoenig's calculations are based on a method of accounting (IFRS) that is not the standard accounting method used by the U.S. This method badly distorts the balance sheets of large financial firms that operate in derivatives markets to help clients hedge their risks.

Using the most widely accepted U.S. accounting rules for all industries including the financial sector (GAAP), the largest banks' capital and leverage ratios are in a strong position when compared to those of community banks and regional banks.

Fig. 3: The Largest Bank Holding Companies Are Equally, If Not More Capitalized Than Smaller Ones



Source: Due to limitations in data availability, based on Q4'14 reporting via Bloomberg

Asset-Side Analysis

Washington's view of boring banking has come to bear on both sides of the balance sheet. The big six have gutted trading floors, divested billions of dollars in non-core assets, cut employee compensation, and shed thousands of legal entities. Even lending, conventionally thought of as the most boring activity, has endured significant de-risking.

...before the financial crisis, banks dedicated 41 percent of their assets to trading—a number that fell to 21 percent in 2013...

Trading Down

The Volcker Rule prompted a dramatic reduction in trading activity across the banking sector, especially large banks. Our analysis finds that the big six have reduced their trading assets as a share of total assets by 12 percent since 2010.

The New York Times reported earlier this year that, "In 2006, before the financial crisis, banks dedicated 41 percent of their assets to trading—a number that fell to 21 percent in 2013, according to data from the International Monetary Fund."

Additionally, "several foreign banks that built sprawling trading floors in Connecticut less than a decade ago are now looking to sell the buildings or use them for other purposes."[4]

Unsurprisingly, trading revenue now contributes significantly less to firms' total take. This trend is expected to continue, as some provisions of the Volcker Rule have yet to be finalized.

And it's not just the volume of trading, but also what's being traded that has shifted. Since 2010, total yearly average derivative holdings

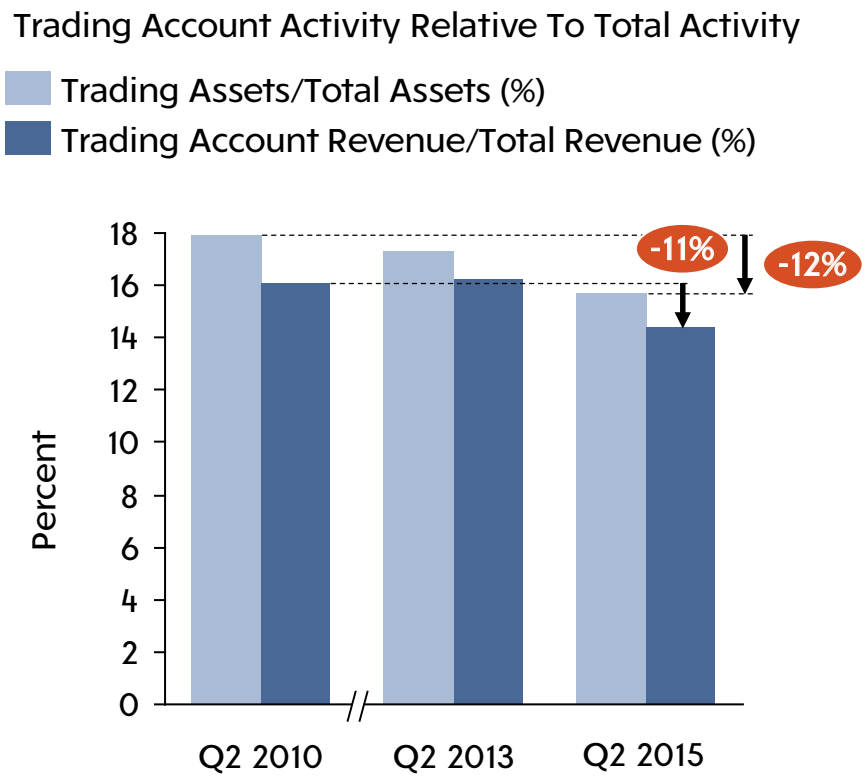
have decreased by 12 percent while moving to simpler, more stable assets, such as Treasuries.

Further, the Office of the Comptroller of the Currency (OCC) reported that, "Since the peak of the financial crisis at the end of 2008, major dealers have sharply reduced the volume of Level 3 trading assets…Level 3 assets peaked at $204.1 billion at the end of 2008. At the end of the first quarter of 2015, banks held $50.4 billion of Level 3 assets, down 15.1% from the first quarter, and 19.4% lower than a year ago. Level 3 assets are $153.7 billion lower (75.3%) than the peak level from 2008."[5]

The same analysis can be found when looking at the notional amount of credit derivatives as banks reduce redundancies through trade compression. The OCC reported that, "Trade compression aggregates a large number of swap contracts with similar factors, such as risk or cash flows, into fewer trades. Compression removes economic redundancy in a derivatives book and reduces both operational risks and capital costs for large dealers."[5]

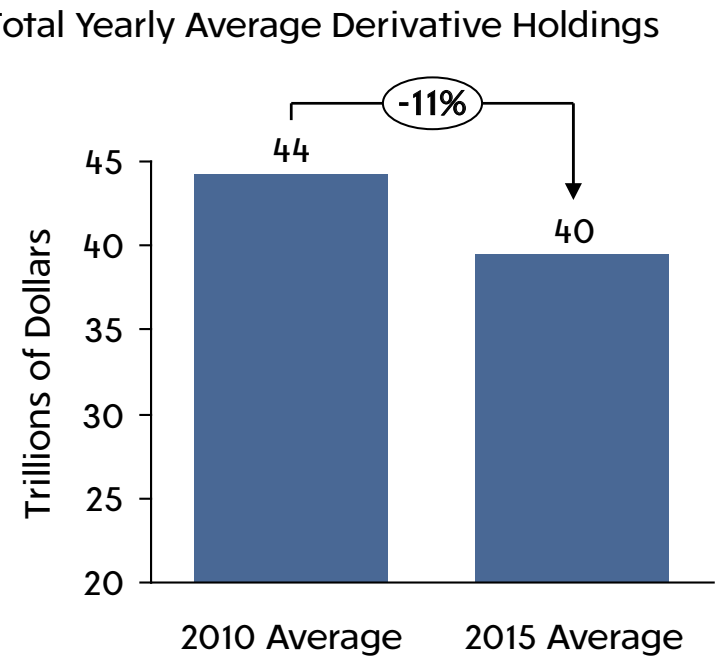
It's also worth noting that the Federal Reserve's recent stress test projects the 31 largest U.S. banks' trading losses would actually be 70 percent lower than loan losses from Q4 2014 through

Fig. 4: Large Banks Are Holding 12% Less Trading Account Assets As A Share Of Total Assets



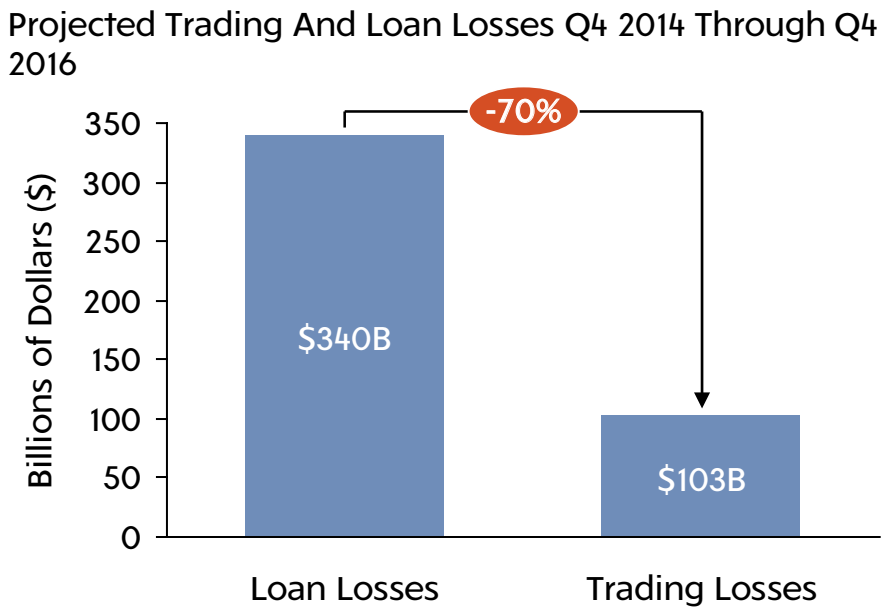
Source: Bloomberg, HPS Calculations

Fig. 5: Large Banks Are Holding 11% Less Derivatives



Source: Bloomberg, HPS Calculations

Fig. 6: Trading Losses Projected To Be 70 Percent Lower Than Loan Losses In A Severely Adverse Scenario



Source: Federal Reserve

Q4 2016 in a hypothetical severely adverse scenario. That's to say, banks' loan portfolios pose significantly more risk to financial stability than any trading activities.

By decreasing their focus on trading while shifting the type and risk of assets they remain engaged in, banks have been able to reduce trading losses significantly.

Liquidity Up

Preventing failure during a crisis in part means being able to meet debt obligations. That means having enough cash on hand, and when you don't have cash, having other assets to convert to cash quickly. That's basically liquidity in a nutshell.

The amount of liquid assets — cash plus marketable securities — held by banks has grown enormously. Since 2008, the big six have increased their liquid assets from $480 billion in Q2 2008 to $1.38 trillion in Q2 2015, a threefold increase.

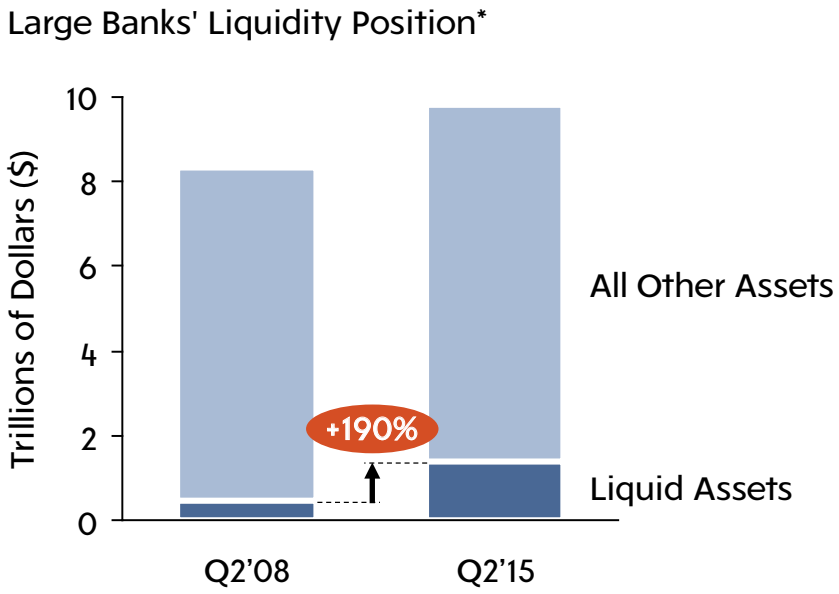
Loan Losses Fall

Even lending, which typically though likely incorrectly, perceived as the safest of all banking activities, has become safer. Nonperforming loans as a percentage of total loans is down 39 percent since the enactment of Dodd-Frank.

This is in part due to higher lending standards, but also natural economic recovery. Yet, commentators trying to spot the next loan bubble have pointed not at large banks, but rather at others' activity in the leveraged loan, mortgage, and subprime auto markets.

Bank regulators feared large

Fig. 7: The Largest Banks Have Tripled Their Liquidity Position In Response To The Challenges Of '08

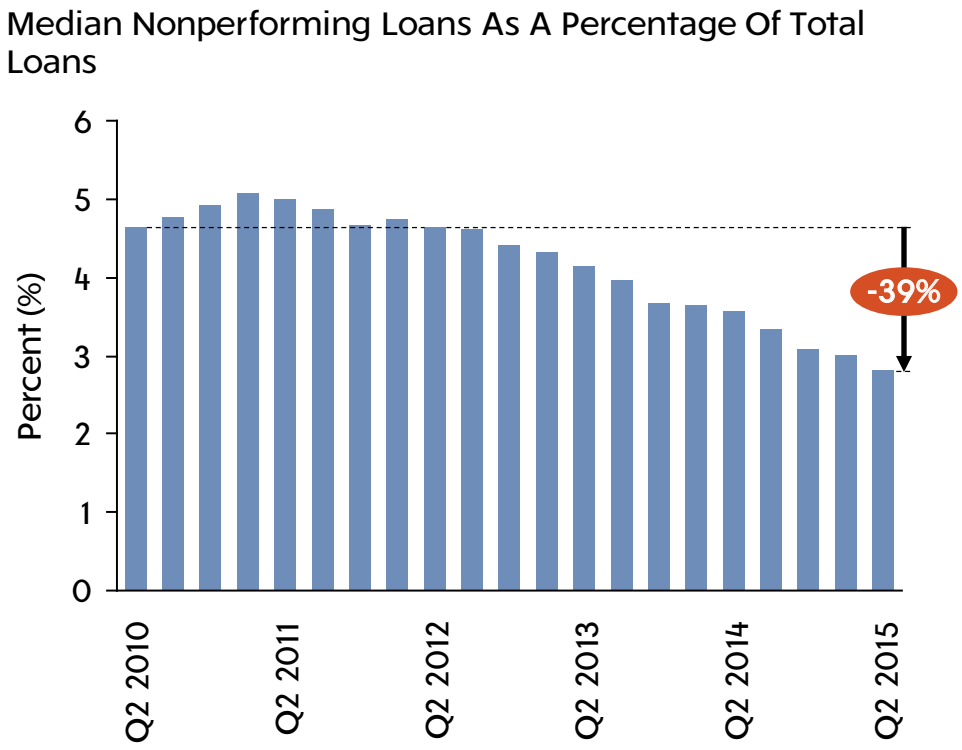


*Liquid assets equals cash plus marketable securities

Source: Bloomberg

banks were overly invested in leveraged loans; however, while banks have reduced market share to an all-time low, non-banks have filled the void. The Office of Financial Research (OFR) found that the primary market for leveraged loans was dominated by non-banks with market share well over 75 percent. The OFR concluded, "Non-bank lenders have increased their credit exposure significantly since the financial crisis and engaged in riskier deals than banks because of low interest rates…In an example of risk migration, as banks stepped away, asset managers and pension funds stepped in. One result of this movement is a decline in the ability of regulators to address reaching for yield and herding behavior."[6]

Fig. 8: The Largest Banks' Nonperforming Loan Ratio Is Down 39% Since Dodd-Frank



Source: Bloomberg, HPS Calculations

Large banks are also backing away from the mortgage market. A Harvard Kennedy School analysis from April found that non-banks accounted for more than half of GSE-backed mortgages – almost double their share from two years ago.

…non-banks accounted for more than half of GSE-backed mortgages – almost double their share from two years ago.

Quicken Loans' chief economist Bob Walters likened the situation for U.S. banks to "picking up nickels in front of a bulldozer." The consequences, he says, are "first-time homebuyers, minorities, [and] low-income households, they're the folks getting squeezed out."[7]

Lastly, The New York Times analyzed the growing subprime auto loan market. While the market has grown, the New York Federal Reserve cautioned that it is still below peak levels. However, when they "looked under the hood," it was not banks driving these loans, but auto finance companies. In fact, the largest segment for auto loan growth for banks was prime borrowers. Banks' share of subprime auto loans is only one-third that of auto companies.

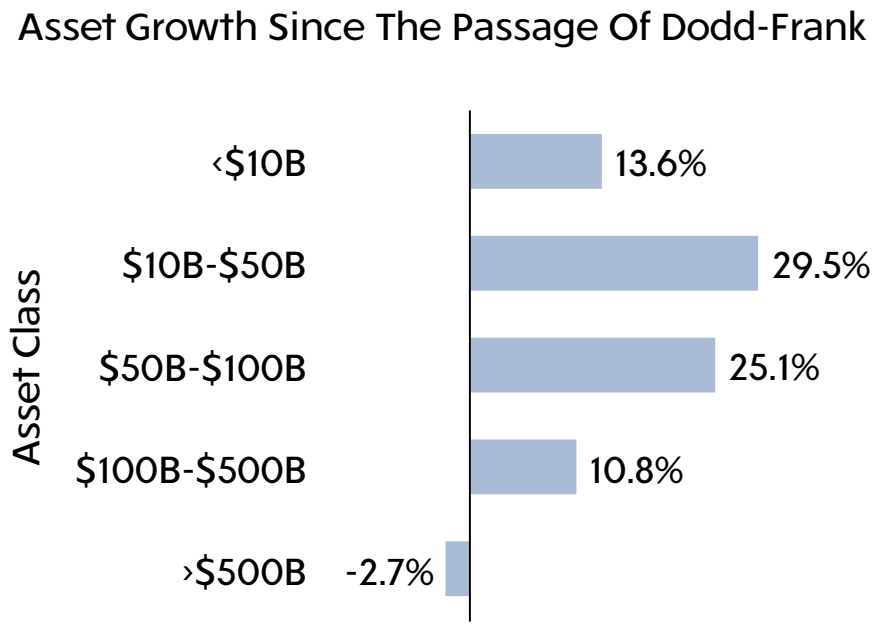
The New York Fed concluded, "This resurgence in subprime loans is stronger among auto finance loans, where subprime lending is — and always has been — more prevalent than bank loans.[8]

Overall, large banks' assets have become more liquid, better performing, and less connected to areas commentators have argued are becoming risky.

Risk Governance

The improvement in risk governance practices has

Fig. 9: BHC Asset Growth Since Dodd-Frank Shows Large Banks Are Getting Smaller While The Industry Grows



Source: Bloomberg, HPS Calculations

also been an integral component of creating a more boring banking system. A Moody's report has recently concluded that "the largest global banks have made significant improvements to their risk governance practices since 2009."[9] According to Former Senator Chris Dodd, banks' increased focus on risk is way ahead of what Dodd-Frank requires, and reflects "how much the culture is changing within financial systems."[10]

Asset-Side Conclusion

Critics of large banks are not just concerned with the quality of assets on banks' balance sheets, but also the quantity. Sen. Elizabeth Warren told Treasury Secretary Jack Lew that the largest banks are "getting bigger by the day," and that they have grown "substantially" since the crisis.[11]

Looking at bank holding company (BHC) data, collectively, the largest BHCs median asset size has actually shrunk by 2.7% since Dodd-Frank (the proper time period given crisis era mergers, which were designed to improve stability).

Meanwhile, regional banks and community banks asset growth has topped 20 percent. So while our economy, the S&P 500, the banking sector, and other competitors have grown, large banks are trending the opposite direction.

Individually, the story gets even more complicated for critics. Goldman Sachs, Morgan Stanley, and Citi are all smaller than they were in 2007; and not just by a little bit. Goldman Sachs is 21 percent smaller compared to what it was in 2007. Morgan Stanley is 20 percent smaller, and Citi is 17 percent smaller.

"The banks keep getting bigger" is one talking point bank critics continue to employ despite the facts.

Is Boring Always Better?

Undoubtedly, regulatory reform has made our financial system far safer and resilient. However, rules almost always come with trade-offs, and on the margins, there is a risk that in some instances the costs outweigh the benefits.

The worry for policy going forward is that politicians continue to fight the last war, ignoring or discounting emerging risks that may reflect poorly designed regulation or unintended consequences — not impossible given the thousands of pages of rules that came with Dodd-Frank. And the fact is we are seeing new risks emerge.

The worry for policy going forward is that politicians continue to fight the last war, ignoring or discounting emerging risks...

This next section details three emerging risks that merit study from policymakers.

The Risk Incentive

A number of new banking rules have not been finalized and even more are still yet to be fully phased in, meaning the true costs or benefits to financial stability may not be realized for years to come. These time periods are not just important for banks in their transition to a new regulatory framework, but they also provide a period for regulators, academics, and experts to more fully evaluate their viability.

The supplementary leverage ratio (SLR) doesn't come into full force until 2018, but has already drawn criticism for incentivizing excessive risk taking. Instead of risk-weighted assets, the rule would enforce a five percent capital requirement based on total assets, essentially setting the same capital floor on every asset regardless of its risk. Federal Financial Analytics predicts, "banks [will] face capital incentives to take greater credit and trading risk in hopes of meeting market demand for sufficient return to investors."[12]

The liquidity coverage ratio (LCR) too, which requires large banks to carry sufficient liquid assets to cover 30 days of cash outflows, is predicted to bring economic risks. Banks will be shifting their asset mix toward highly liquid securities, like Treasuries, which in turn leaves less room on the balance sheet for other activities, namely lending. The problem will be particularly exacerbated by the yield problem - low yields in liquid asset portfolios will incentivize banks to chase higher yields through riskier activities to balance the effect. As result, the economy takes a blow to a core economic engine — the extension of credit.

Banks will be shifting their asset mix toward highly liquid securities... which in turn leaves less room on the balance sheet for other activities

Liquidity Deterioration

One of banks' most important contributions to the financial system is liquidity, ensuring buyers and sellers can transact efficiently under almost any market condition. Former Treasury Secretary Hank Paulson stated recently, "That's a very, very important role that the banks — the big banks need to provide."[13]

But there is a growing body of evidence that new capital, liquidity, and proprietary trading rules are, in part, obstructing banks' ability to make markets, raising serious financial stability concerns.

Top policymakers are beginning to acknowledge this threat. Financial Stability Board Chair Mark Carney warned in a June speech, "The possibility of sharp, unpredictable changes in market liquidity poses a clear risk to financial stability."[14]

The notion that many types of trading activities are vital to a healthy financial system will undoubtedly be a tough pill for many in Washington to swallow, but it doesn't change the economic reality. Policymakers will need to pay close attention to liquidity indicators to ensure regulation doesn't contribute to another crisis.

"An array of both liabilities and assets which regulated banks once held sway are increasingly transferring to non-banking institutions..."

Other Emerging Risks

Banks are just one of many types of financial services companies in the U.S. Mortgage lenders, private equity firms, hedge funds, specialty lenders, and asset managers

all contribute to the financial system and play a role in allocating capital.

However, they don't all operate under the same regulatory framework. Banks in particular face the most rigorous and comprehensive set of rules and requirements. And rightfully so — they give regulators an important view into one of the largest segments of the financial system.

But the increasingly narrow focus on depository institutions is beginning to have a paradoxical effect. Higher capital requirements and stricter lending standards are pushing banks out of once-traditional activities, including some lending segments. The result, we see, is the rise of new players in various markets.

OFR's 2014 annual report cautioned, "If the regulatory playing field is not level across the financial system, the shift of certain activities to more lightly regulated sectors could increase risk-taking and reduce transparency in market practices."[15]

This is already playing out in the financial system. In addition to the leveraged loan, auto, and GSE-backed mortgage trends discussed earlier, a report on the post-crisis framework from Federal Financial Analytics found, "An array of both liabilities and assets in which regulated banks once held sway are increasingly transferring to non-banking institutions [. . .]"[16]

...it is always important to remain cognizant of the ultimate goal: a safer financial system for the American people, and in pursuing this goal, safer is not always better.

Dodd-Frank Is Here To Stay

Let's be clear: this does not mean gut Dodd-Frank. The core of Dodd-Frank — higher and better quality capital, improved liquidity, resolution, stress tests, living wills, and so on — is here to stay.

Mark Carney warned in a June speech, "the possibility of sharp, unpredictable changes in market liquidity poses a clear risk to financial stability."

Many of these reforms have been overwhelmingly beneficial to the financial system. Undue risks are a problem, but so is no risk, which would lead to lower economic growth. In the end, it always important to remain cognizant of the ultimate goal: a safer financial system that support sustainable growth, and in pursuing this goal, boring is not always better. []

Notes:

All data not specifically cited in the text of the paper is from Bloomberg and based on HPS calculations.

[1]Tarullo, Daniel. "Industry Structure and Systemic Risk Regulation." Washington, D.C. 12/4

[2]McGrane, Victoria. "Bank Trade Groups Critical Of New Proposal On Loss Absorbing Capacity." *Wall Street Journal*. 2/15

[3] Lawler, Joe. "Deposit Insurance Official: Biggest Banks Are Worst Positioned For Crises." *Washington Examiner*. 3/15

[4] Popper, Nathaniel and Peter Eavis. "New Rules Spur A Humbling Overhaul Of Wall Street Banks." *New York Times*. 2/15

[6]"OCC's Quarterly Report On Bank Trading And Derivatives Activities." OCC. 2015

[7]"2014 Annual Report." OFR. 2014

[8]Haughwout, Andrew and Donghoon Lee, Joelle W. Scally, and Wilbert van der Klaaw. "Just Released: Looking under the Hood of the Subprime Auto Lending Market." New York Federal Reserve. 8/14

[9]"Global Banks' Risk Governance Improved' New Processes Remain Untested." Moody's. 8/15

[10]"Former Senator Chris Dodd, Better Markets, Washington D.C., 7/15

[11]"Chapman, Kim. :"Sen. Warren To Lew: Biggest Banks 'Getting Bigger By The Day.'" *Bloomberg*. 7/14

[12]"What Hath All The Rules Wrought?" Federal Financial Analytics. 4/29

[13]Hank Paulson, "Hank Paulson: Other Economies Have Bigger Problems," *Fox Business Opening Bell*, 4/15

[14]Mark Carney, "The Age Of Irresponsibility Is Over," *The Telegraph*, 6/15

[15]"2014 Annual Report." OFR. 2014

[16]"What Hath All The Rules Wrought?" Federal Financial Analytics. 4/29