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Examining the Designation and Regulation of Bank Holding Company SIFIs

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Chairman Neugebauer, Ranking Member Clay, and distinguished members of the Subcommittee, thank you for convening today's hearing and for inviting me to testify.

I am a resident scholar at the American Enterprise Institute, but this testimony represents my personal views. My research is focused on banking, regulation, and financial stability. I have included my full resume as an appendix to my testimony, but to summarize my background, I have extensive experience working on banking and financial market policies at the Federal Reserve Board (FRB), the International Monetary Fund, the Federal Deposit Insurance Corporation (FDIC), and the Bank for International Settlements. It is an honor for me to be able to testify before the subcommittee today.

I will begin by summarizing the main points of my testimony:

- The Dodd-Frank Act (DFA) has imposed massive regulatory compliance costs on many bank holding companies (BHCs) and yet failed to achieve its stated goals of ending too-big-to-fail (TBTF) and removing the threat of a systemic financial system disruption in the next financial crisis.
- The $50 billion consolidated asset threshold for automatic designation of BHCs as systemically important financial institutions (SIFI) is completely arbitrary and unrealistically low. It imposes unnecessarily intrusive regulation on a large number of BHCs that pose no threat to U.S. financial stability.
- The DFA criterion for identifying BHC and non-bank SIFIs are not aligned with international recognized 'best practices' for resolving a distressed SIFI or the FDIC's goals for its 'single point of entry' strategy for DFA orderly resolution.
- My testimony proposes replacing the $50 billion threshold with a requirement that the FSOC identify BHC subsidiaries that provide systemically important financial sector services that must be maintained to prevent financial market disruption should their parent BHC become financially distressed.
- Along with the new approach for designating systemically important BHC subsidiaries, I propose new enhanced prudential regulatory standards for systemically important operating subsidiaries to ensure that they can remain open, solvent and fully operational should their parent BHC seek bankruptcy reorganization. This approach removes the need for Title II Orderly Liquidation Authority and enhanced prudential standards on parent BHC holding companies.
- My proposal to re-orient the SIFI designation process and replace enhanced prudential standards on parent BHCs with enhanced prudential standards for critical operating subsidiaries is fully

consistent with the goal of ending TBTF without taxpayer bailouts, of removing implicit government subsidies that accrue to TBTF institutions, and achieving orderly resolution using judicial bankruptcy without the need for a government directed resolution process. The recommendations are fully compliant with international best practice recommendations for global SIFI resolution regimes and the Financial Stability Board's proposed requirements for minimum loss absorbing capacity.

- The new approach for BHC designation will replace costly and speculative regulatory analysis that has unproven financial stability benefits with stronger more objective capital regulations. The new approach would remove the need for Section 165 Board of Governors stress tests and redirect the goals of the annual orderly resolution planning process.

1. Dodd-Frank and the Too-Big-to-Fail Problem

One of the primary goals of the Dodd-Frank Act was to solve the TBTF problem. Many argue that the TBTF problem arises because SIFI financial institutions are so large and important that they are incapable of being reorganized in a judicial bankruptcy process without causing widespread financial market distress and disrupting economic growth. The financial crisis that reached a crescendo after the September 2008 Lehman Brothers bankruptcy is often cited as evidence that supports the TBTF hypothesis, but such "proof" ignores the possibility that the Lehman Brothers bankruptcy *was caused by* an advanced financial crisis already in progress—and the failure *was not the cause of* the financial crisis that peaked in the fall of 2008.[1]

The DFA assumes the TBTF hypothesis is true, and it creates a 4-layered approach to solve the problem: (1) it designates some BHCs *de facto* as SIFIs; (2) it specifies specific criterion and instructs a newly formed group of government regulators—the financial stability oversight council (FSOC)–to examine all non-BHC financial institutions and identify those that are SIFIs; (3) it specifies that the Federal Reserve Board (FRB) must impose new heighted prudential rules and undertake supervisory efforts to make sure that all SIFIs are highly unlikely to suffer financial distress; and, (4) should a SIFI become distressed, it creates a new resolution framework in which the FDIC acts as receiver and "liquidates" the SIFI outside of judicial bankruptcy in an administrative resolution process.

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[1] When Lehman Brothers failed without a government rescue in September 2008—the failure did not directly drag down any other significant financial firm, even though Lehman was one of the largest nonbank financial institutions in the US. The chaos following Lehman's bankruptcy reflected the government reversal on its policy of rescuing large financial firms (the Bear Stearns rescue in March 2008 and Fannie Mae and Freddie Mac rescue earlier in September). This reversal shattered investor expectations who responded by hoarding cash, shunning financial institution exposure, and draining liquidity from the financial system.

Figure 1 shows the size and identities of the 38 institutions that meet the DFA *de facto* definition of a BHC SIFI. While each institution has consolidated assets that exceed $50 billion, the largest BHC SIFI has more than $2.5 trillion in consolidated assets, or more than 50 times the assets of the smallest BHC that meets the DFA SIFI threshold.

The thirty-eight institutions in Figure 1 are not only very different in size, they have very different business specializations. Some specialize in specific services such as securities underwriting, full-service derivatives, global payments systems, and trust and custodial services while others focus primarily on deposit taking and commercial and consumer lending. These institutions are in no way homogenous, and it is silly to argue that the U.S. financial markets and the U.S. regulatory and judicial infrastructure would be incapable of digesting the failure of any of these 38 institutions.

2. Regulatory Views on the "Best Practice" for Resolution of a Distressed SIFI

Before discussing specific criteria that might be used to designate BHC SIFIs, it is instructive to first understand how the FDIC plans to approach the resolution of a BHC SIFI should it be called on to administer a DFA orderly resolution. The FDIC has issued a Federal Register Notice in which it has outlined a "Single Point of Entry" (or SPOE) strategy for conducting an orderly resolution.[2] The overriding goal of the SPOE is to keep the failing SIFI's operating subsidiaries open and operating with adequate capital and liquidity to keep them out of bankruptcy or administrative resolution processes, and to avoid the need for asset "fire sales. In a joint paper on SIFI resolution policy, the Bank of England concurs with the FDIC that the key to achieving the orderly resolution of a SIFI without disrupting financial markets is to recapitalize SIFI operating subsidiaries to keep them open, liquid, operating and out of competing insolvency proceedings.[3]

In a SPOE liquidation, the FDIC would be appointed receiver of the top holding company in a BHC corporate group. The FDIC then charters a bridge financial company (bridge) and transfers all holding company assets and secured liabilities to the bridge, including the company's equity position in all subsidiaries.[4] The bridge then functions as the new BHC and the FDIC appoints new management to operate the new BHC and its subsidiaries.

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[2] Federal Deposit Insurance Corporation SPOE NPR, (2013). *Federal Register***,** Vol. 78, No. 243, Wednesday, December 18, 2013, pp. 76614-76624.
[3] Federal Deposit Insurance Corporation and Bank of England (2012). "Resolving Globally Active, Systemically Important, Financial Institutions," December 10.
[4] FDIC SPOE NPR p. 76617.

The FDIC leaves the shareholders of the failed BHC parent and most of the failed parent BHC's unsecured liabilities in the receivership. These claims will be converted into receivership certificates, so the bridge will have little debt when it is first formed. Using the DFA Orderly Liquidation Fund if necessary,[5] the bridge institution will issue new debt instruments and downstream the proceeds to recapitalize and liquefy distressed subsidiaries [primarily banks] to keep them out of bankruptcy or receivership, to relieve them of the need to engage in "fire sales" of assets in order to meet investor redemption demands, and to provide them with the liquidity for continuing operations.

To help ensure that the parent BHC will have sufficient resources to recapitalize its critical operating subsidiaries in an OLA resolution, the FDIC and Federal Reserve will soon issue new regulations to require BHC SIFIs to meet minimum "total loss absorbing capacity" or TLAC requirements. TLAC includes instruments such as common and preferred equity and subordinated debt that qualify as Basel III regulatory capital as well as additional debt instruments that do not qualify as Basel III capital.

The U.S. regulators have not yet released a notice of proposed rulemaking that outlines U.S. TLAC regulation, but the Financial Stability Board (FSB), an international organization of central banks and bank regulators empowered by the G-20 leaders to reform the international financial system,[6] has released a consultative document titled that provides an outline for U.S. TLAC rules.[7] The FSB document proposes a new international standard that would require large systemically important banking institutions to issue a minimum amount of long-term unsecured debt at the parent level that can be used to recapitalize critical operations throughout the institution should the SIFI require resolution. Large global bank SIFIs will be required to maintain TLAC at the parent BHC—comprised of the institution's Basel III compliant capital and long-term unsecured subordinated debt—in a range between 16 and 25 percent of the institution's Basel III risk-weighted assets.[8]

The FSB TLAC proposal also suggests that regulations may require TLAC to be distributed throughout the BHC's subsidiaries so that critical subsidiaries themselves satisfy minimum TLAC requirements. In a holding company structure, the parent company would issue TLAC-qualified debt and on-lend the funds

[5] The bridge could borrow from Treasury using the Orderly Liquidation Fund (OLF) or it could use the OLF to guarantee bridge liabilities that will sold to the market.
[6] "Financial Stability Board Charter," Financial Stability Board (2009).
[7] Financial Stability Board (2014), "Adequacy of loss-absorbing capacity of global systemically important banks in resolution."
[8] Federal Reserve officials have suggested that future U.S. TLAC requirements will be stricter than the FSB proposal. See, for example, Joe Adler, "Ending Too Big to Fail at the Push of a Button," *American Banker*, October 30, 2014.

to critical subsidiaries. These "prepositioned" loans could then be converted into equity if a subsidiary requires recapitalization.[9]

To summarize, DFA Title II Orderly Resolution Authority was never intended to protect bank creditors, and yet the bank regulators are planning on using their OLA authorities to shield bank creditors from loss and to keep critical operating subsidiaries [primarily bank subsidiaries] of the largest banking institutions open and operating should the SIFI BHC suffer a crippling loss that threatens its solvency. The 'catch' to regulators' solution to the TBTF problem is that the government's ability to impose a SPOE resolution is far from a sure bet. Kupiec and Wallison (2015) discuss a number of legal issues that may prevent the FDIC from using SPOE to recapitalize critical BHC subsidiaries especially in cases where SPOE is needed to recapitalize a bank subsidiary.

If the SPOE solution is unavailable, then authorities will be faced with the same problem they faced in the last crisis. For example, unless the parent BHC is in danger of default, orderly liquidation authority is not authorized and regulators would be required to resolve the bank using authorities under the Federal Deposit Insurance Act.[10] Regulators will again confront the familiar problem they faced in the last crisis—that of finding a larger, healthier bank to purchase the troubled institution, perhaps aided by an FDIC loss-sharing arrangement. Without certain assurance that SPOE will be a legal option should a large bank subsidiary become insolvent, it is misleading to argue that the DFA has solved the TBTF problem in the U.S.

3. Systemic Risk is Caused by the Failure of Critical Operating Subsidiaries

The SIFI resolution strategy embraced by the FDIC, the Bank of England, and indeed the entire Financial Stability Board, treats the failure of the BHC parent as inconsequential and instead emphasizes the need to keep the 'critical' operating subsidiaries of the BHC open and operating in the SIFI resolution process to avoid causing systemic distress.

While none of the public documents from the FDIC, FSB or any other agency specify how they will identify a critical BHC operating subsidiary when faced with a SIFI resolution,[11] it is clear that the continued solvency of these operating subsidiaries is the key to supervisors' plan for maintaining financial stability; the solvency and continued operations of the BHC parent is inconsequential. Indeed the SPOE

[9] The TLAC proposal does not specify a specific mechanism for conversion of the subsidiary debt into equity.
[10] Including recent amendments to FDIA receivership powers.
[11] The Financial Stability Board has requested public comments on conceptual approach that might be useful for identifying 'critical' subsidiary operations in the context of SIFI insurers. See, "Recovery and Resolution Planning for Systemically Important Insurers: Guidance on Identification of Critical Functions and Critical Shared Services," Financial Stability Board, October 2014.

strategy envisions using government OLA powers to declare the SIFI BHC parent insolvent so that the FDIC can seize its resources and use them to recapitalize the SIFI's critical operating subsidiaries.

The international planning for SIFI BHC resolution has reached an advanced stage, and it has become clear that the international consensus is that the continued operation of SIFI BHC critical subsidiaries—primarily their large depository institutions–is the key for financial stability. If this is the ultimate strategy for maintaining financial stability, DFA rules focused on identifying consolidated groups as SIFIs using consolidated asset size, interconnections, concentration, etc., are poorly focused if not misguided. Instead, the appropriate focus should be on the identification of the critical subsidiaries of BHCs that must be recapitalized and kept open and operating in a SIFI resolution to prevent wider damage to the financial system and the economy.

In the next section, I argue that DFA must be amended to drop the arbitrary $50 billion threshold for BHC SIFI designation and replaced with a requirement that the FSOC identify the critical BHC subsidiaries that must be recapitalized in a SIFI resolution. Following identification, the FSOC should be required to impose heighted prudential standards on these critical subsidiaries. Heighted prudential standards on operating subsidiaries should be designed to ensure [as nearly as possible] that these subsidiaries remain open and operating throughout a SIFI bankruptcy reorganization. These new heighted prudential standards would replace the current DFA approach of imposing heighted prudential standards on consolidated BHCs.

4. Identifying Critically Important BHC subsidiaries

The largest U.S. BHCs are comprised of thousands of subsidiaries, yet few of these subsidiaries are truly systemically important. Rather than designating all BHCs larger than $50 billion in consolidated assets and requiring the FSOC to designate non-bank financial holding companies groups as SIFIs, the DFA should be amended to require the FSOC to identify the critical financial subsidiaries that must remain open and operating to prevent a financial market crisis in the event that a parent SIFI suffer losses that mandate its reorganization in judicial bankruptcy.

When it comes to systemic importance, a BHCs' bank subsidiaries are perhaps the first subsidiaries that should be assessed, but some BHCs are likely to have non-bank subsidiaries that might also qualify as critical subsidiaries that need to be kept open and operating to prevent wider financial instability. It is highly unlikely that all thirty-eight BHCs identified as SIFIs by the DFA $50 billion threshold will have

systemically important bank subsidiaries, but some may have non-bank subsidiaries that provide critical services.

The systemic importance of a BHC subsidiary can be judged by its relative importance in providing specific types of credit or specific financial services to the financial sector and the wider economy. Detailed regulatory reports and private industry data vendors already compile extensive databases that could be used for making assessments and any missing or incomplete information could be compiled and made available by the Office of Financial Research.[12]

An example of the data analysis that might be used in assessing the systemic importance of BHC bank subsidiaries appears in Figures 2 through 5. Figure 2 ranks all U.S. BHC bank subsidiaries by asset size; Figure 3 ranks these banks by total deposits; Figure 4 ranks the banks by the size of their trading account assets; and Figure 5 ranks them by their total income earned from providing fiduciary services.

I am not suggesting that Figures 2 through 5 represent the only relevant metrics that should be considered when evaluating bank subsidiaries, but even this simple example using a limited set of data on subsidiary bank activities suggests a clear pattern. JPMorgan Chase Bank, Bank of America, Wells Fargo Bank, and Citibank are almost certainly critically important BHC bank subsidiaries as they are among the most important institutions in each of the dimensions considered and the very largest banks in all but one dimension. Bank of New York Mellon and State Street Bank are also probably critically important bank subsidiaries given their dominant position in providing fiduciary services. A number of other bank subsidiaries might be considered to be systemically important after careful consideration of other dimensions of bank subsidiary activities. My objective is not to provide an exhaustive designation of systemically important bank subsidiaries in this testimony, but to provide a streamlined example of the methodology I am proposing.

Other non-bank BHC subsidiaries can be evaluated by the FSOC and designated for heighted prudential standards for supervision and regulation using data provided by functional regulators or from other data sources. For example, Figures 6 and 7 use CFTC data that can be used to assess the critical importance of Futures Commission Merchant operations. Other data such as these could be assembled and analyzed to judge the systemic importance of individual FCM operations using additional dimensions the FSOC and CFTC deem to be important. The FSOC would then designate specific FCMs that require heighted

[12] For example, banks provide extensive data in their quarterly "Reports on Condition and Income" which are compiled in the FDIC's "Statistics on Depository Institutions," https://www2.fdic.gov/sdi/index.asp; BHC report FCM to the CFTC http://www.cftc.gov/MarketReports/FinancialDataforFCMs/index.htm; private firms already track and sell data on BHC subsidiary securities underwriting activities and subsidiary mortgage servicing activities.

prudential standards and set these standards to ensure that these FCMs could remain open and operating should their parent BHC file for reorganization under bankruptcy.

Figure 8 illustrates data that might be used to designate subsidiaries that service mortgage loan portfolios and mortgage-backed securities. The data in Figure 8 is compiled by a private data vendor and is only intended to represent the type of data that might be assembled by the OFR to assist the FSOC designation process. The FSOC could assemble and analyze similar types of data for other operating activities performed by BHC subsidiaries and designate those subsidiaries that must be kept open and operating in a parent BHC reorganization to prevent financial instability.

5. Heighted Prudential Standards for Designated BHC Subsidiaries

Changing the FSOC designation process to focus on the designation of the specific BHC subsidiaries that are critical for market function and therefore must remain open and operating in a SIFI resolution will align DFA designation powers with the "best practice" resolution process identified by a consensus of internal financial regulators.[13] After aligning the designation process, the FSOC must specify appropriate heighted prudential standards for supervision and regulation of these subsidiaries. These standards should be designed to ensure that the subsidiaries remain open and operating without taxpayer support should their parent BHC become financially distressed. This approach to heighted prudential supervision and regulation is very different from the approach adopted by the DFA where the SIFI BHC parent entity is required to meet most of the DFA enhanced prudential requirements and it is left to regulators to determine how the parent's resources can be directed to support failing subsidiary operations.[14]

Most subsidiaries that are likely to be designated as "critically important" by an FSOC analysis will already have a functional regulator. In most cases, the functional regulator will not be the Federal Reserve Board. The functional regulator of a designated BHC subsidiary is the appropriate regulatory authority for enforcing the heighted prudential standards recommended by the FSOC. Since bank regulation is my area of expertise, in the remainder of this section, I will discuss the enhanced prudential standards that should be applied to every BHC bank subsidiary that is designated to be systemically important by the FSOC.

If the DFA designation process is re-focused on the identification of critical BHC operating subsidiaries, the design of enhanced prudential standards is streamlined considerably, especially compared to the existing Dodd-Frank approach. Regarding critical BHC bank subsidiaries, the imposition of substantially

[13] Financial Stability Board (2014), "Key Attributes of Effective Resolution Regimes for Financial Institutions."
[14] The DFA does include some enhanced prudential standards for depository institutions larger than $10 billion in assets.

higher equity capital requirements with correspondingly high prompt corrective action triggers are the only regulations needed to ensure that bank subsidiaries remain well-capitalized with ample access to liquidity should their parent BHC file for bankruptcy reorganization.

Instead of imposing TLAC requirements on the parent BHC and its subsidiaries, BHC bank subsidiaries designated systemically important should be required to have regulatory Tier 1 common equity capital ratios equal to the international TLAC minimums. With critical bank subsidiary minimum regulatory capital ratios set somewhere between 20 and 25 percent,[15] prompt corrective action guidelines should also be altered to prohibit the bank from paying its parent holding company a dividend should the subsidiary bank's regulatory capital ratio below a set minimum requirement (for example, below 15 percent of risk-weighted assets). The minimum bank capital requirement should be large enough and sufficiently well-protected against parent BHC withdrawals so that, should the parent BHC enter bankruptcy, the bank subsidiary would remain well-capitalized so there would be no question of its solvency or its ability to access the Federal Reserve discount window should it require liquidity.

It is often argued that elevating the required minimum level of bank equity capital would be prohibitively expensive because the bank would be required to forgo debt interest tax shields if it were funded with a larger share of equity capital. However, BHC taxes are computed on a consolidated basis. If parent BHC regulatory capital requirements are far more relaxed compared to bank minimum regulatory capital requirements, the holding company can issue external debt to finance the new higher minimum equity capital requirement at its bank subsidiaries, and the BHC would not suffer any loss in its debt interest tax shield.

Greater leverage at the parent holding company is not a systemic risk concern because regulatory authorities have already determined that the parent BHC failure will not cause systemic risk provided the critical operating subsidiaries are well-capitalized, liquid, and remain open and operating during the reorganization process.

While this proposal for heightened bank regulatory capital requirements may sound radical, it is in fact identical— in financial engineering terms–to the FSB's TLAC proposal that requires minimum external

[15] Minimum regulatory capital ratios could be set as a percentage of risk-weighted assets (minimum ratio yet to be determined –e.g., 20 to 25 percent) or in terms of a minimum Basel III leverage ratio (e.g. 12 to 15 percent) or as a complex minimum requirements as envisioned in the FSB TLAC proposal.

TLAC at parent BHCs and minimum internal TLAC at critical operating subsidiaries.[16] My proposed rule differs from the FSB's TLAC proposal in that, in my approach, the bank is fully capitalized at all times, internal equity TLAC is required to retire insured deposits or purchase 0 risk-weight assets, and there is never a need to worry about complications associated with TLAC debt conversion at the bank subsidiary.[17]

The other heighted prudential standard that would be required under my designation proposal involves the DFA requirement for BHCs to file an orderly liquidation plan. Under current DFA rules, these submissions are required to discuss how a BHC could be reorganized in a judicial bankruptcy proceeding without creating turmoil in the financial markets. Under my proposal to re-focus FSOC designation on the identification of critical operating subsidiaries, annual orderly liquidation plans would be required to demonstrate that FSOC-designated subsidiaries would have access to all information systems, personnel, and services that these bank subsidiaries would require to remain open and fully operational during a prolonged BHC bankruptcy reorganization.

This approach to FSOC designation and heightened prudential standards would replace the current DFA language that designates all BHCs larger than $50 billion in consolidated assets and Section 165 FRB heighted prudential standards with a requirement for heighted prudential standards for critical BHC subsidiaries. Similar to proposed TLAC regulations, parent BHC leverage will be used to ensure that critical operating subsidiaries remain well-capitalized should the parent BHC become financially distressed. In contrast to the proposed FSB TLAC regulations, subsidiary TLAC should be the form of equity capital which would remove any complications and uncertainties surrounding TLAC debt conversion.

6. **Re-Orienting BHC SIFI Designation Removes Unnecessary Costly DFA Regulations**

Refocusing heightened prudential regulations on BHC's critical operating subsidiaries would eliminate the need for the Board of Governors annual stress tests. Section 165 requires the FRB to administer annual stress test to BHCs with consolidated assets in excess of $50 billion and designated non-bank

[16] My regulatory capital proposal is equivalent to a minimum TLAC requirement of the same percentage (20 to 25 percent) when the TLAC rules requires that subsidiaries also meet the minimum TLAC target using internal TLAC where the new subsidiary TLAC is used to replace insured deposits or to purchase Treasury securities. I provide a formal proof in my forthcoming AEI Working paper, "Will TLAC Regulations Fix the G-SIB Too-Big-to-Fail Problem?" (July 2015).

[17] In our AEI Working Paper "Can the "Single Point of Entry" strategy be used to recapitalize a systemically important failing bank?" Kupiec and Wallison (revised June 2015) discuss legal issues associated with parent BHC forgiving internal TLAC debt.

financial institutions and to publically report on the results. The FRB may use the stress test results to require designated institutions to modify their capital planning processes or alter their orderly resolution plans.

Section 165 FRB stress tests are perhaps the most problematic form of enhanced prudential supervision required by the Dodd-Frank Act. The value of these exercises for identifying and mitigating financial sector excesses is highly questionable, and yet the Federal Reserve System and designated BHCs spend an enormous amount of resources on this activity.

There is little if any evidence that coordinated macroeconomic stress tests will be effective in preventing a future financial crisis. Already, FRB stress tests have missed the "London Whale" at JPM Chase and, the following year, a multibillion dollar hole in Bank of America's balance sheet. Fannie Mae and Freddie Mac both passed severe government-designed macroeconomic stress test right before they failed in September 2008. Even before the financial crisis, many countries produced financial stability reports that included bank stress tests and none anticipated or prevented the crisis. Pan-European EBA stress tests failed to identify a number of institutions that subsequently (and almost immediately) required extensive government support. Stress tests have a pretty poor record of anticipating financial crisis or detecting "problem" institutions.

Stress tests face two gigantic measurement problems. First, the macroeconomic scenario must actually anticipate the next financial crisis. The FRB, and indeed most economic forecasters, rarely anticipate a recession before it arrives and so accurately forecasting the next financial crisis is nearly an impossible task. Secondly, regulators must be able to translate the macroeconomic crisis scenario into accurate predictions about actual bank profits and losses. Bank profits and losses are not highly correlated with changes in macroeconomic indicators. Quarter-to-quarter bank profits do not closely follow quarterly changes in GDP, inflation, unemployment, or any other macroeconomic indicator and so the best macroeconomic stress test models explain only a small part of the observed variation in bank profits and losses.

Because of these measurement issues, bank loss predictions from macroeconomic stress tests have very little objective accuracy. Even the best models produce poor predictions of how banks actually perform historically, and their predictions will be even worse in the next financial crisis.

Macroeconomic stress testing is more of an art than a science and there is no formula or procedure that will lead to a single set of stress test bank loss estimates that can be independently calculated by different stress test modelers. Thus, it is not surprising that the FRB and the U.S. banks rarely agree on stress test results.

The stress test injects the FRB into the modeling, operations and exposure evaluations of each large banking institution. It requires the FRB to use its own judgment to set each large bank holding company's 'stress-tested' capital plan. Stress test regulation has become so intrusive that in many respects, important BHC business decisions are being made by the FRB.

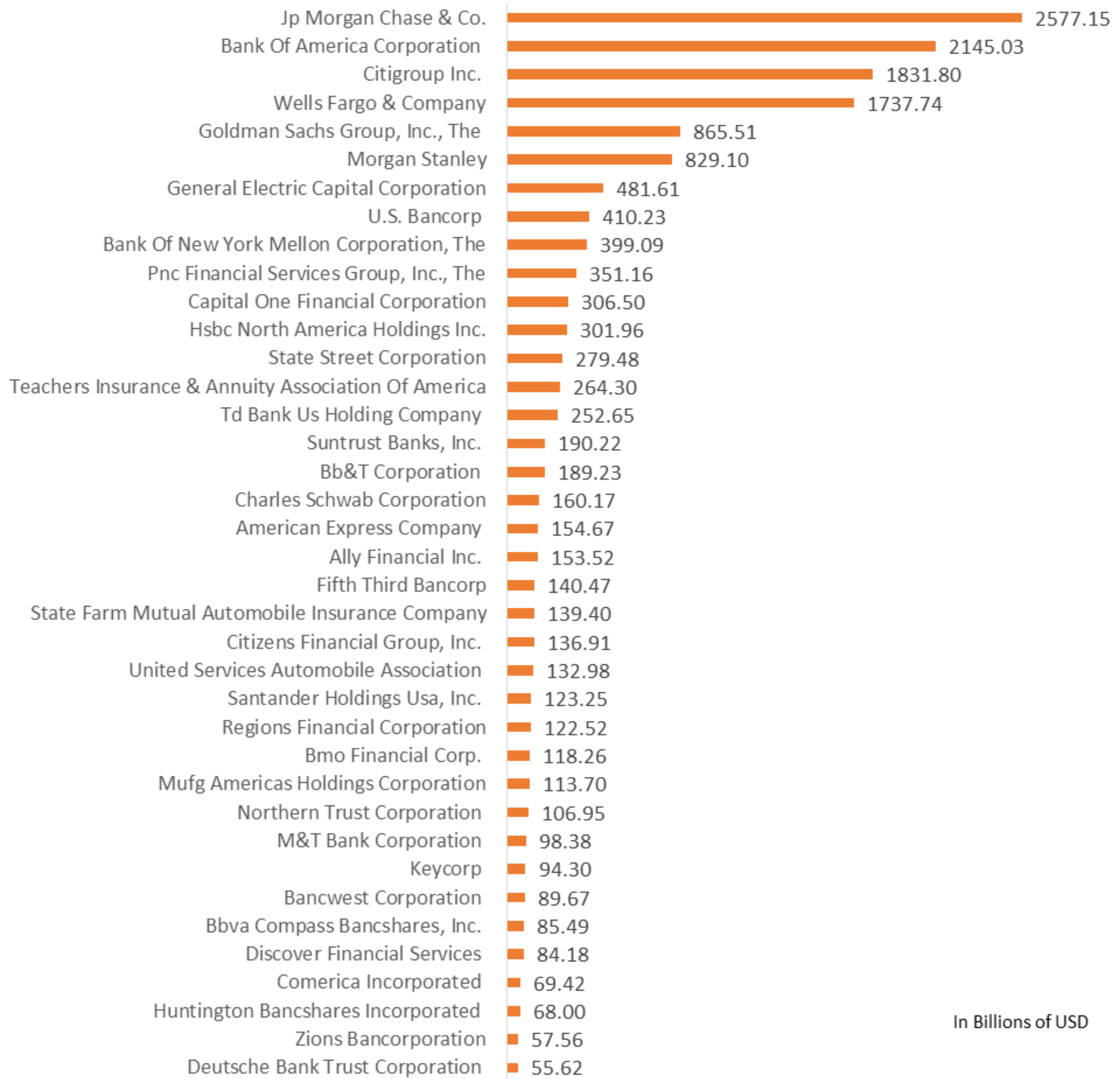
Many financial sector experts believe that coordinated supervisory stress tests encourage a "group think" approach to risk management that may increase the probability of a financial crisis. FRB stress test scenarios have to be specific so that banks and regulators can model the same event. Moreover, the FRB imposes uniformity in the stress test loss rates across all designated banks by using its own stress test estimates. The FRB acts much like a coach or a central planner and tries to ensure coherence in firms' estimates and capital plans. Unintentionally perhaps, by requiring all firms to approach the stress test problem in the same way, these tests encourage participating institutions to think and operate similarly. What happens when all the largest banks are steeled against the wrong crisis?

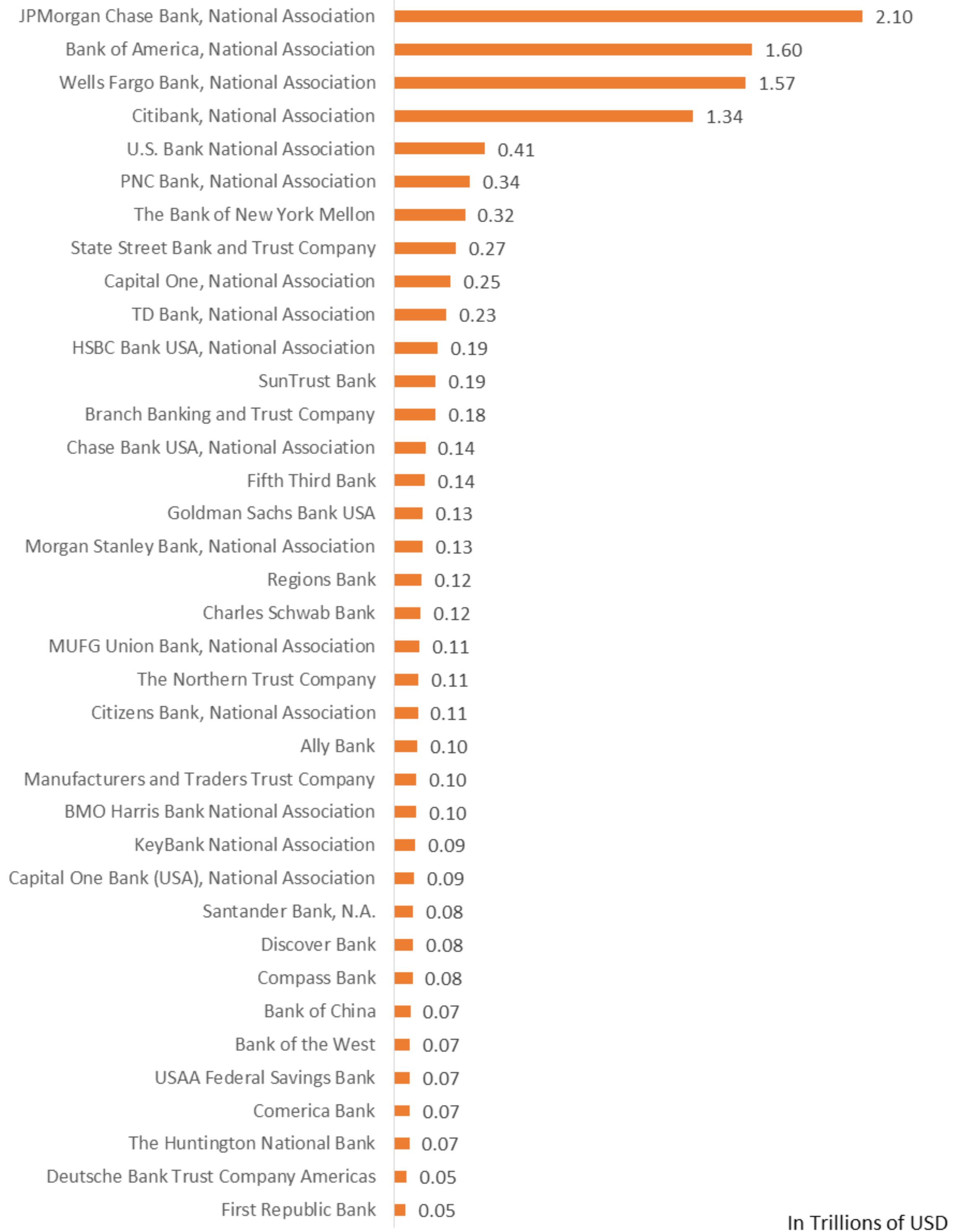
The final Section 165 issue I will discuss is related to the requirement that designated firms file annual orderly resolution plans. Section 165 directs the FRB and the FDIC to determine whether designated firms' orderly resolution plans are credible or whether they would fail to facilitate an orderly resolution of the company under title 11 of United States Code. However, Section 165 does not provide any specific guidance that constrains the agencies' judgment. There are no specific criteria specified that can be used to identify a credible plan; there are no objective standards that must be met. The credibility of a plan is entirely based on subjective judgments by the FRB and the FDIC.

In 2014, the House Financial Services Committee released a report that was highly critical of the DFA requirement for Orderly Resolution Plans. The report concluded that there is no basis for assuming that creditors would accept these plans as a pre-packaged bankruptcy, and no requirement that the firm must follow the Orderly Liquidation Plan it files with regulators. There is no judicial review or other avenue to challenge FDIC or FRB opinions as to the acceptability of these plans, and the DFA empowers the FDIC and FRB to require operational changes and even require divestitures if a designated firm does not remedy regulatory objections to an orderly resolution plan.

My proposal for refocusing FSOC designation on the identification of critical BHC operating subsidies would redirect the orderly resolution planning process to focus on ensuring that critical subsidiaries have the information systems, personnel and other services required to continue normal operations uninterrupted should their parent BHC file for bankruptcy protection. The goal of orderly liquidation planning would no longer be focused on judging a successful hypothetical bankruptcy reorganization of the consolidated SIFI, but on the much narrower and more specific goal of ensuring that critical BHC

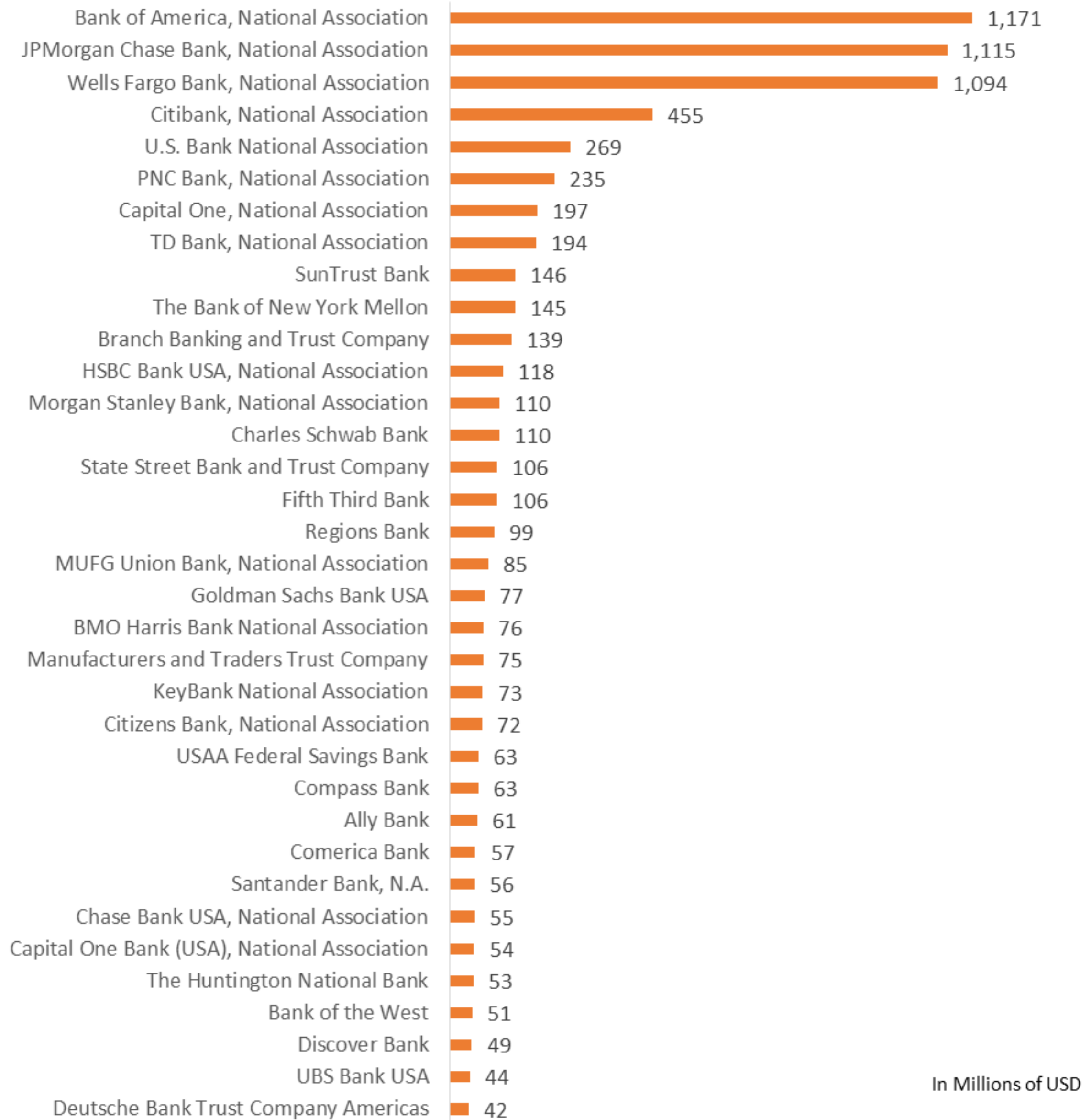
operating subsidiaries have access to resources provided by other SIFI subsidiaries and affiliates that are needed to continue their operations while the consolidated SIFI group is undergoing a bankruptcy reorganization.





*The sum of all assets owned by the institution including cash, loans, securities, bank premises and other assets. This total does not include off-balance-sheet accounts.

Source: FDIC (March 31, 2015)



*The sum of all domestic office deposits, including demand deposits, money market deposits, other savings deposits and time deposits.

Source: FDIC (March 31, 2015)

Figure 4: BHC Banks Subsidiaries by Trading Account Assets*

*Securities and other assets acquired with the intent to resell in order to profit from short-term price movements. Effective January 1, 1994, this item includes revaluation gains.

Source: FDIC (March 31, 2015)

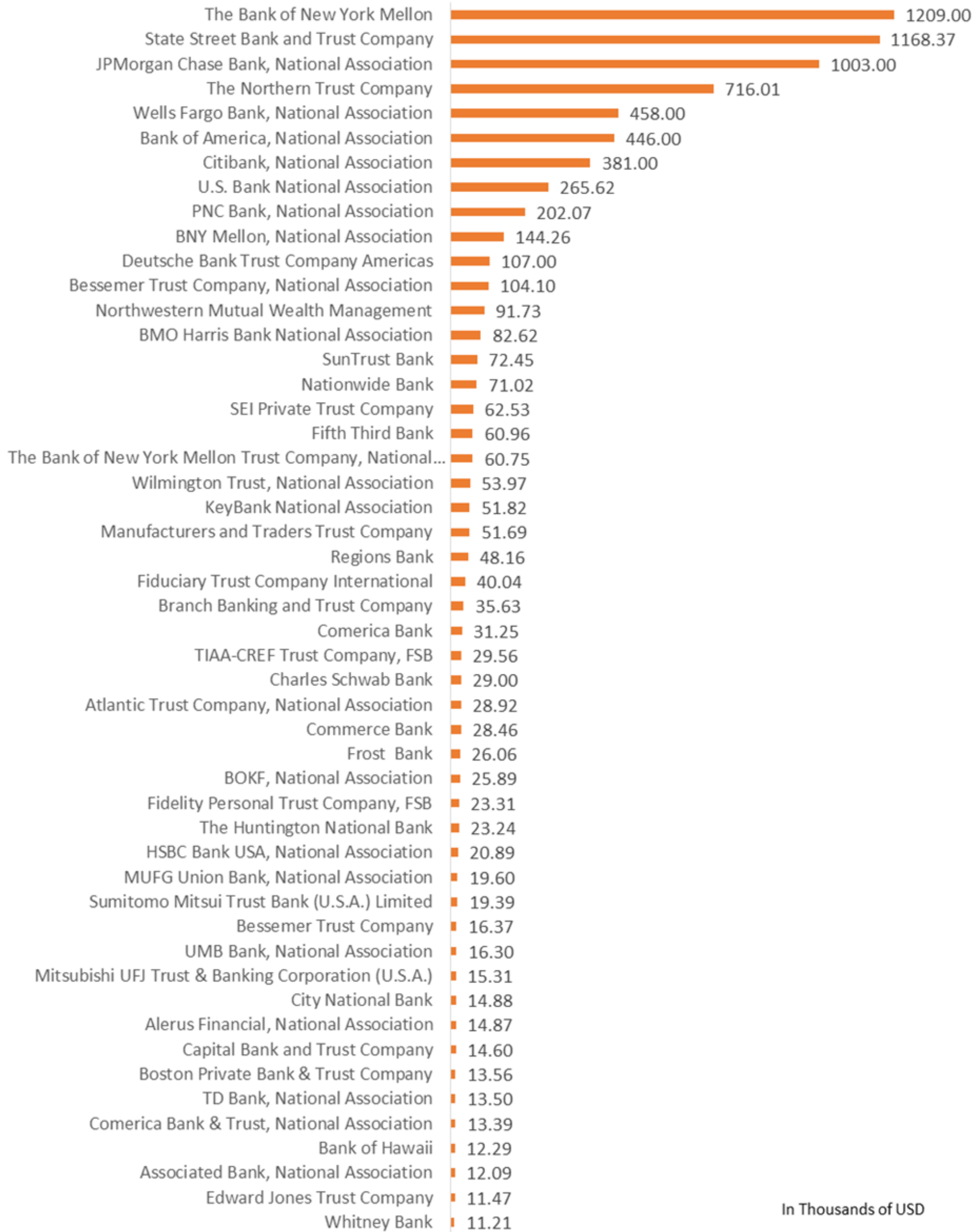
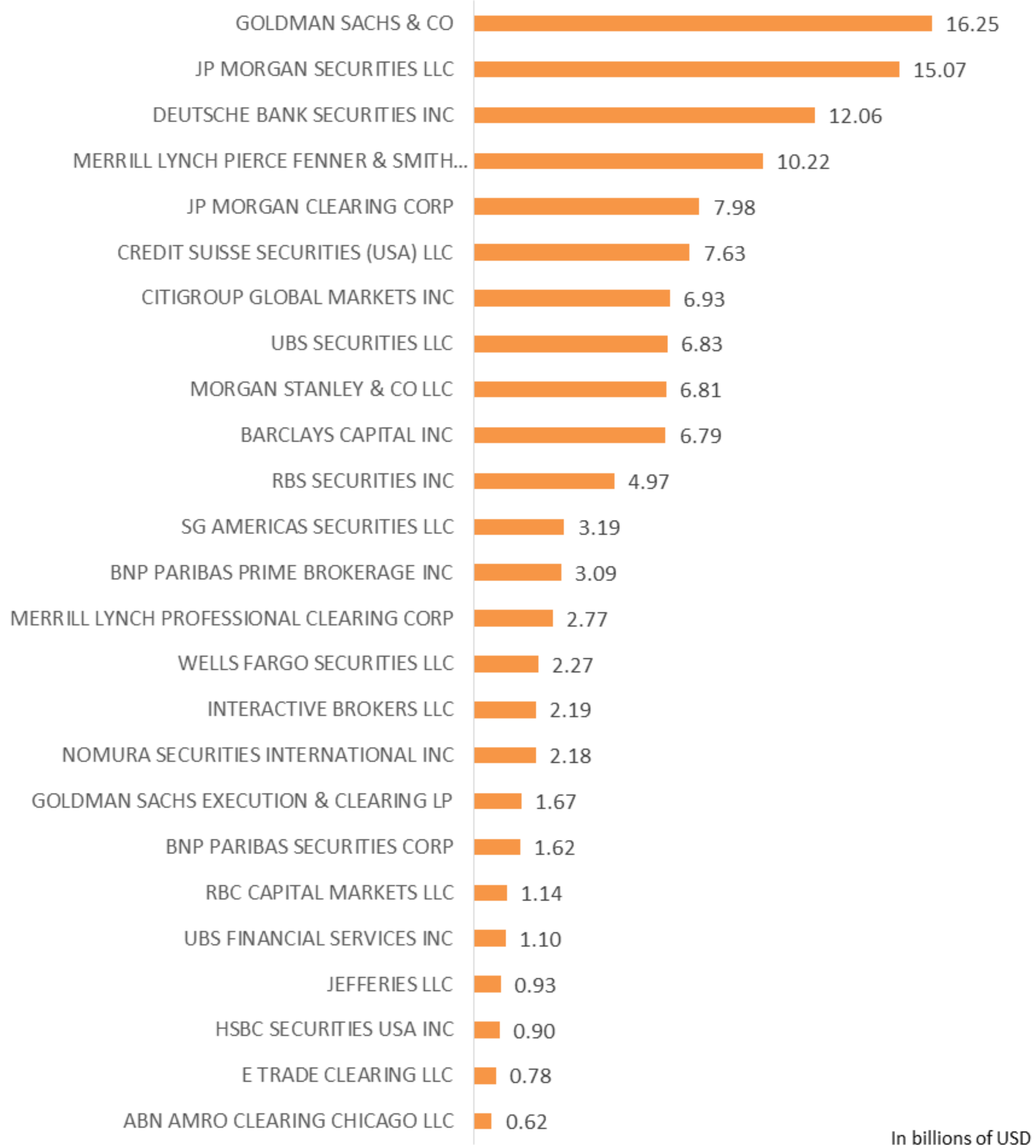


Figure 5: BHC Subidiary Banks Ranked by Gross Fiduciary Activities Income
The Bank of New York Mellon 1209.00
State Street Bank and Trust Company 1168.37
JPMorgan Chase Bank, National Association 1003.00
The Northern Trust Company 716.01
Wells Fargo Bank, National Association 458.00
Bank of America, National Association 446.00
Citibank, National Association 381.00
U.S. Bank National Association 265.62
PNC Bank, National Association 202.07
BNY Mellon, National Association 144.26
Deutsche Bank Trust Company Americas 107.00
Bessemer Trust Company, National Association 104.10
Northwestern Mutual Wealth Management 91.73
BMO Harris Bank National Association 82.62
SunTrust Bank 72.45
Nationwide Bank 71.02
SEI Private Trust Company 62.53
Fifth Third Bank 60.96
The Bank of New York Mellon Trust Company, National... 60.75
Wilmington Trust, National Association 53.97
KeyBank National Association 51.82
Manufacturers and Traders Trust Company 51.69
Regions Bank 48.16
Fiduciary Trust Company International 40.04
Branch Banking and Trust Company 35.63
Comerica Bank 31.25
TIAA-CREF Trust Company, FSB 29.56
Charles Schwab Bank 29.00
Atlantic Trust Company, National Association 28.92
Commerce Bank 28.46
Frost Bank 26.06
BOKF, National Association 25.89
Fidelity Personal Trust Company, FSB 23.31
The Huntington National Bank 23.24
HSBC Bank USA, National Association 20.89
MUFG Union Bank, National Association 19.60
Sumitomo Mitsui Trust Bank (U.S.A.) Limited 19.39
Bessemer Trust Company 16.37
UMB Bank, National Association 16.30
Mitsubishi UFJ Trust & Banking Corporation (U.S.A.) 15.31
City National Bank 14.88
Alerus Financial, National Association 14.87
Capital Bank and Trust Company 14.60
Boston Private Bank & Trust Company 13.56
TD Bank, National Association 13.50
Comerica Bank & Trust, National Association 13.39
Bank of Hawaii 12.29
Associated Bank, National Association 12.09
Edward Jones Trust Company 11.47
Whitney Bank 11.21
In Thousands of USD
*Income from servies rendered by the institutions's trust department or by any of its consolidated sibsidaries acting in any fiduciary capacity.
Source: FDIC SDI (March 31, 2015)



*The total amount of funds that an FCM is required to segregate on behalf of customers who are trading on a designated contract market or derivatives transaction execution facility. This is the sum of all accounts that contain a net liquidating equity.

Source: US Commodity Futures Trading Commission (April 2015)

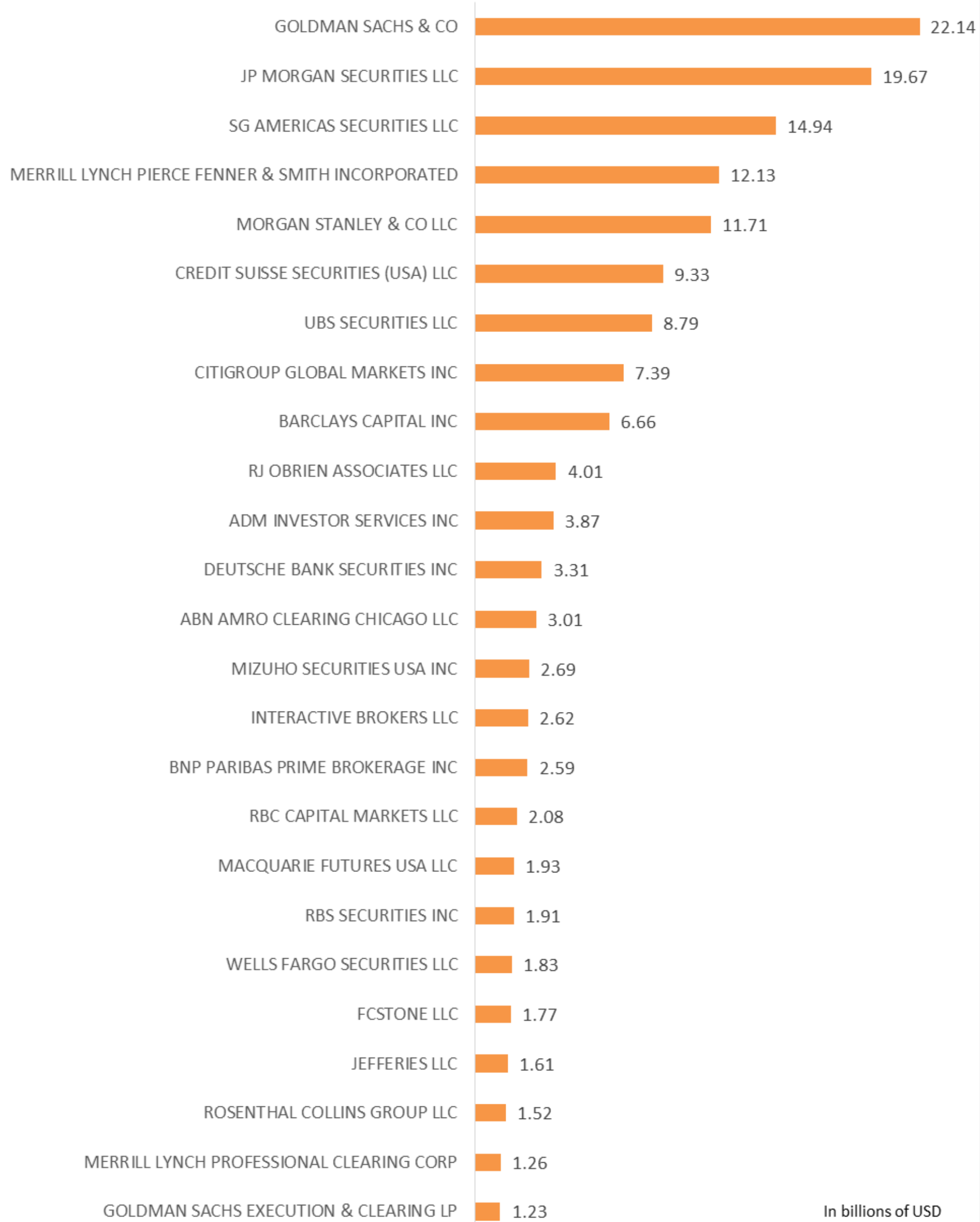


Figure 7: Future Commission Merchants Ranked by Customer Assets*
GOLDMAN SACHS & CO
22.14
JP MORGAN SECURITIES LLC
19.67
SG AMERICAS SECURITIES LLC
14.94
MERRILL LYNCH PIERCE FENNER & SMITH INCORPORATED
12.13
MORGAN STANLEY & CO LLC
11.71
CREDIT SUISSE SECURITIES (USA) LLC
9.33
UBS SECURITIES LLC
8.79
CITIGROUP GLOBAL MARKETS INC
7.39
BARCLAYS CAPITAL INC
6.66
RJ OBRIEN ASSOCIATES LLC
4.01
ADM INVESTOR SERVICES INC
3.87
DEUTSCHE BANK SECURITIES INC
3.31
ABN AMRO CLEARING CHICAGO LLC
3.01
MIZUHO SECURITIES USA INC
2.69
INTERACTIVE BROKERS LLC
2.62
BNP PARIBAS PRIME BROKERAGE INC
2.59
RBC CAPITAL MARKETS LLC
2.08
MACQUARIE FUTURES USA LLC
1.93
RBS SECURITIES INC
1.91
WELLS FARGO SECURITIES LLC
1.83
FCSTONE LLC
1.77
JEFFERIES LLC
1.61
ROSENTHAL COLLINS GROUP LLC
1.52
MERRILL LYNCH PROFESSIONAL CLEARING CORP
1.26
GOLDMAN SACHS EXECUTION & CLEARING LP
1.23
In billions of USD
*The total amount of money, securities, and property held in secured accounts for futures and options customers who trade on commodity exchanges located outside the United States in compliance with Part 30 of the Commodity Exchange Act.
Source: US Commodity Futures Trading Commission (April 2015)

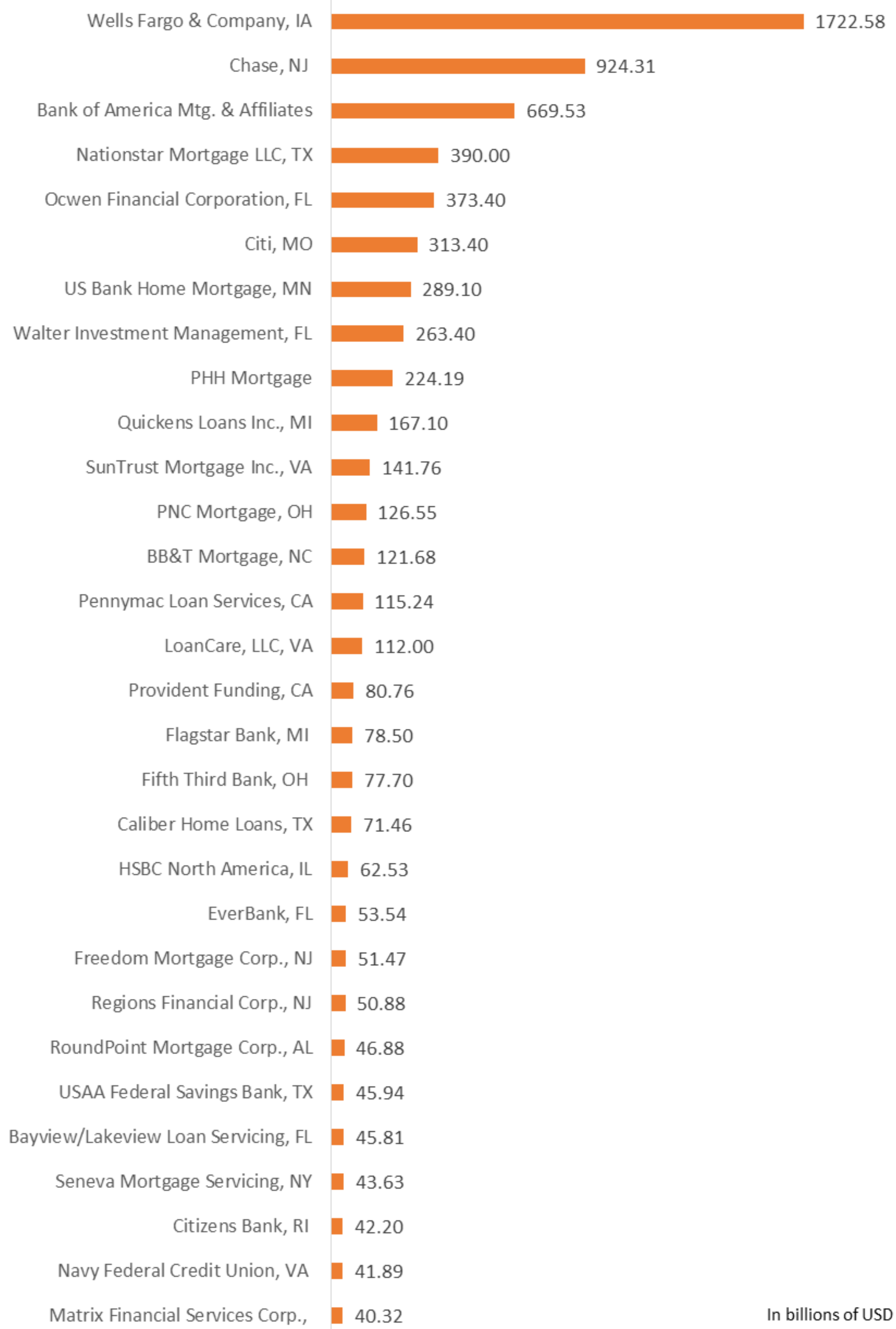


Figure 8: Top 30 Mortgage Servicing Operations
Wells Fargo & Company, IA
1722.58
Chase, NJ
924.31
Bank of America Mtg. & Affiliates
669.53
Nationstar Mortgage LLC, TX
390.00
Ocwen Financial Corporation, FL
373.40
Citi, MO
313.40
US Bank Home Mortgage, MN
289.10
Walter Investment Management, FL
263.40
PHH Mortgage
224.19
Quickens Loans Inc., MI
167.10
SunTrust Mortgage Inc., VA
141.76
PNC Mortgage, OH
126.55
BB&T Mortgage, NC
121.68
Pennymac Loan Services, CA
115.24
LoanCare, LLC, VA
112.00
Provident Funding, CA
80.76
Flagstar Bank, MI
78.50
Fifth Third Bank, OH
77.70
Caliber Home Loans, TX
71.46
HSBC North America, IL
62.53
EverBank, FL
53.54
Freedom Mortgage Corp., NJ
51.47
Regions Financial Corp., NJ
50.88
RoundPoint Mortgage Corp., AL
46.88
USAA Federal Savings Bank, TX
45.94
Bayview/Lakeview Loan Servicing, FL
45.81
Seneva Mortgage Servicing, NY
43.63
Citizens Bank, RI
42.20
Navy Federal Credit Union, VA
41.89
Matrix Financial Services Corp.,
40.32
In billions of USD
Source: Inside Mortgage Finaance June 19, 2015
Data from the first quarter of 2015.

Appendix: Paul Kupiec Resume

Current Position

2013- *Resident Scholar, American Enterprise Institute*

Prior Experience

2004-2013 *Director FDIC Center for Financial Research (CFR)* and, *Associate Director, Center for Financial Research Branch, Division of Insurance and Research, Federal Deposit Insurance Corporation*

2010-2013 *Chairman, Research Task Force Subcommittee of the Basle Committee on Bank Supervision*

2000–2004 *Deputy Division Chief, Banking Supervision and Regulation, Monetary and Financial Systems Department, International Monetary Fund*

1998-2000 *Director / Principal Economist, Financial Research, Freddie Mac, McLean, Virginia.*

1997-1998 *Vice President, The Risk Metrics Group, J. P. Morgan, New York, New York.*

1988 -1997 *Senior Economist, Division of Research and Statistics, Federal Reserve Board, Washington, D.C.*

1990-1991 *Official, Bank for International Settlements, Basle Switzerland*

1985-1988 *Assistant Professor of Finance, North Carolina State University, Raleigh, NC.*

Professional Service

Editor, *The Journal of Financial Services Research* (2007-2013)

Associate Editor**,** *The Journal of Financial Services Research* (2005-2007)

Associate Editor, *The Journal of Risk* (1998-present)

Editorial Board, *The Journal of Risk Management in Financial Institutions* (2007-present)

Associate Editor, *Journal of Investment Management* (2013-present)

Director, Southern Finance Association (2013-present)

Referee for many academic journals

Education

The University of Pennsylvania
Ph.D in Economics, 1985. Specialization in Finance, Theory and Econometrics

The George Washington University, Washington D.C., B.S. Economics, 1980.

Publications (Chronological)

"Initial Margin Requirements and Stock Returns Volatility: Another Look," *Journal of Financial Services Research*, Vol. 3, No. 2/3, pp. 189-202, 1989.

"A Survey of Exchange-Traded Basket Instruments," *Journal of Financial Services Research*, Vol. 4, No. 3, pp. 175-190, 1990.

"Animal Spirits, Margin Requirements and Stock Price Volatility," *Journal of Finance*, Vol. 46, No. 2, pp. 717-732, 1991, (joint with Steve Sharpe).

"Stock Market Volatility in OECD Countries: Recent Trends, Consequences for the Real Economy, and Proposals for Reform," *OECD Economic Studies*, No. 17, Autumn, pp. 31-62, 1991.

"A Primer on Program Trading and Stock Price Volatility: a Survey of the Issues and the Evidence," in *Research in Financial Services Private and Public Policy*, Vol. 4, (joint with Pat White and Greg Duffee).
—Reprinted in: *Finanzmarkt und Portfolio Management*, 1992.

"A Securities Transactions Tax: Beyond the Rhetoric," Research in Financial Services Private and Public Policy, Vol. 5, 1993. (joint with Pat White and Greg Duffee)

"Futures Margins and Stock Price Volatility: Is There Any Link*?", The Journal of Futures Markets*, Vol. 13, No. 6, 1993.

"Do Stock Prices Exhibit Excess Volatility, Frequently Deviate from Fundamental Values, and Generally Behave Inefficiently? "(Monograph) *Financial Markets, Institutions & Instruments*, 1993.

"Prudential Margin Policy in a Futures-Style Settlement System," *The Journal of Futures Markets*, Vol. 13, No. 8, 1993. (joint with George Fenn)

"The Performance of S&P500 Futures Product Margins Under the SPAN Margining System," *The Journal of Futures Markets*, Vol. 14, No. 7, 1994.

"A Securities Transaction Tax and the Efficiency of Capital Markets," *Contemporary Economic Policy*, Vol. 13, No. 1, 1995.

"Internal Affairs," *Risk*, May, 1995. (joint with Jim O'Brien)

"Model Alternative," *Risk*, June, 1995. (joint with Jim O'Brien)

"Techniques for Verifying the Accuracy of Risk Measurement Models," *The Journal of Derivatives*, Vol.3, No. 2, pp. 73-84, 1995.
—Reprinted in: *VAR: Understanding and Applying Value at Risk*, Risk Publications, 1997.
—Also reprinted in: *Risk Measurement and Systemic Risk*: Proceedings of a joint Central Bank Research Conference, Federal Reserve Board, 1996.

"Noise Traders, Excess Volatility, and a Securities Transactions Tax," *Journal of Financial Services Research*, Vol. 10, No. 2, pp. 115-129, 1996.

“Regulatory Competition and the Efficiency of Alternative Derivative Product Margining Systems, *The Journal of Futures Markets*, 1996. (joint with Pat White)

“Commitment is the Key,” *Risk*, September, 1996. (joint with Jim O’Brien).
“Pre-Commitment,” *The Financial Regulator*, Vol. 1, No. 3, pp. 41-46, 1996. (joint with Jim O’Brien).

“Recent Developments in Bank Capital Regulation of Market Risks,” in *Advances in Finance, Investment and Banking: Derivatives Regulation and Banking*, Barry Schachter editor, Amsterdam: North Holland, 1997. (joint with Jim O’Brien)

“Margin Requirements, Volatility, and Market Integrity: What have we learned since the Crash?” *Journal of Financial Services Research*, Vol. 13, No. 3, 1998.

“Deposit Insurance, Bank Incentives, and the Design of Regulatory Policy,” *The Federal Reserve Bank of New York Economic Policy Review*, Vol. 4, No. 3, 1998. (joint with Jim O’Brien).

“Stress Testing in a Value at Risk Framework,” *The Journal of Derivatives*, Vol. 6, No. 1, 1998.

“Risk Capital and VaR,” *The Journal of Derivatives*, Vol. 7, No. 2 (Winter), 1999, pp. 41-52.
—Reprinted in Risk Publications volume on “Model Risk”.

“On the Origin and Interpretation of OAS,” *Journal of Fixed Income*, Vol. 9, No. 3 (December), pp. 82-92, 1999.

“Stress Tests and Risk Capital,” *The Journal of Risk,* Vol. 2, No. 4, 2000, pp. 27-40.

“An alternative to Basle’s reform proposals,” *Risk*, March 2000, pp. 54-57.

“Estimating Credit Risk Capital: What’s the Use?” *The Journal of Risk Finance,* Vol. 2, No. 3, pp. 17-34, 2001.

“The devilish detail of Basel,” *Risk,* June 2001.

“Credit Risk Capital: More Than One Way to Guard a Guarantee,” in *Risk Management: The State of the Art,* Stephen Figlewski and Richard Levich, editors. Boston: Kluwer Academic Publishers, 2002.

“What Exactly Does Credit VaR Measure?,” *The Journal of Derivatives,* Vol. 9, No. 3, pp. 46-59, 2002.

“Does CP 3 get it right?, *Risk,* Vol. 16, No. 8, (August) 2003.

“Understanding the expected loss debate,” *Risk,* November 2003.

“Is the Basel Accord Incentive Compatible?” in *The New Basel Accord,* Benton Gup editor. SouthWestern/Thompson Publishing Co., 2004.

“Assessing Systemic Risk Exposure from Banks and GSEs Under Alternative Approaches to Capital Regulation,” (with David Nickerson), *The Journal of Real Estate Finance and Economics,* Vol. 28, No. 2&3, 2004.

"Estimating Economic Capital Allocation for Market and Credit Risks," *The Journal of Risk,* Vol. 6, No. 4, pp. 11-29, 2004.

"Internal Model-Based Capital Regulation and Bank Risk-Taking Incentives," *The Journal of Derivatives,* Summer 2004.

"Principles for the Supervision of State-Owned Financial Institutions" (with J. Fiechter), in, The Future of Financial Institutions. Washington DC: Brookings Institution Press, 2004.

"Insurers are not Banks: Assessing Liquidity, Efficiency and Solvency Risk Under Alternative Approaches to Capital Adequacy" (with Dave Nickerson), *The Geneva Papers on Risk and Insurance - Issues and Practice*, Palgrave Macmillan, vol. 30(3), pages 498-521, July 2005.

"Using a Mandatory Subordinated Debt Issuance Requirement to Set Regulatory Capital Requirements for Bank Credit Risks," in, *Capital Adequacy: Beyond Basel,* Hal Scott editor. Boston: Oxford University Press, 2005.

"Financial Stability and Basel II," *Annals of Finance*, Vol. 3, pp. 107-130, 2007.

"Capital Allocation for Portfolio Credit Risk," *The Journal of Financial Services Research,* Vol. 32, No. 1-2, p. 103-122, 2007.

"Estimating Recovery Discount Rates: A Methodological Note," *The Journal of Risk Management in Financial Institutions*," Vol. 1, No. 1, 2007.

"Basel II: A Case for Recalibration," in Handbook of Financial Intermediation and Banking, Anjan Thakor and Arnoud Boot, editors. New York: North Holland, 2008.

"A Generalized Single Common Factor Model of Portfolio Credit Risk," *The Journal of Derivatives,* Vol. 15, No. 3, pp. 25-40, 2008.

"Bank Failures and the Cost of Systemic Risk: Evidence from 1900-1930" (joint with Carlos Ramirez), *The Journal of Financial Intermediation,* Vol. 22, No.3, pp. 285-307, 2013.

"How Big is Big Enough?" *The Journal of Financial Intermediation*, Vol. 22, No. 4, pp. 529-531, 2013.

"Portfolio Diversification in Concentrated Bond and Loan Portfolios," forthcoming, *Journal of Investment Management.*

"Capital for Concentrated Credit Portfolios," forthcoming, *Journal of Risk Management in Financial Institutions.*

Other Publications

AEI Outlooks and Commentary

"When governments direct bank credit, the economy suffers," AEI, March 4, 2004.
"Basel III: Some costs will outweigh the benefits," AEI, Nov 12, 2013.
"SEC Comment on the OFR Report 'Asset Management and Financial Stability,' " AEI, Nov. 1, 2013.

Published Editorials

"Negative Interest Rates Threaten the Banking System" Wall Street Journal, March 6, 2015

"3 easy fixes to Dodd-Frank," Wall Street Journal, November 6, 2014.

"A loan to help home owners build equity fast," American Banker, October 28, 2014.

"SIFI designations aren't meant to last forever." American Banker, October 8, 2014.

"When central bankers become central planners," The Wall Street Journal, September 28, 2014.

"Why taxpayers will be on the hook when it's time to raise rates," American Banker, August 27, 2014.

"Why the 'living will' process sets banks up for failure," American Banker, August 11, 2014.

"The real 'systemic risk' is the FDIC's broken resolution process," Real Clear Markets, August 6, 2014.

"Dodd-Frank doesn't end 'too big to fail' ", The Hill, July 31, 2014.

"Scrapping Basel II for stress tests would be a big mistake," American Banker, July 2, 2014.

"The Fed's blueprint for financial control," The Wall Street Journal, May 21, 2014.

"Bank regulators do make more," The Wall Street Journal, May 13, 2014.

"Guess who makes more than bankers: Their regulators," The Wall Street Journal, April 21, 2014.

"SEC probe of mortgage securities sales is much ado about nothing," Real Clear Markets, Jan. 9, 2014.

"The Volcker Rule won't reduce risk," Real Clear Policy, Dec. 20, 2013.

"The worst fears about Dodd-Frank's FSOC are being confirmed," Forbes, Nov. 26, 2013.

"Basel II is just too complex as risks outweigh benefits," National Post, No 13, 2013.

Congressional Testimony

"Assessing the impact of the Dodd-Frank Act four years later," Testimony before the House Financial Services Committee, July 22, 2014.

"What makes a bank systemically important?" Testimony before the Senate Committee on Banking, Housing, and Urban Development, July 16, 2014.

"Government financial policy and credit availability," Testimony before the House Financial Services Subcommittee on Monetary Policy and Trade, March 12, 2014.

"Federal Reserve Accountability and Reform," Testimony before the Senate Committee on Banking, Housing, and Urban Development, March 4, 2015.

Co-Authored IMF Country Reports

Finland: Financial System Stability Assessment, including Reports on the Observance of Standards and Codes on the following topics: Financial Policy Transparency, Banking Supervision, Insurance Supervision, Securities Regulation, and Payment Systems. Country Report No. 01/214, November 2001.

Portugal 2002 Article IV Consultation Staff Report. Country Report No. 03/99, April 2003.

Portugal 2001 Article IV Consultation Staff Report. Country Report No. 02/90, April 2002.

Iceland 2001 Article IV Consultation Staff Report. Country Report No. 02/130, July 2002.

Iceland: Financial System Stability Assessment Update, including Report on the Observance and Standards and Codes on the following topics: Banking Supervision, Insurance Regulation, Securities Regulation, Payment Systems, and Monetary and Financial Policy Transparency. Country Report No. 03/271, August 2003.

Japan: Financial System Stability Assessment and Supplementary Information. Country Report No. 3/287, September 2003.

Singapore: Financial System Stability Assessment and Supplementary Information, No. 4/104, 2004.

New Zealand: Financial System Stability Assessment and Supplementary Information, No. 4/417, 2004.

Iceland FSAP Update, No. 8/369, 2008.

Netherlands FSAP, No. 11/144, 2011.

Mexico FSAP, March, 2012.

Ireland, Selected Reports on Irish Banking System Developments under the IMF Program (2013).

Recent Unpublished Working Papers

"Does bank supervision impact bank loan growth?" (joint with Yan Lee and Claire Rosenfeld). May 11, 2015. http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2603850

"Testing for systemic risk using stock returns," (joint with Levent Guntay). Janaurry 21, 2015. http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2553356

"Can the 'single point of entry' strategy be used to recapitalize a failing bank," (joint with Peter Wallison) November 2014. http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2519229

"Incentive Compensation for Risk Managers when Effort is Unobservable," October 2013/revised January 2014. http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2344907

"Macroprudential Policies and the Growth of Bank Credit," (joint with Claire Rosenfeld and Yan Lee). Dec. 2013. http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2368989

"Taking the Risk out of Systemic Risk Measurement," (joint with Levent Guntay), July 2014. http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2375236

Professional Conference Organization Committees

Program committee member, Southern Finance Association Annual Meetings, (2005-12).

Co-organizer (with Haluk Unal), the FDIC-JFSR Fall Banking Research Conference (2004-2012).

Co-organizer (with Robert Jarrow and Stuart Turnbull), the annual Derivative Securities and Risk Management Conference (2005-2012).

Program Committee and organizer for the 2007 Basel Research Task Force Workshop held at the FDIC.

Program Committee for Basel Research Task Force Conference on the Integration of Market and Credit Risk Measurement (Berlin 2007).

Program Committee for Basel Research Task Force on Stress Testing (Amsterdam 2008).

Other Professional Service

2009- The Financial Stability Institute (FSI), a service organization supported by the Bank for International Settlements and Basel Committee on Bank Supervision member institutions.

---Lecturer at multiple FSI Workshops on various topics in risk measurement, regulatory capital, stress testing, deposit insurance, financial sector crisis management, and Basle capital and leverage regulations.