



UNITED STATES

FINANCIAL SECTOR ASSESSMENT PROGRAM

July 2015

FINANCIAL SYSTEM STABILITY ASSESSMENT

This Report on the Financial System Stability Assessment on the United States was prepared by a staff team of the International Monetary Fund. It is based on the information available at the time it was completed in June 2015.

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International Monetary Fund
Washington, D.C.



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FINANCIAL SYSTEM STABILITY ASSESSMENT

June 2015

Approved by **José Viñals and Alejandro Werner**

Prepared by
Monetary and Capital Markets Department

This report is based on the work of the Financial Sector Assessment Program (FSAP) mission that visited the United States during October–November 2014 and February–March 2015. The FSAP findings were discussed with the authorities during the Article IV Consultation mission in May 2015. Further information on the FSAP can be found at <http://www.imf.org/external/np/fsap/fssa.aspx>

- The FSAP team was led by Aditya Narain (mission chief), and comprised Martin Čihák and Simon Gray (deputy mission chiefs), Ana Carvajal, Marc Dobler, Dale Gray, Eija Holttinen, Benjamin Huston, Nigel Jenkinson, Darryl King, Ivo Krznar, Fabiana Melo, Nobuyasu Sugimoto, Jay Surti, Constant Verkoren, and Froukelien Wendt (all IMFMCM); Deniz Igan and Juan Solé (IMFWHD); Ross Leckow, Steve Dawe, Gianluca Esposito, and Alessandro Gullo (IMFLEG); Timo Broszeit, Philipp Keller, John Laker, Göran Lind, Masakazu Masujima, Lyndon Nelson, Till Redenz, Malcolm Rodgers, Christine Sampic, and Ian Tower (all external experts). The team worked under the guidance of Christopher Towe. The mission built on other relevant ongoing multilateral and bilateral surveillance work done within the IMF. The report incorporates inputs by other IMF staff in MCM, WHD, LEG, STA, SPR, and other departments.
- FSAPs assess the stability of the financial system as a whole and not that of individual institutions. They are intended to help countries identify key sources of systemic risk in the financial sector and implement policies to enhance its resilience to shocks and contagion. Certain categories of risk affecting financial institutions, such as operational or legal risk, or risk related to fraud, are not covered in FSAPs.
- The United States is deemed by the Fund to have a systemically important financial sector ([Press Release No. 14/08](#), January 13, 2014), and the stability assessment under this FSAP is part of bilateral surveillance under Article IV of the Fund's Articles of Agreement.
- This report was prepared by Aditya Narain, Martin Čihák, and Simon Gray, with contributions from the FSAP mission members. It draws on the three Detailed Assessment Reports published on April 2, 2015 (Basel Core Principles for Effective Banking Supervision, IOSCO Principles, and IAIS Core Principles for Effective Insurance Supervision), and three Technical Notes (Review of the Key Attributes of Effective Resolution Regimes for the Banking and Insurance Sectors; Stress Testing; and Systemic Risk Oversight and Management) that accompany this report.

CONTENTS

GLOSSARY	4
EXECUTIVE SUMMARY	7
STEPS HAVE BEEN TAKEN TO ENHANCE STABILITY...	9
...BUT NEW VULNERABILITIES ARE EMERGING	9
A. Households and Nonfinancial Firms: Pockets of Weakness	10
B. Banks: Progress in Balance Sheet Repair	11
C. Insurance Companies: New Risks Emerging	13
D. Asset Management: Challenges in Market-Based Financing	13
E. Financial Markets: Stretched and Vulnerable to Bouts of Volatility	15
F. Cross-border Interconnectedness and Spillovers	17
G. Stress Tests: Illustrating the Fault Lines	19
...CALLING FOR A STRONG RESPONSE	23
A. Macroprudential Policy	23
B. Supervision and Regulation	25
C. Market-based Finance and Systemic Liquidity	29
D. Financial Market Infrastructures	31
E. Housing Finance	32
F. Financial and Market Integrity	33
G. Financial Inclusion, Literacy, and Consumer Protection	33
...AND FOR REINFORCING SAFETY NETS AND THE RESOLUTION FRAMEWORK	34
A. Liquidity Backstops	34
B. Crisis Preparedness and Management	34
C. Resolution	35
D. Deposit Insurance	36
BOXES	
1. Financial Sector Sensitivity to Interest Rate Increases	21
2. Time-Varying Macroprudential Policy: An Illustration	25
FIGURES	
1. Household Sector Soundness	10
2. Nonfinancial Firms: Leverage and Issuance	11

3. Bank Soundness	12
4. Financial Cycle and Credit-to-GDP Gap	12
5. SRISK Market Implied Capital Shortfalls	12
6. High-Yield and Emerging Market Assets Managed by U.S. Open-Ended Mutual Funds	14
7. Financial Markets	16
8. Interconnectedness and Spillovers	17
9. Stress Testing Results	22

TABLES

1. Key Recommendations	8
2. Compliance with International Standards	27

APPENDICES

I. Financial System Profile	37
II. Financial Soundness Indicators vs. Peer Countries	47
III. Risk Assessment and Stress Testing	48
IV. Key Regulations Where Implementation is Ongoing	53
V. Report on the Observance of Standards and Codes	54

Glossary

ABS	Asset Backed Securities
ACH	Automated Clearing House
AML/CFT	Anti Money Laundering and Combating the Financing of Terrorism
ATS	Alternative Trading System
BCBS	Basel Committee on Banking Supervision
BCP	Basel Core Principles
BDs	Broker-dealers
BHC	Bank Holding Company
CCA	Contingent Claims Analysis
CCAR	Comprehensive Capital Analysis and Review
CCB	Countercyclical Capital Buffer
CCP	Central Counterparty
CDS	Credit Default Swap
CELM	Current Expected Loss Model
CFPB	Consumer Financial Protection Bureau
CFTC	Commodity Futures Trading Commission
CHIPS	Clearing House Interbank Payment System
CLS	CLS Bank International
CME	Chicago Mercantile Exchange
CP	Core Principles
CPO	Commodity Pool Operator
CPSS	Committee on Payment and Settlement Systems
CRA	Credit Rating Agency
CSD	Central Securities Depository
CTAs	Commodity Trading Advisors
DCMs	Designated Contract Markets
DEA	Direct Electronic Access
DIF	Deposit Insurance Fund
DFA	Dodd-Frank Wall Street Reform and Consumer Protection Act
DTC	Depository Trust Company
DTCC	Depository Trust & Clearing Company
DTI	Debt-to-Income
ECN	Electronic Communication Network
ELA	Emergency Liquidity Assistance
EM	Emerging Market
ETF	Exchange Traded Fund
FATF	Financial Action Task Force
FAWG	Financial Analysis Working Group
FBA	Federal Banking Agencies
FBO	Foreign Bank Organization
FCM	Futures Commission Merchant
FDIC	Federal Deposit Insurance Corporation
FHA	Federal Housing Administration
FHFA	Federal Housing Finance Agency
FHLB	Federal Home Loan Bank
FICC	Fixed Income Clearing Corporation
FINCEN	Financial Crimes Enforcement Network
FINRA	Financial Industry Regulatory Authority

FIO	Federal Insurance Office
FMI	Financial Market Infrastructure
FMU	Financial Market Utility
FRB	Federal Reserve Board
FSAP	Financial Sector Assessment Program
FSB	Financial Stability Board
FSOC	Financial Stability Oversight Council
FSSA	Financial System Stability Assessment
FX	Foreign Exchange
GAAP	Generally Accepted Accounting Principles
GAO	Government Accountability Office
GFC	Global Financial Crisis
GFSR	Global Financial Stability Report (IMF)
GSIB	Global Systemically Important Banks
GSIFI	Global Systemically Important Financial Institutions
HOLA	Home Owners' Loan Act
HY	High-Yield
IAs	Investment Advisers
IAIS	International Association of Insurance Supervisors
IASB	International Accounting Standards Board
ICE	Intercontinental Exchange Clear Credit L.L.C
ICP	Insurance Core Principles
ICPF	Insurance companies and pension funds
IOSCO	International Organization of Securities Commissions
IRRBB	Interest Rate Risk in the Banking Book
KA	Key Attributes of Effective Resolution Regimes for Financial Institutions
LCR	Liquidity Coverage Ratio
LTV	Loan-to-Value
MBS	Mortgage Backed Securities
MMMF	Money Market Mutual Fund
MMOU	Multilateral Memorandum of Understanding
MOU	Memoranda of Understanding
MFs	Mutual Funds
NAV	Net Asset Value
NAIC	National Association of Insurance Commissioners
NBFCs	Non-Bank Financial Companies
NBFI	Nonbank Financial Institution
NCUA	National Credit Union Administration
NFA	National Futures Association
NPL	Nonperforming Loan
NRSROs	Nationally Recognized Statistical Rating Organizations
NSCC	National Securities Clearing Corporation
OCC	Office of the Comptroller of the Currency
OFR	Office of Financial Research
OLA	Orderly Liquidation Authority
ORSA	Own Risk and Solvency Assessment
OTC	Over The Counter
P&C	Property and Casualty Insurance
PCAOB	Public Company Accounting Oversight Board

UNITED STATES

PEPs	Politically Exposed Persons
PFMI	CPSS-IOSCO Principles for Financial Market Infrastructures
QE	Quantitative Easing
QM	Qualified Mortgage
QRM	Qualified Residential Mortgage
RBC	Risk-Based Capital
RTGS	Real Time Gross Settlement
SEC	Securities and Exchange Commission
SEF	Swap Execution Facility
SIFI	Systemically Important Financial Institution
SIPC	Securities Investor Protection Corporation
SLHC	Savings and Loans Holding Companies
SMI	Solvency Modernization Initiative
SRO	Self Regulatory Organization
TBTF	Too Big to Fail
TLAC	Total Loss Absorbing Capital
TPR	Tri-Party Repo

EXECUTIVE SUMMARY

Welcome steps have been taken in strengthening the financial system. The Financial Stability Oversight Council (FSOC) now provides a useful forum for coordination; the regulatory perimeter has expanded; information sharing among agencies has improved; supervisory stress testing is leading changes in risk measurement and management; and new resolution powers have been established.

But before the memory of the crisis begins to fade, it will be important to complete the reform agenda and resist attempts to overturn previously agreed measures. It is, therefore, critical that rulemaking under the Dodd-Frank Act (DFA) should be completed and implementation of several other agreed measures should begin. The regulatory landscape remains fragmented resulting in gaps, overlaps, and the potential for delayed responses to emerging risks, and should be simplified over time. While the FSOC has taken important steps in dealing with the 'Too-Big-To-Fail' problem, the enhanced standards for systemic non-banks need to be put in place. Key fault lines in housing finance, money market mutual funds, and the triparty repo and securities lending markets need to be addressed.

Meanwhile, new pockets of vulnerabilities have emerged, partly in response to the continuing search for yield. While most indicators suggest that risks to financial stability have receded, potential areas of concern remain. Large and interconnected banks dominate the system even more than before. Risks are elevated in the non-bank sector, where "run" and "redemption" risks are increasing as a result of leverage and maturity transformation, and deeply interconnected wholesale funding chains. Insurers have taken on greater market risk and could be faced with negative equity in a downside scenario.

This requires a continuing focus on strengthening the micro- and macro prudential framework. The FSOC should be strengthened with member agencies being given an explicit financial stability mandate. The comprehensive data needed to build a clear view of systemic risks and interconnections must be collected. An independent national regulator is an imperative for the insurance sector to address gaps with international standards (including weaknesses in valuation and solvency requirements) and to ensure consistency in regulation and supervision. Bank supervisory guidance for concentration, operational, and interest rate risk needs to be updated. Outstanding rulemaking in the securities and derivatives space should be completed and emerging issues in effective market functioning should be tackled. The supervision of asset managers needs to be enhanced including explicit requirements on risk management and internal control and a structured effort to stress test the industry. Risk management standards for Financial Market Infrastructures need to be fully implemented.

Finally, the responsibility for system-wide crisis preparedness and management needs to be clearly defined. The FSOC is the natural candidate for this role. Developing credible resolution plans for all systemically important financial institutions and infrastructures will be an important component of this work.

Table 1. Key Recommendations

Macroprudential framework and policy
Provide an explicit financial stability mandate to all FSOC member agencies [para 32].
Include in FSOC Annual Report specific follow-up actions for each material threat identified [para 32].
Publish the current U.S. macroprudential toolkit and prioritize further development [para 33].
Expedite heightened prudential standards for designated non-bank SIFIs [para 34].
Improve data collection, and address impediments to inter-agency data sharing [para 34].
Regulation and supervision
Give primacy to safety and soundness in the supervisory objectives of Federal Banking Agencies [para 38].
Strengthen the banking supervisory framework and limit structures for related party lending and concentration risk; and update guidance for operational and interest rate risk [para 39].
Set up an independent insurance regulatory body with nationwide responsibilities and authority [para 45].
Implement principle-based valuation standard for life insurers consistently across the states [para 43].
Develop and implement group supervision and group-level capital requirements for insurance companies [paras 42-43].
Provide needed resources to the SEC and CFTC and enhance their funding stability [para 49].
Increase examination coverage of asset managers [para 49].
Introduce explicit requirements on risk management and internal controls for asset managers and commodity pool operators [para 47].
Complete the assessment of equity market structure and address regulatory gaps [para 48].
Stress testing
Conduct liquidity stress testing for banks and nonbanks on a regular basis; run regular network analyses; and link liquidity, solvency, and network analyses [para 30].
Develop and perform regular insurance stress tests on a consolidated group-level basis [para 27].
Develop and perform regular liquidity stress tests for the asset management industry [para 28].
Market-based finance and systemic liquidity
Change redemption structures for MFs to lessen incentives to run; move all MMMFs to variable NAVs [paras 53-54].
Complete triparty repo reforms and measures to reduce run-risk, including the possible use of a CCP [para 52].
Enhance disclosures and regulatory reporting of securities lending [paras 56].
Strengthen broker-dealer regulation, in particular liquidity and leverage regulations [para 55].
Improve data availability across bilateral repo/triparty repo and securities lending markets [para 57].
Liquidity backstops, crisis preparedness, and resolution
Revamp the Primary Credit Facility as a monetary instrument [para 68].
Enable the Fed to lend to solvent non-banks that are designated as systemically important [para 69].
Assign formal crisis preparedness and management coordinating role to FSOC [para 72].
Extend the Orderly Liquidation Authority powers to cover systemically-important insurance companies and U.S. branches of foreign-owned banks [para 75-76].
Adopt powers to support foreign resolution measures; extend preference to overseas depositors [para 75].
Finalize recovery and resolution plans for SIFIs, agree cooperation agreements with overseas authorities [para 74].
Financial market infrastructures (FMIs)
Identify and manage system-wide risks related to interdependencies among FMIs, banks, and markets [para 59].
Offer Fed accounts to designated FMUs to reduce dependencies on commercial bank services [para 60].
Housing finance
Reinvigorate the momentum for comprehensive housing market reform [para 64].

STEPS HAVE BEEN TAKEN TO ENHANCE STABILITY...

1. Since the 2010 FSAP, important steps have been taken to restore macroeconomic and financial stability. By 2011, the economy had recovered from one of the deepest recessions in the post-war period, and staff projections have the economy returning to potential in 2017. Bank and insurance capitalization is stronger, household balance sheets are healthier, and progress has been made in addressing key regulatory fault lines. Also, major reforms of financial regulation and supervision have been implemented, and work is ongoing on addressing the misaligned incentives that led to excessive risk taking. The creation of the FSOC has helped coordinate the work of a large number of regulatory agencies and aims to ensure an effective macroprudential response to risks. At the international level, too, the U.S. authorities have played a major role in promoting the post crisis reform agenda and in the discussions on strengthening the global financial system.

...BUT NEW VULNERABILITIES ARE EMERGING

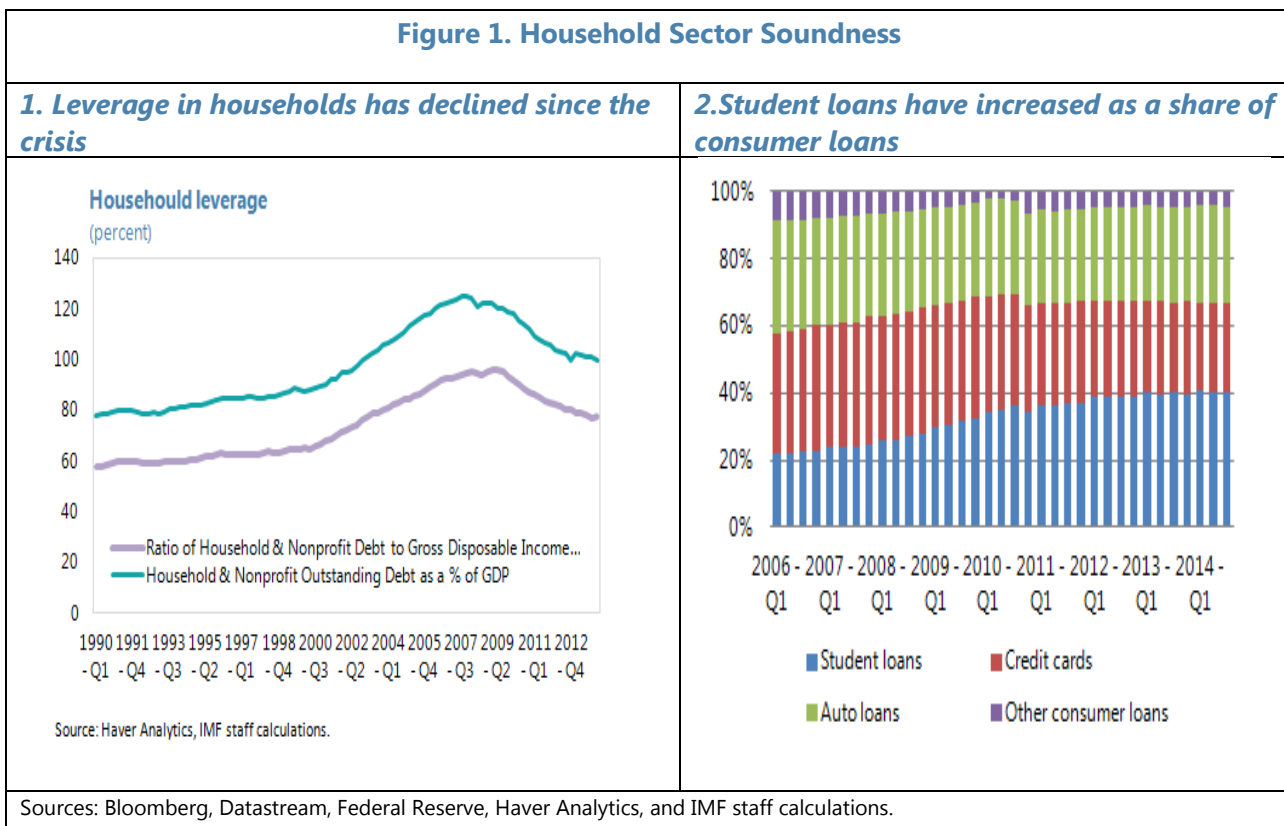
2. Although systemic risks appear to have eased since the height of the crisis, a number of indicators bear close attention, especially since the protracted low-interest rate environment is again driving a search for yield.

- **Credit risk** measures have improved, driven by strengthened bank fundamentals and declining household delinquency; but corporate-sector indicators are less encouraging. There have been large increases in new issues of corporate debt—particularly speculative-grade—and risk spreads suggest overvaluation in some asset-market segments.
- **Market liquidity** has declined according to some metrics, raising concerns that trading liquidity could be severely constrained in the event of a market disruption.
- **Equity prices** also are approaching levels that may be hard to sustain given profit forecasts and an eventual interest-rate normalization.
- **Spillover risks** also remain elevated. The U.S. financial system is closely interconnected with the rest of the global financial system, and asset price co-movements are well above pre-crisis levels.

3. The locus of financial stability risks has moved to nonbank financial institutions and markets. Nonbanks now account for more than 70 percent of U.S. financial sector assets, reflecting an increasing amount of maturity and liquidity transformation taking place via managed funds. Moreover, nonbank financial institutions (including insurance companies) appear to be taking on higher credit and duration risk, and concern remains about the relative opacity of the leverage and other risks embedded in securities lending and cash reinvestment. Indeed, staff analysis illustrates that insurance companies, hedge funds, and other managed funds contribute to systemic risk in an amount that is disproportionate to their size.

A. Households and Nonfinancial Firms: Pockets of Weakness

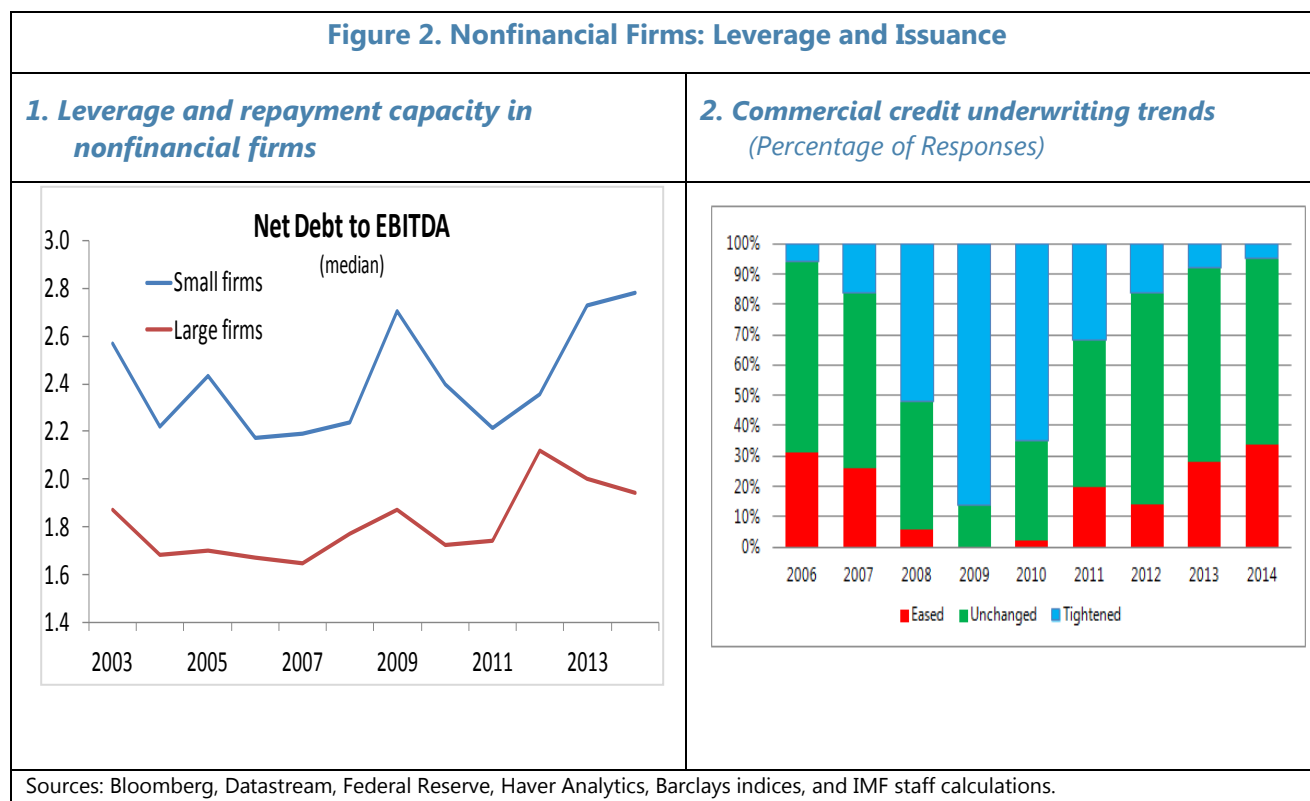
4. Household balance sheets appear less stretched than at the crisis onset, but pockets of risks have built up. Household debt has been falling since the beginning of the crisis (Figure 1), and household net worth has risen as a share of disposable income, but the improvement has been concentrated in the top two deciles of the income distribution. Housing price indicators are in line with their long-term trends. Households’ delinquency rates have dropped amid a stronger economy and job growth, but are more of a concern for the growing student loans and auto loans. For student loans, risks to lenders are mitigated by factors such as the federal government’s extraordinary collection authority on loans it originates and guarantees; but the strong growth in student loan debt—which has trebled over the past 10 years to some \$1.2 trillion—suggests this could become an important contingent liability for the government. Moreover, high student-debt burdens can limit access to other forms of credit, such as mortgages.



5. Nonfinancial corporate balance sheets have become more leveraged, and the ability to cover debt service is a concern, especially for smaller firms (Figure 2). 2014 was a record year of issuance for U.S. investment-grade corporate bonds and collateralized loan obligations (CLOs) and a near-record year for high-yield corporate bonds. While large companies appear capable of sustaining increased debt loads, smaller corporations appear more vulnerable, especially once interest rates rise. Moreover, surveys show an easing in underwriting standards. Supervisors have taken steps to rein in excessive risk taking, particularly in banking books. Nonetheless, the search for yield has continued, and covenant-lite loans now account for two-thirds of new leveraged loan

issuance. Other types of lower-standard loans, such as second-lien loans, are also at near-record issuance rates. Rising leveraged buyouts and mergers and acquisitions activity also remain a concern. Relatively easy financing conditions and slowing earnings growth could encourage further deals at higher leverage.

Figure 2. Nonfinancial Firms: Leverage and Issuance



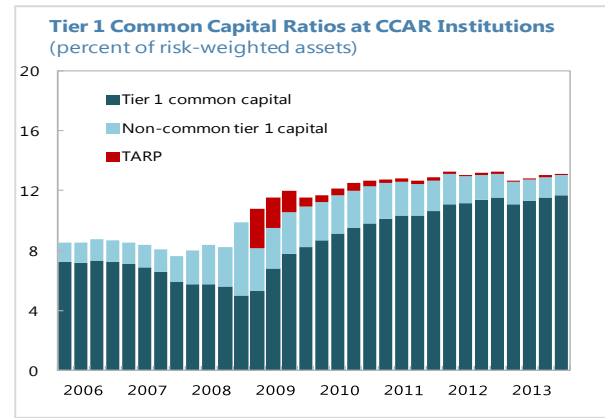
B. Banks: Progress in Balance Sheet Repair

6. Bank balance sheet and income positions have improved. Compared to the pre-crisis period, banks have strengthened their capital positions, including relative to their international peers, hold more liquid assets, and are less levered (Figure 3 and Appendix II). Net income has almost doubled in recent years, helped by lower provisions. The nonperforming loan ratio has fallen to just over 2 percent, half the level at its peak in 2010, and the coverage ratio has also improved. However, although the return on assets and return on equity have also strengthened, they are lower than pre-crisis.

7. Most measures point to a reduction in the systemic risks of banks. Financial cycles and credit-to-GDP gap indicators (Figure 4) do not signal excessive leverage, and indicators of distress based on market prices also provide an encouraging picture. For example, measures of the banking system's market-implied capital shortfall (Figure 5) suggest that systemic risk posed by banks is declining towards its pre-crisis average.

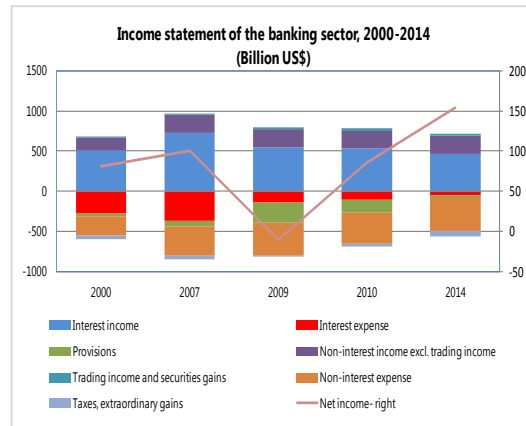
Figure 3. Bank Soundness

Tier 1 common capital ratios



Source: SNL Financial

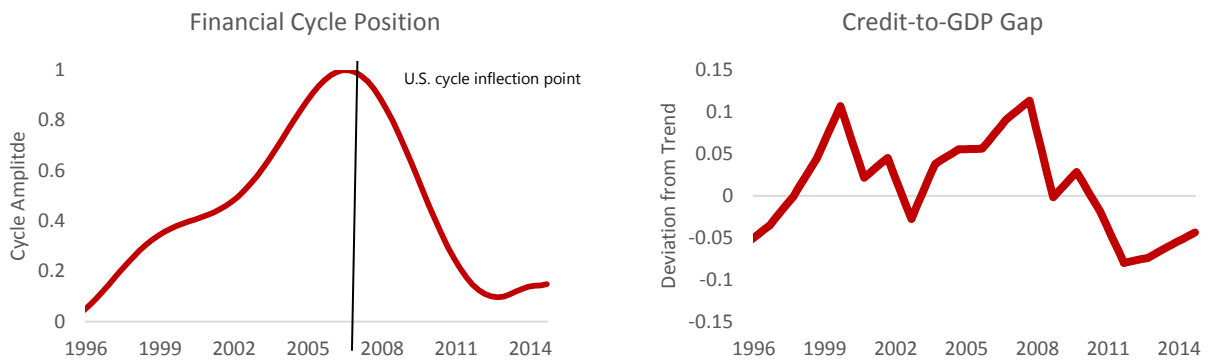
Revenue, expense and net income trends



Source: FDIC

Note: 2014 is 2014Q3 annualized.

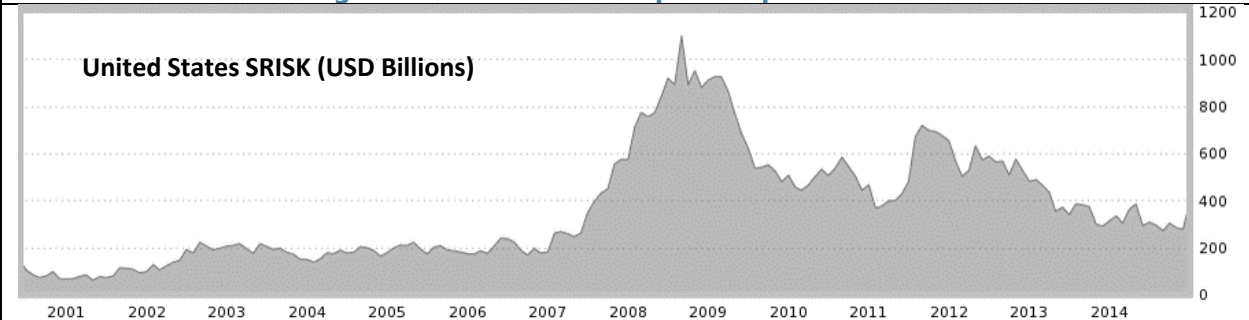
Figure 4. Financial Cycle and Credit-to-GDP Gap



Source: IMF staff calculations.

Note: Financial cycles are computed using the BIS bandpass filter methodology and capture the co-movement between bank credit growth and residential property prices. The credit-to-GDP gap is defined according to current Basel Committee on Banking Supervision guidance as the difference between the credit-to-GDP ratio to its long term trend, calculated using a one-sided Hodrick-Prescott filter with a smoothing parameter of 400,000.

Figure 5. SRISK Market Implied Capital Shortfalls



Source: NYU Stern Volatility Lab, as of end 2014Q

Note: SRISK is an estimate of the capital that a financial firm would need to raise if a severe financial crisis were to occur.

C. Insurance Companies: New Risks Emerging

8. Insurance companies, hurt by the prolonged period of low interest rates, are taking on greater risks. The industry continues to consolidate, with many firms exiting the market, and a few firms failing. Searching for yield, some insurers have invested more in private equity, hedge funds, longer duration and lower credit corporate bonds, and real estate related assets. Some life insurers have increased their securities-lending and cash collateral reinvestment activities. Large life insurance groups in particular have expanded nontraditional business, provide complex guarantees, and remain exposed to macroeconomic risks.

9. There are important handicaps to assessing the sector's health. Capital adequacy at legal entity level, measured by the regulators' risk-based capital (RBC) requirements, has increased since the crisis, and the number of companies breaching regulatory levels has declined. However, capital adequacy ratios are hard to interpret due to valuation rules, regulatory arbitrage via captives, and lack of regulatory capital adequacy measures at group level.

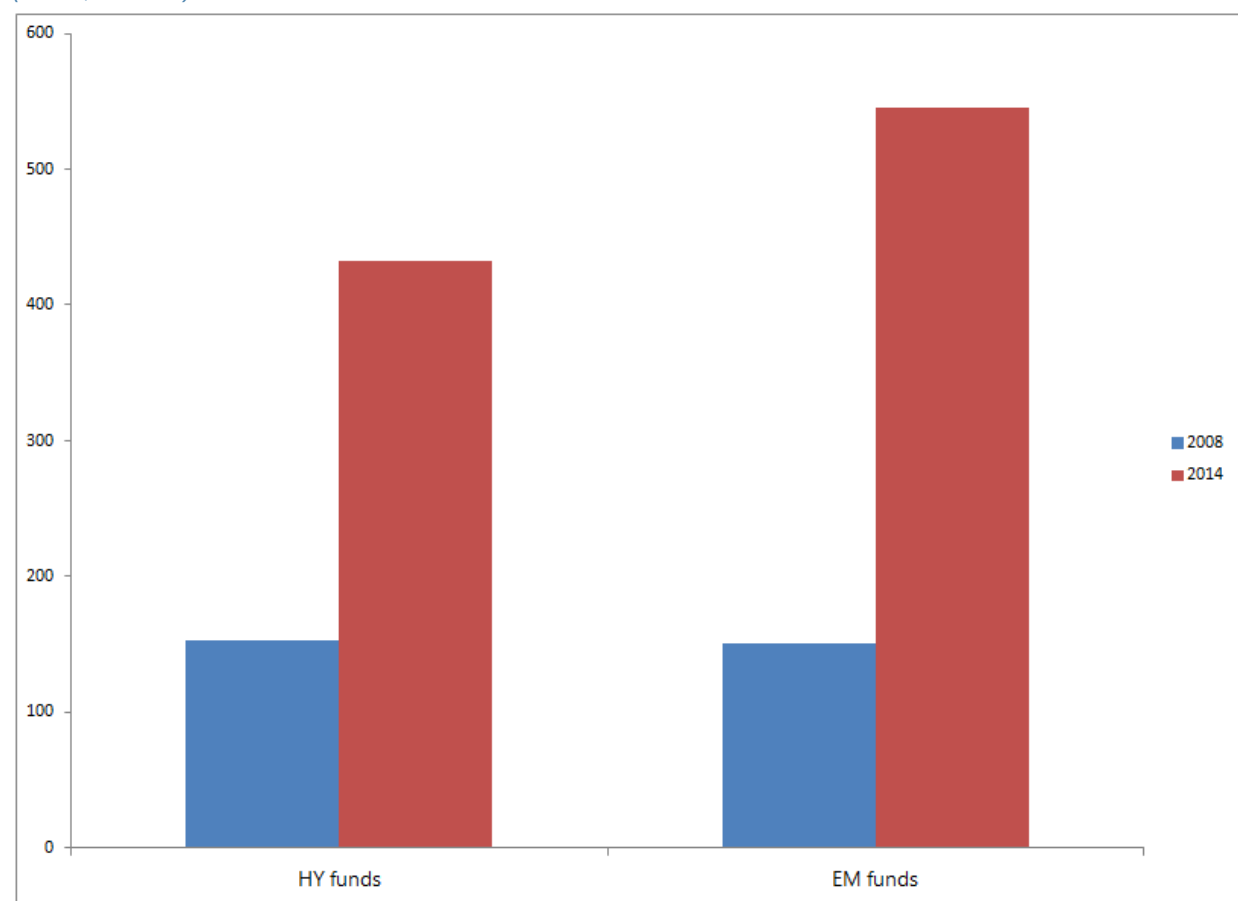
D. Asset Management: Challenges in Market-Based Financing

10. Maturity and liquidity transformation in short-term wholesale funding markets outside banks is substantial, though it remains hard to measure. Funding comes primarily from Money Market Mutual Funds (MMMFs) and securities lenders reinvesting cash collateral. Borrowing demand comes mostly from broker-dealers and short-term corporate finance. Much of it is intermediated through the repo markets.

11. The systemic importance of mutual funds (MFs) has grown since the crisis. Assets under management have increased, especially in corporate high-yield (HY), and emerging market (EM) bonds and debt funds (Figure 6). There is evidence that herding behavior among U.S. MFs is intensifying, particularly in smaller less liquid markets, and in retail markets. MFs could act as amplifiers to shocks to the financial system through asset liquidation (investors may rush to redeem their shares, while the funds may be invested in illiquid assets) and through direct exposures (funds may exit from risky assets and limit their willingness to fund other key players in the system).

Figure 6. High-Yield and Emerging Market Assets Managed by U.S. Open-Ended Mutual Funds

(in US\$ billions)



Sources: CRSP, IMF staff calculations.

Note: Covers assets held by dedicated high-yield and EM mutual funds, and excludes these asset types that may be held by other types of mutual funds.

12. Open-ended MFs and underlying asset markets could be vulnerable to sudden shifts in investor sentiment. MFs have a regulatory obligation to meet redemption demand in cash within 7 days, which at times of stress they may be unable to meet, given limited liquidity buffers or access to safety nets. Cash and other liquidity buffers are limited, at least for passive MFs, by their need to minimize tracking error; and there are potential problems in borrowing to fund redemptions (see paragraph 53). Some investments appear to be moving to the edges of the regulatory perimeter, for example, into separate accounts and trusts.

13. Liquidity risks in the exchange traded fund (ETF) sector are also on the rise. The traditional U.S. ETF, offering passive equity indexation with physical replication, combines exchange trading and market-maker arbitrage incentives with redemption in-kind to provide liquidity. Investor perception of ETF-structure liquidity appears to have combined with the low-for-long interest rates

environment to facilitate rapid growth in fixed income ETFs specializing in EM and HY corporate debt and bank loans, despite the lower liquidity of the underlying assets and limited arbitrage incentives of market makers.

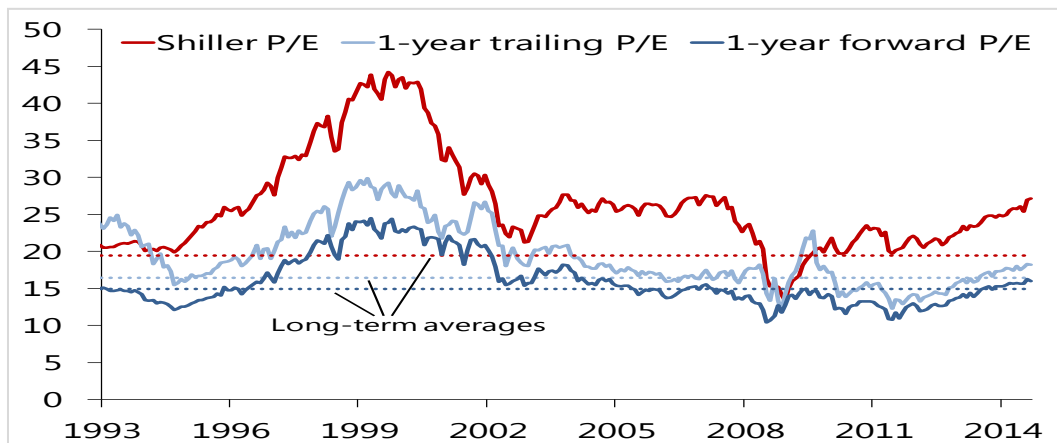
14. Pension funds may also give rise to systemic risks in the U.S. financial system. While many funds are shifting towards defined contribution, defined benefit plans still remain almost half of the industry, and about 20 percent of multi-employer pension funds are underfunded. Pressure to improve returns could spur undue risk taking, whether via direct credit exposure or through securities lending and cash reinvestment. As noted in the 2015 FSOA Annual Report, the transfer of pension risk to the insurance industry, through ‘longevity swaps’ and other insurance products, increases the interconnectedness of the system.

E. Financial Markets: Stretched and Vulnerable to Bouts of Volatility

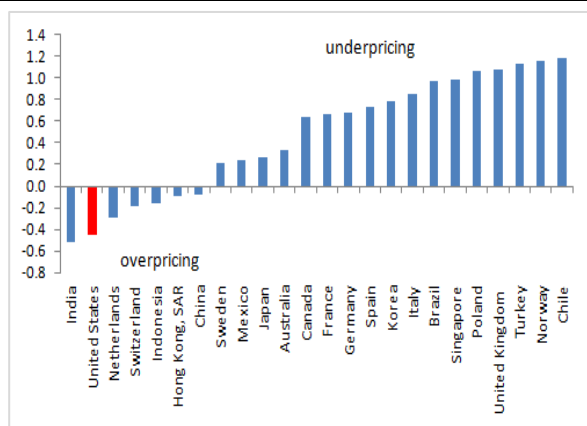
15. Market valuations are beginning to appear stretched (Figure 7). Stock prices reached all-time highs in early 2015, and measures such as Shiller’s cyclically-adjusted price-to-earnings (P/E) ratio suggest that the stock market is around 1 standard deviation above historical norms. Margin borrowing as a percentage of market capitalization is higher than during the 1990s stock market bubble, and is more worrisome given the decline in market liquidity. The search for yield has also compressed risk premiums across most fixed income classes.

Figure 7. Financial Markets

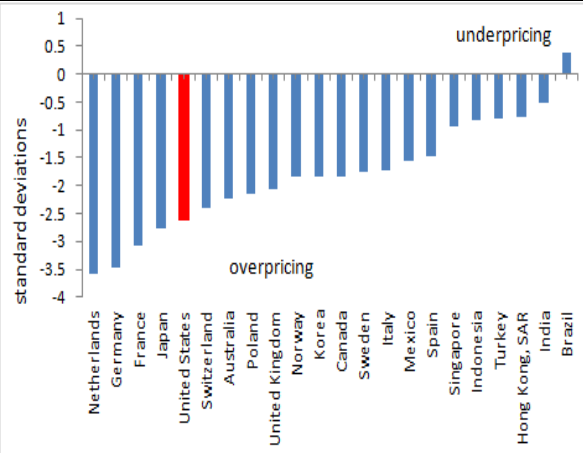
S&P 500 Price-to-Earnings Ratio (Percent)



Cyclically-Adjusted Equity Yields in U.S. and Other Countries



Implied Bond Term Premiums in U.S. and Other Countries



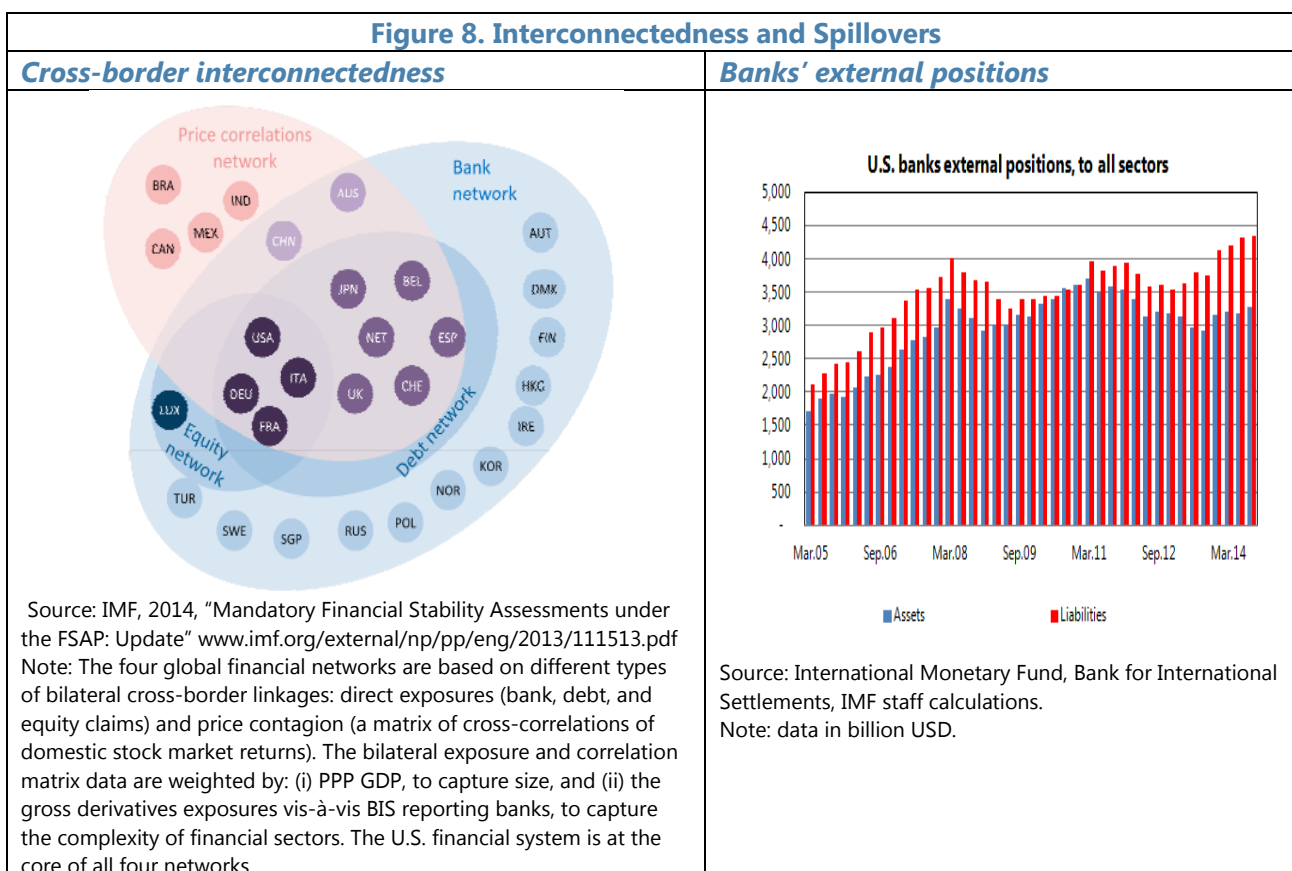
Source: IMF staff calculations; cut-off date for data is March 2015.

Notes: The implied real equity yield is the cost of capital for equities (or the required return to hold stocks), expressed as the number of standard deviations from the country-specific long-term average. The implied bond term premium is defined as 5y5y rates (local currency terms) minus 5y5y survey-based expectations for real GDP growth and inflation, expressed as the number of standard deviations from the country-specific long-term average. Data start in 1989 (1953 for the United States).

16. Important interconnections exist among banks, nonbanks, and financial markets. Banks and nonbanks have substantial holdings of domestic securities that could be subject to heightened volatility in the transition as monetary policy moves to a tightening cycle. Another material transmission channel relates to MMMFs and their sponsors (asset managers and banks), some of which have in the past provided support by lending or by purchasing fund assets, even if not formally obliged to do so. Other important developments include transfers of pension risks by corporate-sponsored pension plans to insurance companies and derivatives markets. The FSAP team’s analysis (see Stress Testing Technical Note) brings out many of these interconnections, as do recent reports by the OFR and the FSOC. However, there are still critical data limitations that the authorities need to address to improve the understanding of interconnectedness.

17. The interconnections would amplify shocks, for example, in the case of sizeable interest rate shocks. The system appears able to withstand moderate increases in interest rates, such as those expected in an interest-rate normalization. In fact, a “low-for-long” scenario is more troublesome for financial stability, particularly the life insurance sector, than orderly interest rate increases. However, in the event of “disorderly” interest rate increases, parts of the system—such as some managed funds and life insurance companies—would be affected materially (Box 1). The team’s stress tests illustrate that cross-sector spillovers amplify the effects of shocks, as U.S. banks, insurers, and other non-bank financial institutions tend to be adversely affected by credit risk shocks originating in other domestic sectors (Stress Testing Technical Note), while a combination of factors has left markets less able to manage swings in interest rates and liquidity.

Figure 8. Interconnectedness and Spillovers



F. Cross-border Interconnectedness and Spillovers

18. The interconnectedness of the U.S. system with the rest of the world remains key for global stability (Figure 8). U.S. GSIBs account for 22 percent of total GSIB assets; the U.S. insurance market is the largest in the world with premium volume accounting for a third of the global market and the three U.S. G-SIIs account for a third of total G-SII assets; and the U.S. derivatives market also represents one third of the world market. The U.S. banks’ external positions remain sizeable even after the crisis. The U.S. financial sector is one of four jurisdictions at the core of the world’s bank network, as well as at the core of the equity market, debt market, and price correlations networks. Market-price based calculations (see Stress Testing Technical Note) indicate that distress in the U.S.

financial system may have strong effects on distress in foreign financial institutions, while the “spillback” is limited. It is hence important that authorities continue to participate actively in the ongoing monitoring and assessment of the impact of regulatory reforms at the global level in order to promote safe and transparent markets and to address any material unintended consequences should they be identified.

19. Recent years have provided examples of cross-border spillovers from, and spillbacks to, the U.S. financial system. For instance, the direct exposure channel stemming from MMMFs was highlighted during the European sovereign crisis, when U.S. MMMFs cut their exposures to European banks, resulting in severe dollar shortage for those banks. This dollar shortage was also visible in a large increase in euro-dollar basis swaps, until the ECB and the Fed reintroduced USD/EUR swaps in November 2011. More recently, the announcement of the ECB’s QE program has had a measurable impact on long-term U.S. yields.

20. This highlights the importance of cross-border information sharing, cooperation and coordination in regulation, supervision, enforcement, resolution and crisis management. The U.S. authorities are actively engaged in promoting international regulatory coordination, though there remain a few gaps to be addressed.

- In banking, there is a comprehensive framework of policies and processes for cooperation and exchange of information between the FBAs and foreign supervisory authorities, though state banking agencies with Foreign Banking Organization (FBO) presence do not always inform or coordinate enforcement actions with home supervisors.
- The SEC and CFTC are signatories to the IOSCO Multilateral MOU (MMOU) and also have several bilateral MOUs with foreign authorities, and have responded to a significant number of information requests from foreign authorities.
- In insurance, the U.S. authorities’ approach to cross-border coordination and crisis management is at an early stage of development, reflecting the recent establishment of colleges of supervisors for the IAIGs and CMGs for the NBFC-led firms.
- Further efforts are also needed in coordinating cross-border resolution, which is complicated by the depositor preference rules as well as potential ring-fencing of foreign-owned uninsured bank branches.
- A solution for mutual recognition of CCPs and a common approach on margin requirements and other risk management requirements, which will help to reduce duplication of rules, regulatory gaps and inconsistencies, is still outstanding, though work is continuing to support the application of deference to foreign regulatory regimes for OTC derivatives.

G. Stress Tests: Illustrating the Fault Lines¹

21. Stress tests were used to quantify the potential impacts of risks and vulnerabilities in banks and nonbanks (Figure 9). A broad evaluation of potential risks is embodied in the Risk Assessment Matrix (Appendix Table 2). The FSAP team conducted top-down solvency tests for bank holding companies (BHCs) and insurance sectors, liquidity risk analysis for BHCs and mutual funds, and market-price based stress tests. The exercise was informed by top-down stress tests performed by supervisors for the BHCs and insurance companies, and bottom-up stress tests run by BHCs.

22. The results of the 2015 supervisory and company-run stress tests (DFAST) required by the authorities suggest that the banking system is resilient to severe shocks. Even in a “severely adverse” scenario resembling the 2008–09 crisis, all 31 BHCs have sufficient capital to absorb losses—the first time since the start of annual stress tests in 2009 that no firm fell below any key capital threshold.

23. The staff’s analysis benefitted from the relatively wide range of publicly available data, but was nonetheless subject to data constraints. Insurance sector data are limited by the fragmentation of insurance sector oversight between state and federal entities, lack of a consolidated view of companies’ global activities, complexity of U.S. valuation practices, complexity of the insurance business, and absence of group-level risk-based capital. Moreover, banking supervisors were limited in their ability to share confidential supervisory information that could better inform the team of institutional interconnectedness, and liquidity and interest rate risks.

24. For banks, the staff’s solvency stress tests are largely in line with DFAST results, but do point to potential strains which could impact the economic recovery. In the first year, the system-wide CET 1 ratio would fall by 2½ percentage points, but no BHCs would fall below the hurdle rates, reflecting banks’ already high capital positions. Two BHCs would breach the minimum capital requirement in 2016 and an additional eleven BHCs thereafter, with a total capital shortfall that peaks in 2019 at the equivalent of 1 percent of 2019 GDP. To a large extent, the shortfalls reflect the staff’s assumption of continued loan growth even in the face of the adverse shock and impending breaches of regulatory thresholds. Thus, the results are more illustrative of the difficulty that banks would face in contributing to a recovery rather than systemic risk.

25. Network analyses also illustrate the potential for spillovers among the largest domestic institutions. Due to data limitations, the exercise focused on six large BHCs, accounting for some 50 percent of the banking system’s total assets. The results indicate that contagion risks among these institutions are contained, since their direct exposures are not large relative to their initial capital levels. Nonetheless, the calculations also suggest that risk transfer mechanisms, such as credit default swaps, alter significantly the risk profile of financial institutions, illustrating the importance of expanding the data on such exposures.

¹ This section summarizes the analysis and findings of the accompanying Technical Note on Stress Testing.

26. Staff’s liquidity risk analysis suggests that most BHCs now have sufficient liquid assets to meet a shock similar to the 2008/2009 event. A few BHCs would face liquidity pressures due to deposit outflows in the short run and large unused commitments over a longer horizon. In the absence of supervisory data, historical run-off rates and quarterly published data were used in the analysis. However, if run-off rates similar to the ones in the LCR are used then liquid assets for many BHCs would be insufficient to meet liquidity needs due to the large withdrawal of wholesale funding.

27. On the insurance side, stresses may have a significant impact, especially in life insurance. The analysis—which covered 43 insurance groups—was handicapped due to data limitations, but still suggested that life insurers would suffer a substantial reduction of shareholder equity if a “fully market-consistent” valuation was applied (16 life insurers and 1 credit insurer fell into “distressed” levels in the adverse scenario). The current valuation regime would only recognize the impact of these asset shocks over time. Indeed, when the exercise is performed on a statutory-accounting basis, the results appear more benign and are broadly in line with top-down stress tests performed by the NAIC, but mask the economic impact. The authorities are encouraged to develop and perform insurance stress tests on a consolidated, group-level basis.

28. Quantitative analysis highlights the potential for market stress from heightened redemption pressures at mutual funds. The analysis measured whether, in the face of severe redemption pressures wherein open-ended mutual funds are forced to liquidate positions, markets would have enough trading liquidity to absorb the asset sales. The analysis compared assets sold by mutual funds hit by a redemption shock with position data on dealer inventory. It covered some 9,000 mutual funds representing around 80 percent of the industry. Results suggest that municipal bonds and corporate bonds markets may face significant stress in the face of such shocks. This exercise is only preliminary, and the authorities are encouraged to start conducting regular top-down analysis to provide a more holistic picture of the industry’s contribution to systemic risk.

29. Market equity-price based stress tests illustrate the importance of cross-sectoral spillovers under stress. In very active markets such as the U.S. ones, market equity price based stress tests can provide a useful complement of the accounting-data based stress tests. Under the baseline scenario, estimated distress probabilities are expected to either remain stable or trend slightly downward to their pre-crisis levels. Under the stressed scenario, estimated distress probabilities are expected to rise in a manner which is broadly commensurate with—but milder than—the increase in the 2008 financial crisis. The tests suggest that a severely adverse change in the macroeconomic environment would significantly increase the probability of distress of all sectors of the U.S. financial system. Importantly, cross-sector spillovers amplify the effects of shocks. U.S. banks, insurers, and other non-bank financial institutions tend to be adversely affected by credit risk shocks originating in other domestic sectors. Spillovers from the United States to the rest of the world can be large; spillbacks from the rest of the world appear to be relatively modest.

30. The exercise suggests scope for enhancement in the authorities’ stress tests. While the authorities’ solvency stress tests for BHCs are state-of-the art in many respects, enhancements are needed, especially in nonbank stress tests. Improvements include addressing data gaps by collecting interbank exposures for a fuller sample of banks; conducting a network analysis on a regular basis;

reexamining some of the solvency stress test assumptions to ensure consistency with historical evidence; implementing both solvency and liquidity stress tests not only for banks but also for nonbanks (such as insurance companies, mutual funds, and pension funds); linking liquidity, solvency, and network analysis in a systemic risk stress testing framework; and examining the spillover risks between nonbanks and banks.

Box 1. Financial Sector Sensitivity to Interest Rate Increases

Effects of interest rate hikes would differ across sectors, but appear manageable if the hikes are orderly.

The long period of low interest rates has impacted sectors differently, depending on their business models and “search for yield.” Orderly increases in interest rates are likely to have a relatively small overall impact, although parts of the financial system are likely to be affected substantially, especially if interest rates rise rapidly (see Stress Testing Technical Note).

Life insurance would be materially affected, if rate hikes were “disorderly.” The market value of bond portfolios would decline, especially for longer duration instruments, but the impact would be mitigated by the fact that these are typically carried on an amortized cost basis. A dramatic rise in interest rates could also increase policy surrenders and drive up funding costs for those issuing bonds. Conversely, high rates would reduce the existing large gap between the market and actuarial rate used to discount liabilities. On balance, the IMF’s stress tests suggest that the effects of higher interest rates, in themselves, would be manageable, if the effects on risk spreads are contained, since economic valuations of assets and liabilities would move in the same direction. A “low-for-long” scenario would be more worrisome because of the continued erosion of life insurance company capital.

Large banks seem well positioned to withstand an interest rate shock. IMF staff calculations for 31 BHCs suggest that even a 4.5 percentage point increase in the 3-month Treasury yields would have only a marginal impact on CET1, because higher losses on credit and AOCI would be largely offset by retained earnings and reduced growth rates of assets. These calculations do not incorporate broader macroeconomic effects of higher interest rates. Authorities’ own calculations suggest that a mild recession with a sharp increase in short term rates (“DFAST adverse scenario”) would lead to only moderate declines in capital ratios of the 31 BHCs.

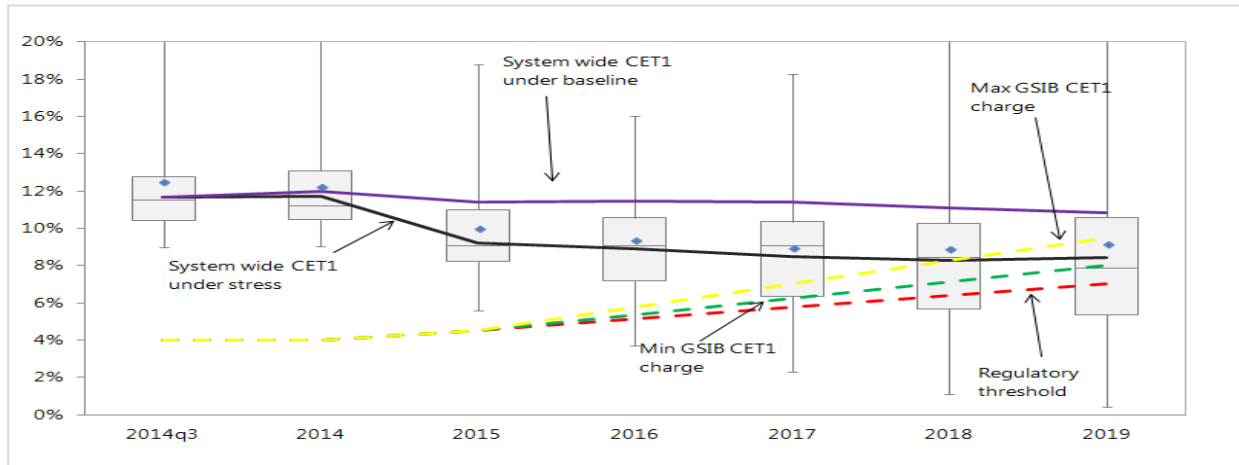
Small banks could be affected more. They are particularly exposed to interest rate risk as their asset maturities have become longer and liability maturities shorter. This is particularly relevant in the context of the BCP finding that the regime for interest rate risk in the banking book needs updating (Appendix V).

Some managed funds could face difficulties. Redemption demand could jump if there were a disorderly rise in rates, and some funds exposed to leveraged borrowers could also face major losses. Turbulence in longer-term yields could result in significant market risk; if forced to sell assets to meet strong redemption demand, or in the event of default by a repo borrower, managed funds exposed directly or indirectly to longer-term bond yields could suffer losses.

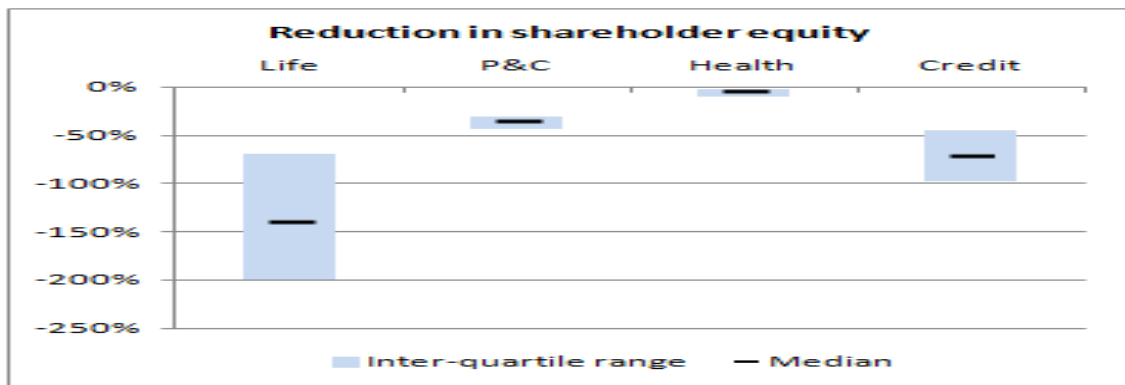
The Fed’s balance sheet would be impacted by a sharp increase in short-term rates and normalization of term yields as QE unwinds. However, its balance sheet is robust to yield curve changes, and the implementation of monetary policy would not be affected.

Figure 9. Stress Testing Results

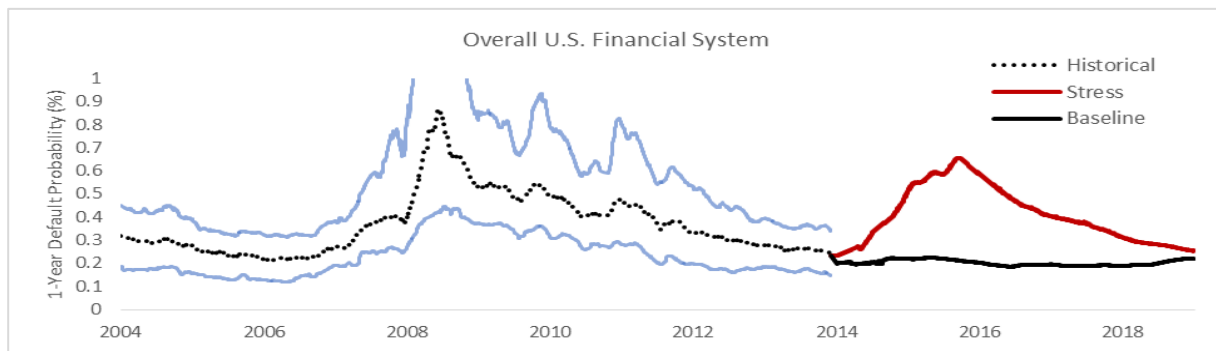
Impacts on banks' CET1 capital ratios appear manageable



Life insurance companies most affected in the stress test



Market Price Based Stress Testing: (Forecasted 1-Year Ahead Estimated Distress Probabilities)



Note: Blue lines indicate 25th and 75th percentile values of the distribution of historical estimates of U.S. institution 1-year ahead default probabilities. The dashed black line denotes the median value of the distribution of historical estimates of U.S. institution 1-year ahead default probabilities. The solid red and black lines denote median 1-year ahead default probabilities projected by the CCA stress tests under the stress and baseline scenarios, respectively. To better show projection details, the y-axis has been truncated for the U.S. financial system, domestic banks, insurers, asset managers, and NBFIs. The blue lines denoting the 75th percentile reached maximum values of 2.5%, 4%, 6.5%, 2%, and 16%, respectively, for these five sectors in 2008-2009. Only projections for the overall U.S. financial system model explicitly take into account changes in the estimated default probabilities of other sectors. Individual sector projections were generated exclusively using macroeconomic and connectivity factors. Source: IMF staff estimates based on data from SNL Financial, Bloomberg, Datastream, and Moody's KMV. Note: For details, see Technical Note on Stress Testing.

...CALLING FOR A STRONG RESPONSE

A. Macroprudential Policy

31. The United States has taken important steps to establish a macroprudential framework. The FSOC provides a key framework for systemic risk oversight, and a critically important forum for collectively identifying risks and encouraging individual agencies to respond. Important progress has been made in defining which entities should be subject to enhanced prudential standards and assigning overarching responsibility for their oversight to the Fed. The efforts by the Office of Financial Research (OFR) to collect data and monitor risk are promising.

32. The FSOC's governance could be strengthened to ensure timely responses to systemic risk. Operational independence of member agencies is important, but it creates challenges for the operation of the Council. To address these challenges, three steps are recommended:

- **Provide an explicit financial stability mandate to all FSOC member agencies.** Several agencies have no explicit legal mandate to support financial stability, which complicates their input to the FSOC, and potentially undermines the agency response to FSOC recommendations and macroprudential coordination.
- **Publish specific follow-up actions to address financial stability threats identified by the FSOC.** These recommendations should identify timelines and responsible agencies.
- **Reinforce the collective ownership of the FSOC.** It would be helpful to appoint Chairs for each of the supporting staff committees, drawing upon the expertise of the member agencies.² Moreover, members should consult FSOC as standard practice on the development and implementation of major regulatory rules that could impact financial stability.

33. The macroprudential toolkit needs to be developed further; additional tools to strengthen market resilience to run risks and fire sales should be a high priority. Progress has been achieved in building structural resilience of banks. But “time-varying” tools to address a build-up of financial stability pressures (Box 2) still need to be developed further and implemented. The multiplicity of regulatory agencies with overlapping sectoral mandates underscores the importance of the FSOC in identifying when such tools are needed, and promoting the implementation of effective system-wide ‘time-varying’ macroprudential tools. Importantly, in the present conjuncture, developing additional tools to strengthen market resilience to run risks and fire sales should be a high priority. FSOC could take a more assertive line in promoting a coherent approach to tackling these risks (see paragraphs 52–56), including plans for using existing tools and finalizing the preparation of new instruments for macroprudential purposes. In particular, it will be important to

² Charters for each committee were published in May, but they do not provide for a Chairperson.

complete the necessary final steps on application triggers required to implement the countercyclical buffer; examine the scope to alter risk weights on particular types of lending; and consider how macroprudential tools could be used in the real estate sector e.g. by varying maximum LTVs and DTI ratios (paragraphs 62, 64).

34. In addition:

- **Initiatives to address the TBTF problem need to be sustained.** Strides have been made in addressing the TBTF issue through the DFA Title I designation process, and the requirement to elaborate robust living wills. This is supported by enhancements to resolution capabilities, but it remains a work in progress, and major financial institutions have continued to grow in size. Higher prudential standards have been set for large banks, but heightened standards for designated nonbanks are still not in place.
- **The response to identified threats should be more robust.** Progress has been slow in some areas. In relation to MMMFs, a strong initial stance has thus far resulted in planned changes to a part of the market by end-2016, with full implementation nearly 10 years after the initial problems with MMMFs arose in 2007.
- **Further action is needed to address data gaps and impediments to data sharing.** There are shortfalls in collection, availability, and ease of manipulation of data. Data gathering on bilateral repo, securities lending, and asset management is at early stages, despite DFA-mandated action to address important gaps. Outstanding obstacles to interagency data sharing need to be reduced.³
- **Systemic risk oversight of FMIs should be expanded.**⁴ It will be important to cover identification and management of interdependencies and interconnections between the FMIs as well as stand-alone risks. Regulations governing FMIs should be completed and implemented consistently by the relevant agencies.

³ An example would be follow-up on issues complicating information sharing highlighted by the efforts to diagnose the causes of the October 15, 2014, “flash rally”.

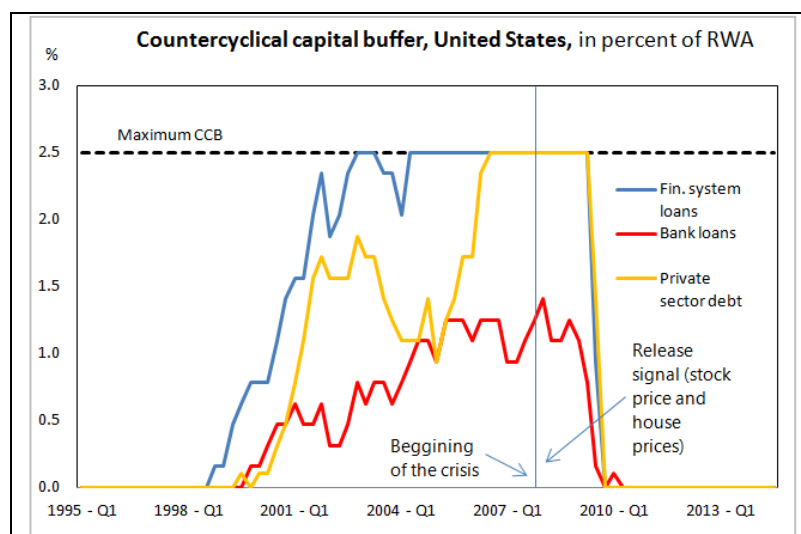
⁴ This report follows international usage with the term ‘financial market infrastructure (FMI)’ to refer to ‘financial market utility’ - a term used in the United States only. FMIs that are designated as systemically important by the FSOC are referred to as ‘designated FMUs’ in line with the DFA.

Box 2. Time-Varying Macroprudential Policy: An Illustration

To illustrate the possible effects of time-varying macroprudential policies in the United States, a hypothetical path of a countercyclical capital buffer (CCB) was estimated using the BCBS formula.

Three measures of credit were considered: (i) private sector loans of total financial system; (ii) private sector debt; and (iii) private sector loans of all U.S. chartered depository institutions. In line with the BCBS methodology, a one-sided Hodrick-Prescott filter was used to extract the trend and calculate the credit gap. It was assumed that the CCB increases linearly for a credit gap between 2 and 10 percent. Growth rates of house prices and banks' stock prices (two standard deviations from the mean) were used as

indicators for the CCB release phase.



Source: IMF staff calculations based on U.S. banking system data.

Note: For further discussion and other country examples for CCB, see IMF, 2013, "Key Aspects of Macroprudential Policy—Background Paper" (<http://www.imf.org/external/np/pp/eng/2013/061013C.pdf>). Jurisdictions can impose a CCB higher than 2.5 percent, but mandatory reciprocity will not apply to the additional amounts.

The CCB could have had significant mitigating effects.

If the BCBS proposal had been in place since 1995 (text chart), the buffer would have built up to its maximum 2–4 years before the financial crisis (using the first two measures of credit). A calculation based on 2008 Tier 1 capital shows that the additional buffer would have saved up to 40 percent of the fiscal costs (equivalent to US\$250 billion) of the financial crisis. While this is only a hypothetical exercise that has the benefit of hindsight, the savings could be even bigger, because the calculation does not consider the likely effect of

the buffer on bank lending behavior: requiring additional capital before the crisis could have discouraged bank lending and mitigated the housing price boom.

B. Supervision and Regulation

35. The complex regulatory framework continues to present challenges for coordination and group-wide supervision. An opportunity was missed to consolidate the landscape, which consists of a number of overlapping federal agencies and several hundred state regulatory agencies, self regulatory organizations (SROs), and coordinating groups. Consolidation would substantially reduce gaps, overlaps, potential delays in regulatory actions, and barriers to data sharing.

36. The prudential oversight of banks, insurance companies, and securities markets has been strengthened, but needs to be updated to respond to emerging risks. Some gaps have been identified in the assessment of the supervisory and regulatory framework against international standards (Table 2). In addition, a key risk faced by the entire financial system is that of loss and disruption of activity from cyber attacks, which have increased with several major risk events

occurring in recent periods. The regulatory agencies are working with the government security establishment to develop and share best practices to deal with such events.

Banking

37. The federal banking agencies have improved considerably in effectiveness, and achieve a high degree of compliance with international standards (Table 2). In response to global and domestic reforms, they have stepped up their supervisory intensity. There has also been a marked improvement in the risk management practices (including stress testing practices) of banking organizations. Comprehensive stress testing has been integrated as part of the supervisory toolkit. The resolvability planning exercise is also beginning to influence the complexity of banking organization.

38. But the existence of a complex, multi-agency framework continues to pose challenges for the coordination of timely responses to risk. There is still substantial duplication of supervisory effort, and this can result in uncertainty for institutions when rules or guidance appear contradictory. It would also be beneficial to redefine the federal banking agencies' mandates so that safety and soundness are given primacy in their supervisory objectives, leaving consumer protection to the CFPB. Finally, charter shopping has not been eliminated, the dual banking structure poses a challenge for international cooperation, and enforcement actions are not always coordinated with home supervisors.

39. There are other pressing gaps in the bank supervisory framework. A clearer delineation of the contribution of boards and senior management in supervisory assessments would aid efforts to improve risk management. The concentration risk framework needs to be strengthened to cover market and other risk concentrations and there remain gaps in the large exposures and related parties framework. Supervisory guidance and reporting requirements in operational risk are very disparate. The approach to interest rate risk in the banking book is in marked contrast to other risks, with no specific capital charges or limits being set under Pillar 2. Differences vis-à-vis Basel III remain in the capital adequacy regime as pointed out by the Basel Committee's Regulatory Consistency Assessment Program, and an interagency proposal on compensation reform has yet to take shape to supplement supervisory guidance.

40. The enhanced supervisory focus on large banks is welcome, but should not result in supervisors overlooking small deposit takers. Supervisory expectations are tailored to be less strict for smaller, non-systemic banks. This proportionate approach is generally appropriate although small banks with higher risk activities should be encouraged to adopt better practices in corporate governance, risk management, and contingency planning commensurate with their risk profile, especially given that previous episodes of crisis have originated in small and medium banks.

Table 2. Compliance with International Standards

IOSCO Securities Regulation and Supervision	Insurance Supervision and Regulation	Banking Supervision and Regulation						
Clear and consistent regulatory process	Changes in control and portfolio transfers	Independence, accountability, resources						
Professional standards and confidentiality	Preventive and corrective measures	Cooperation and collaboration						
Regular review of regulatory perimeter	Enforcement	Permissible activities for banks						
Conflicts of interest and misalignment of incentives	Winding up and exit from the market	Licensing criteria						
Authorization and oversight of SROs	Reinsurance and other forms of risk transfer	Transfer of significant ownership						
Inspection, investigation, and surveillance powers	Investment	Major acquisitions						
Enforcement powers	Public disclosure	Supervisory approach						
Authority to share public and non-public information	Countering fraud in insurance	Supervisory reporting						
Mechanisms to share public and non-public information	Information exchange and confidentiality	Corrective and sanctioning powers						
Assistance to foreign regulators	Licensing	Home-host relationships						
Fair and equitable treatment of securities holders	Suitability of persons	Credit risk						
Accounting standards	Risk management and internal controls	Problem assets, provisions and reserves						
Oversight of auditors	Supervisory review and reporting	Country and transfer risks						
Independence of auditors	Enterprise risk management for solvency purposes	Market risks						
Auditing Standards	Capital adequacy	Interest rate risk in banking book						
Oversight of Credit Rating Agencies	Intermediaries	Liquidity risk						
Oversight of entities offering research and analysis	Conduct of business	Internal controls						
Disclosure to evaluate suitability of a CIS	AML and CFT	Disclosure and transparency						
Oversight of Hedge funds	Macroprudential surveillance and supervision	Responsibilities, objectives and powers						
Entry standards for market intermediaries	Supervisory cooperation and coordination	Supervisory techniques and tools						
Capital for market intermediaries	Cross border cooperation and crisis management	Consolidated supervision						
Managing failure of market intermediaries	Objectives, powers and responsibilities of supervisors	Corporate governance						
Supervision of exchanges and trading systems	Supervisor's Independence, accountability, resources	Risk management process						
Detection of manipulation and unfair trading practices	Corporate governance	Capital adequacy						
Managing large exposures, default risk, market disruption	Valuation	Concentration risk and large exposures						
Responsibilities of regulators	Group-wide supervision	Transactions with related parties						
Independence and accountability	<p>KEY:</p> <table border="1"> <tr> <td style="background-color: #90EE90;"></td> <td>Fully Implemented/Observed/Compliant</td> </tr> <tr> <td style="background-color: #FFFF00;"></td> <td>Broadly Implemented/Largely Observed/ Largely Compliant</td> </tr> <tr> <td style="background-color: #FFB6C1;"></td> <td>Partly Implemented/ Partly Observed Partly Compliant</td> </tr> </table> <p>Source: Detailed Assessments of Observance, published April 2, 2015 (www.imf.org/external/np/fsap/fsap.aspx)</p>		Fully Implemented/Observed/Compliant		Broadly Implemented/Largely Observed/ Largely Compliant		Partly Implemented/ Partly Observed Partly Compliant	Operational risk
		Fully Implemented/Observed/Compliant						
		Broadly Implemented/Largely Observed/ Largely Compliant						
		Partly Implemented/ Partly Observed Partly Compliant						
Monitoring, managing and mitigating systemic risk			Financial reporting and external audit					
Effective and credible supervisory programs			Abuse of financial services					
Full, accurate and timely disclosure								
Segregation and custody of CIS assets								
Asset valuation and pricing and redemption in CIS								
Internal controls / risk mgmt/ supervision of intermediaries								
Authorization of and requirements for trading systems								
Transparency of trading								
Adequate powers, resources and capacity of regulators								
Standards for Collective Investment Schemes								

Insurance

- 41. The U.S. insurance supervision framework has been strengthened.** State regulators—under the aegis of the NAIC—have initiated solvency modernization and taken steps to strengthen group and international supervision. The newly established Federal Insurance Office (FIO) has provided a mechanism for identifying national priorities for reform and development, under the umbrella of the FSOC. The extension of the FRB's responsibilities to cover consolidated supervision of certain insurance groups should strengthen oversight of systemic risks.
- 42. However, there are important gaps in compliance with international standards, and reforms remain a work in progress.** At the state level, transition to more principles-based regulation and risk-focused supervision is taking time and faces obstacles. Increased emphasis is being placed on risk management through the introduction of an Own Risk and Solvency Assessment (ORSA) with wide-ranging implications for supervisory work and resourcing. There remain differences in independence, accountability and funding of insurance supervisors across states, as well as variations in their regulations and supervisory approaches. The FRB's supervisory approach to insurance groups still needs to strike out in its own direction. Staffing regulation and supervision with appropriate skills and expertise is a continuing challenge. The approach to valuation and solvency regulation could lead to regulatory arbitrage.
- 43. The valuation standard should be changed to reflect the economics of the products better, and solvency regulation extended to groups.** Principles-Based Reserving, part of the solvency modernization initiative, would mitigate some of the issues, but its implementation date is uncertain. In relation to capital, there are no group-level capital standards in place, whether supervised by states or the FRB, including for the three insurance groups designated by FSOC. Active usage of affiliate captive reinsurers creates uncertainty whether capital adequacy is sufficient at the group level.
- 44. And, the regulatory system for insurance remains complex and fragmented.** The NAIC continues to promote uniform standards of state regulation, but cannot enforce convergence. FIO can only highlight issues and lacks powers to bring about convergence. The extension of the FRB's powers to insurance supervision of designated nonbank financial companies has added to the challenges of achieving regulatory consistency. FSOC brings together most of the players, but its mandate is focused on system-wide stability and its membership does not provide for sector-wide coverage of insurance on the same basis as others.
- 45. An insurance regulatory body with nation-wide remit is needed to deliver enhancements and greater regulatory and supervisory consistency.** This agency would require sufficient resources, accountability, and independence, and would have the mandate and powers to establish national standards, ensure regulatory consistency, and coordinate supervisory actions.

Securities and Derivatives

46. The securities and derivatives regulatory and supervisory framework has improved considerably, but would benefit from further enhancements. The regulatory perimeter now covers OTC derivatives markets, hedge fund managers, and advisors in the municipal securities markets. However, the SEC continues to have limited direct authority over disclosure by issuers of municipal securities. The CFTC is well advanced in implementing the new OTC derivatives framework, but shortcomings exist in the framework for commodity pool operators (CPOs) and advisors in commodity markets. Protection of investors in commodity pools could also be enhanced.

47. Risks in the asset management industry and systemic risk monitoring in general require close attention. Explicit requirements on risk management and internal controls do not yet apply to asset managers in either securities or commodities markets. Monitoring asset management risks requires continued work on improving data availability and risk identification tools. The SEC would also benefit from enhancing its mechanisms to ensure a holistic view on emerging and systemic risks. The CFTC should continue to work on improving the quality of swaps data.

48. The SEC faces challenges in dealing with the fragmented equity market structure and the significant use of automated, high-speed trading technology. This requires analyzing whether the degree of dark trading has a negative impact on price discovery and market efficiency. The increased automation of trading and differences in the timeliness of data feeds run the risk that market participants no longer trade on the basis of the same information. The SEC recently established an Equity Market Structure Advisory Committee to advise on these issues.

49. Addressing the gaps requires increasing the SEC's and CFTC's resources, and enhanced coordination. SEC needs to be equipped to significantly increase the number of asset manager examinations from the current coverage of only around 10 percent of investment advisers per year. CFTC also needs more resources to effectively discharge its mandate (expanded by the DFA), including supervision of FMIs, responding to cybersecurity risks, and making the necessary investments in technology. Self-funding or multiyear budgeting within the current budget framework would enhance the agencies' ability to decide on their priorities and plan longer term. With the current complex regulatory and supervisory arrangements, efficiencies can also be reached through enhanced coordination with other agencies and self-regulatory organizations.

C. Market-based Finance and Systemic Liquidity

50. Although it has reduced from its pre-crisis peak (Appendix Figure 7), market-based financing ("shadow banking") continues to play a very important role in U.S. funding markets. Its component systems were both sources and transmitters of shocks in the GFC, and there remain a number of ways in which the liquidity of these markets could be adversely impacted, either through issues of microstructure or even infrastructure of these markets. Identifying, managing and regulating risks in these markets is complicated by the entity-based regulatory system—increasing the importance of the FSOC oversight and coordination role.

51. The underlying infrastructure of the tri-party repo (TPR) market, a key stress point in the GFC, has been improved. The amount of intra-day credit extended to the collateral providers has been largely eliminated by modifying the settlement cycle and improving the collateral allocation processes. Further, clearing banks are now limited to funding a maximum of 10 percent of a dealer's notional tri-party book through pre-committed lines (incurring a capital charge).

52. The resilience of the TPR market needs to be enhanced to reduce firesale risk and the reliance on the two clearing banks. Market participants are considering the use of some form of CCP service for government-guaranteed securities, which could reduce (though not eliminate) run-risk. But the proposals do not cover non-government assets used in TPR, where most risk is involved. The authorities should consider how best to address remaining weaknesses: TPR is central not only to short-term funding markets, but to the Fed's own operations with the market.

53. Measures should be taken to reduce the vulnerabilities of open-ended MFs to runs. MFs have a regulatory obligation to meet redemption requests within 7 days, and to do so at the NAV prevailing when the request is made, rather than at the price at which shares or assets are sold. While redemptions can be funded by borrowing, it is the remaining investors that have to take on loans to purchase the shares redeemed. A change in settlement price to sales-date NAV instead of redemption-date NAV, and to actual sale price (the bid price) instead of mid-price, could reduce run risk by placing the cost of exit onto those who are redeeming shares.

54. The introduction of Variable Net Asset Values (NAV) across all MMMF categories, together with changes to investment and redemption rules, would help address important structural weaknesses. MMMFs have been made more resilient, but the use of stable NAVs persists. Even after 2016, they may apply to over half the funds managed by MMMFs, allowing both institutional and retail investors to treat these investments as cash-equivalent despite the greater liquidity risks involved than with cash (non-money market open-ended MFs use a variable NAV). Limiting MMMF repo lending to securities that MMMFs are allowed to hold outright could reduce post-default run-risk by allowing for a gradual and orderly liquidation of securities. Currently, MMMFs would be required to sell such assets (mostly, long-term treasury securities) immediately, unless a no action letter is issued by the SEC. Other changes to take effect from 2016 will allow MMMFs to impose fees and redemption gates in the event of stress, but it is not clear how widely these will be used, or whether their potential use could even exacerbate run risks.

55. The capital and liquidity rules covering broker-dealers should be enhanced. Post crisis, the major broker-dealers fall under BHCs, which are subject to FRB consolidated supervision. More recently, the assets of those outside this perimeter have been increasing, though they are still small in absolute terms. Over time, there could be a greater expansion of firms not subject to these tighter controls on BHCs that provide opportunity for regulatory arbitrage. It is thus important that regulations governing all broker-dealers be introduced soon to address the weaknesses revealed during the GFC, including in the area of leverage and liquidity.

56. More also needs to be done in the area of securities lending and cash collateral reinvestment, to ensure that risks are properly appreciated and managed. Since the crisis,

investors—whether mutual funds, insurance companies or pension funds—have taken an active interest in requiring safer mandates from asset managers. Repo placements with broker-dealers are no longer an easy option, as the latter are less willing to accept short-term placements on account of their regulatory requirements. Asset managers have reportedly redirected cash collateral raised from securities lending activities into investments in MMMFs. But while on the face of it, this reduces maturity and credit risk entailed in securities lending, the risks may be masked rather than removed. MMMFs themselves can only earn a return on re-investing the funds by taking some credit and/or liquidity risk. Comprehensive disclosure requirements should be placed on funds' securities lending activities, in the absence of which it is impossible to understand fully the extent and nature of financial risks to investors in the funds and to markets.

57. The U.S. authorities recognize that data limitations prevent a consolidated assessment of trends and risks across repo as well as securities lending markets. The OFR, the FRB, and the SEC are working on pilot surveys for bi-lateral repo and securities lending activities that cover a selection of broker-dealers and agent lenders. These initiatives could be complemented by publishing more granular data on TPR repos.

D. Financial Market Infrastructures

58. U.S. FMIs are among the largest in the world and many are globally systemically important. Most global systemically important financial institutions are among their participants, and these participants represent thousands of customers, including correspondent banks, investment companies, and nonfinancial corporations, both domestic and foreign. Multiple memberships of U.S. banks in CCPs around the world further interlink the U.S. and global financial systems. Disruption of critical operations at one of the U.S. FMIs could have serious systemic implications. The DFA helps reduce systemic risks related to U.S. FMIs, but implementation is still in progress and it is important to promptly complete the rules applicable to designated FMUs and ensure their enforcement.

59. System-wide risks related to interdependencies and interconnections in the U.S. FMI landscape could be further identified and managed. Issues to be analyzed by the relevant authorities include (i) dependency of FMIs on banking services of only a few G-SIBs; (ii) membership of banks in multiple FMIs; (iii) pro-cyclicality of margin calls; and (iv) cross-margining arrangements. Identification of system-wide risks, for example, inclusion of FMIs in the network analysis efforts of the OFR, would further improve the understanding of exposures among financial firms and potential channels of contagion.

60. The provision of Fed accounts to designated FMUs could reduce their dependency on commercial banks' services by allowing settlement in central bank money. Concentration of service provision by G-SIBs poses a potential threat to the stability of FMIs. The authorities are aware of this risk and are further increasing the number of service providers. Still, given the current system-wide concentration of service provision by only a very few G-SIBs, the default of one of these banks could have system-wide repercussions. The Fed is therefore encouraged to provide accounts to designated FMUs, as permitted by the DFA.

61. Given the increased systemic importance of CCPs, it is crucial to pursue work on further risk mitigation. The U.S. authorities are encouraged to continue efforts to increase the robustness of CCPs. Several issues identified at the domestic and international levels warrant further attention, such as cyber resilience, standardized stress testing, harmonized margin requirements, implementation of recovery and resolution regimes, the adequacy of CCPs' loss absorbing capacity in resolution, and continued coordination between the supervisors of CCPs and their main clearing members.

E. Housing Finance

62. Mortgage markets—at the epicenter of the 2008–09 crisis—continue to benefit from significant government support. Important steps, such as the QM and QRM rules, have been taken to help address the structural weaknesses exposed by the crisis, but Government-Sponsored Enterprises reform remains the largest piece of unfinished business. There is still no clarity as to when Fannie Mae and Freddie Mac will exit conservatorship or consensus on the shape of a reformed housing finance system. The federal government backs 80 percent of new single-family home loan originations—a high figure. One in five loans originated is insured by the FHA, although it falls short of its capital requirements, which creates fiscal and financial risks due to moral hazard, the distorted competitive landscape, and large subsidies for debt-financed homeownership.

63. The systemic importance of mortgage markets stems from several features. Home mortgages, at some \$10 trillion, are the largest component of nonfinancial private sector debt, and most are securitized, generating strong interconnections not only with the rest of the U.S. financial system but also with the rest of the world. The system also facilitates continued provision of 30-year fixed-rate mortgages with no prepayment penalty—unusual by international practice, not needed by borrowers (who nearly all refinance in under 10 years), and imposing unnecessary risks and complexity on the financial system.

64. As called for in the 2010 FSAP, it is important to complete the reform of the U.S. housing finance system. Public policy objectives—such as affordable housing for the less well-off—would be better served by targeted subsidies, rather than insurance and securitization activities which dominate the national market, distorting economic incentives. Key features of a future housing finance system, with an appropriate role for and supervision of the private sector (including the resumption of Private Label Securitization)⁵, should include:

- Winding down the Fannie Mae and Freddie Mac investment portfolios within a well-defined time period and supervising them commensurate with their systemic importance in the interim;
- Leveraging the government's role in the market to support standardization and computerization of mortgage data;

⁵ PLS largely falls under state-based supervision.

- Introduction of a sizeable first-loss risk borne by private capital, with a public backstop that is strictly limited to catastrophic losses and is funded by risk-based guarantee fees;
- Ensuring the maintenance of appropriate incentives for loan originators and those involved in the securitization chain, including ‘skin in the game’;
- Clear separation of regulatory roles for promoting access to credit and ensuring the stability and safety of the mortgage market;
- Reduction in cross-subsidization and market distortion by charging separately and appropriately for prepayment of fixed-rate mortgages.

F. Financial and Market Integrity

65. The U.S. authorities have played a key role in the ongoing international review of financial benchmarks to reinforce market integrity. They have pledged to fight market abuse, including benchmark manipulation. They have been active participants in the multilateral engagement on benchmark reform and are exploring options for strengthening major interest rate benchmarks with the private sector, including both rates incorporating bank credit risks and risk-free rates.

66. Work is underway to strengthen financial integrity, but more rapid progress is needed to enhance transparency. Draft regulations have been produced to strengthen financial institutions’ obligations to identify and verify the identity of beneficial owners; and policy intentions announced to improve the authorities’ access to information on the beneficial ownership and control of U.S. companies. But these measures—to address deficiencies identified in the last Financial Action Task Force (FATF) mutual evaluation report of June 2006—are progressing slowly. Even when completed, the intended changes may not address fully all of the deficiencies identified in the last FATF mutual evaluation report.⁶ The lack of sufficient transparency may impact the authorities’ effectiveness in identifying and prosecuting persons who commit money laundering using U.S. companies and trusts, including laundering associated with taxes evaded in the United States and abroad, by U.S. citizens and foreigners respectively, and to cooperate effectively with their foreign counterparts in this regard.

G. Financial Inclusion, Literacy, and Consumer Protection

67. Promoting greater financial inclusion should feature more prominently on the policy agenda. The Global Findex survey ranks the United States only 27th out of 147 countries in terms of the percentage of adults with a bank account in a formal financial institution, and a 2013 FDIC survey finds that some 20 percent of U.S. households are “underbanked” and 8 percent are “unbanked”. More work is needed to identify barriers to inclusion. The enhanced focus on consumer

⁶ The next FATF AML-CFT peer review is due in 2016.

protection, including the setting up of the CFPB, is an important part of the crisis response, and is beneficial for both financial stability and financial inclusion. Improving financial literacy will also support these goals, and the activities of the Financial Literacy and Education Commission are welcome steps in this direction.

...AND FOR REINFORCING SAFETY NETS AND THE RESOLUTION FRAMEWORK

A. Liquidity Backstops

68. The Primary Credit Facility could be repackaged to clarify that it is a monetary policy/payments system facility. The history of the ‘Discount Window’ (which in 2003 was split into Primary and Secondary Credit Facilities) means that depository institutions may be reluctant to use the Primary Credit Facility. The goal of the repackaging would be to remove the risk of stigma from the Primary Credit Facility, which serves primarily to cover unanticipated end-of-day liquidity shortfalls, and to distinguish it more clearly from the Secondary Credit Facility. The latter would remain as a short-term lender of last resort facility for (solvent) banks, and so involve regulatory intervention as well as carrying a more penal interest rate.

69. Consideration should be given to relaxing the restrictions that the DFA places on the Fed’s ability to provide liquidity to designated nonbank institutions. The DFA strictly limits Fed support to programs or facilities with “broad-based eligibility,” but this could constrain the Fed from taking action to avoid or minimize contagion. At minimum, the authorities are encouraged to consider enabling the Fed to provide liquidity support—subject to appropriate conditionality—to solvent non-banks that have been designated as systemic by the FSOC.

70. The DFA permits the Fed to provide liquidity backstopping to designated FMUs; any technical obstacles to this should be removed. Private sector backstops should be the first line of defense for any FMI; Fed support to designated FMUs should be at its discretion and, as with any other lender of last resort support, only to solvent and viable institutions, against good collateral.

71. The Federal Home Loan Banks (FHLBs) were an important source of funding (doubling to some \$1 trillion) during the crisis. The FHLBs benefit from an implicit government guarantee and from a super lien over the assets of borrowers, and their loans to borrowers receive favorable treatment under the LCR. Regulators should review the liquidity and capital requirements imposed on FHLBs, given an apparent increase in the interconnectedness between the FHLBs and their members.

B. Crisis Preparedness and Management

72. Agencies have taken steps to enhance crisis preparedness and management, but more formal arrangements should be established and the FSOC assigned responsibility for system-wide coordination. While the response to the 2008–2009 crisis was flexible, it suffered from a lack

of preparation in some respects. Agencies have since then developed strategies for handling the failure of individual systemic institutions, but there are no formal arrangements at a system-wide level. Several contingency planning exercises have been conducted. However, existing inter-agency crisis preparation arrangements remain informal, with the risk that inter-linkages and gaps may not be fully covered on a systematic basis, possibly hampering system-wide crisis management. Coordinating work could be undertaken by one of the FSOC committees under the oversight of the Council, building on rather than replacing existing practices and efforts made by individual agencies.

C. Resolution

73. The resolution regime for financial institutions has been significantly strengthened.

Title II (“Orderly Liquidation Authority”, OLA) of the DFA sets forth a new resolution regime for “covered financial companies”, granting resolution powers to the FDIC. The OLA powers are extensive, align broadly with best international practice, and reflect experiences obtained over many years by the FDIC in resolving banks. The FDIC has published a top down or “single point of entry strategy” as one option for resolving covered financial companies and their groups using these powers. Under such a strategy, loss absorbing creditors would be bailed-in to recapitalize a bridge bank and capital and liquidity streamed down to entities within the group, including overseas. However, effectively resolving large, complex, cross-border financial firms, entails significant challenges that continue to warrant further attention.

74. Effective planning and significant efforts at the group level are required to implement orderly resolution. The DFA requires certain financial companies to prepare plans for their orderly resolution under ordinary insolvency law in the event of material financial distress or failure, but the agencies’ review of the plans of the largest domestic banking groups and FBO’s highlighted significant shortcomings. As a result, the FRB and the FDIC reported in August 2014 and March 2015, respectively, that the plans failed to address significant structural and organizational impediments to orderly resolution—prompting a need for further actions to improve resolvability. In addition, and in accordance with emerging international consensus, minimum levels of total loss absorbing capital (TLAC) need to be put in place, at the right levels in systemic groups, to enable effective resolution.

75. Further improvements are needed with respect to cross-border issues. Notwithstanding the progress made, a number of critical aspects are not in place, including statutory powers to give prompt effect to actions taken by foreign resolution authorities. The deposit preference rules applicable to insured depository institutions under the Federal Deposit Insurance Act, as well as ring-fencing of foreign-owned uninsured bank branches can complicate effective coordination by typically ranking claims of creditors in the United States above those abroad. Efforts to enhance resolution preparedness, including by coordinating—to the maximum extent possible—institution-specific resolution strategies on a cross-border basis are ongoing. The finalization of such agreements, setting out the process for information-sharing before and during a crisis as well as the progress on effective group-wide resolution plans and enhancing resolvability, will mark important progress.

76. Not all financial firms that could be systemic are subject to effective resolution regimes or planning. U.S. insurance companies cannot be resolved using the full OLA powers and the fragmented state based resolution regimes lack important tools necessary to deal effectively with a systemic entity. Furthermore, some potentially systemic firms such as asset managers are not yet subject to DFA's Title I resolution planning requirements, and may not be resolvable effectively using OLA powers. Finally, U.S. agencies are currently discussing how FMIs would be resolved in the event of a failure.

D. Deposit Insurance

77. Welcome measures have been enacted to strengthen deposit insurance for banks.⁷ Deposit insurance funds were substantially depleted during the crisis. The DFA increased the minimum reserve ratio for the FDIC fund and removed its hard cap. The FDIC Board set a higher target at 2 percent of insured deposits—although on current plans this may not be reached before the end of the next decade. Consideration should be given to raising assessments, as bank profitability recovers, to reach the target sooner.

78. Measures should also be taken to strengthen the funding and coverage of the deposit insurance scheme for credit unions. In the case of credit unions, which have a separate fund, a much lower amount is paid-in (as the first one percent is structured as deposits from members), a hard cap of 1.5 percent remains, and membership is not compulsory. With some credit unions potentially becoming systemic, there is a need to enhance the deposit insurance regime by removing the cap, targeting a significantly higher level of paid-in funds, and making membership mandatory for all credit unions.

⁷ Deposit insurance coverage is high by international standards. Some 99 percent of bank account balances are fully covered by the current limit which, at some five times per capita GDP, is significantly above the level in most other developed countries. Moreover, the U.S. treatment allows multiple different types of accounts of the same client to benefit from the \$250,000 coverage.

Appendix I. Financial System Profile

Appendix Table 1. Financial System Assets, 2002–2014

	2002		2007		2008		2009		2010		2014q3	
	% share	% GDP	% share	% GDP	% share	% GDP	% share	% GDP	% share	% GDP	% share	% GDP
<i>Fed</i>	2	7	1	7	3	15	3	16	4	16	5	26
<i>Private Depository Institutions</i>	23	88	23	106	25	115	25	117	25	114	26	120
US-chartered depository institutions	17	66	16	76	18	83	17	79	17	77	16	76
Foreign banking offices in U.S.	2	6	2	9	2	10	2	8	2	8	3	13
Banks in U.S. possessions	0	1	0	1	0	1	0	1	0	1	0	0
Credit unions	1	5	1	5	1	5	1	6	1	6	1	6
Holding companies	3	10	3	15	4	17	5	23	5	22	5	25
<i>Insurance companies</i>	10	39	9	44	9	40	9	43	10	44	9	44
Life Insurance	8	30	7	34	7	31	7	33	8	35	7	35
Other Insurance	2	9	2	10	2	9	2	10	2	9	2	9
<i>Pension funds</i>	21	80	19	89	18	82	19	91	21	97	21	99
Private Pension Funds	10	37	9	43	8	36	9	41	10	44	10	48
State & Local Govt Retirement Funds	6	23	6	27	6	28	6	30	7	32	7	31
Federal Government Retirement Funds	5	20	4	19	4	19	4	20	5	21	4	21
<i>Investment funds</i>	9	35	12	56	8	38	11	50	12	54	15	71
Mutual Funds	9	33	12	54	8	37	10	48	11	53	15	70
Closed-end Funds	0	1	0	2	0	1	0	2	0	2	0	2
<i>GSEs</i>	14	52	11	53	13	57	12	58	11	53	10	45
Government sponsored enterprises /2	6	23	5	22	5	23	5	21	10	45	8	36
Agency and GSE-backed mortgage pools /3	7	29	7	31	7	34	8	37	2	8	2	9
<i>Other</i>	22	84	24	112	24	107	20	94	18	80	13	62
ABS Issuers	5	18	7	31	6	28	5	23	3	15	2	8
Finance companies	3	13	3	13	3	13	2	12	2	11	2	8
REITs	0	1	0	2	0	2	0	2	0	2	1	4
Securities Broker-Dealer	6	21	7	32	5	24	5	23	5	23	4	19
Money Market Mutual Funds	5	20	5	21	6	26	5	23	4	18	3	15
Funding corporations /4	3	11	3	12	3	16	3	12	2	11	2	8
Total financial system	100	385	100	465	100	454	100	469	100	458	100	466

Source: Federal Reserve (Flow of Funds), IMF staff calculations.

1 Total financial assets; some assets may be double-counted if they appear on the balance sheet of more than one group of financial intermediaries

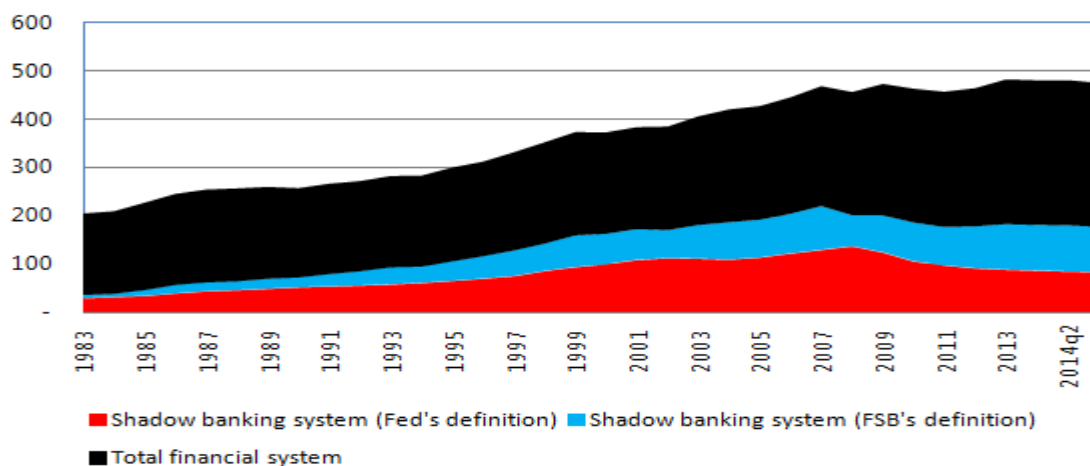
2 Federal Home Loan Banks, Fannie Mae, Freddie Mac, Farmer Mac, Farm Credit System, the Financing Corporation, and the Resolution Funding Corporation.

The Student Loan Marketing Association (Sallie Mae) was included until it was fully privatized in 2004:Q4.

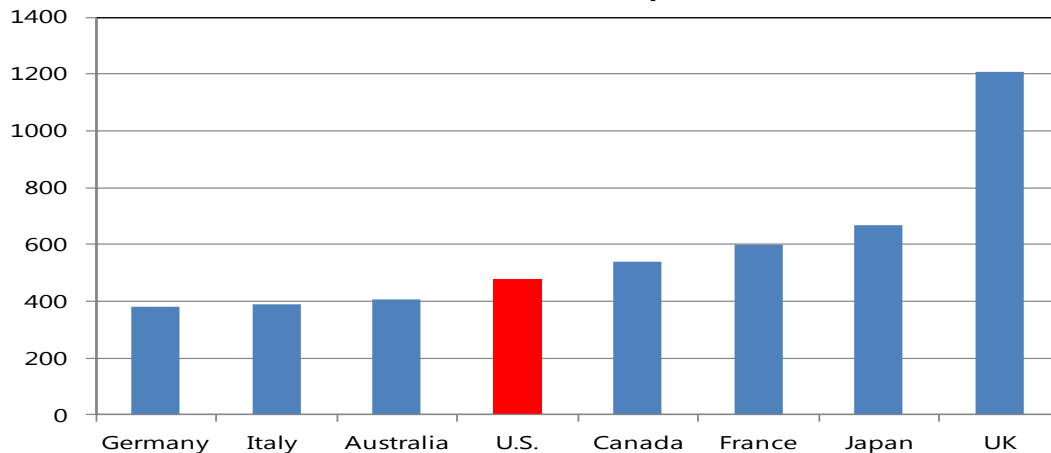
3 GNMA, Fannie Mae, Freddie Mac, Farmer Mac, and Farmers Home Administration pools. Beginning 2010:Q1, almost all Fannie Mae and Freddie Mac mortgage pools are consolidated on Fannie Mae's and Freddie Mac's balance sheets (table L.123). Also includes agency- and GSE-backed mortgage pool securities which are used as collateral for agency- and GSE-backed and privately issued CMOs. Excludes Federal Financing Bank holdings of pool securities, which are included with federal government mortgages and other loans and advances.

4 Funding subsidiaries, custodial accounts for reinvested collateral of securities lending operations, Federal Reserve lending facilities, and funds associated with the Public-Private Investment Program (PPIP)

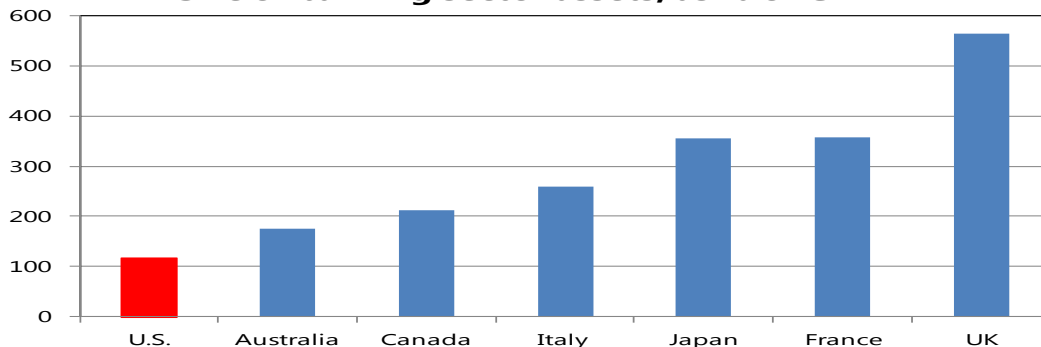
Appendix Figure 1. Financial System Size
(% of GDP)



Size of financial sector assets, as % of GDP



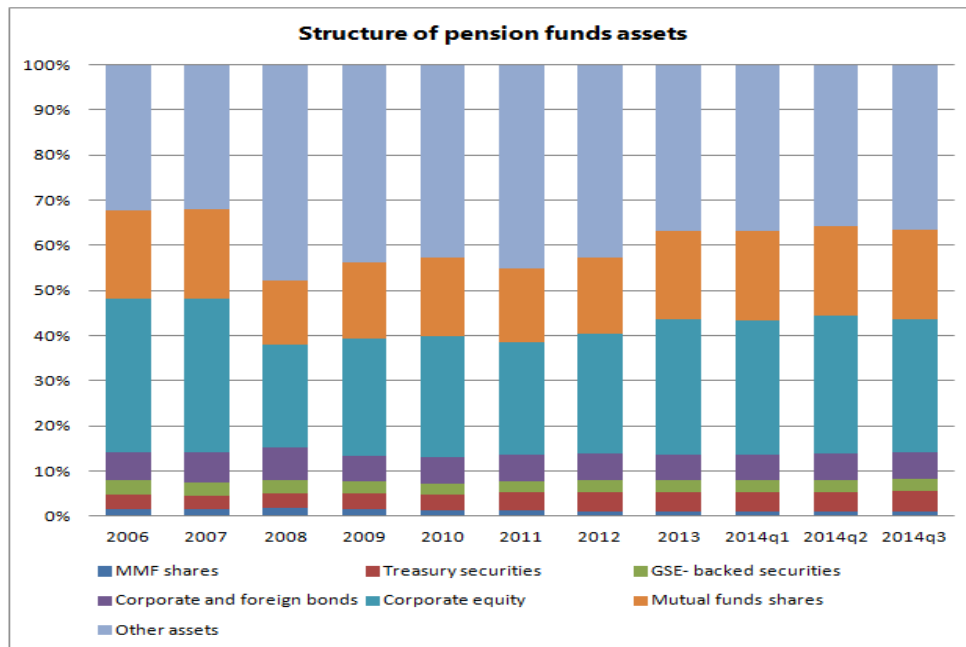
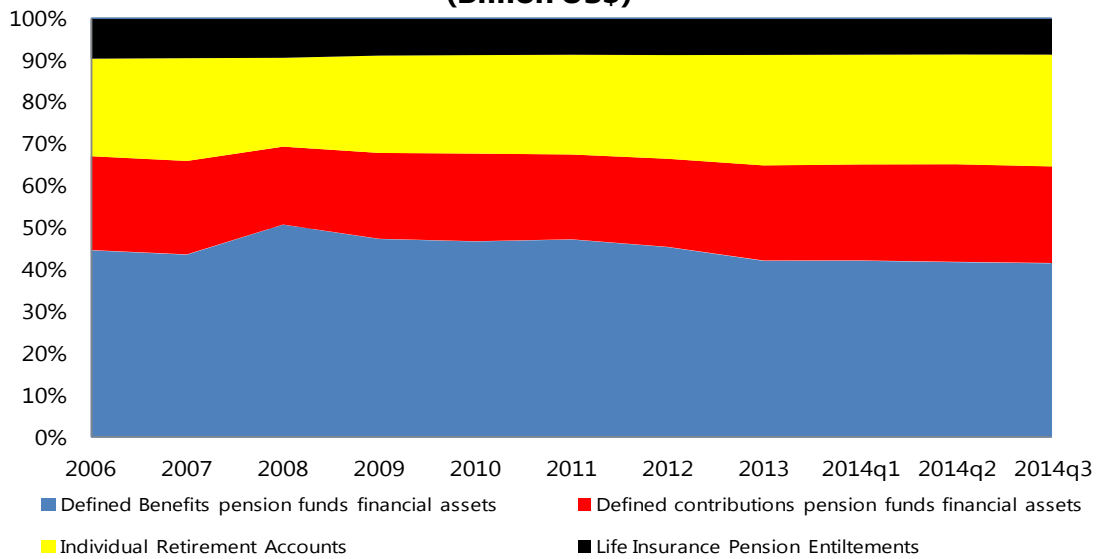
Size of banking sector assets, as % of GDP



Source: Flow of Funds. Data in the bottom chart are for 2013, except for the United Kingdom (end 2012).

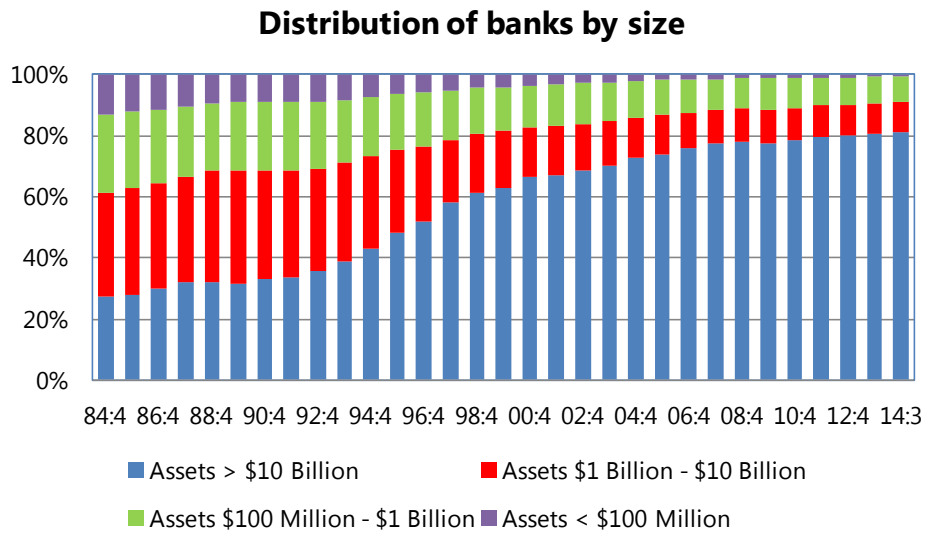
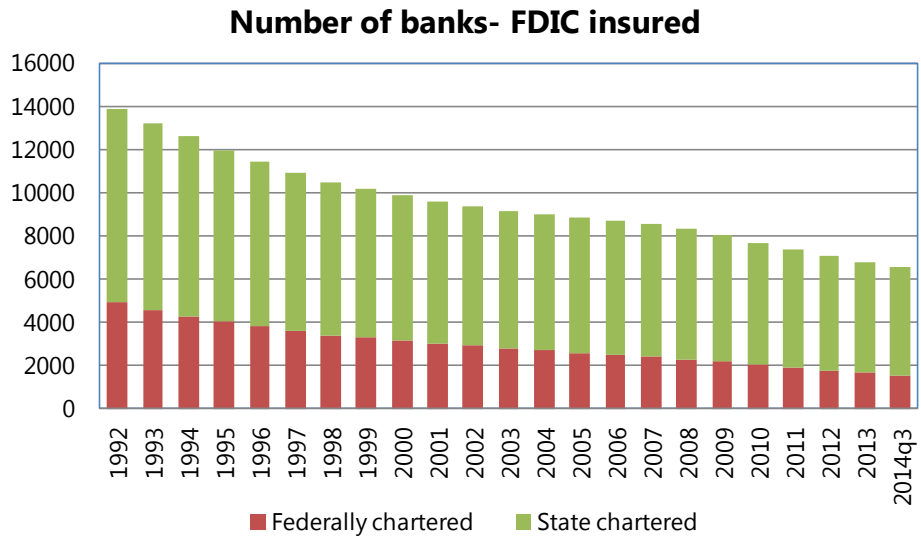
Appendix Figure 2. Pension Funds

**Pension Funds: Structure of Household Retirements Assets
(Billion US\$)**



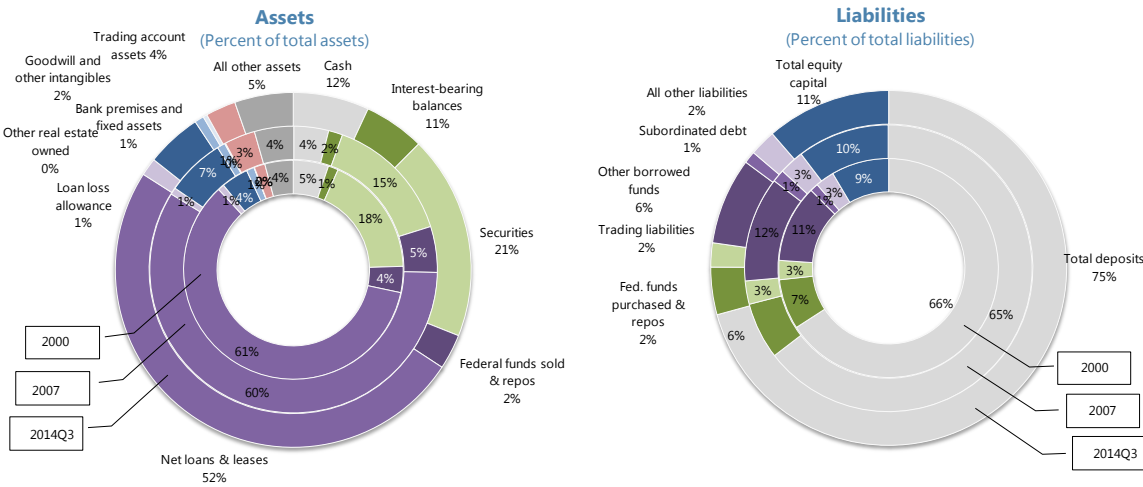
Source: Haver Analytics.

Appendix Figure 3. Banks: Number and Distribution by Size

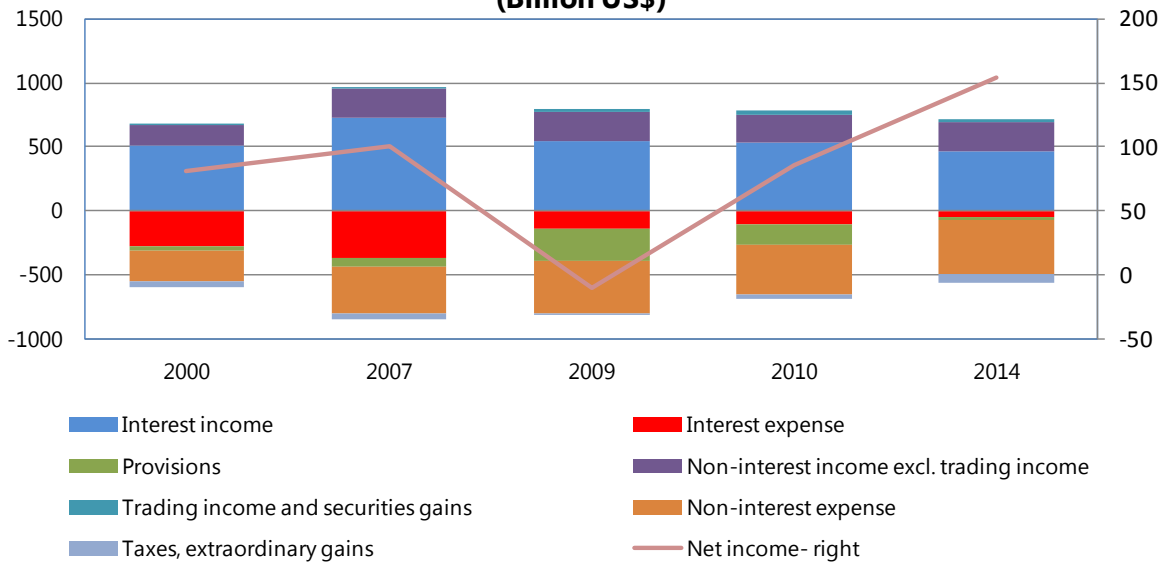


Source: FDIC

Appendix Figure 4. Banks' Balance Sheets and Income Statement



Income statement of the banking sector, 2000-2014 (Billion US\$)

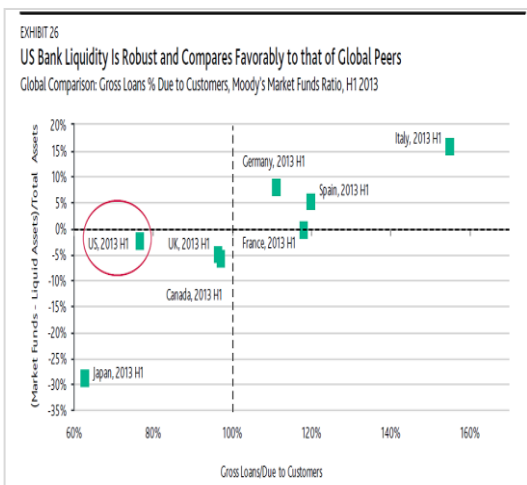


Source: FDIC

Note: 2014 data are 2014/Q3 annualized.

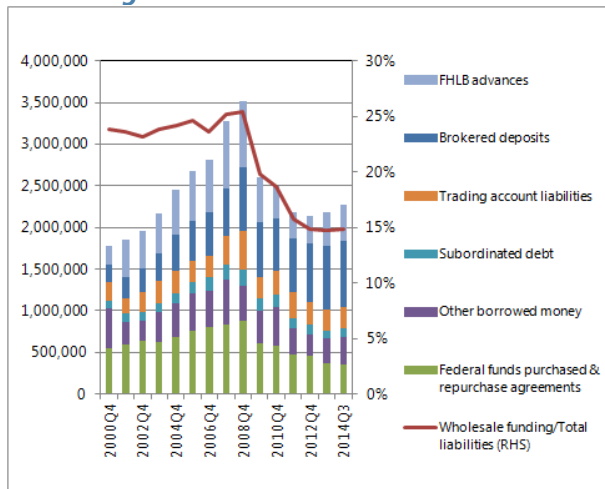
Appendix Figure 5. Bank Funding

1. U.S. banks' liquidity position vs. global peers



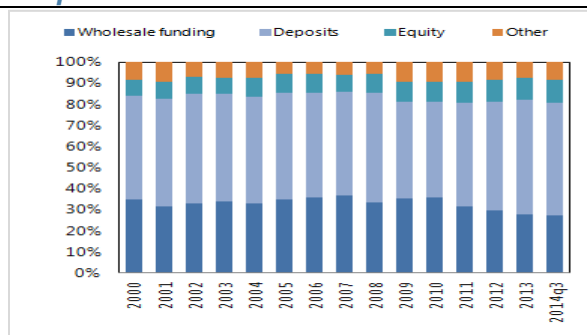
Source: SNL, IMF staff calculations.

2. Structure of wholesale funding: commercial and savings banks



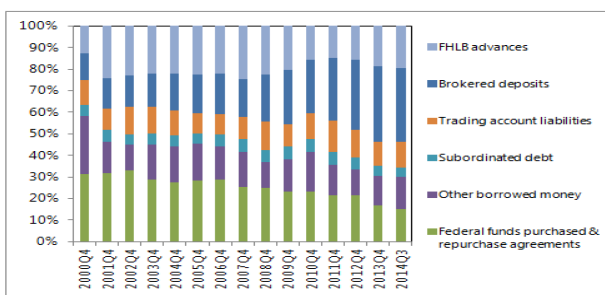
Note: Data in US\$ million unless indicated otherwise.
Source: FDIC.

3. Structure of liabilities: bank holding companies



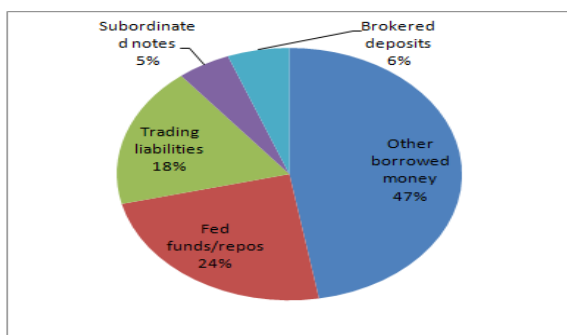
Source: SNL, IMF staff calculations.

4. Structure of wholesale funding: commercial and savings banks



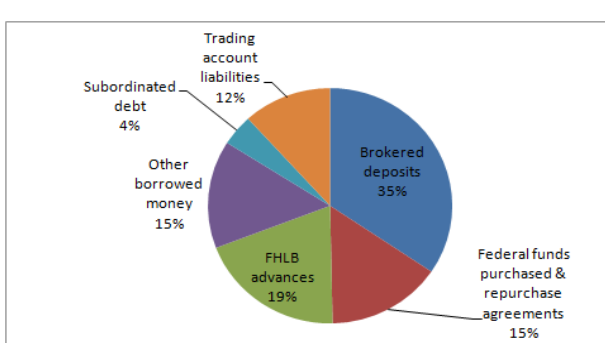
Source: FDIC, IMF staff calculations.

5. Structure of wholesale funding: bank holding companies



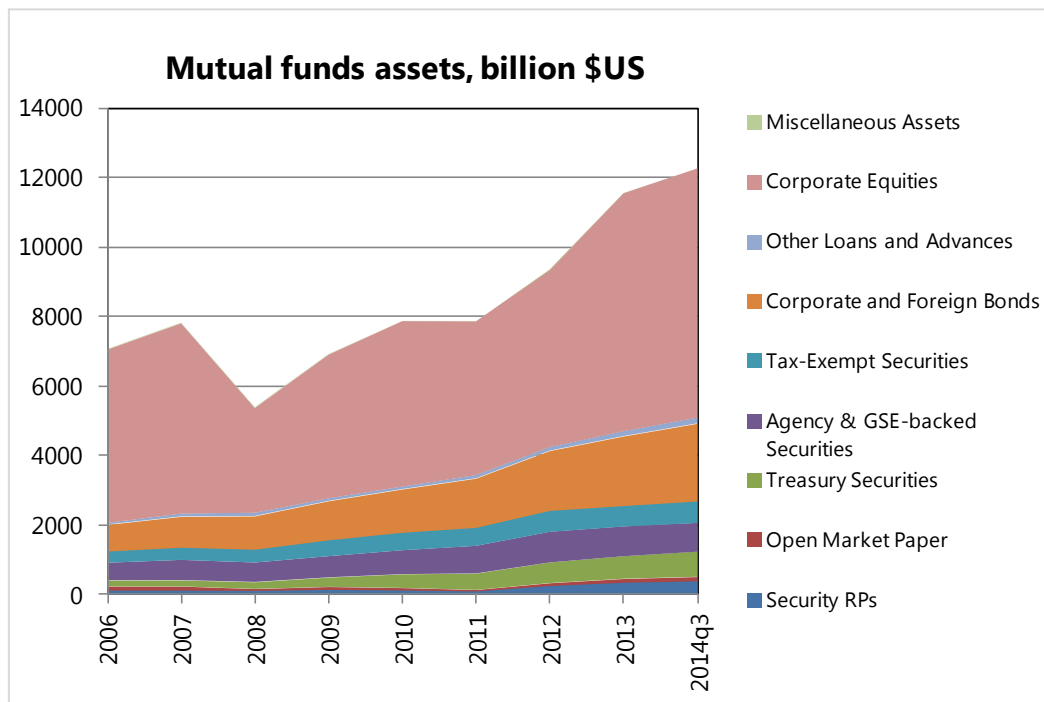
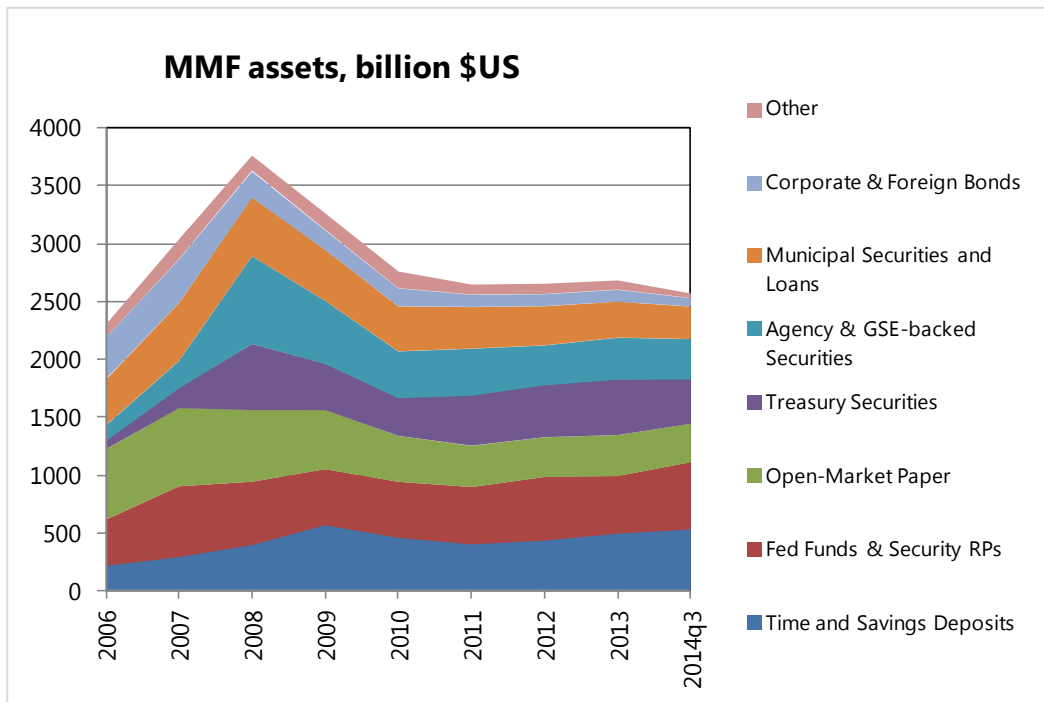
Source: SNL, IMF staff calculations

6. Structure of wholesale funding: commercial and savings banks



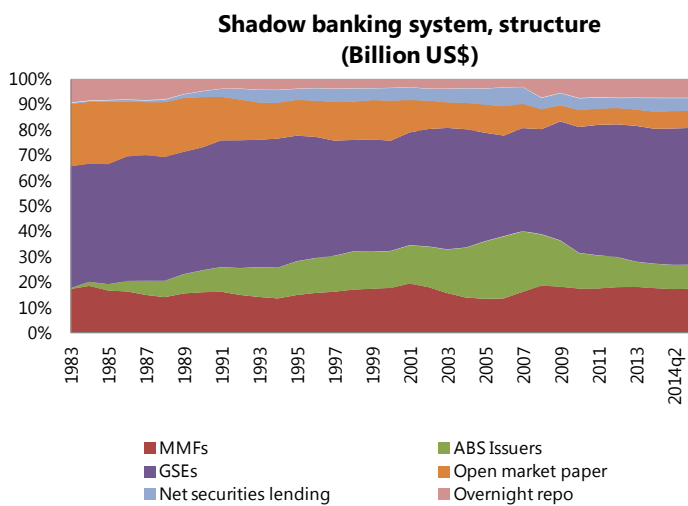
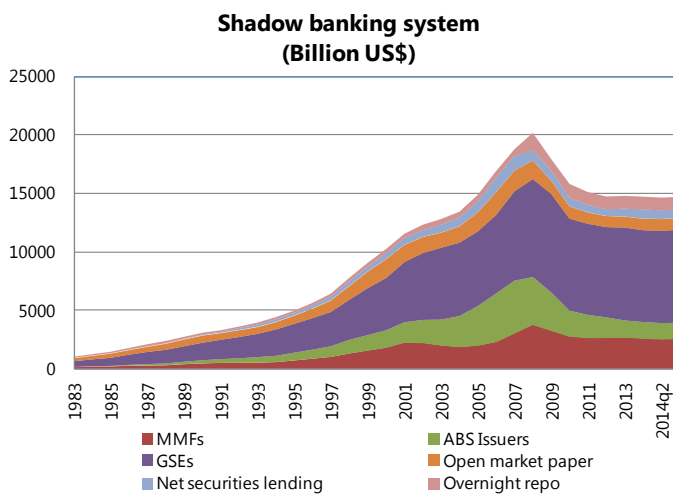
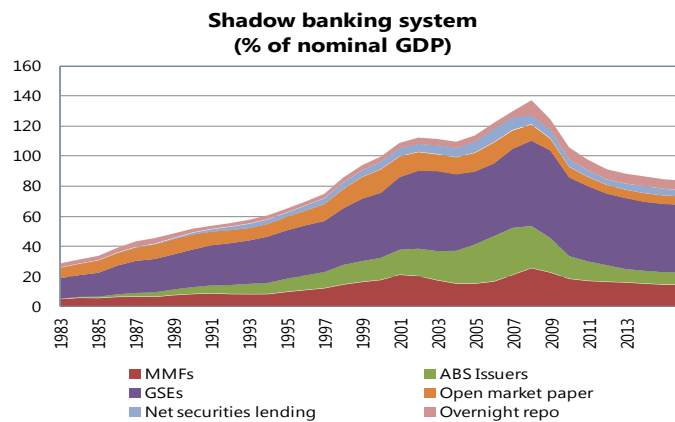
Source: FDIC, IMF staff calculations.

Appendix Figure 6. Money Market Funds and Mutual Funds
(Billion US\$)



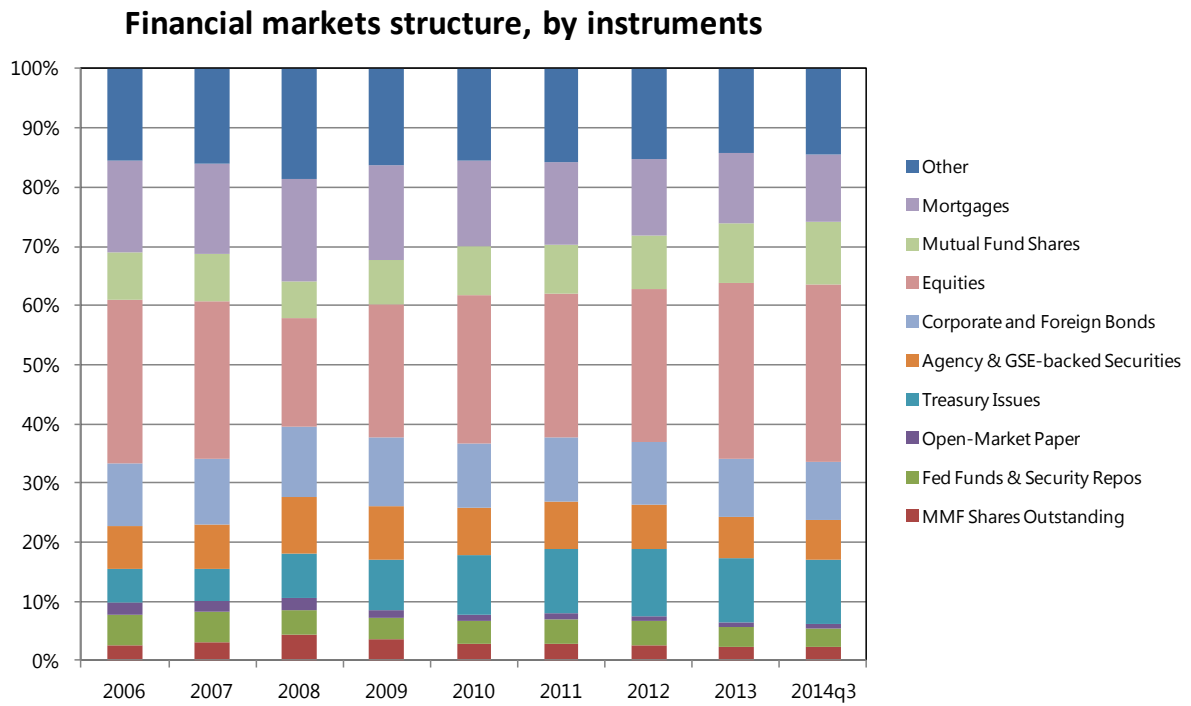
Source: Federal Reserve (Flow of Funds data).

Appendix Figure 7. Market-Based Financing: Evolution and Components



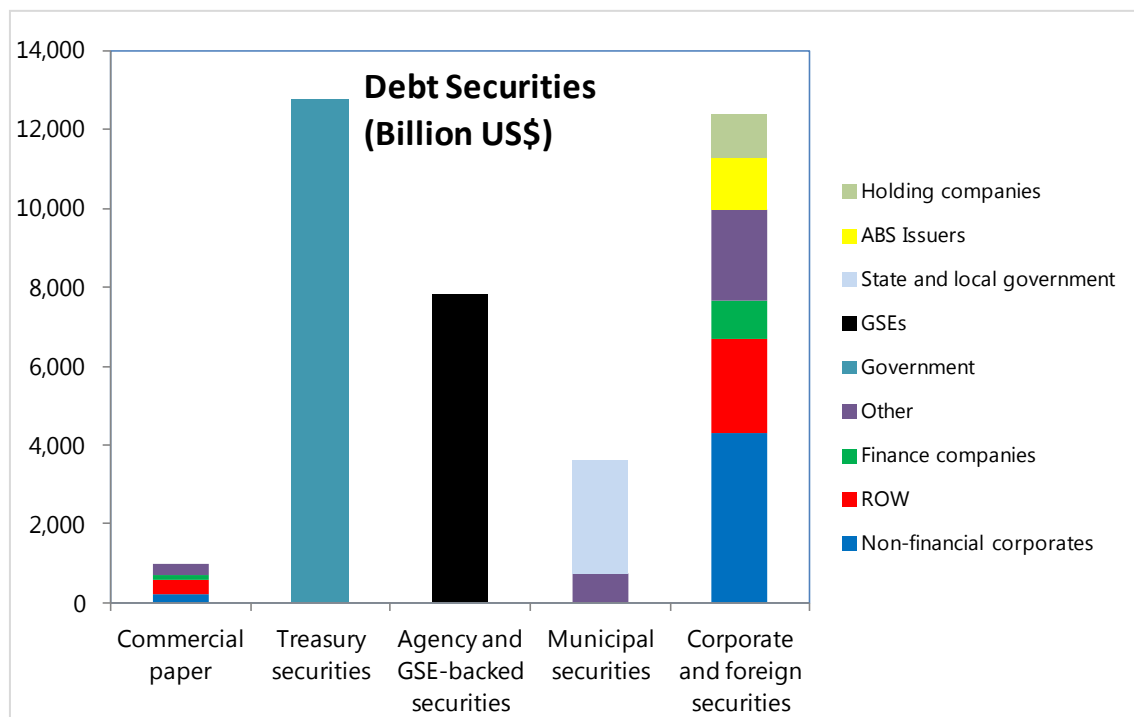
Source: Federal Reserve (Flow of Funds data).

Appendix Figure 8. Structure of Financial Markets



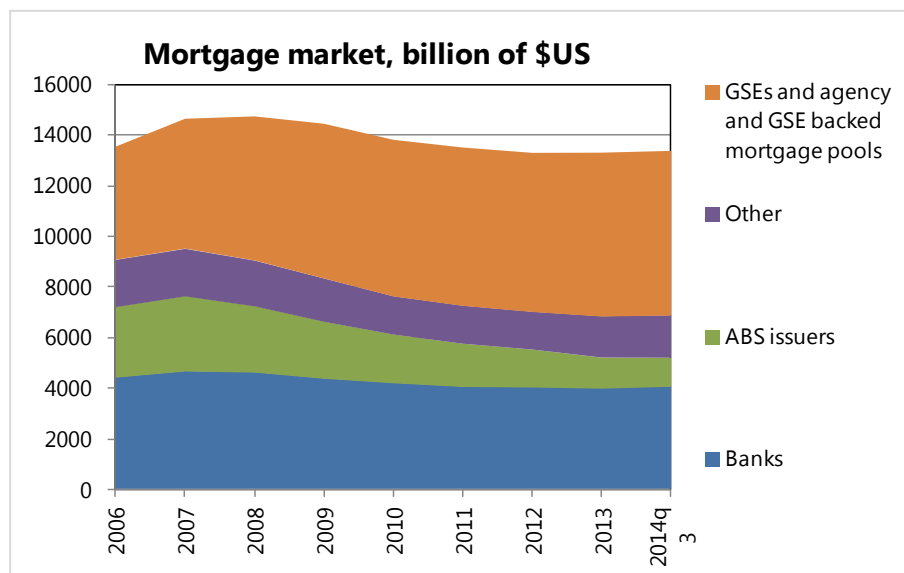
Source: Federal Reserve (Flow of Funds)

Appendix Figure 9. Debt Securities Market



Source: Fed Flow of Funds

Appendix Figure 10. Mortgage Market



Source: Federal Reserve (Flow of Funds)

Appendix II. Financial Soundness Indicators vs. Peer Countries

Data for 2008–2014, in percent

	2008	2009	2010	2011	2012	2013	2014	Period
Regulatory capital to risk-weighted assets								
Australia	11.3	11.9	11.4	11.6	11.9	11.6	12.1	June
Canada	12.2	14.7	15.6	15.9	16.2	14.3	13.7	March
France	10.5	12.4	12.7	12.3	14.5	15.4	...	December
Germany	13.6	14.8	16.1	16.4	17.9	19.2	17.7	June
Italy	10.4	11.7	12.1	12.7	13.4	13.7	...	December
Japan	11.3	11.2	13.3	13.8	14.2	15.2	15.6	March
United Kingdom	12.9	14.8	15.9	15.7	16.4	...	...	June
United States	12.8	13.9	14.8	14.7	14.5	14.4	14.5	March
Capital to assets								
Australia	5.4	5.7	5.7	5.7	5.7	5.6	5.6	June
Canada	3.5	4.5	4.7	4.9	4.9	5.0	4.8	March
France	3.7	4.1	4.9	4.8	5.2	5.8	...	December
Germany	4.5	4.8	4.3	4.4	4.7	5.5	5.7	June
Italy	4.1	4.8	5.0	5.4	5.4	5.4	...	December
Japan	5.0	4.3	5.3	5.1	5.1	5.5	5.5	March
United Kingdom	4.4	5.4	5.4	5.1	5.0	...	...	June
United States	9.3	12.4	12.7	12.2	12.0	11.8	11.8	March
Nonperforming loans to total loans								
Australia	1.3	2.0	2.2	2.0	1.7	1.4	1.2	June
Canada	0.8	1.3	1.2	0.8	0.7	0.6	0.6	March
France	2.8	4.0	3.8	4.3	4.3	4.5	...	December
Germany	2.9	3.3	3.2	3.0	2.9	2.7	...	December
Italy	6.3	9.4	10.0	11.7	13.7	16.5	...	December
Japan	2.4	2.4	2.5	2.4	2.4	2.3	1.9	March
United Kingdom	1.6	3.5	4.0	4.0	3.7	...	...	June
United States	3.0	5.0	4.4	3.8	3.3	2.5	2.3	March
Provisions to nonperforming loans								
Australia	22.8	22.6	22.0	21.8	24.8	24.4	23.2	June
Canada	32.1	26.9	25.4	30.1	22.3	16.3	16.5	March
France	70.0	63.2	63.6	59.0	56.9	55.9	...	December
Germany	...	...	...	...	...	...	...	...
Italy	46.1	40.0	40.3	40.2	40.0	42.6	...	December
Japan	26.4	25.6	25.8	23.7	23.9	24.4	23.7	March
United Kingdom	38.1	41.1	35.5	37.4	39.8	...	...	June
United States	74.4	57.7	64.5	62.5	58.5	65.3	70.5	June
Return on assets								
Australia	1.0	1.1	1.2	1.3	1.2	1.3	1.3	March
Canada	0.5	0.7	1.1	1.1	1.1	1.1	1.2	March
France	0.1	0.3	0.6	0.4	0.3	0.5	...	December
Germany	-0.1	0.2	0.4	0.5	0.4	0.4	...	December
Italy	0.3	0.3	0.3	-0.9	-0.1	-0.8	...	December
Japan	0.3	-0.2	0.2	0.3	0.3	0.3	0.4	March
United Kingdom	-0.1	0.0	0.3	0.3	0.3	...	...	June
United States	-0.1	0.2	0.9	1.2	1.4	1.6	1.5	March
Return on equity								
Australia	20.5	19.8	20.6	22.4	20.4	23.0	23.5	March
Canada	15.0	18.2	23.0	23.6	22.7	22.3	23.8	March
France	3.6	7.2	12.0	8.3	6.0	8.4	...	December
Germany	-2.5	5.0	8.8	13.0	10.8	7.5	...	December
Italy	4.9	4.0	3.7	-13.0	-0.9	-11.5	...	December
Japan	6.7	-5.7	5.5	6.9	6.5	7.6	8.4	March
United Kingdom	-2.5	-0.1	6.9	6.1	5.8	...	...	June
United States	-1.6	1.7	6.9	9.6	11.6	13.2	12.4	March

Source: IMF staff based on country authorities data.

Note: Financial soundness indicators methodology as per <http://fsi.imf.org/fsitables.aspx>.

Appendix III. Risk Assessment and Stress Testing

To quantify the impact of the threats to financial stability, the FSAP has carried out a set of stress tests, focusing spillovers and correlations in the system. The stress tests followed the principles of recent FSAPs; used new methodologies from the 2010 U.S. FSAP; and made use of the stress testing efforts by the U.S. authorities. The stress testing work was guided by the Risk Assessment Matrix (Appendix Table 2). The key features of the stress testing approach are summarized in the Stress Testing Matrix (Appendix Table 3).

Stress test scenario design approach followed the principles spelled out in IMF policy papers on stress testing and applied in recent FSAPs.¹ A baseline and a “stressed” scenario were considered. The “severely adverse scenario” in the U.S. authorities’ 2015 Annual Stress Tests under the DFA is comparable in terms of severity with what is usually described as “extreme but plausible” scenario in FSAPs. Therefore, and for reasons of comparability and simplicity, the FSAP used the DFA scenarios as a reference point. Alternative scenarios and single factor shocks, to examine sensitivity of results to assumptions, were also introduced, and the calculations covered both solvency and liquidity tests.

Reflecting the authorities’ confidentiality requirements, the analysis—similarly to the 2010 FSAP—utilized publicly available data. While an impressive range of information is publicly available on U.S. financial institutions, the lack of access to more granular supervisory information was a constraint. For example, due to the lack of access to comprehensive data on the extent to which financial institutions are connected to each other through lending and other relationships, the team’s assessment of “interdependencies” and contagion relied largely on statistical models that are subject to uncertainty and rely on equity market-based data. These limitations need to be understood when interpreting the stress test results.

To obtain a more comprehensive assessment than possible with any single approach, the U.S. FSAP stress tests combined three broad approaches:

- *Bottom-up.* The FSAP critically reviewed the results of the U.S. authorities’ CCAR and DFA stress tests.
- *Top-down cross-check using balance sheet data.* Similarly to the 2010 FSAP, this was carried out largely by the FSAP team. Resembling in essence the DFA stress test, but relying on publicly available data, it modeled the effects of macroeconomic developments on financial institutions’ health. In addition to scenario analysis, the calculations included single-factor shocks. The modeling took into account methodological improvements since the 2010 FSAP. The team considered firm-specific differences in earnings and losses, based on portfolio composition and historical performance. The calculations were complemented by a network

¹ Particularly relevant is the paper “Macrofinancial Stress Testing—Principles and Practices” by IMF’s Monetary and Capital Markets Department, August 22, 2012.

analysis based on a matrix of exposures among six large banks. On insurance, the team developed an IMF stress tests of major insurance companies. These tests included an adverse scenario combining negative shocks to the companies' assets, a liability-side shock impacting variable annuity writers, and major insurance shocks such as catastrophic events and pandemics. For consistency and comparability, the macroeconomic parameters of these tests were the same as those used for the DFA tests; however, some simplifications had to be made to accommodate the lower level of granularity of publicly available information.

- *Top-down calculations using market-based data.* Calculations by the FSAP team covered feedbacks among banks and nonbanks, including with entities abroad. The analysis adds depth by providing estimates of unexpected losses, correlations and potential spillovers. It highlights the correlations between banks and nonbank financial sector, between the financial and nonfinancial sector, and the international dimension. To do this, the team derived measures of estimated probabilities of default from equity market data. The methodology followed up and expanded on the techniques used in the first U.S. FSAP. Both the "systemic macro-financial stress test framework" and the "contingent claims analysis (CCA)" employed in the 2010 U.S. FSAP have been subsequently used in FSAPs for other jurisdictions and other IMF work. In the process, both techniques have been further strengthened. The equity market-based calculations complemented the balance-sheet based approaches by assessing correlations and by using this information to estimate the magnitude of potential systemic impact to the financial system.

The stress scenario reflected the severely adverse scenario from the DFA stress test that was characterized by a typical post-war U.S. recession.² In the scenario the unemployment rate rose by 4 percentage points over a two-year period. Real GDP was 4.5 percent lower than the baseline by the end of 2015 (GDP growth rates were negative for 5 quarters), equity prices fell by 60 percent in one year, house prices declined by 25 percent over the first two years, corporate spreads rose by 330 basis points, and mortgage rates increased by 80 basis points. The baseline scenario was informed by the Blue Chip Economic Consensus and broadly reflected the IMF's World Economic Outlook projections as of January 2015.

Banking tests covered the largest 31 BHCs (85 percent of sector assets). The institutions were subjected to credit and liquidity risks in the context of a tail risk scenario. All tests were conducted based on publicly available, consolidated data as of September 2014. The solvency stress tests assessed the level of banks' Basel III Common Equity Tier 1 ratios against a hurdle rate consisting of the regulatory minimum consistent with the Basel III transition schedule augmented by the capital conservation buffer and a capital surcharge for Globally Systemically Important Banks (GSIBs) which are both phased in over the forecast period.

² The scenarios were taken from the DFA stress test but extended over a five-year horizon.

Appendix Table 2. Risk Assessment Matrix

Nature/Source of Risk	Likelihood of Severe Realization of Threat in the Next 1–3 Years	Expected Impact on Financial Stability if Threat is Realized
1. A surge in financial volatility	High Recent compression in volatility and risk premia could unwind. Stress in credit markets (especially cov-lite loans) could be exacerbated by increased exposure to more risky borrowers, rising leverage, and weaker underwriting standards. Impaired trading liquidity for high yield issues could aggravate the risks. Bond repricing could lead to a run on mutual funds. Run risk may be intensified by the increased holdings of retail investors (over the past five years, the share of credit instruments held by retail funds has increased substantially, to 37 percent of total credit holdings). Duration and interest rate risk could materialize, as they are both at recent historical highs and financial institutions' portfolio allocations to fixed income instruments remain above the recent historical trend.	High A 50 bps permanent increase in 10-year interest rates could subtract about ½ percent of GDP after two years. Sustained spikes in term premia could imply greater output losses. Runs from mutual funds can lead to a vicious feedback loop between outflows and asset performance.
2. Financial imbalances from protracted period of low interest rates	Medium Continued search for yield leads to excess leverage, weaker underwriting standards and potential mispricing of risk. Low interest rates can give rise to new configuration of risk in the insurance and pension fund industry. In combination with the relatively weaker supervision in the nonbank sector, this can further increase intermediation outside the banking system and purchases of riskier assets by traditional and market-based financing system (e.g. asset managers).	High If unaddressed, distortions could lead to financial instability with significant economic costs and large spillovers to the rest of the world.
3. Operational risk	Medium Operational risk stemming from, for example, software or hardware failure, a cyber event, or a major natural disaster.	Medium Disrupting or destroying a critical infrastructure can lead to sizeable impacts on the financial system. For instance, if a large solar storm similar in size to

Appendix Table 2. Risk Assessment Matrix (Concluded)

		the 1859 event hit the world now (an event with an estimated 12 percent likelihood in the next 10 years), cost estimates are 2 trillion dollars with power and satellite outages lasting for months.
4. Protracted period of slower growth and lower inflation in advanced and emerging economies	High Weak demand and persistently low inflation leads to “new mediocre” rate of growth in advanced economies. Maturing of the cycle, misallocation of investment, and incomplete structural reforms leads to prolonged slower growth in emerging markets.	Medium Slower growth in advanced and emerging economies could subtract about ½ percent of GDP after two years.
5. Political fragmentation erodes the globalization process	Medium Spillover effects from mounting conflict in Russia/ Ukraine, increasing risk aversion; heightened geopolitical risks in the Middle East, leading to a sharp rise in oil prices.	Low Geopolitical tensions would create significant disruptions in global financial, trade and commodity markets. A rise in oil prices would have a negative impact on the U.S. with a possible flight to safety resulting in dollar appreciation. A sustained 15 percent increase in oil prices above baseline would subtract about 0.2 percent of GDP after two years.
6. Bond market stress from a reassessment in sovereign risk	Low Interest rates could spike if the budget or appropriations for FY2016 is not passed or the federal borrowing limit is not raised (owing to political gridlock). Protracted failure to agree on a credible plan for fiscal sustainability could lead to a rise in the risk premium.	High The economic cost of a sharp rise in the sovereign risk premium could be sizeable. If the impasse lasts, it could have severe global spillovers. A 200bps increase in the benchmark Treasury yields would subtract 2.5 and 1.5 percentage points from U.S. growth in 2015 and 2016, respectively.

Note: The risks are ordered first by impact (high to low), and second by likelihood (high to low).

Appendix Table 3. Stress Testing: Overview of Coverage, Scenarios, and Dates			
Exercise type	Coverage	Scenarios	Cut-off date; data frequency
IMF top down (solvency) test	31 Bank Holding Companies (6 systemic BHCs for network stress testing, covering some 50 percent of total BHC assets)	Scenarios taken from DFAST, extended using WEO; sensitivity analysis and network analysis	2014q3; quarterly
Bank liquidity risk analysis	31 Bank Holding Companies	Range of adverse scenarios	2014q3; quarterly
Insurance stress testing	43 insurance groups (20 life, 16 property & casualty, 5 health insurance, and 2 credit and mortgage insurance).	Scenarios taken from DFAST	End-2014 data
Mutual fund stress testing	9,000 mutual funds	Range of adverse scenarios	2014q3; quarterly
Market equity price based network analysis and stress testing	210 institutions (U.S. banks, insurers, NBFIs, asset managers, nonfinancial firms; foreign banks and insurers)	Scenarios taken from DFAST, extended using WEO	2014q3; daily

Note: for details on the methodologies, see the Stress Test Matrix (Stress Testing Technical Note). The table focuses on IMF-run stress tests and does not include the authorities-run and companies-run stress test.

Appendix IV. Key Regulations Where Implementation is Ongoing

Key reforms/measures	Scope and Status	Implementation
G-SIB surcharge for capital	Global Systemically Important Banks	Phased in 2016–19
Capital conservation buffer	All banks on advanced approaches	Phased in between 2016–2019
Countercyclical capital buffer	All banks on advanced approaches	Phased in 2016–19
Supplementary leverage ratio	All banks on advanced approaches	Jan 2016
Enhanced Supplementary leverage ratio	Global Systemically Important Banks	Jan 2018
Liquidity Coverage Ratio	Full for banks on advanced approach; modified for smaller banks	Phased in 2015–2017
Enhanced single counterparty exposure rules for systemic banks	To be decided	TBD
Higher prudential standards for designated nonbanks	Designated nonbanks	Proposed standards to be promulgated.
Principles based reserving for Insurance firms (PBR)	Implementation subject to at least 42 states with more than 75 % of total US premium adopting. 17 states have adopted and another 13 are planning legislation by 2015; still will cover only 60% of premium	Targeted for December 2015; date unlikely to be met
Insurance based capital standards	The Insurance Capital Standards Clarification Act of 2014 passed to clarify that FRB can apply insurance-based capital standards to the insurance portion	No deadline proposed for rulemaking or implementation
NAV amendments and fees and gate amendments for MMMFs	NAV amendments (institutional prime MMMFs) Fees and gates (all MMMFs except government funds)	October 2016
Implementation of the CPSS IOSCO Principles for FMIs: CFTC	ICE Clear Credit and Chicago Mercantile Exchange Final rules issued in 2011 and 2013	Implementation ongoing
Implementation of the CPSS IOSCO Principles for FMIs: FRB	TCH/CHIPS and CLS Final rule to amend Regulation HH and Payment System Risk policy issued in 2014	From December 2014, with a one-year transition period for a subset of requirements
Implementation of the CPSS IOSCO Principles for FMIs: SEC	DTC, NSCC, FICC and OCC. Proposed rules issued in 2014; public consultation finished	No deadline proposed for final rule

Appendix V. Report on the Observance of Standards and Codes

A. Introduction

This report summarizes the assessments of the current state of the implementation of the Basel Core Principles for Effective Banking Supervision (BCP); the IOSCO Principles of Securities Regulation and the IAIS Principles of Insurance Supervision in the United States.

These assessments have been completed as part of a FSAP undertaken by the International Monetary Fund (IMF) and reflect the regulatory and supervisory framework in place as of the date of the completion of the assessment in November 2014. The full Detailed Assessment Report (DAR) has been published on April 2, 2015,¹ which also detail the Overview of the Institutional Setting and Market Structure and the Preconditions for Effective Banking Supervision.

B. Basel Core Principles for Effective Banking Supervision

Information and Methodology Used for the Assessment

An assessment of the effectiveness of banking supervision requires a review of the legal framework, and detailed examination of the policies and practices of the institutions responsible for banking regulation and supervision. In line with the BCP methodology, the assessment focused on the three FBAs as the main supervisors of the banking system, and did not cover the specificities of regulation and supervision of other financial intermediaries, which are covered by other assessments conducted in this FSAP. The assessment did not cover supervision conducted by local State regulators,² the supervision of credit unions, or the activities of the CFPB.

The assessment was carried out using the Revised BCP Methodology issued by the BCBS (Basel Committee of Banking Supervision) in September 2012. The U.S. authorities chose to be assessed and rated against not only the Essential Criteria, but also against Additional Criteria. The assessment team³ reviewed the framework of laws, rules, and guidance and held extensive meetings with U.S. officials, and additional meetings with banking sector participants and other stakeholders (auditors, associations, etc.). The authorities provided a self-assessment of the CPs, as well as detailed responses to additional questionnaires, and facilitated access to supervisory documents and files, staff, and systems. The very high quality of cooperation received from the authorities is appreciated.

¹ <http://www.imf.org/external/np/sec/pr/2015/pr15152.htm>

² The assessment team did not assess State supervisors, but met with their representatives to hear their views on issues such as cooperation, regulatory framework, implementation of reforms, and mandates.

³ The assessment team comprised John Laker (former Australian Prudential Regulatory Authority), Göran Lind (Swedish Riksbank), and Lyndon Nelson (Bank of England). Fabiana Melo (IMF) helped coordinate the work of the assessors and the drafting of the assessment report.

Main Findings

The U.S. federal banking agencies (FBAs)⁴ have improved considerably in effectiveness since the previous FSAP. In response to global and domestic reforms, particularly the Dodd-Frank Act (DFA), the FBAs have stepped up their supervisory intensity, especially of large banking organizations, putting emphasis on banks' capital planning, stress testing, and corporate governance. To match, the FBAs have also enhanced their supervisory capacity, adding significantly to their staffing numbers and skills base. These improvements are reflected in the high degree of compliance with the Basel Core Principles for Effective Banking Supervision (BCP) in this current assessment.

The Dodd-Frank reforms have resulted in some rationalization of supervisory responsibilities but they did not address, fundamentally, the fragmented nature of the U.S. financial regulatory structure. The FBAs are committed to making the arrangements work and cooperation has clearly improved. Nonetheless, there is substantial duplication of supervisory effort, particularly in respect of entities in major banking groups, and the ongoing risk of inconsistent messages from the agencies.

The U.S. prudential regulatory regime is a complex structure of federal statutes, regulations and reporting requirements, and policy statements and supervisory guidance. Since the crisis, the DFA and other initiatives have introduced various "tiers" of prudential requirements for banks and bank holding companies, which underpin the heightened supervisory focus on large banking organizations but have added to the complexity of the regime. Many requirements of the BCP are in practice, however, determined by the supervisor under a principles-based approach. Such an approach provides flexibility for supervisors to tailor their actions to each individual situation and be more nuanced in their response. Yet, in many cases, this principles-based approach is reflected in a lack of specificity in the regime, for example, the absence of guidelines or supervisory "triggers" for various risks.

Mandate, independence, and cooperation (CP 1-3)

The U.S. system of multiple FBAs with distinct but overlapping responsibilities continues to put premium on effective cooperation and collaboration. The FBAs will need to ensure that the significant improvements in collaboration in recent years become fully engrained in the *modus operandi* of each agency. Internationally, the establishment of supervisory colleges and crisis management groups (CMGs) has given greater urgency to information-sharing arrangements, and there are no legal or other impediments to the ability and willingness of the FBAs to cooperate and collaborate with foreign supervisors. The dual banking structure does pose a challenge for international cooperation, and state banking agencies with Foreign Banking Organization (FBO) presence do not always inform or coordinate enforcement actions with home supervisors.

⁴ For the purposes of this assessment, the FBAs are the OCC, the Federal Reserve and the FDIC.

The FBAs are operationally independent, and have clear mandates for the safety and soundness of the banking system. However, the FBAs also have other objectives, and the primacy of the safety and soundness objective needs to be better enshrined in legislation or mission statements to ensure a clear focus on this objective through different phases of the business cycle. In principle, the creation of a stand-alone Consumer Financial Protection Bureau (CFPB) should help establish a greater delineation between individual consumer issues and prudential issues, and give the FBAs a clearer sense of purpose, but the delineation is not yet sharp. There is no evidence of direct interference by industry and government in supervisory priorities or decisions. The high level of public and congressional scrutiny and resulting sentiment may have an indirect effect in creating a perception of “cyclical” supervisory responses.

Licensing, permissible activities, transfer ownership, and major acquisitions (CP 3-6)

The dual banking structure with charter choice adds to the challenge of cooperation and collaboration across multiple agencies. Banks may in principle choose to operate under a federal or state charter that best accommodates their business or strategic needs. Further, state-chartered banks may choose between being supervised primarily by the FDIC or primarily by the Federal Reserve as a member bank, in addition to the supervision of their state supervisory authority. Concerns have been raised that this choice can give rise to “regime shopping” that can undermine the integrity of U.S. regulatory arrangements. The DFA has restricted the ability of weak and troubled banks to change charters, but charter conversions of (well-rated) banks and savings associations continue on a modest scale. The FBAs need to guard against perceptions of differences in supervisory style or treatment in their regional offices that could sway the choices made by banks in charter conversions.

Supervisory approach, processes and reporting, and sanctioning powers (CP 8-10)

The FBAs have significantly increased their level of resources and intensity of supervision of the largest firms, and have articulated a tiered approach built on asset-based thresholds to achieve the desired proportionality. The traditional focus on on-site examinations has changed a little as there has been a shift towards more stress testing, analysis, and horizontal reviews. Overall, the supervisory regime is effective and risk-based, and this is coupled with an increasing focus on resolution (for the larger firms). However, there remains scope for better prioritization of matters requiring attention and their communication to banks, and for aligning supervisory planning cycles across agencies.

The FBAs have a long-established and effective regulatory reporting framework, with the flexibility to expand reporting requirements in response to pressing supervisory needs. There are safeguards built in to guard against redundant data items and information overreach. A lacuna is that supervisory data is not collected from banks at the solo level (i.e., at the level of the bank excluding its subsidiaries), which means supervisors and market participants may not have the information to test whether a bank is adequately capitalized on a stand-alone basis. In practice this omission has little prudential significance under current circumstances, as bank subsidiaries tend to be small relative to the parent bank and can only undertake limited activities that the bank itself

could undertake in its own name; but supervisors should closely monitor the development of banking groups and consider introducing solo level reporting if the number or size of bank subsidiaries were to expand, or banking groups become less transparent.

The FBAs have a wide range of supervisory actions available to address safety and soundness concerns and do not hesitate to use them, although follow-up needs to be stricter. The PCA framework is the main plank of the early intervention framework and has clear triggers. The authorities could consider implementing rules for promoting early action for other triggers than bank capital as well as introduce more explicit rules and processes to deal with ageing of MRAs/MRIAs.

Consolidated and cross-border supervision (CP 12-13)

Since the 2010 FSAP, there have been major improvements in the ability of the FBAs to implement a comprehensive framework for consolidated supervision. Work still remains outstanding, though, on developing regulatory and supervisory rules, guidance, and a formal rating system for SLHCs, as well as on developing a capital rule for corporate and insurance company SLHCs.

Reflecting the large cross-border activities of U.S. banks and of foreign banking groups in the U.S., there is a comprehensive framework of policies and processes for co-operation and exchange of information between the FBAs and foreign supervisory authorities. As noted above, this is currently being strengthened by the work in supervisory colleges and in CMGs. The authorities should continue their efforts to establish agreements with their foreign counterparts on a framework of communication strategies, especially for crisis situations. While national treatment is the underlying principle, there remain some instances in which specific rules apply only to foreign institutions, such as the shorter run-off period for foreign branches in liquid asset requirements and requirements on FBOs to set up intermediate U.S. holding companies.

Corporate governance (CP 14)

Reflecting a global response to the crisis, major changes have taken place in supervisors' demands on banks' corporate governance and in the banks' own approaches. Laws and regulations have gradually raised the requirements and there is clearly heightened focus by boards and management on corporate governance issues. The demands on board involvement and skills have increased substantially and this has, in many instances, led to changes in board composition and calls for wider skill sets of directors. In general, supervisory expectations are tailored to be less strict for smaller, non-systemic banks: while this means that there is a shortfall compared with the criteria, the assessors judged that this was not sufficiently material to alter their overall conclusions. The assessors welcome that supervisors are encouraging medium- and small-sized banks with higher risk activities to adopt better practices in corporate governance and risk management that are appropriate for the risk profile of these firms, moving them closer to the criteria and some of the principles outlined in the requirements for the larger banks.

Risk management, capital adequacy, and prudential framework (CP 15-25)

There have been substantial improvements in the risk management processes of banks, and risk aggregation has been greatly facilitated by the stress testing requirements. Given the enormity of the task of achieving and sustaining meaningful risk aggregation across the Global Systemically Important Banks (GSIBs), this remains very much work in progress and may take years to complete. Other areas in which progress needs to be made are a better delineation in supervisory guidance of the responsibilities of the board and management and more emphasis on contingency planning, particularly for smaller banks. The level of commitment to stress testing is substantial and there is considerable consensus that the outputs and outcomes of that process have improved risk aggregation. Supervisors and firms have become more efficient with each iteration and standards required were also increasing, although there is some way to go before supervisory led stress tests achieve an optimum level of data granularity. There is still room for improvement in firm-led stress testing, where firms seem to be struggling to determine the appropriate severity, while maintaining a scenario that remains business-relevant.

There is a robust and comprehensive approach to setting capital adequacy requirements, although the U.S. capital regime is in a state of transition. The FBAs have implemented major elements of the Basel II advanced approaches from January 1, 2014 and the U.S. standardized approach based on Basel II began to come into effect from January 1, 2015. The broad adoption of the Basel III definition of capital, when applicable to most banks from January 1, 2015, will improve the quality of bank capital by limiting the extent to which certain intangibles, which had previously counted for a high proportion of bank capital, can be included in capital. Stress testing is entrenching a forward-looking approach to capital needs and engaging boards and senior management more fully in the capital planning process. The introduction of risk-based capital rules based on Basel standards for most savings and loan holding companies removes an anomaly created by the previous case-by-case determination of capital requirements for such companies, although a comprehensive capital framework for all savings and loan holding companies is not in place. There are a number of differences between the new U.S. capital regime and the relevant Basel framework, particularly the absence of a capital charge for operational risk and for Credit Value Adjustment (CVA) risk in the U.S. standardized approach, which provides the “floor” for the advanced approach banking organizations and applies to all other banking organizations.

The long-established and rigorous process for evaluating banks’ approaches to problem assets and the maintenance of adequate provisions and reserves will be bolstered by accounting changes currently on the anvil. The FBAs have shown a consistent willingness to challenge unrealistic bank estimates of provisions and reserves and to secure increases they judge necessary. This steadfastness in approach will be tested as the U.S. economy continues to improve. Supervisory judgments in this area have been constrained by the “incurred loss” approach of U.S. GAAP, but the introduction of the FASB’s proposed Current Expected Loss Model (CELM) will permit more forward-looking provisioning.

The supervisory framework to guard against concentration risk and large exposures needs to be strengthened. The FBAs have an effective supervisory framework for dealing with credit

concentration risk. Guidance has been issued on specific areas of concentration of credit risk and this is followed up in supervisory reviews. Supervisors are also giving more attention to the treatment of concentration risk in counterparty credit risk management and stress testing frameworks. However, the new BCP methodology has expanded this Core Principle to also include market and other risk concentrations “where a bank is overly exposed to particular asset classes, products, collateral, or currencies.” While there is some evidence of punctual supervisory action on this front (for instance, funding concentration), at this point a detailed supervisory framework and supervisory guidance for these other risk concentrations is not well developed. Although the widening of the definition of large exposures under the DFA has brought the large exposure thresholds more into line with the requirements of the BCP, some anomalies and omissions remain. The separate and additional limits available to banks for money market investments and security holdings continue to leave open the possibility of excessive risk concentrations. The 50 percent limit on exposures to a corporate group is also problematic. The authorities are also encouraged to finalize the large exposures framework, with legal limits, for large bank holding companies and foreign banking organizations.

In addition, there remain gaps in the related party exposure framework that may heighten concentration risk in the system. There are no formal requirements for prior board approval of transactions with affiliated parties or the write-off of related party exposures exceeding specified amounts, or for board oversight of related party transactions and exceptions to policies, processes and limits on an ongoing basis. However, in practice the FBAs expect banks to apply a high degree of board oversight and monitoring of affiliate and insider transactions and review this as a matter of practice on offsite and onsite examinations. Statutes impose a set of limits on a bank’s exposures to affiliates and insiders that, with one exception, are at least as strict as those for single counterparties or groups of counterparties. The exception is the aggregate limit for lending to insiders of 100 percent of a bank’s capital and surplus (and 200 percent for smaller banks). As noted in the 2010 FSAP, this limit is higher than prudent practices and creates the risk that a small group of insiders could deplete the own funds of a bank. There is no formal limit framework for holding company transactions with their affiliates or insiders, which is needed for a comprehensive framework for transactions with related parties. Finally, the “related party” regime in the U.S. regulatory framework does not appear as broad as required by this CP.

The approach to interest rate risk in the banking book (IRRBB) is in marked contrast to other key risks and could be usefully updated, given the current conjuncture. The regimes for market and liquidity risks are tiered to support a risk-based approach and are comprehensive and robust, though the former would benefit from the introduction of a *de-minimis* regime for all banks and the latter from more granular and frequent reporting. The framework for IRRBB stands out with no tiering for example (although supervisory practice seems proportionate to the risk) and the philosophy is firmly principles-based. No specific capital is being set aside against a change in interest rates, nor are any supervisory limits set. Given the stage of the U.S. economic cycle, the inherent interest rate exposure is high and there are particular concentrations in the small bank sector. Updating the 1996 guidance to include more quantitative guidance is merited, as the risk of a principles-based approach is its inconsistency across a sector and across time; as such banks, or a group of banks may be overly exposed.

Similarly, the overall regime for operational risk outside the AMA banks has not reached a sufficient level of maturity. There is no overall definition of operational risk, or structured guidance on identification, management and mitigation of operational risks. Guidance for banks under AMA (at the time of this assessment, only 8 banks) is well specified, however for all other bank operational risk management falls within the scope of “general” risk management. Guidance for other banks is disparate, and the weakness is compounded by the absence of a comprehensive reporting regime. There is not a standardized capital charge for operational risk. At the time of the assessment, several initiatives were underway. The FBAs are placing increasing emphasis on operational risk issues and are coordinating on the production of additional inter-agency guidance, as well as identifying and seeking mitigation of a number of issues in their vertical and horizontal reviews. They are also alert to the changing threat landscape, such as the escalation of fines and other penalties from litigation as well as cyber risks. Dealing with cyber risk is a top priority across all agencies and will pose coordination and operational challenges given the nature of the risk and the pressing need to collaborate with other arms of government.

Controls, audit, accounting, disclosure and abuse of financial services (CP 26-29)

The bar for audit and control functions has clearly been raised in the wake of the crisis, while further refinements are needed in the framework for abuse of financial services. The internal audit function is the subject of greater supervisory attention and expectations have been significantly raised though, in contrast, there is little mention of the compliance function except with reference to the regime of the Bank Secrecy Act and Anti-Money Laundering. Further, while significant resources are deployed by both the authorities and the firms to meet the BSA/AML standards, the attention to vulnerabilities to other forms of criminal abuse (e.g., theft, burglary) is more disparate. In addition, the regulatory framework at the time of the assessment did not include adequate identification of the ultimate beneficiary owner of legal entity clients, or processes for dealing with domestic Politically Exposed Persons (PEPs). On the external audit front, there is no requirement for an external auditor to report immediately directly to the supervisor, should they identify matters of significant importance, although this gap is mitigated by the frequent contact between supervisors and auditors in the course of planning and examinations.

The disclosure regime represents best practice in some respects. The public disclosure of supervisory call reports promotes market discipline and is worthy of global emulation. There remain a few gaps though. Not all banks are required to issue full financial statements that are reviewed by an independent accountant in accordance with independent audit requirements and the U.S. definition of “reporting on a solo basis” differs in that it does not collect or disclose data on a “bank stand-alone basis.”

Summary Compliance with the Basel Core Principles

Appendix Table 4. Summary Compliance with the Basel Core Principles—ROSC	
Core Principle	Comments
1. Responsibilities, objectives and powers	The DFA reforms have resulted in some rationalization of responsibilities in the U.S. supervisory structure, with the dissolution of the OTS and the establishment of a specialized, stand-alone consumer protection regulator. Nonetheless, the problems associated with multiple regulators with distinct but overlapping mandates remain. Further effort can be made to clarify the priorities of the FBAs in their mission statements and to make the division of responsibilities between the FBAs and the CFPB more coherent at the working level. In the assessors' view, there remains further work on making the new supervisory structure more focused and effective.
2. Independence, accountability, resourcing and legal protection for supervisors	Since the crisis, the FBAs have strengthened their accountability and transparency, and have improved their internal decision-making processes. Further steps could be taken to assure the independence of the Federal Reserve's supervisory role. The FBAs have also been able to strengthen their capacities through active hiring and training programs. The challenge will be to retain those capacities as U.S. economic conditions continue to improve and specialist skills become even more attractive to industry. The assessors encourage the FBAs to keep their hiring programs flexible and responsive, and their training programs fully funded.
3. Cooperation and collaboration	The FBAs have made a substantial effort since the crisis to improve their cooperation and collaboration to ensure that consolidated supervision is targeted, comprehensive and timely. International cooperation would be further strengthened if state supervisory agencies consulted fully, in all cases, with the FBAs and foreign supervisors on impending enforcement actions.
4. Permissible activities	There is a well-established framework for defining the permissible activities of banks and protecting the integrity of the term "bank". Though not a specific responsibility of the FBAs, it is important that the U.S. authorities closely monitor the disclosure practices of "bank-like" institutions to ensure the community is well informed about the security of their savings.
5. Licensing criteria	The evaluation processes for banks seeking a national charter and access to the deposit insurance fund appear thorough and testing. The DFA has given statutory force to interagency initiatives to address inappropriate regime shopping, but further guidance could be provided. The FBAs need to guard against creating perceptions of differences in supervisory style or intensity in their regional offices that could sway the choices made by banks on charter conversions.
6. Transfer of significant ownership	<p>The FBAs have comprehensive definitions for "controlling interest", taking into account both quantitative and qualitative factors of control. There are clear rules for prior approval or notifications of changes in ownership. Supervisors may deny improper changes in ownership and may in certain circumstances require the reversal of completed transactions or require other remedial actions. The assessors saw evidence of supervisors taking such actions.</p> <p>The concept of "significant ownership" is not defined per se. However, in practice the international practice of a five percent threshold for the reporting of significant shareholders is applied.</p> <p>The assessors saw evidence, including supervisors' responses to applications for</p>

	<p>ownership changes, that the above rules and policies are applied in practice.</p> <p>There is no explicit regulatory requirement for a bank to immediately report if they find that a major shareholder is no longer suitable. Nor did the assessors see any evidence of such reporting in the written documentation. The assessors recommend that such a supervisory requirement is introduced, with the aim to ensure that supervisors are promptly informed if a major shareholder is no longer suitable, since this might have a negative impact on the safety and soundness of the bank. Assessors chose to address this shortcoming under CP 9.</p>
7. Major acquisitions	<p>Laws and regulations exist to define which acquisitions and investments that require prior approval by the authorities, a notification after-the-fact or may be made under general consent. There are also clear criteria by which the authorities assess the applications.</p> <p>Legislation and regulations also put clear restrictions on the scope of permissible investments and acquisitions, such as in non-bank related activities.</p> <p>Assessors saw evidence, including supervisors' reports on banks' applications for investments/acquisitions, that the above rules and policies are applied in practice.</p>
8. Supervisory approach	<p>The U.S. system of regulation is changing rapidly. These changes have broadened the role of supervision and have introduced a greater level of tiering into the regime (e.g. Banking Institutions with at least \$50bn of Assets).</p> <p>The assessors find that the net effect of these changes has been positive. The supervisory regime is effective and risk-based. There is an increasing focus on resolution (for the larger firms).</p> <p>However, the agencies need to review approach to communication with firms. The system of supervisory issues requiring action (e.g. MRAs) needs to be simplified and ideally moved to a common interagency approach. The agencies need to continue their efforts in dealing with MRA that have been outstanding for a long time.</p>
9. Supervisory techniques and tools	<p>The U.S. agencies have an array of tools and techniques to carry out their supervisory responsibilities and furthermore that they are also developing new techniques, such as stress testing and horizontal reviews. These new techniques are altering the balance of the work done by supervisors. The absence of formal reporting requirements on banks to inform supervisors of key changes and developments is a weakness in the system, which not only could undermine monitoring work but also delay supervisory action.</p> <p>The agencies need to ensure that their intentions for each horizontal review are clear from the outset and in particular whether firms are being judged against an absolute or relative standard.</p> <p>Communication with banks also needs to be improved: key messages need to be better brought out; the roles and expectations of boards and senior management should not be conflated; feedback needs to be appropriately balanced on should not stray into excessive praise or excessive reporting on recent history.</p> <p>Agencies should go further in aligning planning cycles to maximize the opportunities of joint working.</p>
10. Supervisory	<p>The FBAs have a long-established and effective regulatory reporting framework, with the flexibility, demonstrated through the crisis, to expand reporting</p>

reporting	requirements in response to pressing supervisory needs. With the crisis passed, the FBAs are encouraged to review the level of granularity of data collected, particularly for stress testing and liquidity analysis purposes, to ensure that data continues to be needed at that level. The FBAs do not collect data from banks at the solo level (i.e. at the level of the bank excluding its subsidiaries) but the assessors understand that, in practice, this omission is not sufficiently material in its impact to warrant a lower rating for CP 12 under current circumstances.
11. Corrective and sanctioning powers of supervisors	<p>The authorities are recommended to consider implementing rules for promoting early action also for other issues than bank capital and liquidity</p> <p>The assessors acknowledge that the U.S. legislation, regulations, and processes for taking supervisory action (informal or formal) are robust and have been further strengthened in recent years. For instance, the assessors noted earlier cases in which the escalation of supervisory measures, when warranted, took longer than appropriate given the severity of the deficiency at hand. However, in recent years there has been a clear reduction in such cases, reflecting the authorities' new and more explicit rules and stricter implementation. The assessors recommend the authorities to continue on this path, for instance by setting even more explicit rules for the ageing of MRAs and MRIAs. The evolving practice of setting timelines for the completion of remedial actions, and requiring regular reporting of progress, is encouraged by the assessors. The assessors also encourage the implementation of planned OCC guidance on supervisory practices relating to MRAs.</p>
12. Consolidated supervision	A lack of full compliance with this principle is based on the fact that regulatory and supervisory rules, guidance, and a formal rating system for SLHCs have not been adopted, and on the absence of a capital rule for corporate and insurance company SLHCs. Capital standards are not required at the diversified financial group level under the Basel capital framework (which are to be calculated at the banking holding group level and banking group level), however the lack of an established supervisory assessment framework will likely hamper the supervisors in reviewing and taking action at the holding company (SHLC) level As noted in CP 10, the FBAs do not collect data from banks at the solo level (i.e. at the level of the bank excluding its subsidiaries). The assessors are satisfied; however, that in practice this omission has no prudential significance under the current circumstances as U.S. bank subsidiaries tend to be small relative to the parent bank and can only undertake activities that the bank itself could undertake in its own name.
13. Home-host relationships	<p>Reflecting the large cross-border activities of U.S. banks abroad, and of foreign banking groups in the U.S., there exist a comprehensive framework of policies and processes for co-operation and exchange of information between the FBAs and foreign supervisory authorities. This is currently being strengthened by the work in supervisory colleges and in CMGs.</p> <p>The assessors encourage the authorities to establish agreements with their foreign counterparts on a framework of communication strategies, especially for crisis situations. International cooperation would be further strengthened if state supervisory agencies consulted fully, in all cases, with the FBAs and foreign supervisors on impending enforcement actions. The assessors were made aware of circumstances where this was not the case. Although this is a clear deficiency in cooperation arrangements, the assessors did not judge it as sufficient to lower the "Compliant" rating for CP 13, but improvements in such consultations should be a</p>

	<p>high priority.</p> <p>There remain some instances in which specific rules apply to foreign institutions, such as the shorter run-off period for foreign branches in the liquidity, asset maintenance requirements for branches and requirements on large FBOs to set up intermediate U.S. holding companies. The mandate of the BCP assessment is limited to ensure that prudential rules and supervision are applied to ensure a minimum level of safety and soundness of banks. The assessors find that these rules are aimed to obtain such effect. The BCP mandate and assessment do not include a judgment of level playing field issues</p>
<p>14. Corporate governance</p>	<p>Since the financial crisis of 2008-09 major changes have taken place in supervisors' demands on banks' corporate governance and in the bank's own approaches to these issues. Laws and regulations have gradually raised the requirements, although from a low level. In particular, the expectations have been strengthened in those areas: (i) Board involvement in setting the bank's risk appetite; (ii) the establishment of Risk Management Committees and; (iii) the increased frequency of Board meetings. The BCP assessors saw evidence of this, for instance in the reports from supervisory examinations, including when taking informal supervisory actions or formal enforcement actions for non-compliance. Assessors' discussions with banks also indicate a clearly heightened focus by boards and management on corporate governance issues. One prominent area concerns the role and mandates of banks' boards relative to that of the senior management. Until very recently in the U.S., there was not a clear distinction between the two; for example the assessors saw numerous examples both in regulation and in actual supervision where the standard term "board and senior management" was used in situations where good current international practices would dictate that only one of the two should have the specific role and responsibility. The demands on board involvement and skills have increased substantially and this has also in many instances led to consequential changes in board compositions and calls for wider skill sets of directors. That said, both supervisors and banks agree that further steps need to be taken and implemented in the field of corporate governance. For instance, the stricter requirements and expectations by the supervisors seem to apply primarily to large banks. There seems to be a process of "trickling down", i.e., that strengthened corporate governance practices also reach midsize and smaller banks, but this will probably take some more time before reaching desired levels.</p> <p>Some key regulations, such as the SR 12-17 by the FRB and Heightened Standards by the OCC, have only recently come into force and have therefore not yet been fully implemented (and, as mentioned above, they primarily refer to large banks.) The new requirements will imply a substantial improvement but, in fact, the new, higher level is no more than standard practice in some other jurisdictions. In addition, there continue to exist areas where the requirements on the roles and responsibilities of bank boards fall short of international standards (See for instance the comments on CP 20 on Lending to related parties). In addition, the requirements that bank informs the supervisors promptly about material developments that affect the fitness and propriety of Board directors or senior management are defined only for a narrow scope of events and should be broadened</p>
<p>15. Risk management process</p>	<p>The assessors were able to see substantial improvement in the risk management process, but it also has to be acknowledged from a low starting point. Some of the changes could only be said to have brought the U.S. up to standard practice in</p>

	<p>other jurisdictions such as frequency of board meetings, composition of the board and the existence of risk committees.</p> <p>Risk aggregation has improved.</p> <p>Risk oversight is still work in progress with much of the guidance being new or yet to be implemented. Guidance for Banking Institutions with less than \$10bn of Assets is needed as the supervision of these fails to meet many aspects of the essential criteria, but not sufficient to warrant material non-compliance.</p> <p>Greater weight in communication needs to be placed on the role of the Board and greater efforts should be made to delineate their role from that of senior management.</p> <p>Aspects of the role of the Chief Risk Officer, particularly surrounding their departure need to be clarified.</p> <p>Further work is needed on firm-led stress tests, where firms seem to prefer to stretch their scenarios (often beyond the point of credibility) rather than examine whether they are producing the appropriate level of losses from a given severity of shock.</p>
16. Capital adequacy	<p>The FBAs have a robust and comprehensive approach to setting prudent and adequate capital adequacy requirements for banks and most holding companies, and this approach has been strengthened in response to Basel and DFA reform initiatives. In particular, stress testing has now become an essential element of capital adequacy assessments for banking organizations with more than \$10 billion of assets. As well, a number of concerns raised in the 2010 DAO about the quality of capital and the coverage of most savings and loan holding companies have been addressed in the new regulatory capital rule. However, savings and loan holding companies with substantial insurance or commercial activities are excluded from the new rule. At the same time there are a number of differences between the new capital rule and the relevant Basel framework in terms of definitions of capital, the risk coverage and the method of calculation. These differences warrant a "Largely Compliant" rating for this CP. Firstly, the risk-based capital requirements for internationally active banks under the advanced approaches are different in a number of respects to the Basel framework. In addition, the U.S. standardized approach, which provides the "floor" for the advanced approaches banking organizations and applies to all other banking organizations, does not impose a capital charge for operational risk or for CVA risk (and there are also some divergences regarding the standardized approach to market risk). This omission in risk coverage may be significant for a broad segment of the banking system, and it distinguishes the U.S. capital regime from other major jurisdictions. It also makes the "standardized" floor less binding than it may appear.</p>
17. Credit risk	<p>The U.S. Approach to Credit Risk is exceptionally codified in both regulation and guidance and reflects the emphasis placed on this risk by all of the Supervisors.</p> <p>Although the agencies do not set limits, the assessors found evidence that such limits were in place in the banks themselves and also in no doubt that if they were absent the agencies would determine such practice as unsafe and unsound and as such would have authority to require such limits and escalation criteria in individual cases.</p> <p>We would however recommend that the use of limits be considered when the</p>

	guidelines are next reviewed.
18. Problem assets, provisions, and reserves	The FBAs have a long-established and rigorous process for evaluating banks' approaches to problem assets and the maintenance of an adequate ALLL. The FBAs have shown a consistent willingness to challenge unrealistic bank estimates of the ALLL and to secure increases they judge necessary, taking enforcement action if required. This steadfastness in approach is likely to be tested as the U.S. economy improves. Supervisory judgments in this area, however, continue to be constrained by the "incurred loss" requirements of U.S. GAAP, but proposed reforms in this area will permit more forward-looking provisioning.
19. Concentration risk and large exposure limits	The FBAs have a sound supervisory framework for dealing with credit concentration risk. Guidance has been issued on specific areas of credit concentration risk and this is followed up in supervisory reviews; some reassessment of the supervisory force of the thresholds for commercial real estate exposures is warranted. However the assessors saw little evidence of a comparable supervisory framework and supervisory guidance for other risk concentrations, as EC 1 requires. The widening of the definition of large exposures under the DFA to include counterparty credit risk from derivatives and securities financing transactions has brought the large exposure thresholds more into line with the requirements of the BCP. However, the separate and additional limits for money market investments and security holdings available to banks (but not federal savings associations) continue to leave open the possibility of excessive risk concentrations. The 50 per cent limit on exposures to a corporate group also appears to be out of line with standard and the Federal Reserve's proposed large exposures framework for large bank holding companies and foreign banking organizations.
20. Transactions with related parties	The "related party" regime in the U.S. regulatory framework does not appear as broad as required by this CP, in terms of the definition of covered transactions, affiliates and insiders. In addition, the CP requires a higher degree of board involvement and oversight than presently required by U.S. laws and supervisory guidance. There are no formal requirements for prior board approval of transactions with affiliated parties or the write-off of related party exposures exceeding specified amounts (as per EC3) or for board oversight of related party transactions and exceptions to policies, processes and limits on an ongoing basis (as per EC6). However, the FBAs expect banks to apply a high degree of board oversight and monitoring of affiliate and insider transactions and review this as a matter of practice. The aggregate limit for lending to insiders of 100 per cent of a bank's capital and surplus (and 200 per cent for smaller banks) does not appear consistent with the general intent of this CP and creates the risk that a small group of insiders could deplete the own funds of a bank. There are no regulated limits for holding company transactions with their affiliates or insiders.
21. Country and transfer risks	A robust framework exists for regulation and assessment of country and transfer risks and for the allocation of loan loss reserves reflecting country and transfer risks. However: The rules do not cover savings associations. (Due to their tradition of having limited international exposures). The assessors would, however, recommend the introduction of a de minimis regime being applied to all categories of banks. Nor are U.S. affiliates of foreign banks covered since they are expected to be

	<p>under consolidated supervision from the home authorities. The assessors find this acceptable, provided that there is good cooperation and information-sharing between the FBAs and the relevant foreign supervisory authorities on country risk matters as well as consolidated supervision.</p> <p>Country risk has not yet been specifically tested in the stress tests mandated by the FBAs. While it has been covered on a case by case basis by internal stress testing conducted by banks, the assessors recommend that guidance and rules on stress test specifically include country risk.</p>
22. Market risk	<p>The Market Risk regime is comprehensive and understood.</p> <p>The assessors found very active engagement from supervisors on implementing the regime they have in place and in dealing with material market risk issues, such as valuation allowances, profit and loss attributions, etc. They make appropriate use of peer-group comparison such as through Hypothetical Portfolio Exercises.</p> <p>The material weaknesses identified in the 2009 BCP—such as market risk monitoring and management—have been significantly improved. The Supervisors have implemented much of the Basel II approach and also supplemented that for those banks subject to the Market Risk Rule. This improved market risk measurement and monitoring processes and models at certain major firms and lack of reliable valuation of MTM positions. The Stress Test Regime mandated under DFA has also improved the completeness and use of market stress testing.</p>
23. Interest rate risk in the banking book	<p>The assessors find the U.S. compliant. The principles-based approach seems to be backed by adequate supervision proportionate to the size and complexity of the bank and the risk being run. The assessors saw a number of examples of supervisors applying the guidance they have.</p> <p>Given the concentrations that exist in small and community banks, the agencies approach would benefit from some tiering (as they do with other risks) and also should include quantitative guidelines that would serve as a preventative indicator of supervisory risk appetite, provide a quicker route to action and a useful point of reference and escalation within the agencies themselves.</p>
24. Liquidity risk	<p>The Liquidity Risk Regime for banks below \$50bn of Assets is quite high level, but the assessors did see numerous examples of supervisory action in support of the overall principle. Current levels of reporting for these banks (for example in respect of encumbered assets) are inadequate with only one line in the Call Report. The Authorities recognize this deficiency and have proposed a greater level of reporting depth as part of the implementation of the Liquidity Coverage Ratio. The assessors did not see evidence of encumbrance being a particular concern, but liquidity issues more generally were prominent in the supervisory actions directed at the firms.</p> <p>For Banking Institutions with at least \$50bn of Assets and indeed beyond that level those of Global Systemic Importance, the regime (mostly in Regulation YY) is comprehensive and robust. Further the regime is supported by extensive reporting.</p> <p>We would recommend that efforts are extended in developing an interagency approach to the implementation of LCR.</p>
25. Operational risk	<p>The U.S. Federal Agencies are placing increasing emphasis on operational risk issues and are co-coordinating on the production of additional inter-agency guidance, as well as identifying and seeking mitigation of a number of issues in</p>

	<p>their vertical and horizontal issues. They are also alert to the changing threat landscape, such as the escalation of fines and other penalties from litigation and cyber.</p> <p>The overall regime, however, has not reached a sufficient level of maturity (equivalent to market and credit risk for example). Guidance for banks under AMA (at the time of this assessment, only 8 banks) is well specified, however for all other bank operational risk management falls within the scope of “general” risk management (see CP 15). Guidance for other banks is highly disparate, and the weakness is compounded by the absence of a comprehensive reporting regime—only certain operational risks are covered by GLBA 501(b). It was also noted that there is not a standardized capital charge for operational risk.</p> <p>The absence of a comprehensive reporting regime is also a weakness as so much of the assessment of operational risk is assessing what could happen in terms of operational events.</p> <p>The assessors also noted the priority all of the agencies were attaching to Cyber Risk and also the establishments of working groups at the FFIEC, but the assessors agree that this will not be an easy task given the challenge of co-coordinating across not just the banking agencies but beyond given the nature of the risk.</p>
<p>26. Internal control and audit</p>	<p>The Federal Banking Agencies are clearly raising the bar for control functions. In respect of this particular Core Principle, this is particularly true of Internal Audit and the assessors have seen evidence that the supervisors are finding issues with Internal Audit that are classified as Matters Requiring Attention—at the OCC there were 405 outstanding at the time of this report.</p> <p>By contrast the assessors found very little mention of Compliance except with reference to the very robust regime in respect of the BSA and Anti-Money Laundering. The vulnerabilities to other forms of criminal abuse (e.g. fraud) are more disparate within the regime and within the banks themselves and risk being deemphasized. The assessors would recommend that the authorities seek to find an appropriate balance in their surveillance and also in their guidance—perhaps by consolidating it into fewer places than at present.</p>
<p>27. Financial reporting and external audit</p>	<p>Not all banks are required to issue full financial statements which are reviewed by an independent accountant in accordance with independent audit requirements.</p> <p>There is no requirement for external auditor to report immediately directly to the supervisor, but rather through the bank, should they identify matters of significant importance.</p> <p>There is no comprehensive requirement, apart from some provisions, only an expectation for non-public banks to rotate their external auditors.</p> <p>The supervisor cannot set the scope of the external audit but could encourage the auditor, after the preliminary audit but before it is finalized, to include new issues. (This deficiency does not affect the rating of compliance, since EC 4 only requires that “Laws or regulations set, or the supervisor has the power to establish the scope...” The U.S. legislation clearly sets out the minimum scope of the external audit making the U.S. compliant with this proviso. However, the assessors recommend that the FBAs are given legal powers to add issues to the scope of the external audit in specific cases in order to address a relevant issue not normally covered in an external audit).</p>

28. Disclosure and transparency	<p>There are no examples of disclosures of information which covers ongoing developments during a financial reporting period, except for occasional analytical papers. Since the periodicity of the most comprehensive published report is quarterly (call reports), the assessors did not consider this deficiency significant. Nevertheless, the authorities are encouraged to promote the disclosure of such information, where relevant.</p> <p>The FBAs do not collect data from banks at the solo level (i.e. at the level of the bank excluding its subsidiaries). In principle, this means that regulatory requirements such as Basel III capital that are intended to be imposed on a bank on both a stand-alone and consolidated basis can only be tracked on the latter basis. The assessors are satisfied, however, that in practice this omission has no prudential significance. The FBAs have explained that U.S. bank subsidiaries tend to be small relative to the parent bank and can only undertake activities that the bank itself could undertake in its own name.</p>
29. Abuse of financial services	<p>There rules and supervisory expectations on BSA/AML issues are comprehensive. In relation to the requirements of the BCP further improvements should be made as the assessors did not see evidence that these deficiencies in the legislation were compensated for in the supervisory process:</p> <p>Supervisors should explicitly require, rather than “expect”, that a bank’s decision to enter into relationships with high-risk accounts and countries, including with foreign and domestic PEPs, should be escalated to the senior management level.</p> <p>Current legal and regulatory framework does not require the identification of the ultimate beneficiary owner of legal entity clients. Proposed amendments open for public consultation will introduce requirements to address this deficiency. Assessors welcome the proposed rule and understand its approval and implementation will improve compliance with this CP.</p> <p>CP 29 deals with all forms of criminal abuse and the need to protect banks. It is clear that there is strong political and supervisory focus on BSA/AML and the assessors saw evidence that significant resources are deployed within the authorities and banks to meet very stringent standards. The vulnerability to other forms of criminal abuse is more disparately addressed within the regime and risk being deemphasized. The assessors would recommend that the authorities seek to find an appropriate balance in their surveillance and also in their guidance—perhaps by consolidating the related issues in fewer places than at present.</p>

Recommended Actions

Appendix Table 5. Recommended Actions to Improve Compliance with the Basel Core Principles and Effectiveness of Supervision	
Reference Principle	Recommended Action
Principle 1	<p>FBAs revisit their “mission and vision” statements to ensure they give primacy to safety and soundness and to clarify that the pursuit of other objectives must be consistent with, and if necessary subordinate to, that goal.</p> <p>FBAs and the CFPB explore ways to reduce duplication of effort, in matters such as risk reviews, and over time look to pursue opportunities for a more coherent division of</p>

	responsibilities between safety and soundness, and consumer protection.
Principle 2	The Federal Reserve further assure the independence of its supervisory role by making the governance rules for the boards of Federal Reserve district banks consistent with emerging global good practice.
Principle 3	FBA's ensure that the preparation of supervisory plans is on the same cycle, if practicable, and consider other ways of ensuring that collaboration becomes fully engrained in the <i>modus operandi</i> of each agency.
Principle 5	Incorporate handover "protocols" that would discourage inappropriate regime shopping in the FFIEC Statement on Regulatory Conversions.
Principle 6	Introduce explicit requirement for banks to immediately report if they find that a major shareholder is no longer suitable.
Principle 8	Develop interagency approach to communicate issues of supervisory important to banks (MRAs, MRIAs, MRBAs). Develop interagency method of prioritization of such matters requiring attention.
Principle 9	Introduce requirements for banks to report developments to the supervisor, in particular for banks under less intensive supervision. Develop guidance to clearly distinguish, in supervisory recommendations and matters requiring attention, which are of Boards responsibility and which are the responsibility of senior management. Implement interagency guidance with more clarity regarding aging of MRAs. Carry out a combined interagency planning process for individual firms. Develop a supervisory best practice approach for horizontal reviews, which includes initial statements of expected minimum standards and the expected process of feedback to those that participate and the feedback to the wider population of firms to which it might be relevant.
Principle 11	Implement rules/policies promoting early action also for other issues than bank capital and liquidity. Implement more explicit rules for supervisory action, such as setting timelines for completion, partially or fully, of remedial action and requiring regular reporting of progress.
Principle 12	Develop and implement regulatory and supervisory rules, guidance, and a formal rating system for SLHCs.
Principle 14	Introduce clearer expectations and requirements for corporate governance also for banks not subject to heightened standards. On issues where still lacking, clarify supervisory expectations and requirements on the role and responsibilities of the bank board versus those of the bank management. Introduce explicit requirement that banks inform the supervisors promptly about material developments that affect the fitness and propriety of Board directors or

	senior management.
Principle 15	<p>Introduce clear expectations and requirements regarding risk management standards applicable to banks with less than \$10bn of Assets.</p> <p>Introduce clear guidance on responsibilities of the Board with regards to risk management.</p> <p>Introduce clear requirements on the arrangements for the removal of CROs.</p> <p>Introduce clearer supervisory guidance on the severity of scenarios for stress tests run by the firms.</p> <p>Introduce clearer feedback mechanisms to firms on the components of supervisory run stress tests.</p>
Principle 16	<p>Introduce a comprehensive capital framework for savings and loan holding companies with substantial insurance or commercial activities.</p> <p>Clarify requirements for capital to be held against operational risk by non-AMA banks.</p> <p>Clarify supervisory expectations for capital to be held against interest rate risk in the banking book.</p>
Principle 17	<p>Introduce specific requirements that major credit risk exposures exceeding a certain amount or percentage of the bank's capital are to be decided by the bank's Board or senior management.</p> <p>Introduce specific requirements that credit risk exposures that are especially risky or otherwise not in line with the mainstream of the bank's activities must be decided by the bank's Board or senior management.</p>
Principle 19	<p>Reassess the supervisory force of the thresholds for commercial real estate exposures.</p> <p>Develop a robust supervisory framework and supervisory guidance for other risk concentrations comparable to that for credit concentration risk.</p> <p>Review the separate and additional limits for money market investments and security holdings by banks, with a view to including them within the 15 plus 10 limits.</p> <p>Review the 50 per cent limit on exposures to a corporate group, which could result in excessive risk concentrations.</p> <p>The Federal Reserve completes the development of its large exposures framework, with limits, for large bank holding companies and foreign banking organizations.</p>
Principle 20	<p>Introduce formal requirements for prior board approval of transactions with affiliated parties and the write-off of related party exposures exceeding specified amounts.</p> <p>Introduce formal requirements for board oversight of related party transactions and exceptions to policies, processes and limits on an ongoing basis.</p> <p>Review the aggregate limit for lending to insiders of 100 per cent of a bank's capital and surplus (and 200 per cent for smaller banks).</p> <p>Introduce limits for holding company transactions with their affiliates or insiders.</p> <p>Amend the coverage and details of the "related party" regime to bring it into line with</p>

	this CP.
Principle 21	<p>Introduce <i>de minimis</i> regime to be applied to all categories of banks, and include savings associations.</p> <p>Introduce explicit reference to country risk in guidance and rules on stress tests guided by the authorities.</p>
Principle 23	Revise the 1996 guidance to include more quantitative guidelines regarding interest rate risk in the banking book.
Principle 25	<p>Introduce guidance on operational risk management and supervisory expectations applicable to non-AMA banks.</p> <p>Introduce appropriate reporting regime regarding operational risk.</p>
Principle 27	<p>Introduce requirements for all banks to issue full financial statements in accordance with agreed accounting standards that are reviewed by an independent accountant in accordance with independent audit requirements.</p> <p>Introduce requirement for external auditor to report immediately directly to the supervisor, should they identify matters of significant importance.</p> <p>Review supervisory powers to allow the supervisor to set the scope of the external audit.</p> <p>Introduce a requirement for non-public banks to rotate their external auditors.</p>
Principle 29	<p>Supervisors should explicitly require, rather than “expect”, that a bank’s decision to enter into relationships with high-risk accounts and countries, including with foreign and domestic PEPs, should be escalated to the senior management level.</p> <p>Current legal and regulatory framework does not require the identification of the ultimate beneficiary owner of legal entity clients. Proposed amendments open for public consultation will introduce requirements to address this deficiency. Assessors welcome the proposed rule and understand its approval and implementation will improve compliance with this CP.</p>

Authorities’ Response to the Assessment

The U.S. authorities strongly support the IMF’s Financial Sector Assessment Program (FSAP), which promotes the soundness of financial systems in member countries and contributes to improving supervisory practices around the world. The authorities appreciate the complexity of assessing the U.S. financial system and the time and resources dedicated by the IMF and its assessment teams to this exercise. The authorities commend the IMF on its diligence and constructive approach in undertaking the assessment. The U.S. authorities welcome the opportunity to provide the following comments.

The IMF rightly holds the United States to the highest and most stringent grading standard, given the complexity, maturity, and systemic importance of our financial sector. Despite this

higher grading standard, the assessment found the U.S. regulatory system to be very strong and, in many ways, more rigorous than international standards.

We are pleased to note that the Report acknowledges that the U.S. federal banking agencies have improved considerably in their effectiveness since the previous FSAP was completed in 2010. This is particularly noteworthy since, compared to the 2010 assessment, the federal banking agencies were assessed against four additional Core Principles for Effective Banking Supervision (29 total) and significantly more Essential Criteria and Additional Criteria. This assessment also is more rigorous than the one completed in 2010 since the revised Core Principles have a heightened focus on risk management. The U.S. authorities are pleased that, even under these more stringent principles and when applying a higher standard, the IMF's assessment of the U.S. system broadly indicates compliance with the Core Principles. Moreover, while the approach of the federal banking agencies is principles-based, the Report reaches its conclusions against the backdrop of an assessment regime that places a premium on specificity in regulations.

The Report recognizes that global and domestic reforms implemented since the 2010 assessment, particularly the Dodd-Frank Act (DFA), have increased the intensity of the supervisory programs of the federal banking agencies. Since the previous review, substantial improvements have been made in risk management and the oversight of large bank organizations by putting enhanced emphasis on banks' capital planning, stress testing, and corporate governance. The U.S. authorities concede that some reforms are still pending and will take time to fully implement. Notably, the Report acknowledges that additional implementation of the reform programs will further improve the United States' compliance with the Core Principles.

The Report acknowledges that the federal banking agencies are operationally independent and have clear mandates for safety and soundness of the banking system. However, it concludes there are duplicative efforts by the federal banking agencies and a lack of delineation between safety and soundness and other missions. Although there is not a formal statement that safety and soundness is the sole or primary mission of a federal banking agency, there is no confusion on the part of the agencies, the public, or the industry that the focus of supervision and regulation relates to safety and soundness. The U.S. authorities believe that responsibilities, such as assuring compliance with consumer laws and taking account of financial stability considerations, in no way conflict with the assessment of safety and soundness. Indeed, given the potential high level of operational and reputational risk associated with significant consumer compliance weaknesses, considerations related to such compliance are part of an overall safety and soundness risk assessment.

Furthermore, in practice, there is clarity of mission among the agencies. Clear distinctions exist between prudential safety and soundness responsibilities and consumer protection responsibilities that are shared between the Consumer Financial Protection Bureau (CFPB) and the federal banking agencies. In the view of the U.S. authorities, the federal banking agencies have met the requirement of collaboration required by DFA and have addressed the issue of duplicative efforts by coordinating with each other and the CFPB, as evidenced by interagency Memoranda of Understanding.

The federal banking agencies have taken a number of substantive actions that are not fully reflected in the Report. These include:

- Establishing forward-looking stress testing requirements for banks with less than \$10 billion in assets. Although banks with assets less than \$10 billion are not required to complete formal DFA capital stress tests, federal banking agencies require stress testing on certain high-risk and volatile activities, and all banks are expected to have appropriate capital planning processes.
- Publishing federal banking agencies' examination manuals and directors' guides, and conducting outreach and training initiatives, which articulate the responsibilities of boards of directors.
- Issuing extensive guidance on business resumption planning, which is included in the Federal Financial Institutions Examinations Council's booklets.
- Requiring institutions with total assets of less than \$500 million in certain instances to have an independent audit of their financial statements.
- Applying stricter regime standards for affiliate transactions, which include, among other things:
 - tighter U.S. quantitative limits of 10 percent of bank capital for transactions with a single affiliate and 20 percent of capital for the aggregate transactions with all bank affiliates, instead of 25 percent of the bank's capital,
 - inclusion of asset purchases by a bank from affiliates in the 10/20 limit structure noted above,
 - prohibition on a bank having any unsecured credit exposure to an affiliate,
 - prohibition on a bank purchasing low-quality assets from an affiliate.

Additionally, U.S. authorities not only meet many Basel III international standards, but significantly exceed some of the most important ones, especially those related to capital and liquidity. Examples include:

- Requiring the largest U.S. bank holding companies to have risk-based capital ratios that exceed Basel minimum capital requirements via the Federal Reserve's Comprehensive Capital Analysis and Review and annual stress tests programs.
- Utilizing a Global Systemic Important Bank surcharge to reflect short term wholesale funding, which increases banks' capital conservation buffer.
- Exceeding the Basel standard, the largest, most global, systemic U.S. bank holding companies must maintain a supplementary leverage ratio buffer greater than 2 percentage points above the 3 percent minimum, for a total of more than 5 percent, to avoid restrictions on capital distributions and discretionary bonus payments. Insured depository institution subsidiaries

of these firms must maintain at least a 6 percent supplementary leverage ratio to be considered “well capitalized.”

The U.S. authorities look forward to continuing a dialogue with the IMF and global counterparts to jointly promote the mission of the FSAP to enhance global financial sector stability and supervisory practices. In terms of this Report’s recommendations, specifically, the U.S. authorities will review them carefully. Action will be taken, where permissible, on items that enhance communication and information sharing among the agencies and ensure more effective oversight of systemic risk.

C. IOSCO Objectives and Principles of Securities Regulation

Information and Methodology Used for the Assessment

This assessment was conducted on the basis of the IOSCO Principles approved in 2010 and the Assessment Methodology adopted in 2011.⁵ As has been the standard practice, Principle 38 was not assessed due to the existence of separate standards for securities settlement systems and central counterparties. A review of the regulatory and supervisory framework in place at the state level was outside of the scope of this assessment. Given the relatively limited role played by state regulation and supervision (as described below), this limitation in the scope of the assessment has not materially affected the overall judgment of the U.S. regime. Given that the IOSCO Principles and Methodology do not specifically address over-the-counter (OTC) derivatives, the adoption and implementation status of the U.S. OTC derivatives framework has not impacted the grades.

Overview and Institutional Setting

The regulatory and supervisory arrangements remain quite complex, involving two agencies and a number of important SROs. Two federal agencies, the SEC and the CFTC, share the primary responsibility for the regulation and supervision of the U.S. securities and derivatives markets. Broadly speaking, the SEC is in charge of the regulation and supervision of securities markets and single security based options, futures and swaps markets. The CFTC is responsible for the regulation and supervision of futures, options and swaps markets (except for narrow-based security indices). The SEC’s and CFTC’s mandates were significantly expanded as a result of the enactment of the DFA. The Act provided the SEC and CFTC with shared responsibility over the swaps markets and brought HF managers and municipal advisors under the jurisdiction of the SEC. State securities regulators maintain responsibility for issuances that are conducted at the state level only. Both state and federal legislation provide a regulatory framework for BDs and IAs, but not for futures and derivatives intermediaries. The role of state regulators has recently increased for smaller IAs.

⁵ The assessment team comprised Ana Carvajal, IMF (currently seconded to the World Bank Group), Eija Holttinen, IMF, and Malcolm Rodgers, external expert engaged by the IMF.

The CFTC and SEC rely to a significant degree on SROs for the regulation of the markets and their participants. The SROs include exchanges, clearing organizations, and securities and futures associations. There are two registered associations with SRO functions: the Financial Industry Regulatory Authority (FINRA) and the National Futures Association (NFA). FINRA has authority over BDs, while the NFA has authority over all intermediaries in the futures and swaps markets. Membership in an SRO is mandatory for the corresponding intermediaries.⁶ In addition to member registration and supervision, FINRA also has a role in market surveillance due to agreements with different exchanges and for OTC trading. The NFA is developing a similar role for some SEFs.

Criminal enforcement is the responsibility of federal, state and local authorities. The SEC and CFTC have significant administrative and civil enforcement powers. In addition, criminal prosecution is available by other U.S. authorities to pursue securities and derivatives market violations. Federal, state and local prosecutorial authorities play an active role in criminal (and in some cases civil) enforcement of securities laws, working both with the regulators and on their own initiative.

Main Findings

Post crisis, the legal mandates of the Securities and Exchange Commission (SEC) and the Commodity Futures Trading Commission (CFTC) have significantly expanded. Enhancements have been made to prudential requirements applicable to some key regulated entities and the agencies are taking an increasingly forward looking risk-based approach to supervision and enhancing their risk identification processes and have also worked on improving the use of the enforcement function. Many of these improvements can also be observed at the self-regulatory organizations (SROs).

But the level of funding of both the SEC and CFTC is a key challenge affecting their ability to deliver on their mandates in a way that provides confidence to markets and investors. Funding limitations have impacted the timely delivery of new rules and the implementation of registration programs for the new categories of participants. In this context, the number of expert staff in the SEC and CFTC does not appear to be sufficient to ensure a robust level of hands-on supervision, which has become clear in the case of investment advisers (IAs). Leveraging on technology can mitigate but not replace the need for additional human resources. Consideration should be given to making both agencies self-funded and allowing for multi-year budgeting.

The fragmented structure of equity markets remains a key challenge for the SEC. The framework developed by the SEC has served its purpose of enhancing competition and providing a framework for best execution. However, the markets have evolved and the framework needs to be updated accordingly to ensure sufficient operational transparency for all types of trading venues as well as fair and objective access. At the same time, the SEC needs to remain vigilant about the impact

⁶ Only IAs are not required to be members of any SRO and are therefore exclusively supervised by the SEC. Municipal advisors must be registered with both the MRSB and the SEC.

dark trading may have on overall price formation. The recently-announced Equity Market Structure Advisory Committee is an important step.

It is important that both agencies continue to strengthen their ability to identify emerging and systemic risks. This is critical for the effective discharge of their respective mandates, but also to enhance their contributions to the mandate of the Financial Stability Oversight Council (FSOC). Enhancing mechanisms to ensure a holistic view of risks is recommended, in particular by the respective Commission (as a whole) of each agency becoming more involved in the process of assessing and monitoring responses to risks.

Principles for the regulator. The SEC and the CFTC are independent agencies, with clear mandates stemming from the law. Both have sufficient powers to fulfill their mandates, including rulemaking, registration, examination and enforcement powers. They operate under a high level of accountability, which is supported by public transparency of a wide range of regulatory actions and decisions. Strong ethics rules apply to Commissioners and staff of both the SEC and CFTC. The agencies are taking an increasingly forward looking risk-based approach to supervision and enhancing their risk identification processes, which in turn is helping them to contribute more effectively to the FSOC. Both have processes to review the perimeter of regulation. However, the current level of resources poses challenges for the SEC and CFTC to effectively discharge their functions, particularly in light of their expanded mandates.

Principles for self-regulation. The U.S. system relies strongly on SROs, such as FINRA and the NFA, for supervision of markets and intermediaries. This results in a complex set of arrangements; but SROs are subject to oversight, including approval or notification of rules, and ongoing monitoring of their self-regulatory activities via reporting and examinations.

Principles for enforcement. The SEC and CFTC have broad inspection powers over regulatees and investigative and enforcement powers over regulated entities, regulated individuals, and third parties. Both agencies make extensive use of their enforcement powers; and the SEC, the CFTC, and criminal authorities are active in pursuing securities and derivatives violations. Overall, the agencies, along with the SROs, have put in place robust supervisory programs to monitor ongoing compliance by regulated entities and individuals and to monitor market activity. The programs for regulated entities are risk-based. In most cases, the coverage of the examination program is such that no entity goes without inspection for a long period of time, even if it is low risk. The situation is different for IAs, as the coverage of their examination program is more limited—covering only a small percentage of the population each year. Market surveillance relies primarily on SROs' automated tools.

Principles for cooperation. The SEC and CFTC have the ability and capacity to share information and cooperate with other authorities domestically and internationally. They are signatories to many Memoranda of Understanding (MOU), including the IOSCO (MMOU) and a number of bilateral MOUs with domestic and foreign authorities, and have records of active cooperation. The SEC and CFTC do not need the permission of any outside authority or an independent interest to share or obtain information. Access to the financial records of individuals and small partnerships requires notifying the customer; delaying such notice is also possible in certain circumstances.

Principles for issuers. Generally issuers of public offerings, including asset-backed securities (ABS), are subject to strong disclosure requirements both at the moment of registration and on a periodic basis. However, municipal securities are exempt from those registration and reporting requirements. (While the SEC has established (indirectly) disclosure requirements applicable to issuers of municipal securities, it lacks authority to ensure compliance.) The current framework provides reporting companies with significant freedom to decide on their structure, and the classes of shares to be offered to the public. However, they are subject to strong disclosure obligations, and any limitations to the rights of shareholders must be clearly disclosed in the prospectus. Federal laws allow the acquisition of control without triggering an obligation to make a tender offer. However, a number of features in the legal system, mainly state corporate laws, create disincentives from doing so. The current regime requires reporting of insiders' holdings and substantial holdings, as well as reporting of beneficial ownership. The SEC has developed an active program to monitor and enforce issuers' compliance with their disclosure obligations. High quality accounting standards, the U.S. Generally Accepted Accounting Principles (GAAP), are set through an open and transparent process.

Principles for auditors, credit rating agencies, and other information service providers.

Auditors of reporting companies must be registered with the PCAOB. The PCAOB has developed a credible examination program for audit firms. Audit standards are considered of high quality. The PCAOB is responsible for the enforcement of compliance with audit standards, and the SEC can also exercise its enforcement powers over auditors and has done so in an active manner. CRAs that wish their credit ratings to be used for regulatory purposes must elect to register with the SEC as Nationally Recognized Statistical Rating Organizations (NRSROs). In practice, ratings are currently used for regulatory purposes by the SEC in very limited cases, mainly in connection with MMMFs. The registration process subjects NRSROs to appropriate requirements. The SEC conducts NRSRO examinations on an annual basis. BDs on the securities side and FCMs, introducing brokers (IBs), swap dealers (SDs) and major swap participants (MSPs) on the derivatives side are subject to obligations in connection with the provision of research analysis that aim at managing potential conflicts of interest.

Principles for collective investment schemes. IAs to MFs, and CPOs, are subject to registration with the SEC and CFTC, which focuses mainly on their integrity and disclosure to investors rather than on human resources, financial capacity, and internal control and compliance arrangements. MFs and commodity pools (CPs) are subject to disclosure obligations both at the moment of registration and on a periodic basis. Self-custody and related party custody of MF and CP assets is allowed, however additional safeguards apply in the case of MFs. MF and CP assets must be valued according to the U.S. GAAP. MF and CP shares and units must be valued at net asset value (NAV), except MMMFs. IAs to HFs are subject to registration requirements that are based on disclosure. Standards of organizational and operational conduct apply to them. The SEC conducts only limited examinations of IAs to MFs, although it has implemented a presence examination program for newly registered IAs, including those that manage HFs.

Principles for market intermediaries. The registration regime combined with the relevant SRO's membership regime subjects all categories of participants—except, importantly, IAs and Commodity Trading Advisors (CTAs)—to comprehensive eligibility criteria that include integrity, capital

requirements, and adequacy of internal controls. All categories of intermediaries except IAs and CTAs are subject to capital requirements and periodic reporting of their financial position and capital adequacy. IAs and CTAs' registration regime is based on integrity criteria and disclosure. They are not permitted to hold clients assets nor deal on behalf of customers, but they may have discretion to make investment decisions. Since in the U.S. context, IAs are typically portfolio managers with substantial assets under management, the authorities are encouraged to consider whether there is a need to implement more comprehensive internal control and risk management requirements. There are well-developed processes to deal with the failure of intermediaries that have been applied in practice.

Principles for secondary markets. Exchanges and Designated Contract Markets (DCMs) are subject to detailed registration requirements. Alternative Trading Systems (ATSs) are subject to the SEC broker-dealer registration and FINRA membership processes along with SEC disclosure obligations. Public information available on ATS operations, subscribers and market models is limited. Pre- and post-trade transparency requirements apply in both securities and derivatives markets, but subject to certain derogations that may lead to less than optimal pre-trade transparency. The authorities should review the regulatory framework for bilateral trading systems, enhance the disclosure requirements for ATSs, and analyze the risk that the pre-trade transparency of certain order types (including dark order types) may adversely impact price discovery. Market abuse is addressed by the Exchange Act and CEA and subject to administrative, civil and criminal sanctions. Open positions in commodity futures and options markets are closely monitored by the SROs and CFTC, while position information is available in securities markets through a DTCC service. Default procedures apply in both clearing agencies and Derivatives Clearing Organizations (DCOs) and are disclosed through their rules. Short selling is subject to disclosure and "locate" requirements, and the SEC and SROs monitor compliance.

Summary Implementation of the IOSCO Principles

Appendix Table 6. Summary Implementation of the IOSCO Principles	
Principle	Findings
Principle 1. The responsibilities of the Regulator should be clear and objectively stated.	The mandates of the SEC and CFTC are stated by law. The agencies can and do interpret the laws under their jurisdiction. There is a high level of public transparency on interpretations, guidance and no action letters. In general, like products and entities are treated in a consistent manner. However, the CPO and CTA regimes may lead to different investor protection consequences than that applied to IAs. The legal framework requires the agencies to consult and coordinate in specific areas. In addition, the agencies communicate on a regular basis. In a few areas the SEC and CFTC have been able to streamline obligations of dually registered entities by establishing single reporting or substituted compliance mechanisms. In a few cases, joint inspections in areas of common interest have taken place.
Principle 2. The Regulator should be operationally independent and accountable in the exercise of its functions and	The SEC and CFTC have been established as independent agencies separate from any office of the Government. Rules governing the appointment of Commissioners seek to balance political affiliations. As per judicial precedents, Commissioners can be removed only for cause.

<p>powers.</p>	<p>The Congressional budget approval process has the potential to materially affect the agencies' ability to decide on their priorities, and the annual nature of the budget can affect long term planning. In general, on a day to day basis the agencies do not require approval of or consultation with other authorities to exercise their functions. There is a strong accountability regime to Congress and the public, supported by a high level of transparency of a wide range of regulatory actions and decisions, as well as judicial review of rules and regulatory decisions.</p>
<p>Principle 3. The Regulator should have adequate powers, proper resources and the capacity to perform its functions and exercise its powers.</p>	<p>The SEC and CFTC have sufficient powers to fulfill their respective mandates, including rulemaking, registration, examination, investigation and enforcement powers. The agencies have been recruiting staff with diverse skill-sets. However, the current level of funding poses challenges for the proper discharge of their functions, in particular given their expanded mandates.</p>
<p>Principle 4. The Regulator should adopt clear and consistent regulatory processes.</p>	<p>Requirements for the provision of regulated activities are available on the agencies' websites. The legal framework requires the rulemaking process to include public consultation and an analysis of costs. In practice the agencies have also used other mechanisms, such as roundtables, to gather views from stakeholders on complex topics. Regulatory decisions are subject to due process, including generally a need for notice of proposed decisions, opportunity for affected parties to be heard, and judicial review.</p>
<p>Principle 5. The staff of the Regulator should observe the highest professional standards, including appropriate standards of confidentiality.</p>	<p>The SEC and CFTC are bound by general rules on ethics applicable to government officials. In addition, both agencies have established specific ethics rules that include additional restrictions for staff, in particular in the area of holding and trading securities and commodities. Both agencies are subject to strict rules of confidentiality. There are appropriate mechanisms to monitor potential breaches of ethics and confidentiality obligations.</p>
<p>Principle 6. The Regulator should have or contribute to a process to monitor, mitigate and manage systemic risk, appropriate to its mandate.</p>	<p>The supervisory programs of the different divisions of both agencies to monitor entities, products and markets are the main mechanisms to identify emerging and systemic risks. At the SEC, regular meetings take place between division staff and the SEC Chair, between division staff and individual Commissioners, and between the SEC Chair and individual Commissioners. Through these meetings, the SEC Chair obtains the views of the other Commissioners and informs them on issues of concern, including on emerging and systemic risks. Additionally, through these meetings the Chair and the other Commissioners are informed by the staff, and they share their views with the staff, on these same issues. CFTC staff has informal meetings to discuss risk issues. Weekly closed door surveillance meetings of staff with the Commission are also scheduled; these are used to discuss emerging risks, take decisions on how to tackle them, and follow up. Both agencies have made significant improvements to data collection and analysis, but enhancements are needed, particularly on asset management and swaps data. Through the participation of their chairs as voting members at the FSOC and of staff members in the subcommittees, the SEC and CFTC contribute to the process of identifying emerging and systemic risks in the financial sector.</p>
<p>Principle 7. The Regulator</p>	<p>Various processes allow the SEC and CFTC to review the perimeter of</p>

<p>should have or contribute to a process to review the perimeter of regulation regularly.</p>	<p>regulation, both in regard to a specific sector, entity or product, and in a more holistic manner. Examples of the former are reviews prompted by concerns identified through their supervisory programs, market events, or law. Examples of the latter are the strategic plans the agencies develop on a five year cycle, which require them to take a view on priorities. Types of action taken to address the regulatory perimeter include taking supervisory actions, issuing guidance or new rules, and proposing changes to the legal frameworks.</p>
<p>Principle 8. The Regulator should seek to ensure that conflicts of interest and misalignment of incentives are avoided, eliminated, disclosed or otherwise managed.</p>	<p>The regulatory framework to address issuers' conflicts of interest is based on strong disclosure obligations, including on related party transactions. Extensive disclosure obligations apply to the underlying assets of ABS. New disclosure requirements for asset level data and retention requirements will become effective over the next two years. The regime for regulated entities relies on a combination of prohibitions and management and disclosure of conflicts of interest. The SEC and CFTC monitor compliance primarily through their supervisory programs.</p>
<p>Principle 9. Where the regulatory system makes use of Self-Regulatory Organizations (SROs) that exercise some direct oversight responsibility for their respective areas of competence, such SROs should be subject to the oversight of the Regulator and should observe standards of fairness and confidentiality when exercising powers and delegated responsibilities.</p>	<p>The current regime relies extensively on the use of SROs for the supervision of the majority of the categories of intermediaries (FCMs, IBs, BDs), as well as for market surveillance. There are two main categories of SROs: the exchanges and DCMs and associations (FINRA and NFA). All SROs are subject to SEC or CFTC ongoing oversight. This includes approval or notification of rules, with appropriate tools to prevent rule implementation in case of non-compliance with the statutes; reporting requirements; and risk-based on-site examinations.</p>
<p>Principle 10. The Regulator should have comprehensive inspection, investigation and surveillance powers.</p>	<p>The SEC and CFTC have broad powers to inspect all categories of regulated entities and individuals, require information from them, and conduct investigations into their activities for potential breaches of their statutory and regulatory obligations. They also have the power to conduct market surveillance. The CFTC and NFA conduct front line surveillance for markets under their jurisdiction. For the securities markets, the SEC and the SROs work cooperatively to conduct surveillance of those markets.</p>
<p>Principle 11. The Regulator should have comprehensive enforcement powers.</p>	<p>The SEC and CFTC have robust powers to access information from any person, including subpoena powers over records and testimony, where a breach of law is suspected. Both agencies have a wide variety of enforcement tools at their disposal, including the use of administrative and civil proceedings and the ability to refer matters to the criminal authorities. A wide range of sanctions can be sought in administrative and civil proceedings, including monetary penalties and disgorgement and, for the CFTC, restitution.</p>
<p>Principle 12. The regulatory system should ensure an effective and credible use of inspection, investigation, surveillance and enforcement</p>	<p>The agencies and the SROs have put in place robust supervisory programs to monitor markets and the ongoing compliance of registered entities and individuals. The program for regulated entities is risk-based. In most cases, the examination program covers all entities so that none goes without inspection for a long period of time, even if it is low risk. However,</p>

<p>powers and implementation of an effective compliance program.</p>	<p>the coverage of the IA examination program is limited in spite of the importance of the sector. Market surveillance for derivatives markets is carried out by the DCMs and directly by the CFTC; for securities markets, front line surveillance is largely the responsibility of the exchanges and FINRA. Both agencies make extensive use of their enforcement powers. In recent years, the SEC has made important improvements to its enforcement program, including case management, the use of settlements that include an admission of breaches, and the constitution of specialized units and task forces. The agencies and criminal authorities are active in pursuing securities and derivatives violations.</p>
<p>Principle 13. The Regulator should have authority to share both public and non-public information with domestic and foreign counterparts.</p>	<p>Subject to compliance with relevant legal requirements, the SEC and CFTC can share information with other domestic and foreign authorities without the need for external approval. Access to the financial records of individuals and small partnerships covered by the Right to Financial Privacy Act (RFPA) requires notifying the customer; delaying such notice is also possible in certain circumstances. The IOSCO MMOU requirement on prior consultation of the requesting foreign authority before notifying the customer is followed.</p>
<p>Principle 14. Regulators should establish information sharing mechanisms that set out when and how they will share both public and nonpublic information with their domestic and foreign counterparts.</p>	<p>The SEC and CFTC have concluded some domestic MOUs and are signatories to the IOSCO MMOU. Ad hoc information sharing arrangements and access request letters are used in the absence of an MOU with sufficient coverage. The agencies also have several bilateral MOUs with foreign authorities. Both have responded to a significant number of information requests from foreign authorities.</p>
<p>Principle 15. The regulatory system should allow for assistance to be provided to foreign Regulators who need to make inquiries in the discharge of their functions and exercise of their powers.</p>	<p>The SEC and CFTC have assisted foreign authorities on numerous occasions through their ability to use their extensive powers to obtain and compel documents and testimony.</p>
<p>Principle 16. There should be full, accurate and timely disclosure of financial results, risk and other information that is material to investors' decisions.</p>	<p>The regulatory regime generally subjects issuers to strong initial and periodic disclosure obligations, including the submission of annual reports that must contain audited financial statements, quarterly reports, and disclosure of material events. However, municipal securities are exempted from the registration and reporting requirements. Through indirect mechanisms, the SEC has established disclosure obligations applicable to municipal securities. The SEC currently lacks direct authority to ensure issuers' compliance with these obligations, except for enforcement authority based on antifraud provisions. The current statutory thresholds for the suspension of periodic reporting obligations on issuers of publicly offered securities are high. The SEC has an active program to monitor issuers' compliance with their disclosure obligations.</p>
<p>Principle 17. Holders of securities in a company should be treated in a fair and equitable manner.</p>	<p>The current legal and regulatory framework generally allows companies significant freedom to decide on their structure, the classes of shares to be offered to the public and the rights associated with the shares. Reporting issuers are subject to strong disclosure obligations, including</p>

	<p>requiring disclosure of shareholder rights in the prospectus. This is complemented by strong fiduciary duties, and shareholders can (and do) exercise actively their private rights in the courts. Federal laws allow the acquisition of control of a reporting company without triggering tender offer obligations. There are a number of features of the legal system, principally state corporate laws, that create disincentives for parties seeking to acquire control from doing so other than by negotiating with the board of directors or making a tender offer for all shares. The current regime requires reporting of insiders' holdings, substantial holdings (over 10 percent), and holdings of most beneficial owners within stipulated deadlines.</p>
<p>Principle 18. Accounting standards used by issuers to prepare financial statements should be of a high and internationally acceptable quality.</p>	<p>Reporting issuers must prepare their financial statements in accordance with the U.S. GAAP, which are considered of high quality. Foreign issuers can use International Financial Reporting Standards (IFRS), and other accounting standards, the latter with reconciliation. The U.S. GAAP are set by the Financial Accounting Standards Board (FASB), which is overseen by the Financial Accounting Foundation (FAF), an independent, non-profit organization run by a Board of Trustees. The FASB is funded by fees assessed against issuers. The standard setting process is open, provides for consultation of stakeholders, and is actively monitored by the SEC. As part of its program to monitor issuers' compliance with their disclosure obligations, the SEC examines financial statements and their compliance with the U.S. GAAP. The SEC enforcement program has renewed its focus on accounting and financial fraud through the creation of a specialized task force.</p>
<p>Principle 19. Auditors should be subject to adequate levels of oversight.</p>	<p>Auditors of reporting companies must register with the PCAOB, which was created by law as a non-profit corporation under the oversight of the SEC. The PCAOB is composed of five members selected by the SEC, including two certified public accountants (CPAs). All members serve on a full time basis and must be independent from the audit profession. The PCAOB is funded by fees assessed to issuers, BDs, and other entities that are required to register with it. The PCAOB has established an inspection program for audit firms, where the inspection frequency depends on the number of issuers the audit firm audits. In addition to remediation of deficiencies, the PCAOB can impose enforcement actions on audit firms and individual auditors for breaches of their obligations and has done so in practice. SEC's own enforcement actions have complemented PCAOB efforts.</p>
<p>Principle 20. Auditors should be independent of the issuing entity that they audit.</p>	<p>There are specific SEC rules on auditor independence that impose restrictions on financial relations, and address issues such as self-interest, advocacy, familiarity, intimidation, provision of non-audit services, and rotation of the lead auditor every five years. The PCAOB requires audit firms to have a system of quality controls that provides reasonable assurance that personnel maintain independence in fact and appearance. Audit committees of listed companies are required to oversee the selection and work of audit firms. The PCAOB inspection program, along with its enforcement actions, is the key external mechanism to monitor compliance with the independence obligations. SEC enforcement actions over auditors have complemented PCAOB efforts.</p>

<p>Principle 21. Audit standards should be of a high and internationally acceptable quality.</p>	<p>Audit standards are set by the PCAOB and are considered of high quality. The standard setting process involves public consultation with stakeholders. The PCAOB inspection program, along with its enforcement actions, is the main mechanism to monitor audit firms' compliance with the audit standards. SEC enforcement actions have complemented PCAOB efforts.</p>
<p>Principle 22. Credit rating agencies should be subject to adequate levels of oversight. The regulatory system should ensure that credit rating agencies whose ratings are used for regulatory purposes are subject to registration and ongoing supervision.</p>	<p>A U.S. or foreign CRA that wishes its credit ratings to be used for regulatory purposes in the U.S. must elect to register with the SEC. In practice, credit ratings are currently used for limited regulatory purposes by the SEC, most notably in connection with MMFs. The registration process and the ongoing examinations of NRSROs address the relevant integrity, transparency, timeliness, confidentiality and conflict of interest management aspects. The SEC conducts examinations of each NRSRO at least annually. If needed, it can recommend remedial action or bring enforcement actions against an NRSRO. Sanctions may range from fines to suspension or revocation of registration as an NRSRO. In practice the SEC has sanctioned at least one CRA.</p>
<p>Principle 23. Other entities that offer investors analytical or evaluative services should be subject to oversight and regulation appropriate to the impact their activities have on the market or the degree to which the regulatory system relies on them.</p>	<p>The provision of equity research by BDs is subject to comprehensive SRO rules designed to increase an analyst's independence and manage conflicts of interest. The large BDs were subject to a settlement in 2003-2004 that required them to strengthen the independence of their research analysis, including by establishing information barriers. The settlement covers BDs accounting for approximately 80 to 90 percent of the U.S. equity underwriting business and is still in effect. Both equity and debt research are subject to SEC rules that require analysts to certify that their reports accurately reflect their views and disclose certain conflicts; in addition antifraud provisions apply. On the commodities side, CFTC rules impose information barriers and disclosure requirements in connection with research analysis conducted by FCMs, IBs, SDs and MSPs.</p>
<p>Principle 24. The regulatory system should set standards for the eligibility, governance, organization and operational conduct of those who wish to market or operate a CIS.</p>	<p>IAs to MFs and CPOs are subject to registration by the SEC and the CFTC respectively; the latter has delegated this function to the NFA. Both registration requirements focus on statutory disqualifications and extensive disclosure requirements to the regulator and investors. On an ongoing basis, IAs to MFs and CPOs are subject to certain organizational and operational conduct obligations, in particular the implementation of a compliance program. Monitoring of CPOs' ongoing compliance is conducted by the NFA on the basis of a risk-based supervisory program. MF boards have the responsibility of selecting and overseeing the IAs and in practice exercise this role in a proactive manner both at the moment of the initial selection and on an on-going basis through reporting and meetings. The SEC has in place a risk-based supervisory program for ongoing monitoring of IAs to MFs. However, its coverage is limited despite the importance of the sector.</p>
<p>Principle 25. The regulatory system should provide for rules governing the legal form and structure of collective investment schemes and the segregation and protection of</p>	<p>MFs and CPs can adopt different legal structures; these structures and the rights of investors must be disclosed in the prospectus. MF assets must be segregated. Custody by an IA or related entity is allowed, but in both cases additional safeguards apply, in particular the requirement for additional inspections by an auditor (two unannounced). In practice few MFs have self-custody by the IA or its related entity. The CFTC's current</p>

client assets.	regime requires CP assets to be segregated, but does not require the use of a custodian or depository. There are no additional safeguards in place when assets are held by the CPO or a related custodian. In practice most CPs do have separate custodians, which however are often related entities.
Principle 26. Regulation should require disclosure, as set forth under the principles for issuers, which is necessary to evaluate the suitability of a CIS for a particular investor and the value of the investor's interest in the scheme.	MFs and CPs that are offered to the public are subject to the Securities Act prospectus obligations (MFs are also subject to the ICA). MFs and CPs that issue prospectuses are required to provide periodic information to investors including both annual and semiannual reports. The CEA framework requires CPOs to provide a detailed disclosure document to prospective participants. In addition, the CPOs must provide annual audited financial statements and an annual report to their participants and the regulator. Quarterly or monthly reporting is also required. Delegation of activities by IAs and CPOs is permitted, but must be entrusted to entities that are also registered with the SEC and/or CFTC.
Principle 27. Regulation should ensure that there is a proper and disclosed basis for asset valuation and the pricing and the redemption of units in a CIS.	MFs and CPs are required to value their portfolios according to the U.S. GAAP. The MF prospectus and the CP disclosure document require disclosure of the frequency, timing and manner in which a participant may redeem its units. Sales and redemptions must be effected at the current net asset value (NAV). MMFs are not required to price their units at market value and may use fixed prices; however strict rules apply on eligible assets and duration of the portfolio. Federal laws do not require disclosure of NAV to investors on a periodic basis, but the price of MFs and CPs offered to the public is generally available through financial publications and websites. There are no specific requirements that govern pricing errors, but market practices on the securities side address compensation of losses to investors in certain circumstances. Suspensions and deferrals of redemptions are dealt with via disclosure (and pursuant to specific rules under the ICA with respect to MFs and MMFs); however, the SEC and CFTC have the authority to take action if necessary.
Principle 28. Regulation should ensure that hedge funds and/or hedge funds managers/advisers are subject to appropriate oversight.	Federal laws do not define HFs, but HF managers that operate HFs are required to register with the SEC and/or the CFTC as IAs or CPOs depending on the type of assets that the HF invests in. Similar to any other IA or CPO, current registration requirements focus on statutory disqualifications and disclosure to investors of extensive information about the manager, which must be kept up-to-date. Standards of organization and operational conduct apply to both IAs and CPOs of HFs on an ongoing basis. HF managers with RAUM above a certain threshold are subject to additional periodic reporting obligations to the SEC and CFTC on the funds they manage, including their assets, exposures and leverage. These reports can be shared with domestic authorities, including the FSOC, as well as with foreign regulators under the frameworks described in Principles 13-15. Capital requirements and other prudential requirements could be established on IAs and CPOs that manage HFs, if FSOC designated any such entity as systemically important.
Principle 29. Regulation should provide for minimum entry standards for market	The statutory registration regime combined with the SRO membership regime subjects all categories of participants except IAs and CTAs to a comprehensive set of eligibility criteria that includes integrity, capital requirements, and adequacy of internal controls. IAs and CTAs are not

<p>intermediaries.</p>	<p>permitted to hold customer assets or deal for customers, though they may have discretion to make investment decisions. As a result, the registration regime focuses on statutory disqualifications and disclosure to the regulators and investors of extensive information about the IAs or CTAs. Organizational and conduct obligations, including the obligation to implement a compliance program, apply on an ongoing basis to IAs and CTAs.</p>
<p>Principle 30. There should be initial and ongoing capital and other prudential requirements for market intermediaries that reflect the risks that the intermediaries undertake.</p>	<p>All categories of intermediaries except IAs and CTAs are subject to capital requirements based on a net capital formula. Assets are subject to deductions for liquidity and market risks, and additional charges apply to concentration risk. Some large BDs apply an alternative net capital (ANC) framework that allows them to use models to calculate their haircuts, but ANC firms have higher minimum capital requirements, and their use of models is approved by the SEC. The ANC framework does not include separate concentration charges, but uses value-at-risk to measure concentration risk. Intermediaries must report their financial position including net capital on a periodic basis, with frequency varying depending on the activities of the intermediary. They are also required to notify the authorities, if their capital falls below certain thresholds established in the regulatory framework. The SEC, CFTC and the SROs have mechanisms in place for ongoing monitoring of the financial position of firms.</p>
<p>Principle 31. Market intermediaries should be required to establish an internal function that delivers compliance with standards for internal organization and operational conduct, with the aim of protecting the interests of clients and their assets and ensuring proper management of risk, through which management of the intermediary accepts primary responsibility for these matters.</p>	<p>With the exception of IAs and CTAs, intermediaries are explicitly required to have adequate internal controls and risk management systems. Segregation obligations apply to all types of intermediaries. Both in the securities and commodity futures side, intermediaries are required to know their customers. Intermediaries are required to manage conflicts of interest, although in the commodity futures side the framework relies more extensively on disclosure. The coverage of the examination program for IAs is limited, in spite of the importance of the sector.</p>
<p>Principle 32. There should be a procedure for dealing with the failure of a market intermediary in order to minimize damage and loss to investors and to contain systemic risk.</p>	<p>The CFTC has a plan to deal with market disruption events, including the failure of a firm. The SEC has a clearly defined process to deal with failures of regulated entities. In both cases there are early warning systems for intermediaries with a minimum capital requirement, which includes reporting requirements when their capital falls below certain thresholds. Active monitoring of the firms' financial positions is conducted by both agencies and the SROs. To the extent a BD is in or approaching financial difficulty, SEC staff informs the Securities Investor Protection Corporation (SIPC), so that the SIPC can assess whether it should initiate a Securities Investor Protection Act (SIPA) proceeding. If a SIPA proceeding is initiated, a SIPA trustee is appointed with power to transfer clients' accounts. If the BD's assets are not sufficient to cover customers' claims, the SIPC Fund compensates up to a limit. If a failed FCM's assets are not sufficient to</p>

	cover all losses, customers are compensated on a pro rata basis. There is no equivalent to a SIPC fund. Under the Dodd-Frank Act, systemically important intermediaries may be placed into a Title II receivership with the Federal Deposit Insurance Corporation (FDIC) as receiver.
Principle 33. The establishment of trading systems including securities exchanges should be subject to regulatory authorization and oversight.	Exchanges and boards of trade are required to be registered, and the registration criteria and processes are set out in the Exchange Act, CEA, and related rules and regulations. Before commencing operations, an ATS must register as a broker-dealer, become a member of an SRO (in practice FINRA), and file an initial Form ATS with the SEC. Form ATS provides the SEC with information on the ATS' subscribers, access to its services, and operations. Fair access requirements apply after an ATS's market share exceeds a five percent threshold; currently there are no such ATS. Limited public information is available on ATSs' order execution rules and procedures, subscribers, and market models on the basis of voluntary disclosures.
Principle 34. There should be ongoing regulatory supervision of exchanges and trading systems which should aim to ensure that the integrity of trading is maintained through fair and equitable rules that strike an appropriate balance between the demands of different market participants.	The national securities exchanges and FINRA share the responsibility for market surveillance and member supervision in securities markets, while the DCMs and NFA carry out these functions for commodity futures and options markets. Most SEFs have outsourced their market surveillance to the NFA. The SEC and CFTC can investigate improper market conduct referred by the SROs or at their own initiative. They supervise exchanges primarily through rule approval/review and on-site examinations of exchanges' self-regulatory functions. Examining the exchanges' technological systems and system safeguards has become an increased focus of both the SEC and CFTC.
Principle 35. Regulation should promote transparency of trading.	The statutory pre- and post-trade transparency requirements in equity markets are based on Regulation National Market System (NMS). In practice, exchanges' proprietary feeds are also available to subscribers. Pre-trade transparency is not available in case of exchanges' dark order types and trading on dark pool ATS. Post-trade transparency information has to be disclosed as soon as practicable, but within a maximum delay of 10/90 seconds; in practice information is disclosed within milliseconds of trades. In commodity futures and options markets, block trades and bona fide exchanges of futures for related positions are exempted from pre-trade transparency through DCM rules. The block trade thresholds set by DCM rules have decreased over the past years. The CFTC regulation on harmonized block trade requirements has not been finalized.
Principle 36. Regulation should be designed to detect and deter manipulation and other unfair trading practices.	Fraudulent and manipulative practices are prohibited in the Exchange Act, CEA and SRO rules. Insider trading prohibition applies on securities markets. Trading in commodity futures and options on the basis of material nonpublic information in breach of a pre-existing duty to disclose may be a violation of the CEA. Market abuse is subject to administrative, civil and criminal sanctions. The potential for market abuse is monitored by the SROs that may take action under their rules or refer cases to the SEC, CFTC and criminal authorities. A range of administrative, civil and criminal sanctions has been imposed.
Principle 37. Regulation should aim to ensure the proper	DCMs and DCOs closely monitor open positions in commodity futures and options markets. This is complemented by CFTC monitoring. Action

<p>management of large exposures, default risk and market disruption.</p>	<p>can be taken, if a clearing member is not able to meet its obligations or post required margin. Individual clearing agencies monitor member exposures in securities markets. Cross-market post-trade monitoring is facilitated through the DTCC Limit Monitoring system. Default procedures are in place in both clearing agencies and DCOs and disclosed through their rules. Short selling is subject to disclosure and locate requirements. Both the SEC and SROs monitor compliance with the regulatory requirements on short selling.</p>
<p>Principle 38. Securities settlement systems and central counterparties should be subject to regulatory and supervisory requirements that are designed to ensure that they are fair, effective and efficient and that they reduce systemic risk.</p>	<p>Not assessed.</p>

Recommended Actions

<p style="text-align: center;">Appendix Table 7. Recommended Action Plan to Improve Implementation of the IOSCO Principles</p>	
<p>Principle</p>	<p>Recommended Action</p>
<p>Principle 1</p>	<p>The SEC and CFTC should continue their efforts to coordinate via joint regulations, unified reporting and/or use of substituted compliance as appropriate.</p> <p>All regulatory authorities with mandates impacting securities and derivatives markets should continue to enhance coordination.</p> <p>The CFTC is encouraged to review whether legal changes should be pursued in order to subject CPOs and CTAs to a similar standard of care as IAs and to a more comprehensive framework to address conflicts of interest.</p>
<p>Principle 2</p>	<p>Consideration should be given to mechanisms to make both the SEC and CFTC’s funding more stable, for example by the agencies’ becoming self-funded and/or providing for multiyear budgeting.</p>
<p>Principle 3</p>	<p>Additional resources should be provided for the SEC and CFTC commensurate to their expanded mandates.</p>
<p>Principle 6</p>	<p>The SEC should continue to work on improving data availability and automated tools to identify risks, in particular in connection with asset managers.</p> <p>The SEC should consider enhancing mechanisms to ensure a holistic view of emerging and systemic risk, for example by making more formal arrangements for discussions on risk, ensuring participation of the Commission as a whole, and establishing a more formal accountability framework.</p> <p>The CFTC should continue to work on improving the quality of swaps data and expanding current mechanisms to monitor the swaps markets.</p>

Principle 8	<p>The SEC is encouraged to review conflicts of interest arising from the participation of BD affiliates in an ATS managed by the BD.</p> <p>The SEC is encouraged to review the impact of order types, order routing, and related fee structures in equity markets on conflicts of interest.</p> <p>The SEC is encouraged to continue its review of the BD and IA models to determine whether harmonization of the standards of care is needed, and whether additional actions are needed in connection with conflicts of interest, including those arising from compensation arrangements for different types of accounts, products or services.</p>
Principles 12, 24 and 31	The SEC should increase the intensity of its examination coverage of IAs.
Principle 16	<p>Consideration should be given to making amendments to the federal securities laws to grant the SEC direct authority to impose disclosure requirements on issuers of municipal securities and to remove the exemption available to non-municipal conduit borrowers.</p> <p>Consideration should be given to reviewing the thresholds that trigger a suspension in reporting obligations, in particular for banks and bank holding companies.</p>
Principle 17	The SEC is encouraged to consider reducing the deadline for beneficial ownership disclosure as well as for the first report that insiders need to file.
Principle 19	<p>The PCAOB should take forward the implementation of actions to ensure the timeliness of its enforcement proceedings.</p> <p>The SEC and PCAOB are encouraged to further analyze whether PCAOB proceedings should be made public.</p>
Principle 21	The PCAOB should work on ensuring timely advancement of its standard setting agenda.
Principle 23	FINRA is encouraged to finalize its rules for research analysis in debt securities, as well as rules for research analysis in equity securities to eliminate, where appropriate, potential asymmetries between the regime applicable to the firms covered by the Global Settlement and the regime applicable to the rest of the industry.
Principle 24	The authorities should consider to explicitly require IAs to MFs and CPOs to implement internal controls and risk management.
Principle 25	Consideration should be given to amending the CEA to enable the CFTC to require additional safeguards where a CPO or a related entity has possession of pool assets.
Principle 27	The CFTC or the NFA should adopt a rule providing for the way investors are to be treated, if adversely affected by errors in the pricing of interests in a CP.
Principle 28	As the authorities continue to analyze the risks posed by HFs, they are encouraged to review whether a comprehensive risk management framework is warranted.
Principle 29	The authorities are encouraged to consider whether to explicitly require internal controls and risk management for IAs and CTAs that conduct portfolio management.
Principle 30	The SEC is encouraged to continue its review of the capital and liquidity framework for ANC firms. More broadly, the SEC is encouraged to continue reviewing the adequacy of liquidity requirements for the larger BDs.

Principle 33	<p>The SEC should continue to follow the development of bilateral trading systems and, if needed, adjust the regulatory framework as appropriate.</p> <p>The SEC should require the ATSS to disclose their order execution rules and procedures.</p> <p>The SEC should ensure that the regulatory framework enhances the requirement for fair access to ATS, including by removing or at least lowering the current five percent threshold.</p> <p>The SEC and FINRA are encouraged to further ensure that their respective processes provide a sufficiently in-depth analysis of the order execution procedures of a new ATS, in particular for fairness, and provide specific evidence of a BD's operational and other competence to operate an ATS.</p> <p>The SEC is encouraged to consider whether additional requirements could be applied to exchanges themselves to further enhance their ability to manage the risks arising from direct electronic access.</p>
Principle 35	<p>The SEC is encouraged to continue to deepen its analysis of the pre-trade transparency impact of various order types and the reference prices dark order types are permitted to use to ensure that current derogations do not adversely impact the price discovery process.</p> <p>The CFTC should promptly finalize its block trade rules to provide a regulatory basis for assessing pre-trade transparency waivers for block trades.</p>
Principle 37	<p>The authorities are encouraged to review whether the current mechanisms are sufficient to provide them with a comprehensive view of the total exposures of market participants that are active across various markets (equity, fixed income, commodity futures and options).</p>

Authorities' Response to the Assessment

The Chairs of the SEC and the CFTC appreciate the IMF's commitment of time and resources to the Financial Sector Assessment Program. We would like to express our gratitude to the IMF for fielding such a highly professional, hard working, and knowledgeable team of assessors to prepare the Detailed Assessment Report.

As the United States has the largest and most complex financial markets in the world, we recognize and welcome the fact that the United States is held to the highest and most stringent grading standard. We value the objective assessment conducted of our Commissions' regulatory regimes.

In the aftermath of the financial crisis, our agencies were given new powers and broad new responsibilities to make our financial regulatory system stronger, more resilient and more effective. We are pleased to see that the Report reflects a recognition that over the past five years the SEC and CFTC have harnessed these new powers and seized upon these new responsibilities to implement more robust and comprehensive rulemaking, supervision and enforcement programs. As just one example, the Report noted that our agencies have introduced comprehensive regulatory

reform of the OTC derivatives marketplace, improved supervisory programs to monitor compliance by registered entities, and made extensive use of our enforcement powers.

The overall ratings in the Report reflect the SEC’s and CFTC’s regulatory successes, while at the same time noting that there is room for improvement. Although staff disagrees with certain of the conclusions, recommendations, ratings and interpretations of the IOSCO Principles, we found the assessment process to be comprehensive and fair. SEC and CFTC staffs will continue to evaluate the Report as a tool for our respective Commissions to enhance their regulatory programs and to improve cooperation and coordination in rulemaking and regulatory oversight.

We look forward to a continuing dialogue with the IMF to advance our shared goal of strengthening the U.S. financial regulatory system.

D. IAIS Core Principles for Effective Insurance Supervision

Information and Methodology Used for Assessment

The assessment has been made against the Insurance Core Principles (ICPs) issued by the International Association of Insurance Supervisors (IAIS) in October 2011, as revised in October 2013.⁷ The previous assessment, in 2010, was conducted on the observance with an earlier version of the ICPs issued by the IAIS in 2003. The ICPs apply to all insurers, whether private or government-controlled. Specific principles apply to the supervision of intermediaries.

The assessment is based solely on the laws, regulations and other supervisory requirements and practices that are in place at the time of the assessment in November 2014. While this assessment does not reflect new and on-going regulatory initiatives, key proposals for reforms are summarized by way of additional comments in this report. The authorities provided a full and well-written self-assessment, supported by anonymized examples of actual supervisory practices and assessments, which enhanced the robustness of the assessment.

The assessment addresses insurance regulation nationally and does not assess individual state authorities. The principal regulatory responsibilities are shared by the 50 states, the District of Columbia and five U.S. territories (hereinafter “states” includes the 50 states, the District of Columbia and five U.S. territories, unless the latter two are specifically mentioned), the Federal Reserve Board (in respect of consolidated supervision only) and the FIO. Technical discussions with officials from federal agencies and bodies (FIO, FRB, FSOC, FinCEN), NAIC and two sample state insurance departments (those of the states of New York and Massachusetts), and the independent member with insurance expertise of the FSOC also enriched this report; as did discussions with industry participants. As the assessment addresses national compliance and the assessors were not able to hold discussions or review material from more than a few state authorities (and a selection of Federal

⁷ The assessment team comprised Ian Tower, Philipp Keller (both external experts engaged by the IMF) and Nobuyasu Sugimoto (IMF) in October–November, 2014.

Reserve banks), reliance has also been placed on the processes and procedures used by the NAIC (i.e., the commissioners of insurance acting collectively and the staff of the association) in their support for state regulators. The assessors are grateful to the authorities and private sector participants for their cooperation.

Overview and Institutional Setting

Insurance regulation and supervision is a shared responsibility of federal and state authorities.

States are responsible for licensing, supervision and examination of all insurance companies and intermediaries (known in the United States as “producers”). As part of the U.S. response to the 2008 financial crisis, the FRB’s responsibilities for consolidated supervision of groups which include insurance companies have been extended to relevant designated non-bank financial groups (NBFCs) and savings and loan holding company groups (SLHCs). Its responsibilities now cover around 30 percent of total premium income in the United States. A new Federal Insurance Office (FIO) has, amongst other responsibilities, a broad monitoring role for the insurance sector and its regulation. Other bodies, both, state and federal, have a role in aspects of insurance regulation, including the FSOC (in relation to designation of NBFCs and identification of risks to financial stability), state securities regulators and the SEC (and FINRA) in relation to products and practices covered by securities laws; the Department of Labor in relation to workplace pension products; and FinCEN and the IRS in relation to AML/CFT regulation and supervision.

States generally carry out insurance regulatory functions through insurance departments of the state administration. The insurance departments carry out licensing, supervision and examination work for insurance companies and intermediaries under powers set out in state legislation and in accordance with state budgets. A commissioner heads the department and exercises all formal powers. Some commissioners are elected, but most are appointed by the state governor. While arrangements vary among states, funding is usually raised from the insurance markets via fees and levies. Insurance departments’ budgets are generally subject to the state budgeting processes. Insurance departments also collect premium taxes for the states, a significant part of state governments’ total revenues.

The National Association of Insurance Commissioners (NAIC) plays an important role in promoting consistency across state regulation. NAIC is a regulatory support organization for state insurance supervision. Through the NAIC, state regulators establish model laws, regulations, best practices, and examination handbooks, and coordinate their regulatory oversight. Key functions of the NAIC are (i) to develop and agree on model laws and regulations, which now total over 200; (ii) manage the Financial Regulation Standards and Accreditation Program (“the accreditation program”), which is a process that develops certain minimum standards in respect to financial regulation of multistate companies and reviews state insurance departments for compliance with those standards; (iii) the centralized process of financial analysis operated through the mechanism of the NAIC’s Financial Analysis Working Group (FAWG), which discusses reports from NAIC staff covering all “nationally significant companies” (around 1,600 companies representing 85 percent of the market) based on annual and quarterly statements and other information; (iv) the provision of a

number of databases covering financial information (most companies submit statements direct to the NAIC), data on producers, etc., and support for technical financial analysis.

State regulators have been enhancing their approach to financial regulation in recent years though some gaps exposed by the crisis still remain unaddressed. In 2008, the NAIC launched the Solvency Modernization Initiative (SMI), a review of financial requirements and are implementing a number of key reforms, some of which also reflect the recommendations of the 2010 FSAP. However, other issues highlighted by the financial crisis have not been fully addressed. Reforms are pending to the requirements applying to financial guaranty (bond insurers—also referred to as monoline insurers). Private mortgage insurance companies are not subject to RBC, although NAIC and state regulators are working on such changes. Most importantly, group capital requirements have not been implemented either by federal or state regulators as yet.

The FRB has responsibility for consolidated supervision of certain groups (17 in total) containing insurance companies. The FRB has a role in insurance regulation and supervision through its primary federal responsibility for consolidated regulation of: bank holding companies where there are insurance companies as well in the group (there are no such groups at present); savings and loan holding companies (SLHCs) under the Home Owners' Loan Act (HOLA) (to the extent that are one or more insurance companies as well as at least one savings and loan company in the group—there are 15 such groups at present, including four of the largest insurers in the country); and insurance companies which are non-bank financial companies (NBFCs) under the Dodd-Frank Act, where the company has been designated for FRB supervision by the FSOC (there are two insurance groups at present, AIG and Prudential Financial).

The FRB's approach to its new responsibilities is developing. The FRB has been growing its staff in the insurance area, drawing on staff from other FRB functions, including banking supervision, from state insurance departments and from the insurance sector. This process is on-going, in terms of numbers and expertise, including actuarial. The FRB's regulatory regime is also still developing and it has not yet defined a group level capital requirement for insurance groups it regulates. The application by the FRB of a supervisory approach developed for large banks has, however, led to intensified supervisory work on group-wide governance and risk management issues at FRB-supervised groups.

In addition, the FIO has been established in the Treasury Department and has made a number of recommendations on insurance regulation and supervision. While it has no authority to license or regulate individual insurance companies or to undertake consolidated supervision, under the Dodd-Frank Act FIO has a broad monitoring role for the insurance sector and its regulation, a lead role in international aspects of insurance regulation and specific responsibilities in relation to systemic risk in the insurance sector.

Main Findings

U.S. insurance supervision has been significantly strengthened in recent years and many of the recommendations of the 2010 FSAP are being addressed. Insurance has been brought within the

scope of system-wide oversight of the financial sector. The establishment of the Federal Insurance Office (FIO) has created a mechanism for identifying national priorities for reform and development. The extension of the Federal Reserve Board's responsibilities to cover consolidated supervision of insurance groups has strengthened supervision of the affected groups (now covering around 30 percent of total premium income in the United States) and promises to empower U.S. regulators in the negotiation and implementation of new international standards of insurance regulation. State regulators have been adjusting to the new regulatory architecture, at the same time progressing important reforms such as the solvency modernization initiative and significantly strengthening group and international supervision.

Many of these changes are still a work in progress. At the state level, the transition from a strongly rules-based approach to more principles-based regulation and risk-focused supervision is progressing but is taking time and faces obstacles. Increased emphasis is being placed on risk management through the introduction from 2015 of an ORSA with wide-ranging implications for supervisory work and resourcing. The FRB's supervisory approach to insurance groups has benefited from its experience of banking supervision, but still needs to strike out in its own direction; and the development of FRB regulation is proceeding slowly. Staffing both regulation and supervision with appropriate skills and expertise is continuing.

Overall, the assessment finds a reasonable level of observance of the Insurance Core Principles.

There are many areas of strength, including at state level the powerful capacity for financial analysis with peer group review and challenge through the processes of the NAIC. Lead state regulation is developing and a network of international supervisory colleges has been put in place. Regulation benefits from a sophisticated approach to legal entity capital adequacy (the Risk-Based Capital approach). Regulation and supervision continue to be conducted with a high degree of transparency and accountability. FRB supervision is bringing an enhanced supervisory focus to group-wide governance and risk management. Cooperation between state and federal regulators is developing, based on the complementarity of their approaches, although it has further to go.

Key areas for development include the valuation standard of the state regulators, especially for life insurance, and group capital standards. The standard for valuation of assets and liabilities has developed over many years. For life insurers, it is prescriptive and in many cases formula-based. As products have become more complex, the prescribed algorithms and formulae used to determine reserves have grown in complexity. The standard has varying levels of conservatism, which leads to a lack of transparency. It does not give an incentive for appropriate dynamic hedging. Its shortcomings are circumvented and mitigated by complex structures that life insurers put in place, including transactions with affiliated captive reinsurers. The standard should be changed to reflect the economics of the products better. Principles-Based Reserving, part of the solvency modernization initiative, would mitigate some of the issues, but its implementation date is uncertain. In relation to capital, there are no group-level capital standards in place for groups, whether supervised by states or the FRB. States should have the ability to set group-wide valuation and capital requirements, while the FRB should develop a valuation and capital standard speedily. RBC should be extended to financial guaranty companies, responding to the experience with this sector in the financial crisis.

There are also gaps in governance and risk management requirements and in market conduct and intermediary supervision. Neither state nor FRB supervisors have set insurance-specific governance requirements that would hold boards responsible for a governance and controls framework that recognizes and protects the interests of policyholders. There are no requirements for risk management and compliance functions, although state insurance regulators will require larger companies to have internal audit functions from next year. An increasing focus on governance and controls in supervision by both states and FRB mitigates the effect of the gap in regulation. However, state examinations normally take place only every five years (FRB examinations are more frequent, if not continuous). More frequent state examinations of larger companies and reduced reliance on outsourcing of the work in some states should be considered. Market conduct supervision, which is carried out only by the states, should be strengthened through a risk-focused supervisory framework, enhanced analysis of risk (including those due to complex products and commission-based sales) and supervision of the more significant intermediaries.

There is a need to review governance and funding arrangements for state insurance regulators. The arrangements for appointment and dismissal of commissioners in many states expose supervision to potential political influence. The high dependence on state legislatures in respect of legislation and resources exposes supervisors both to political influence and to budgetary pressures. These risks are mitigated but not eliminated by NAIC processes. There is also a need to review levels of skills and expertise, as the technical demands of supervisory work change in line with regulatory reforms including ORSA and possible Principles-Based Reserving.

The objectives of state regulators and scope for conflict between FRB objectives and policyholder protection should be reviewed. State regulators' objectives are not clearly and consistently defined in law. The FRB's objectives in relation to insurance consolidated supervision do not include insurance policyholder protection and there is potential for conflict, in times of stress, between the expressed objectives of the regulation of savings and loan holding companies and non-bank financial companies, and the interests of insurance policyholders.

While recent reforms are bringing benefits, the regulatory system for insurance remains complex and fragmented and reform should be considered to address the resulting risks. There are differences between state insurance regulators and between state and federal regulators, in both regulation and supervision. The regulatory system is complex and there are risks from a lack of consistency, including the creation of opportunities for unhealthy arbitrage (which accounts in part for the growing use of affiliated captive reinsurers, for example); and risks of failure to act on gaps or weaknesses in regulation with sector or system-wide implications.

A national-level insurance regulatory body is needed to deliver enhancements and greater consistency across states in both regulation and supervision. The current regulatory architecture lacks capacity to fully address the resulting risks. The authorities should review the options for change, which include strengthening the capacity of the FIO to bring about convergence on uniform high standards of regulation and supervision as well as comprehensive market oversight. An agency at the national level, with appropriate independence and expertise, should be given a mandate and powers to establish national standards, and ensure regulatory consistency and supervisory

coordination. Such an agency would require sufficient resources, accountability and independence, in line with the expectations of the Insurance Core Principles.⁸

Summary Observance of Insurance Core Principles

Appendix Table 8. Summary of Observance with the ICPs	
Insurance Core Principle	Overall Comments
1 - Objectives, Powers and Responsibilities of the Supervisor	<p>Insurance regulators are clearly identified in law and have adequate powers, the more so when 2010 changes to the holding company system powers are adopted in all states. While the FIO has significant powers in relation to oversight of the sector and regulation, only the states and FRB have powers over insurance companies and/or their groups.</p> <p>While there are limited explicit statements of the objectives of states' insurance supervision in law, the body of state insurance law and the understanding and expression by state regulators of the objectives of their work are consistent with the promotion of a fair, safe and stable insurance sector for the benefit and protection of policyholders. However, states should ensure that the promotion of insurance business and excessive focus on affordability of insurance rather than fair treatment of policyholders, are not a part of regulatory objectives.</p> <p>The establishment of the FIO and extension of the FRB's mandate to the consolidated supervision of non-bank financial companies designated by the FSOC has introduced a new objective for insurance supervision in relation to the impact on U.S. financial stability—in line with a recommendation of the 2010 FSAP.</p> <p>The objectives of the FRB, however, do not explicitly include insurance policyholder protection. There appears to be scope for conflict, for example in case of stress affecting savings and loan company depositors or risks to financial stability. Risks to depositors or stability could be mitigated by actions that would be detrimental to the interests of insurance policyholders.</p>
2 - Supervisor	<p>State insurance regulators generally have a high degree of day-to-day operational independence and accountability. They operate within a highly transparent framework, with an emphasis on open government, but are also able to protect confidential information received from firms and from other authorities. Legal protection of agencies and staff is adequate.</p> <p>There remain risks to independence in state governance arrangements. While the vesting of regulatory powers in the commissioner helps protect departments' operational independence, the arrangements for appointment and dismissal of commissioners in many states expose state supervision to potential political influence. Elected commissioners may be subject to the pressures of the electoral cycle.</p>

⁸ The two obvious bodies to take on this role would be the NAIC and the FIO. Extensive expertise has been developed in insurance regulation and market oversight by the NAIC, but this is a consensus-based association of insurance commissioners, which lacks powers to effect the necessary changes. The FIO has a limited mandate and lacks the operational independence and resources to take on this role in its current format.

	<p>The high dependence on state legislatures in respect of principal legislation and for budgetary resources exposes departments both to political influence and to potential budgetary pressures. These risks are mitigated but not eliminated by NAIC processes, including the accreditation program.</p> <p>While states' financial resources appear broadly adequate for current work programs, levels of skills and expertise require development, as the technical demands of supervisory work change in line with regulatory reform and as market conduct regulation develops. Some departments are dependent on contractual staff for routine examination work. The application of statewide remuneration policies constrains departments' ability to hire specialist skills.</p> <p>The NAIC accreditation program has served state regulation well. The NAIC could now extend its scope, for example to the regulation of captives, market conduct and intermediary regulation. They could also introduce an increased focus on the quality of supervisory judgments.</p> <p>In addition to its need to build expertise in insurance regulation and supervision generally, the FRB would benefit from having more staff with understanding of insurance issues at senior levels.</p>
3 - Information Exchange and Confidentiality Requirements	<p>The extent of information exchange involving U.S. supervisors has increased in recent years, facilitated by NAIC processes (as well as the accreditation program), the development of an extensive network of MoUs and the establishment of international supervisory colleges. Seven states have become signatories to the IAIS MMoU with many more in the process of applying or considering applying.</p> <p>Increased trust appears also to have been developing between supervisors, within the U.S. and with foreign regulators, facilitated by greater understanding and confidence in the ability of U.S. supervisors to protect confidential information. This process has further to go and needs to be actively managed, while there is also scope for broader cooperation and collaboration amongst regulators (see ICP25).</p>
4 - Licensing	<p>The UCAA process and accreditation standard for licensing (which became part of the accreditation process in 2012) cover core requirements and contribute to the consistency of licensing requirements across states.</p> <p>However, inconsistency of requirements and practices remain a perceived opportunity for arbitrage, for example, lack of consistency of absolute minimum capital requirements and exemption of certain insurance activities. With regard to capital, once a company is operating and writing business, RBC becomes more relevant as the higher standard. Guidance on business model analysis exists and the accreditation process requires the analysis of their appropriateness through on-site reviews. However, documentation about business model assessment (such as peer comparison of cost structures, etc.) may not be sufficient for the accreditation process to validate appropriate and consistent application among states and across business lines.</p>
5 - Suitability of Persons	<p>States rely to a high degree on onsite examination to identify and remedy issues with the suitability (in particular properness) of key individuals. In addition, existing examination practices tend to focus more on compliance (thus more on fitness), and the competence and integrity of key individuals are not an area of focus—or at least their assessment is not sufficiently documented.</p>

	<p>Lack of powers, such as an ongoing approval of Board, Senior Management and Key Persons in Control Functions, and other alternative mechanisms, such as disclosure, makes it difficult for state regulators to take formal regulatory action rather than applying moral suasion, as propriety of key individuals tends to be judgemental and strong regulatory enforcement action is not appropriate in many cases.</p>
6 - Changes in Control and Portfolio Transfers	<p>Although the 2010 amendment of the Model Holding Company Act has not been adopted by all states, all the requirements of the ICP have been adopted by all states.</p>
7- Corporate Governance	<p>Neither state nor FRB supervisors have set formal broad-based, insurance-specific governance requirements, at legal entity or at group/holding company level. Both state and FRB supervisors primarily rely on assessing the risks in individual companies and groups, through regular oversight and through the on-site supervisory process. The FRB is relying on guidance and a supervisory approach developed for banking groups.</p> <p>There is a highly structured approach for carrying out state evaluation work on governance in preparation for examinations and a thorough process for carrying out the examinations themselves, as evidenced in documentation reviewed by the assessors. However, reliance on company reporting requirements, examinations work and general state corporate governance requirements should be supported by governance requirements appropriate for insurance business—and which engage the board of directors in particular in overseeing the management of insurance risks, recognizing the interests of policyholders.</p> <p>The application by the FRB of an approach developed for large banks has intensified supervisory work on group-wide governance at FRB-supervised groups. Many management and governance issues are common to banks and insurance groups; and with only 17 groups to regulate, many of them large, the FRB can take a tailored firm-by-firm approach. However, the development of specific requirements for insurance groups is needed to help focus supervisory work on where insurers and banks are different, and on where the major risks in insurance groups arise.</p>
8 - Risk Management and Internal Controls	<p>Neither states nor the FRB have a comprehensive set of requirements on risk management and controls tailored to the business and risks of insurance companies.</p> <p>In the absence of requirements on firms to have control functions, there is a risk that states' expectations of high standards in these areas are not communicated to and understood by companies as clearly as necessary. The thoroughness of the examination process, and comprehensiveness of the published examiners guidance, does, however, mitigate the risks, as does the framework of requirements introduced for financial controls in recent years. The introduction by the states shortly of a requirement for internal audit functions at larger firms will extend the framework further, in a proportionate way, as will the ORSA requirements in the area of risk management.</p> <p>The FRB can and does take a tailored approach to risk management and controls, as to other issues. However, FRB guidance material and the supervisory approach needs further development to address the particular expectations of groups that are mostly engaged in insurance business.</p>
9 - Supervisory Review and	<p>State regulators have a highly developed approach to offsite analysis, drawing on comprehensive legal entity reporting and a powerful analytical capacity and peer review</p>

Reporting	<p>framework led by the NAIC. Their approach has been significantly strengthened by the further development of holding company system analysis and the enhanced role of the lead state regulator and will be further strengthened by new reporting requirements on corporate governance, if agreed at the NAIC.</p> <p>Financial condition examinations have become more risk-focused, with more attention to qualitative issues and forward-looking judgments on “prospective risks”; and they are more often coordinated with other states and conducted as examinations of groups. Market regulation examinations appear to have further to go in this regard.</p> <p>Even for financial examinations, there appears to be scope for more confidential judgments to be included in management letters. Furthermore, the continued requirement for publication of a factual examination report on a legal entity basis absorbs significant resource and risks misleading readers where confidential supervisory issues are under discussion. The states are, however, considering modifications to the format to make it more representative of the work performed under a risk-focused examination.</p> <p>A five years maximum examination cycle is long by comparison with financial sector regulators in many other countries and other US regulators, especially in respect to larger or otherwise higher risk firms. It could be shortened or supplemented with targeted examinations for larger groups (not mainly where there are indicators of potential risk, as at present), accepting that this would require significant resource reallocation.</p> <p>The FRB’s approach draws heavily at present on tools and techniques developed for the major banking groups. As recognized by the FRB, there is a need to adapt and supplement these with supervisory tools that are tailored for insurance groups, to the extent that these are the most significant risks in the group, as well as maintaining a focus (in the case of NBFs) on those aspects of the group’s business that may cause financial stability risks.</p>
10 - Preventive and Corrective Measures	<p>States have a full range of powers to intervene, require remediation and to escalate their response as necessary and they use these powers in practice. The powers are supplemented by specific actions that the FRB may take in respect of holding companies subject to their regulation.</p> <p>In respect to financial conditions, the system of RBC-related company and regulatory action levels, the associated triggers and required actions provide for automatic intervention ahead of stress, but their extensive financial reporting and financial analysis tools, including RBC forward simulations, also equip supervisors with the ability to intervene on a discretionary basis and start discussions with senior management at an early stage.</p>
11- Enforcement	<p>States and the FRB have wide range of enforcement measures and use those actively and effectively.</p>
12 - Winding-up and Exit from the Market	<p>States have appropriate tools to wind-up insurance legal entities effectively while protecting policyholders’ benefits as far as possible. In practice, the level of insolvencies has been low, even during the financial crisis, although a significant number of companies (136 as of the end 2013) have entered into run-off.</p> <p>The relatively prescribed system of indicators of financial strain and procedures for dealing with troubled companies (including the FAWG process) has meant that</p>

	<p>interventions have been taken at an early stage.</p>
13 - Reinsurance and Other Forms of Risk Transfer	<p>The regulation of reinsurance is comprehensive and supervision practices appropriate, with due consideration of risks. The handbooks give detailed guidance on best practices and on the evaluation of reinsurance programs.</p> <p>State regulators analyze material intra-group reinsurance contracts. However, if an insurance group or holding has a complex web of retrocessions in place, there can be interactions which impact the value and potential performance of retrocessions in place.</p>
14 - Valuation	<p>The current valuation standard for life insurers is prescriptive and in many cases formula-based. As insurance products have become more complex, the prescribed algorithms and formulae used to determine reserves have grown in complexity accordingly. New products often require tailor-made approaches for valuation. Assumptions used for reserving are often static and set at the time the insurance products were sold. The valuation standard has varying levels of conservatism, which leads to a lack of transparency. The valuation standard uses amortized cost for specific assets under a hold-to-maturity argument for assets that cover liabilities. This argument breaks down for products where appropriate risk management requires a frequent re-balancing of the asset portfolio. The valuation standard does not necessarily give appropriate incentives for dynamic hedging for products where this would constitute appropriate risk management.</p> <p>The shortcomings of the valuation standard are circumvented and mitigated by complex structures in which life insurers engage. In some states, affiliated captives can hold fewer assets to back reserves. Even at the captive level, the full formulaic reserve is required. However, for captives the difference between the full formulaic reserve and the economic reserve is allowed to be backed by other assets, which could include letters of credit, which do not meet the definition of an asset in GAAP or statutory accounting.</p> <p>PBR would reduce many of the shortcomings outlined above. It would be better placed to deal with complex products and would reduce the tendency to engage in regulatory arbitrage, i.e. via affiliated captive transactions. The supervisory review of PBR will require sufficient expertise of the state regulators.</p> <p>Allowing for conservatism explicitly in a margin over current estimate would increase transparency. The explicit decomposition of reserves into a current estimate and a margin over current estimate allows assessment of the overall conservatism for different lines of products. This would allow a recalibration of the valuation standard for products where reserves are overly conservative or not sufficient.</p> <p>Any capital requirement that the FRB has to develop has to be based on a valuation standard. The FRB should consider the development or use of a valuation standard that is useful to capture the risk to which SLHCs and NBFCs groups are exposed.</p>
15 - Investment	<p>The investment limits defined in the model acts, together with the detailed (and public) expressed expectation in the Financial Analysis Handbook and the Financial Condition Examiners Handbook constitute a sophisticated framework to limit investment risk. There is strong focus on liquidity risk and the security, liquidity and diversification of investments. Regulators have strengthened their requirements on securities lending. There is a strong focus on the liquidity position and overall limits on securities lending</p>

	<p>have been imposed.</p> <p>The current low-interest rate environment has already given rise to an increased hunt for yield, albeit from a low level. If some insurers increase their investments into more exotic asset classes, the NAIC might also consider adapting their definition of investments to ensure that insurers properly assign their investments to the appropriate asset classes. Although regulatory arbitrage transactions between insurers in different states have not been observed, there is a risk of regulatory arbitrage as investment limits of various states are not consistent at legal entity level and there is no group wide investment requirement.</p>
16 - Enterprise Risk Management for Solvency Purposes	<p>The ORSA requirements of the State Regulators are not yet in force. Also, a number of requirements of ICP 16 are not strictly satisfied, e.g. requirements for insurers to have a risk management policy which includes explicit policies in relation to underwriting risk, but will be satisfied in spirit once ORSA is in force. The state regulators have a supervisory approach which for qualitative requirements relies less on explicit and detailed rules, but on high-level principles and expectations that are formulated in the handbooks for examiners and analysts. ORSA will be mandatory for larger companies that cover over 90 percent of the market by premium income.</p> <p>The FRB will need to continue to increase its expertise in insurance for the supervision of NBFCs and make rules and regulation more specific to insurers. ERM and ORSA require expertise on risk to which insurers are exposed not only from the supervised, but also from the supervisors. Insurers are not necessarily exposed to similar risks as banks nor do they react to adverse events identically to banks. Rules and regulations should reflect these differences.</p>
17 - Capital Adequacy	<p>The RBC framework used by state regulators is a sophisticated, risk-based capital framework that has been improved continuously since it came into force in the early 1990s. The basis of the US solvency framework is an amortized cost valuation standard that is largely rules-based. This results in the RBC formulae becoming increasingly complicated as insurance products—in particular life insurance products—become more complex.</p> <p>It would also be useful if the RBC framework were to be documented in a consistent set of documents, including its methodology, parameterization and assumptions and implementation.</p> <p>Financial guaranty insurers and mortgage insurers are not subject to the RBC. While they are still required to hold minimum capital and surplus requirements, these have been shown to be not sufficient by a large margin during the financial crisis. In addition, it is not advisable for regulators to solely rely on external ratings, which performed badly in the run-up to the financial crisis.</p> <p>For groups and conglomerates, the focus on legal entity capital alone is not necessarily enough. The NAIC has put in place qualitative requirements. Quantitative group level capital requirements would enhance these qualitative requirements and help to increase transparency on the risks within a group and also reduce the risk of regulatory arbitrage.</p> <p>The FRB should develop and formulate its preferred approach to, for example, the</p>

	<p>underlying valuation standard to be used, the time horizon for capital, the risk measure of capital, and the legal entity or legal entities within the groups to which the capital requirement would be imposed.</p>
<p>18 - Intermediaries</p>	<p>While producer regulation is less uniform than is the regulation for insurance companies, all states have requirements in relation to the key expectations of ICP18 - such as licensing, requirements in relation to producer skills and expertise, and powers to undertake examinations and to take action in case of producer misconduct.</p> <p>The general legal framework provides safeguards for client money where intermediaries act as agents (and this has been tested in numerous cases). There is less uniformity on the safeguards applying to money held by brokers, but premiums must generally be held in a fiduciary capacity and be accounted for by all agents and brokers. Requirements in relation to contingent commissions (such as are paid by insurers to major commercial lines brokers based on business volume) have been strengthened through a disclosure approach and as a result of New York action. Requirements are not the same in other states.</p> <p>All insurance producers, including the major brokers with large global presences are subject to supervision and must comply with state laws. While these institutions should clearly not be regulated or supervised in the same way as major insurance companies, closer oversight would be appropriate to reflect their high impact on policyholders and on market integrity.</p>
<p>19 - Conduct of Business</p>	<p>There is an extensive body of requirements in relation to market conduct, much of it dating back many years and based substantially on the banning of certain unfair practices, requiring disclosure to customers and treating customers fairly; this is supplemented with specific requirements across the product range such as assessing suitability in relation to advice on sales of complex products.</p> <p>The comprehensive Market Regulation Handbook encompasses expectations on firms, including detailed material by types of insurance product, but does not create binding requirements. Market conduct examinations are being carried out, more regularly for insurers than for producers, and with a high degree of dependence on consultants to carry out the examinations in many states.</p> <p>There is a developing approach to market conduct risk analysis, although it is relatively lightly staffed. The states' approach remains in large part reactive, with a high degree of dependence on lagging indicators such as individual customer complaints. More focus on governance, culture (and the effect of incentives) and controls across the range of products, would be justified given that the U.S. market features complex products, mixed levels of financial literacy and a largely commission-based remuneration model.</p> <p>Aspects of the states' approach rely on NAIC processes (although without an accreditation process), including market analysis and the coordination of certain multistate efforts through MAWG. However, without greater uniformity in other areas such as the implementation of model laws, rate and form regulation and use of the Market Regulation Handbook, it is hard to assess whether market regulation is adequate across the states.</p>
<p>20 - Public Disclosure</p>	<p>Publicly disclosed information is extensive and sufficient for sophisticated users (e.g. rating agencies and financial advisors) to gain information into the exposure to risks from investments and liabilities. Financial statements are filed electronically except for small</p>

	<p>companies, allowing the efficient analysis of the information. The use of off-balance sheet items has to be disclosed in notes. The use of complex structures, i.e. transfer of business to affiliated captives, where business is moved off-balance sheet, reduces transparency and requires analysis by specialists. However, this is possible in principle.</p> <p>Insurance groups and insurance holding systems should be required to submit financial filings on a consolidated level and this information should be made publicly available. This would give additional insight and useful information to the public as well as to regulators. While publicly traded groups have to file consolidated financial information on a US GAAP basis, statutory accounting would be useful not just for regulatory purposes but also for the public as the basis for analysis of exposure to risk.</p> <p>While public disclosure is extensive, its usefulness for decision making is hampered by the valuation standard it is based upon (see ICP 14).</p>
21 - Countering Fraud in Insurance	<p>State regulators address fraud-related issues by conducting market conduct examinations to ensure that effective Antifraud Plans have been implemented by insurers. The availability of data on fraud has been improved significantly with the development of databases, which has resulted in number of enforcement actions.</p>
22 - Anti-Money Laundering and Combating the Financing of Terrorism	<p>While both federal and state authorities have roles in relation to AML/CFT regulation, key aspects of the U.S. regime for insurance are set out in the federal Bank Secrecy Act and accompanying regulations. FinCEN is the responsible federal authority, with the IRS having delegated authority for examinations, although there are plans over time for FinCEN to rely more on state regulators' AML/CFT examinations so as to avoid duplication of examination effort, allowing redirection of scarce IRS resources (although it may still carry out targeted examinations of insurers), and to recognize state expertise. State insurance supervisors already have an awareness of AML/CFT issues, resulting from their own supervisory work and liaison with federal authorities.</p> <p>Cooperation in practice between federal regulators and the states appears good. FinCEN, State Regulators and NAIC have established MoUs and are cooperating to share relevant information. There are currently 11 MoUs completed between FinCEN and state regulators. FinCEN plans to expand its information-sharing MoU network to additional states, supplementing its current outreach action plan and regular attendance at NAIC meetings. Exchange of information can and does take place without a MoU, and there are no legal restrictions on such exchanges.</p>
23 - Group-wide Supervision	<p>Group supervision has been improved and strengthened. The Insurance Holding Company System Model Act allows state regulators to supervise insurance groups. The FRB exercises consolidated supervision over SLHCs and NBFCs.</p> <p>To assess an insurance group as a whole, it can be necessary to analyze the interaction of the ownership structure of the entity with the web of intra-group transactions. This requires information, which U.S. states can demand of any insurer or its affiliates, and can use to take action on the insurer, if the non-insurance entities or holding companies create a risk to the insurer.</p> <p>There are no capital standards in place, either for groups supervised by state regulators or for SLHCs and NBFCs supervised by the FRB. The analysis and assessment of a group's financial position in current and in stressed situations requires an appropriate valuation</p>

	<p>and capital standard, without which the impact of the web of intra-group transactions, the transmission of losses through the group and the failure mode of the group cannot be evaluated soundly.</p> <p>Resolution planning might be workable without a sound capital framework since the U.S. states can request any information from the group that the state believes is necessary to understand the risk the group poses to the insurer. In contrast, a regulatory framework that aims for policyholder protection has to consider events that are catastrophic for insurance legal entities, which state regulators have the authority to assess under the Insurance Holding Company System Model Act.</p> <p>A stress testing regime for insurance groups and holding companies would support state regulators in assessing risks within groups they supervise. In the absence of a group-wide valuation and capital standard, stress testing—if defined appropriately—would help state regulators to gain insight into the exposures to risk of regulated entities.</p> <p>There are no group wide investment, market conduct and disclosure requirements in place.</p>
<p>24 - Macroprudential Surveillance and Insurance Supervision</p>	<p>There are a number of regulatory authorities and other bodies involved in macroprudential surveillance and insurance supervision. The sophistication of the macroprudential surveillance is not yet congruent with the complexity of the US financial sector. There is further scope for the surveillance on interlinkages between financial sectors, exposures to systemic risks and interactions of different regulatory systems. The insurance industry is highly exposed to system-wide risks, e.g. low interest rates or the failure of a systemically important banks, which should be analyzed and appropriate macroprudential measures be taken.</p> <p>The FIO, FSOC the FRB and the NAIC combined constitute a framework for macroprudential surveillance and insurance supervision. There are numerous agencies and offices analyzing data and engaging in research on systemic risk and macroprudential issues. However, macroprudential work relevant to insurance sector is still in a developing stage.</p> <p>The cooperation of different authorities and offices can be improved on macroprudential issues relevant to insurance sector. There is likely some duplication of efforts and a pooling of resources might increase the overall quality. As an example, the FRB is aiming to develop insurance specific stress tests and might in this benefit from closer cooperation with the states and the NAIC.</p> <p>Delivering appropriate representation for insurance at the FSOC has been complicated by the fragmentation of responsibilities for insurance supervision and oversight. The Box in the introduction to this assessment considers options for a response.</p> <p>The concept of systemic relevance for NBFCs should be clearly defined by the FSOC. Such a definition would support also the analysis of the FSOC and the OFR on emerging threats and the identification of risks to the US financial system. Stress testing and crisis management exercises involving the FRB would provide good insight into the systemic impact of NBFCs.</p>

	<p>The states and NAIC might consider introducing a stress testing regime. A formal, regular stress testing framework for the insurance industry would give valuable information. Ideally, for financial market stresses, the framework would be aligned as far as feasible to the FRB CCAR framework. This would give additional insights into cross-sectoral interlinkages.</p>
<p>25 - Supervisory Cooperation and Coordination</p>	<p>U.S. insurance regulation has developed a significantly stronger focus on domestic and international supervisory coordination in recent years. This reflects the states' development of the holding company analysis framework; the growth in supervisory colleges under the IAIS framework; and the strengthening of SLHC, and addition of group-wide NBFC supervision by the FRB, which has become the lead regulator (Group-Wide Supervisor) of the groups which it supervises.</p> <p>At state level, the lead state concept is now embedded in the regulatory system and is delivering stronger coordination, including on troubled companies. However, there remain limitations on cooperation between state regulators, which partly reflects the lack of uniformity in regulatory approaches.</p> <p>State regulators' cooperation with FRB supervisors is developing, based on a complementarity of approaches (legal entity and group focus), although the FRB's role is still relatively new and relationships in practice have further to develop for some groups.</p> <p>The absence of U.S. or global group-wide capital standards (see ICP23) constrains to an extent the lead state holding company analysis process as well as the FRB's group-wide supervision and the work of the colleges; but U.S. regulators have not let this prevent the establishment and effective functioning of supervisory colleges in an information-sharing and coordination role.</p>
<p>26 - Cross-border Cooperation and Coordination on Crisis Management</p>	<p>The U.S. authorities' approach to cross-border crisis management and coordination is at an early stage of development, reflecting the recent establishment of colleges of supervisors and, for the two NBFCs, Crisis Management Groups (CMG). The application to the NBFCs of much of the same framework as applies to other large financial institutions under Dodd-Frank has brought early progress, rigor and consistency to the process for resolution plans ("living wills").</p> <p>Outside the college framework (which is generally limited to IAIGs), U.S. supervisors have coordinated with both foreign and multiple U.S. state jurisdictions in the management of a troubled company effectively, although the crisis did not extend to a failure of any company involved.</p> <p>There appears scope for using the colleges (or smaller groups of college members as for the CMGs) to undertake crisis preparedness, including more sharing of information on group structures, intra-group transactions and potential barriers to effective crisis management.</p> <p>In relation to resolution, including the operation of Dodd-Frank Act processes for the management of a crisis where systemic risk is potentially at issue and there has been a systemic risk determination, work is also an early stage. The capacity of the authorities to manage a resolution of a cross-border insurance group will need further development.</p>

Recommended Actions

Appendix Table 9. Recommendations to Improve Observance of the ICPs	
Insurance Core Principle	Recommendations
1 - Objectives, Powers and Responsibilities of the Supervisor	It is recommended that: all states adopt the joint statement of the objectives of insurance regulation and review their legislation to ensure that it is consistent with the statement (for example, that any mandate to promote or develop the insurance sector that could conflict with the statement is eliminated); and regulators undertake analysis of potential conflicts between the objectives of the SLHC regime and the objectives of insurance supervision, as set out in the ICPs, and recommend changes in the legislation as appropriate, which may include more explicit recognition of the objective of insurance policyholder protection.
2 - Supervisor	It is recommended that: states reform arrangements for the appointment and dismissal of commissioners, providing for fixed terms for all, with dismissal only for prescribed causes and with publication of reasons; state governments increase the independence of insurance departments in relation to resourcing, enabling them to determine budgets, set and retain relevant fees and assessment income to finance their work and employ appropriate staff as necessary to meet their objectives, subject to continued accountability to state legislatures; the NAIC review the scope and operation of the accreditation program, including the potential value of an element of external assessment and a quality assurance element to accreditation work; and the FRB continue to increase its insurance expertise (particularly in the area of actuarial methods, insurance accounting and underwriting risk), including in senior positions, to ensure the effectiveness of its insurance group supervisory work.
3 - Information Exchange and Confidentiality Requirements	It is recommended that states and the FRB review their internal processes and procedures, including staff training, to ensure that supervisors understand the importance of sharing information, including proactive sharing, taking into account the need to ensure confidentiality.
4 - Licensing	It is recommended that states improve consistency of the licensing requirements among the states both at high level (such as the absolute minimum capital level and the scope of exemption from licensing) and practical interpretation level (through better documentation of analysis and more detailed accreditation review work).
5 - Suitability of Persons	It is recommended that: state regulators adopt and implement the Corporate Governance Annual Disclosure Model Act and related regulation and handbooks promptly; and state regulators require examiners and supervisors to state more clearly their observations of propriety of key individuals at least in their internal documentations, so that appropriate regulatory actions can be followed up.
7 - Corporate Governance	It is recommended that states and the FRB develop appropriate standards for insurance company governance, to be applied at legal entity and/or group level and implement these through the model law process or FRB requirements.
8 - Risk Management and Internal Controls	It is recommended that: after the introduction of the ORSA regime and requirement for an internal audit function, the states review the range of their standards on risk management and

	control functions, assessing whether standards embedded in the ORSA requirement should be applied to a wider population of firms and whether to require at least the larger firms to have risk management, compliance and actuarial functions; and the FRB develop and communicate a set of expectations in relation to risk management and internal controls for insurance NBFCs and SLHCs.
9 -Supervisory Review and Reporting	It is recommended that: the states review the adequacy of reporting on qualitative issues such as material outsourcing and adopt the proposed new framework for corporate governance reporting; the states review the scope for a higher frequency of examinations or increased targeted examinations between the regular full scope examinations, for the larger groups; and consult on whether they should remove the requirement for examination reports to be published; the states review the scope for more coordinated multistate market conduct examinations; and the FRB develop and publish a tailored supervisory framework and appropriate tools addressing insurance risks for the supervision of the SLHC and NBFC insurance groups, including stress tests that include insurance risk scenarios such as a major pandemic.
12 -Winding-up and Exit from the Market	It is recommended that the states work closely with federal and International regulators, and resolution authorities to improve resolvability of large and complex insurance groups.
13 -Reinsurance and Other Forms of Risk Transfer	It is recommended that: state regulators analyze the interaction of the web of retrocessions and the group's or holding's structure in more depth; and the FRB analyze the interaction of the web of retrocessions in particular for systemically important insurance groups.
14 - Valuation	It is recommended that: the NAIC continues to pursue the update of the valuation methodology for life insurers based on principles-based reserving; captives and insurers have to use the same valuation requirements; the valuation standard is applied consistently across all states; the valuation standard is consistently defined taking into account how assets that cover liabilities are actually managed; the valuation standard is adapted such that it captures conservatism explicitly in a margin over current estimate; state regulators authorities ensure that they have sufficient expertise in-house to cope with principles-based approaches to reserving; and the FRB defines a valuation standard for their regulated insurance entities.
15 -Investment	It is recommended that: identical investment rules and limits are imposed on affiliated captives to which insurance liabilities are ceded to; and state regulators with cooperation with the NAIC, FRB and FIO to continue to analyze investment activities both at legal entity level and group level and address any regulatory arbitrage by improving consistency of investment requirements among states and federal regulations.
16 -Enterprise	It is recommended that:

Risk Management for Solvency Purposes	the FRB continues to enhance their expertise in insurance risk and business models; the FRB adapts its rules and regulation and approaches to take into account the specifics of insurers, where warranted; and the state regulators and the NAIC consider requiring the ORSA for all insurers, proportionate to the size and complexity of the firms.
17 -Capital Adequacy	It is recommended that: state regulators and the NAIC develop an RBC requirement for financial guaranty insurers, taking into account their specific exposures to risk; state regulators and the NAIC develop an approach that would allow RBC to capture intra-group transactions (IGTs); the FRB develops a capital standard for NBFCs and SLHC, with due consideration of accounting and actuarial standards, developing its methodology in cooperation with state regulators and the NAIC; and state regulators, the NAIC and the FRB coordinate to develop common or consistent capital requirements to avoid regulatory arbitrage between the two capital requirements.
18 - Intermediaries	It is recommended that: a uniform approach to the regulation of larger business entities, including major commercial lines brokers be developed; and producers in all states be required to make disclosures to customers of the status under which they are doing business, including which insurance companies have appointed them.
19 -Conduct of Business	It is recommended that: states further develop market conduct requirements that address the risks of unfair policyholder treatment across the range of insurance products and including requirements to treat customers fairly, to act with due skill and diligence, give suitable advice and to manage conflicts of interest; states develop a risk-focused surveillance framework specifically for market conduct to support proactive, risk-based supervision of market conduct, covering both the supervision of individual firms and of issues that arise across the market; states review staffing and resourcing models for market conduct regulation of insurers and producers, including scope to undertake more examination work using employees rather than consultants (see also ICP2 on resources); and states continue to give consideration to developing an accreditation program for market conduct work (initial discussions have already been held), building on the work of the MAWG and on the comprehensive Market Regulation Handbook.
20 - Public Disclosure	It is recommended that insurance groups and insurance holding systems are required to submit financial filings also on a consolidated level.
22 -Anti-Money Laundering and Combating the Financing of Terrorism	It is recommended that to facilitate active and effective information sharing on AML/CFT, FinCEN, state regulators and the NAIC continue to expand the network of MOUs and speedily implement the ongoing project for electronic information exchange.
23 -Group-wide Supervision	It is recommended that: state regulators obtain direct legal authority over the insurance holding company (although this is beyond the current ICP); capital standards are put in place in a consistent manner, for groups supervised by state regulators and by the FRB;

	<p>potential conflicts between the objectives of different supervisory authorities are addressed;</p> <p>a stress testing regime for insurance groups and holding companies be implemented; consolidated financial statements are published by all insurance groups; and investment activities at the group level are carefully monitored to address potential regulatory arbitrage and search for yield at the group level.</p>
24 - Macprudential Surveillance and Insurance Supervision	<p>It is recommended that:</p> <p>different authorities and offices work closer together on macroprudential issues; the FSOC encourage the FRB to develop stress testing and crisis management exercises which are meaningful for the insurance sector; and the representation of the insurance sector is brought into line with that for other sectors on FSOC.</p>
25 - Supervisory Cooperation and Coordination	<p>It is recommended that:</p> <p>states and the FRB review how to develop stronger cooperation between U.S. insurance supervisors, which could include increased joint working (e.g., on-site work), secondments and appropriate training; and the FIO and NAIC work more closely together, for example to develop a shared view on priorities for modernization of insurance regulation;</p> <p>state regulators and FRB set objectives for colleges to move to the next level of cooperation, including potentially the development of a shared group risk assessment and joint working; and consider whether this may require sub-groups of members or colleges to meet in a core group format to promote efficient working; and</p> <p>states fully and effectively incorporate the state regulators' collective expectations on international supervisory colleges into the accreditation program.</p>
26 - Cross-border Cooperation and Coordination on Crisis Management	<p>It is recommended that the authorities continue their work in relation to crisis preparedness, giving priority to building on the work of the CMGs (and current work at the FSB and the IAIS) to develop their planning for a crisis and resolution of a major cross-border group. Supervisors should ensure that all internationally-active groups have developed contingency plans and are able to deliver information that may be required in a crisis in a timely fashion.</p>

Authorities' Responses to the Assessment

The Federal Reserve Board (FRB), the NAIC, and the FIO (collectively, the "U.S. authorities") welcomed the opportunity to take part in the second U.S. FSAP and support the objectives of the IMF's FSAP more generally.

The current Insurance Core Principles (ICPs), as amended by the IAIS in 2013, are more rigorous and comprehensive than the prior version used for the first U.S. FSAP conducted in 2010. The U.S. authorities are therefore pleased that the IMF's current assessment of the U.S. system broadly indicates compliance with such principles; that insurance supervision in the United States has been significantly strengthened in recent years; that lessons have been learned from the financial crisis; and that many of the recommendations of the 2010 FSAP are being addressed.

The Report recognizes that the implementation of global and domestic reforms, particularly the DFA and ongoing enhancements at the state level, has increased the supervisory scope and

intensity of insurance supervision and oversight. Some state and federal reforms are pending and will take time to fully implement, including at the federal level those related to enhanced prudential standards for non-bank financial companies. The Report acknowledges that additional implementation of the reform programs will further improve compliance with the ICPs in the United States.

The U.S. authorities are pleased with the Report's overall evaluation, which concludes as follows:

- Overall, the assessment finds a reasonable level of observance of the Insurance Core Principles. There are many areas of strength, including at state level the powerful capacity for financial analysis with peer group review and challenge through the processes of the NAIC. Lead state regulation is developing and a network of international supervisory colleges has been put in place. Regulation benefits from a sophisticated approach to legal entity capital adequacy (the Risk-Based Capital approach). Regulation and supervision continue to be conducted with a high degree of transparency and accountability. FRB supervision is bringing an enhanced supervisory focus to group-wide governance and risk management. Cooperation between state and federal regulators is developing, based on the complementarity of their approaches, although it has further to go.
- The Report makes numerous recommendations to increase U.S. compliance with the ICPs. The U.S. authorities acknowledge that some continued reforms are worth considering to further strengthen certain aspects of the system of regulation and supervision in the United States. However, the state regulators disagree with a few of the ratings ascribed to certain ICPs and the U.S. authorities do not believe that each of the proposed regulatory reforms recommended in the Report is warranted, or would necessarily result in more effective supervision, reduced cost and complexity of insurance supervision, or successfully address perceived regulatory gaps, especially when compared to functional outcomes. For example, the Report expresses concern that the objectives of the respective agencies could come into conflict in a crisis situation. In practice, there is clarity of mission among the U.S. authorities and, to date, they have resolved potential conflicts through regulatory and supervisory cooperation.
- The U.S. authorities appreciate the work of the assessors and look forward to continuing dialogue with the IMF as the authorities consider the recommendations.