The Impact of the Dodd-Frank Act and Basel III on the Fixed Income Market and Securitizations: Testimony before the U.S. House of Representatives Subcommittee on Capital Markets and Government-Sponsored Enterprises

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Chairman Garrett, Ranking Member Maloney, and members of the subcommittee, thank you for the opportunity to testify before you here today. My name is Marcus Stanley and I am the Policy Director of Americans for Financial Reform.

The issues of interest to the committee today – underwriting quality in securitization markets, bank activities in trading and securitization markets, leverage in bank trading books, and the effect of regulation of these areas on market liquidity – go to the very heart of the 2008 financial crisis. Indeed, a shorthand description of that crisis might read "irresponsible and fraudulent practices in securitization markets infected the trading books of banks central to the financial system, leading to a catastrophic and extended failure of market liquidity."

For these reasons it is not surprising that the Dodd-Frank Act targeted these areas for increased oversight. It did so in a number of ways, including reforms aimed at securitization markets, limitations on excessive bank borrowing, and a ban on bank proprietary trading.

Now some are calling these reforms into question because of their supposed impacts on market liquidity. We oppose these efforts to roll back post-crisis reforms. It is particularly ironic that they are being advanced in the name of "increasing liquidity". A central lesson of the crisis is that market liquidity can be excessive, and that such excessive liquidity leads to disastrous market crashes that have far more damaging liquidity effects than those that might be created by prudent limits on excessive leverage and risk-taking in normal markets.

Lessons of The Financial Crisis

The financial crisis of 2008 was preceded by a period of excess market liquidity, cheap credit, and falling spreads. Indeed, it was commonplace for observers at the time to speak of a "liquidity glut" or a "wall of liquidity" in the financial markets.¹ Notably, even before the financial crisis there is little evidence that this flood of liquidity increased economic efficiency or productivity. Even as Wall Street profits soared, the period of the liquidity bubble saw relatively low levels of

¹ Rajan, Raghuram, "Investment Restraint, the Liquidity Glut, and Global Imbalances", Remarks by Raghuram G. Rajan, Economic Counselor and Director of Research, International Monetary Fund, At the Conference on Global Imbalances organized by the Bank of Indonesia in Bali November 16th 2006

GDP growth, sub-par levels of business investment, and a massive capital misallocation into residential real estate.²

This liquidity bubble fed excessive leverage and risk in the system, eventually leading to a devastating liquidity failure. A clear lesson of this crisis is that excessive liquidity in "normal" markets can lead directly to a liquidity failure in stressed markets. The situation was well summarized by economist Lasse Pederson soon after the crash:

In the years preceding the crisis, the global financial markets were flush with liquidity due to low interest rates, high savings rates in Asia, economic growth, and low volatility. As a response to low borrowing costs and low apparent risk, financial institutions became highly levered (a positive liquidity spiral). This made them vulnerable. When house prices started to decline and it started to become clear in 2007 that subprime borrowers would default in large numbers, an adverse liquidity spiral was kicked off. ³

There were many underlying causes of this excessive liquidity and eventual crash. But two of the most central and critical were failures of underwriting and oversight in the securitization markets, and excessive leverage in the trading books of major dealer banks.

In the securitization markets, an "originate to distribute" model lessened incentives of lenders to monitor the quality of their loans and sponsors to monitor the quality of securitizations they produced and sold to third party investors. Credit rating agencies, which investors relied on to assess the quality of these complex and opaque securitized assets, proved to be deeply unreliable and corrupted by inappropriate incentives, particularly in the structured finance area. To take one example, some 20 percent of all investment grade AA-rated structured securities ever rated by Moody's between 1980 and 2010 eventually defaulted.⁴ For some securities, failure rates were much higher. Loss rates for the very highest rated and supposedly safest (senior AAA) structured finance collateralized debt obligations ("CDOs") issued in 2006 and 2007 exceeded 75 percent.⁵

Lack of oversight in the securitization market had far-reaching impacts on the financial system, including a dramatic negative effect on the quality of individual loans produced to feed the securitization machine. Another major effect was on the securities holdings of the major dealer banks at the center of the financial system, who played key roles in the securitization markets as sponsors, underwriters, and traders of securitizations. These banks ended up holding hundreds of billions of dollars of securitizations on their balance sheets, positions that were funded overwhelmingly by debt.

These debt-funded holdings were attractive because bank capitalization rules permitted enormous amounts of leverage to be held against bank trading book assets. Trading book capital

² Chinn, Menzie and Jeffry Frieden, <u>Lost Decades: The Making of America's Debt Crisis and The Long Recovery</u>, W.W. Norton, 2011.

³ Pederson, Lasse, "When Everyone Runs for the Exit," International Journal of Central Banking, International Journal of Central Banking, vol. 5(4), pages 177-199, Dec. 2009.

⁴ Cornaggia, Jess and Cornaggia, Kimberly Rodgers and Hund, John, Credit Ratings across Asset Classes: A Long-Term Perspective, 10 Nov. 2015, available at SSRN: <u>http://ssrn.com/abstract=1909091</u>

⁵ Cordell, Larry, et al. "Collateral Damage: Sizing and Assessing the Subprime CDO Crisis,"

¹ Aug. 2011. FRB of Philadelphia Working Paper No. 11-30. Available at SSRN: http://ssrn.com/abstract=1907299

was determined based on the volatility of trading market prices. Thus assets that recent historical experience indicated were highly liquid attracted very low capital charges and could be funded almost entirely through short term borrowing. They were therefore highly profitable. These inadequate capital charges were generally determined using the banks own internal capital models. Such models did not reflect tail risks of extreme outcomes, and banks had every incentive to adjust them to permit higher leverage levels.

In the end, key dealer banks at the center of the financial system were borrowing well over \$30 for every dollar of hard capital, and at the same time holding assets that were highly overvalued. The epicenter of the problem was in bank trading books, which had much higher leverage than other banking assets. Trading assets were often funded using \$100 or more of borrowed money for every dollar of hard capital.⁶

In sum, the experience of the financial crisis demonstrates that market liquidity can frequently be excessive, that "originate to distribute" markets in complex and opaque financial products such as securitizations are particularly vulnerable to such excessive optimism but will lose liquidity overnight once doubts arise about asset quality, and that liquidity bubbles can support dangerous and excessive levels of borrowing at key financial institutions at the center of the markets.

Three elements of the post-crisis regulatory response targeted these problems:

- 1) Increased oversight of the securitization markets. This occurred through new "risk retention" requirements that securitization sponsors hold a share of the securities they sold, thus giving them an incentive for better underwriting, and also by increased regulation of credit rating agencies.
- 2) Increased capital requirements limiting excessive bank borrowing, especially for the major dealer banks. These new requirements set a minimum overall level of permitted leverage for bank balance sheets. Efforts by U.S. and international regulators have especially targeted the inadequate capital held against bank trading assets. Regulatory efforts to ensure proper modeling of bank trading risks are ongoing in the "Fundamental Review of the Trading Book" recently finalized by the Basel Committee.
- 3) In the U.S., Congress took direct action to restrict bank misuse of the trading book by banning proprietary trading through the Volcker Rule. The Volcker Rule also bans bank ownership of hedge funds, private equity funds, and complex securitizations which are structured as fund-type investment vehicles. These complex securitizations (such as CDOs) saw some of the worst abuses during the financial crisis.

Even today, over seven years after the financial crisis, many of these reforms are not fully implemented. The reform that is most advanced is in the area of bank capital, where regulators have moved rapidly to increase overall bank capital. But they are still working on the details of a

⁶ UK Financial Services Authority, "The Turner Review: A Regulatory Response to The Global Banking Crisis", Financial Services Authority, London, England, Mar. 2009. Available at <u>http://www.fsa.gov.uk/pubs/other/turner_review.pdf</u>.

reformed treatment of bank trading risks. In the area of securitization reform, risk retention requirements were finalized in late 2014 but have not yet been implemented in many areas. Importantly, crucial reforms of credit rating agency oversight, which are essential to making these markets safer, have been significantly weakened and are of questionable effect.⁷ Volcker Rule limitations on proprietary trading went into initial effect last summer, but key limits on bank ownership of hedge funds and securitizations have been delayed until 2017, and we have very little insight into how effectively Volcker trading limitations are actually being enforced.⁸

Some Lessons of Market Experience Since The Financial Crisis

Industry lobbyists predicted dire negative impacts of regulatory reforms. For example, in 2010 the Institute for International Finance (IIF) predicted that limits on bank borrowing would lead to massive increases in spreads, collapses in lending levels, and declines of over half a percentage point (approximately 20-25 percent) in economic growth.⁹ But these predictions have turned out to be major exaggerations. As economist Stephen Cechetti stated in late 2014:

Well, the jury is in...Capital requirements have gone up dramatically, and bank capital levels have gone up with them. In the meantime, lending spreads have barely moved, bank interest margins are down, and loan volumes are up. To the extent that more demanding capital regulations had any macroeconomic impact at all, it would appear to have been offset by accommodative monetary policy.¹⁰

Despite the fact that past prophecies of disaster have not materialized, lobbyists have continued to ascribe an enormous range of negative effects to Dodd-Frank and other regulatory reforms.

Sometimes this has taken the form of ascribing long-term trends that far pre-date the financial crisis and are influenced by many other factors to recent financial regulatory reforms. For example, the decline in the number of small community banks, which has been ongoing since the 1980s, has sometimes been ascribed to the Dodd-Frank Act, despite evidence of the strong post-crisis recovery of the community banking sector after the passage of Dodd-Frank. Just yesterday the FDIC reported that 95.2 percent of all community banks showed annual profits in 2015, up from just 77.8 percent of community banks that showed a profit in 2010, the year Dodd-Frank was passed.¹¹

⁷ Morgenson, Gretchen. "Ratings Agencies Still Coming Up Short, Years After Crisis". Nytimes.com. 23 Feb. 2016; Americans for Financial Reform, "Request for Re-Proposal Relating to Nationally Recognized Statistical Rating Organizations," 1 Apr. 2014, available at <u>http://ourfinancialsecurity.org/wp-content/uploads/2014/04/AFR-SEC-Credit-Rating-Agencies-Comment-Letter-4.1.14.pdf</u>.

⁸ Americans for Financial Reform, "Letter to Joint Regulators on Transparency of the Volcker Rule," 17 Dec. 2015, available at <u>http://ourfinancialsecurity.org/wp-content/uploads/2015/12/AFR-Volcker-Joint-Letter-12.17.15-1.pdf</u>

⁹ Institute of International Finance, Interim Report on the Cumulative Impact on the Global

Economy of Proposed Changes in the Banking Regulatory Framework, Jun. 2010.

¹⁰ Cecchetti, S G, "<u>The Jury is In</u>", CEPR Policy Insight 76, December, 2014. Available at <u>http://www.cepr.org/sites/default/files/policy_insights/PolicyInsight76.pdf</u>.

¹¹ Federal Deposit Insurance Corporation, "<u>FDIC Quarterly Banking Profile, 4th Quarter 2015</u>", FDIC, Washington DC, 2016. Available at <u>https://fdic.gov/bank/analytical/qbp/2015dec/</u>

The increase in cash holdings by non-financial corporations, which is a long term trend dating from the mid-1990s and appears to be tied to corporate tax rules, changes in technology, and increases in profit volatility, has also been ascribed to financial regulatory reforms, despite the lack of concrete evidence of any tie.¹²

More recently, it has become popular to ascribe changes in patterns of market liquidity to new financial regulations. There is no question that financial markets have evolved and changed since the financial crisis. While many of these changes are linked to the crisis itself, some are also tied to regulatory reforms. Indeed, regulatory reforms are intended to impact market activities and if they did not do so they would be a failure.

However, it is difficult to see evidence that post-reform changes in market liquidity have had a serious impact on the real economy. The changes in market liquidity that can actually be clearly documented appear to be twofold. The first is some increase in the number of brief and temporary liquidity failures ("flash crashes" or "tantrums") in various trading markets, including equities, derivatives, and fixed income. This flash crash issue appears to be tied to the increase in high-speed electronic trading in disintermediated trading markets and not directly to new financial regulations.¹³ The second change is a decline in trade size, which implies an increase in the number of trades and the time necessary to dispose of a large block of securities. However, this decline in trade size has so far not led to any clear increase in real investor costs such as a growth in bid-ask spreads or the price impact of trades.¹⁴

These changes, particularly the decline in trade size, may be partially linked to some post-crisis "disintermediation" of major dealer banks that were the key intermediaries in trading and securitization markets prior to the financial crisis. As discussed above, this intermediary role was enabled by the fact that regulators permitted banks to maintain highly leveraged trading inventories funded overwhelmingly by short-term debt. The post-crisis increase in bank capital requirements means that banks must actually support these inventories with their own capital. This seems to have led banks to lower their securities inventories, possibly resulting in less of an intermediary role in certain markets.

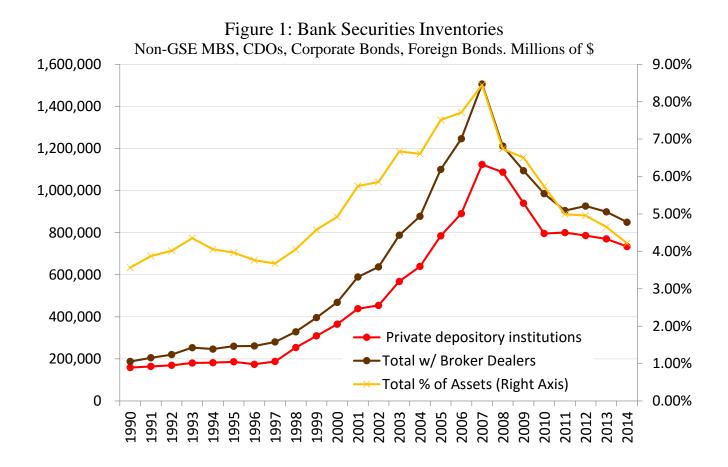
As Figure 1 below shows, after the rollback of Glass-Steagall restrictions in the 1990s banks enormously increased their securities inventories leading into the financial crisis, doubling the proportion of their assets held as private securities (i.e. not backed by the U.S. government). This increase was associated with an increased role as intermediaries in securitization markets. However, these securities inventories have declined significantly since the crisis.

¹³ Commodity Futures Trading Commission and Securities and Exchange Commission, "<u>Findings Regarding the Events of May 6, 2010: Report of the Staffs of the CFTC and SEC</u>", September 30, 2010, available at <u>https://www.sec.gov/news/studies/2010/marketevents-report.pdf</u>; U.S. Department of the Treasury et. al. "Joint <u>Staff Report: The U.S. Treasury Market on October 15, 2014</u>", July 13, 2015, available at <u>https://www.treasury.gov/press-center/press-releases/Documents/Joint Staff Report Treasury 10-15-2015.pdf</u>

¹² Sanchez, Juan and Emircan Yurdagul, "<u>Why Are U.S. Firms Holding So Much Cash</u>?", Federal Reserve Bank of St. Louis Review, July/August 2013, available at

https://research.stlouisfed.org/publications/review/13/07/sanchez.pdf

¹⁴ Adrian, Tobias et al. "Has U.S. Corporate Bond Market Liquidity Deteriorated?" Liberty Street Economics Blog, Federal Reserve Bank of New York, 23 Feb. 2016, <u>http://libertystreeteconomics.newyorkfed.org/2015/10/has-us-</u> <u>corporate-bond-market-liquidity-deteriorated.html#.VsxZ1tBl3IU</u>.



The disintermediation of the major "too big to fail" Wall Street banks, and the decline in their leveraged securities inventories, should be seen as a positive and intended effect of regulatory changes. Especially where inventories were held because returns could be boosted using excessive leverage levels they contributed in a major way to systemic risk, as any decline in trading valuations required massive bank deleveraging and "fire sales" that were highly disruptive to the financial system. The tight linkages between inherently volatile trading markets and major 'too big to fail' banks at the center of the payments system was a profound contributor to financial contagion and the magnitude of the financial crisis.

Changes in bank activities may have led some traders to seek out a more diverse set of non-bank dealers and to move more activities to exchange-based trading markets. This shifts in market structure may call for action to ensure the safety of these exchange-based markets, particularly as regards potential disruptions created by high-speed algorithmic trading. But we should not move backward to the disastrously unstable and overleveraged system that existed prior to the financial crisis. It would be particularly ironic to do so in pursuit of "liquidity", as this system enabled excessive and risky levels of market liquidity prior to the crisis.

It is also important to observe that during the post Dodd-Frank period the fixed income markets have remained very open to real economy companies for the purpose of capital formation. In fact, issuance in some markets has soared. Figure 2 below shows securities issuance trends

before, during, and after the crisis in issuance of corporate debt and two forms of securitization, commercial mortgage backed securities (CMBS) and collateralized loan obligations (CLOs).

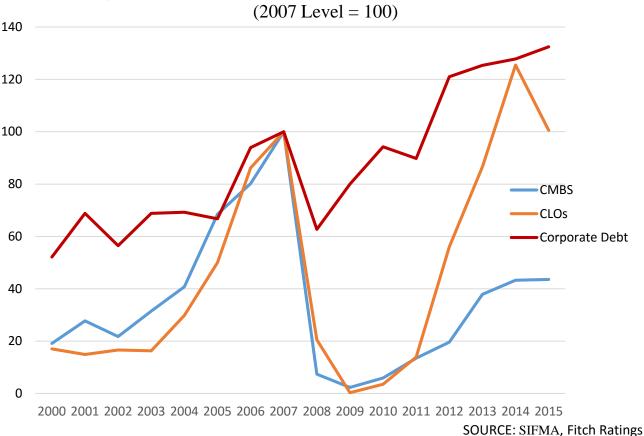


Figure 2: Issuance of Securities and Securitizations, 2000-2015 (2007 Level = 100)

This chart shows the run up in issuance prior to the crisis, particularly for CMBS, which was enabled by excessive liquidity and compressed spreads in the market. It also shows that the most devastating impact on these markets clearly occurred due to the crisis itself, which caused them to effectively shut down for a period of years. This is a reminder that the most extreme and damaging costs of market illiquidity occur due to excessive financial risks and the instability that results, not due to prudent controls on financial excesses.

However, since 2010 these markets have seen a pronounced and extended recovery, with issuance of both corporate debt and CLOs significantly exceeding pre-crisis highs. All of this has occurred since the passage of the Dodd-Frank Act. While the issuance increases are likely more related to accommodative monetary policy than to new financial regulations, the implementation of the Dodd-Frank Act certainly does not appear to have been harmful.

Over the last few months, from December 2015 through early 2016 we have of course seen significant disruptions in high yield debt markets, including a large increase in spreads and decline in issuance. These changes are clearly traceable to changes in energy prices, changes in Federal Reserve interest rate policy, and other real economy factors, not to regulatory burden.

The market for higher-quality investment grade fixed income debt has *not* been strongly affected, with issuance in that market exceeding levels from a year ago and valuations remaining healthy. Since changes in market structure and financial regulation could be expected to impact all types of debt, not just high yield debt, this is a strong indication that recent disruptions are related to actual underwriting issues and not to changes in financial regulation.

Recommendations With Respect To Legislation And Regulation

With respect to the legislation under consideration by the Subcommittee today, all three of these bills act to weaken and undermine Dodd-Frank regulatory changes designed to improve oversight of securitization and bank trading book activities. By far the most significant are the two bills that would greatly increase exemptions to new risk retention rules designed to improve incentives in complex securitization markets. (H.R. 4166 on CLOs and the discussion draft on CMBS risk retention). H.R. 4096, addressing certain provisions of the Volcker Rule, would have much less serious effects but still should not be passed in its current form.

Legislative Exemptions to Securitization Risk Retention

Risk retention rules require that sponsors of securitizations retain on their books five percent of the credit risk of securitizations they issue. This aligns incentives in order to encourage better underwriting and design of these securities. Such incentive alignment works against the negative effects of "originate to distribute" models of securitization which permit sponsors to pass on the risk of securities they design on to third parties.

Importantly, regulators have already incorporated significant underwriting-based exemptions to these risk retention requirements. Under the risk retention final rule, securitizations that are limited to loans which meet good underwriting standards, based on the existing leverage of the borrower and income/cash flow/valuation relative to the debt taken on, would be exempt from risk retention requirements.

H.R. 4166 and the CMBS discussion draft would both enormously increase the scope of these exemptions for CLOs and CMBS, effectively eliminating risk retention requirements for loan securitizations that do not meet strict underwriting standards.

For example, the CMBS discussion draft would exempt interest-only loans from risk retention requirements, prohibit regulators from addressing issues with the length of loan amortization schedules, and apparently mandates that regulators could not adjust loan to value caps for commercial loans based on the estimated cash flow from the property. The discussion draft also provides a blanket exemption for all 'single loan' securitizations, broadly defined as securitizations collateralized by a loan or related group of loans on commercial properties that are under common ownership or control. While such securitizations may be somewhat more transparent to investors in some cases, they also lack diversification benefits and certainly may be poorly underwritten, just as any other loans may be.

H.R. 4166 addresses risk retention for CLOs. It would eliminate any restrictions on the leverage of the borrowing company necessary to qualify for the risk retention exemption. This is in very

striking contrast to the final risk retention rule, which limits commercial loans qualifying for the exemption to loans made to companies with leverage ratios of below three to one, as well as imposing other caps on liabilities and debt service costs, all of which must apply on both a historical and forward-looking basis. The bill also permits securitizations to qualify for the exemption with up to 60 percent "covenant-lite" loans (loans which limit investor controls designed to ensure repayment). This is approximately double the proportion of covenant-lite loans in the market at the eve of the financial crisis.

While H.R. 4166 includes a long list of "structural protections", these supposed protections either replicate longstanding market practices (such as overcollateralization and interest coverage tests, standard in securitizations even before the financial crisis) or are inadequate to protect against excessive leverage or poor loan quality in the CLO. For example, H.R. 4166 sets an 8 percent equity standard, which permits a qualifying CLO to be leveraged at over 12 to 1. By eliminating leverage limits at the underlying portfolio companies, this leverage is inflated still further. It is also notable that the 8 percent equity standard is below the 10 percent of high-risk assets the qualifying CLO would be permitted to hold, since the 'asset quality' protections in the bill require that only 90 percent of total assets be senior secured debt (meaning that up to 10 percent could be high risk assets). Making things even worse, CLO sponsors are given an out from the already inadequate asset quality permit them to be out of compliance with a number of even the already very weak risk limits in the legislation.

HR 4166 would also reduce risk retention from 5 percent of the entire securitization to 5 percent of only the 8 percent equity tranche. This reduces the risk retention requirement from 500 basis points to just 40 basis points, or \$400,000 in loss risk on a \$100 million dollar securitization. This hardly qualifies as true 'risk retention', and is highly inadequate to properly align incentives between the securitization sponsor and the investor.

We believe that such dramatic weakening of risk retention rules is highly inappropriate, particularly given the fact that securitization activities were at the heart of the financial crisis. Particular segments of the securitization market may claim that their assets performed well relative to other types of securitizations during the financial crisis. But it should be remembered that with the partial exception of auto loans and equipment leases, effectively all non-government supported securitization markets essentially shut down to new issuance for well over a year during the financial crisis period. This speaks to the complex and opaque nature of securitization markets also have in common that investors are significantly dependent on credit rating agencies to check and certify asset quality, and credit rating agencies remain a poorly regulated sector rife with conflicts of interest.

Weakening oversight seems particularly misguided in the case of CLOs. Fueled in part by stimulative Federal Reserve monetary policy, CLO markets have set issuance records in recent years. However, high yield markets are now under significant stress as Federal Reserve policies and commodity prices change. It now appears that during previous years there may have been excessive liquidity and poor controls on credit quality in some of these markets. A recent JP

Morgan analysis found that over half of mezzanine-level tranches of CLOs they examined were showing mark to market losses, up from less than 1 percent in September 2015.¹⁵ We should work to ensure better underwriting quality in these markets, not weaken oversight.

We therefore urge Congress to reject this legislation. In addition, Congress should take steps to strengthen oversight of credit rating agencies. These entities are crucial intermediaries in securitization markets. But they face severe conflicts of interest in objective assessments of credit quality which have not been fully addressed by Dodd-Frank reforms. In addition, the Securities and Exchange Commission should complete the implementation of Dodd-Frank 621 on conflicts of interest in asset backed securitizations.

H.R. 4096 and The Volcker Rule

The Volcker Rule generally bans banks from investing in or sponsoring private equity or hedge funds. However, an exception is made for de minimis "seed" investments in startup funds, as well as for certain exempted funds. "Sponsorship" is defined to include naming the fund with the same name as the banking entity or an affiliate of the bank, as such a naming practice could lead to an inference that the bank somehow implicitly guaranteed the fund.

H.R. 4096 would relax the naming restriction in the Volcker Rule sponsorship definition as it applied to bank affiliates. The "shared name" prohibition would remain in place for the bank itself or for insured depository institutions.

In some cases such a relaxation of naming restrictions may be appropriate. However, we are concerned that when a non-bank affiliate of a major bank is large, well known, and extremely significant to the overall bank holding company, naming a fund after such an affiliate may still carry an inappropriate inference of sponsorship. An example of such a case would be the relationship between Merrill Lynch and Bank of America.

We are concerned that H.R. 4096 would also eliminate the naming restriction in such cases. Unless this issue is addressed, we would oppose the passage of H.R. 4096.

The Fundamental Review of the Trading Book (FRTB)

Witnesses were also asked to address the Basel Committee's recent review of the capital treatment of bank trading books. As discussed above, the arbitrage of capital rules for trading assets, including through the use of bank internal models, led to large amounts of excessive borrowing by major Wall Street dealer banks prior to the financial crisis. Banks exploited the mathematical complexity of market models, and their ability to use their own internal models, to enormously reduce the amount of their own equity capital that they held against trading assets. They also misclassified illiquid assets as liquid trading assets and ascribed market prices to such assets that were not reliable under stressed conditions. These manipulations were a major contributor to the financial crisis.

¹⁵ The study is cited in Grant's Interest Rate Observer, "Trouble Times Leverage", pp. 9-11, January 29, 2016.

While regulators issued a number of changes to bank market risk capital requirements soon after the crisis to address the most egregious examples of these manipulations, they have since been engaged in a more far-reaching effort to reform treatment of the bank trading book. The Basel Committee recently finalized a set of recommended reforms to bank risk modeling that are designed to reduce inappropriate use of the trading book for non-liquid assets, increase disclosures to the market concerning bank valuation practices, and ensure that the full range of market and credit risks, including tail risks, are properly reflected in bank risk modeling.

AFR strongly supports these goals in principle, and strongly supports efforts to reform the regulation and improve the disclosure of market risk. However, we have not yet examined the FRTB in sufficient detail to determine our reaction to all elements of it, particularly in light of the modeling complexities involved. It is important to note that the FRTB is not binding and will not be binding on U.S. banks until U.S, regulators issue their own rule on these issues, which they have committed to do by 2019. In the past there has been significant diversion between U.S. regulatory rules and Basel recommendations.

Some bank lobbyists, joined by some in the international regulatory community, have also implied that new capital regulation reforms such as the FRTB should not on net increase overall bank capital requirements. We strongly disagree with this contention. Regulators should go where the analysis leads them in improving capital regulation of market risk. They should not be prevented from increasing capital requirements where such increases are appropriate, or be forced to inappropriately reduce capital in other areas because analysis of market risk shows that trading book capital should be increased. While bank capital has increased since the crisis, major banks are still permitted to borrow \$20 for every dollar in hard equity capital, and still hold enormous amounts of complex derivatives and securitizations that contain embedded leverage that may not yet be properly reflected in risk models. We do not feel that the work of controlling excessive bank leverage is completed.

Other Regulatory Issues – High Frequency Trading

As noted above, concerns about market liquidity, in particular the growth of flash crashes, are also related to increases in the magnitude of automated high-frequency trading. There are many positive aspects to moving market intermediation moves away from major dealer banks toward more open and ideally more transparent exchange traded markets. However, such markets may also be more vulnerable to manipulation or instability created by algorithmic high frequency trading. Proper regulation of such trading was not an issue addressed in the Dodd-Frank Act.

Although regulators are examining this issue, we do not believe that there is currently sufficient regulatory oversight of these trading practices. Although a discussion of these issues is beyond the scope of this testimony, we believe further action is needed to address potential dangers created by automated trading. Rather than weakening rules passed in response to the manifest dangers revealed in the last crisis, it would be more appropriate for Congress to look ahead to address emerging issues related to high-frequency automated trading.