Written Statement of

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Senate Committee on Banking, Housing and Urban Affairs

and Consumer Protection Subcommittee

hearing on

What Makes a Bank Systemically Important?

July 16, 2014

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I would like to thank Senator Brown and the members of the Senate Committee on Banking, Housing and Urban Affairs and Consumer Protection Subcommittee on for the opportunity to speak here today. The issue of systemically important financial institutions is of critical importance to the stability of financial markets and the ultimately the macro economy. Understanding what makes a financial firm systemic is the first step in designing an institutional and legal framework to rein in systemic firms. Viewing systemic spillovers as market failure we need to identify the source of that market failure, the severity of the market failure, whether the market failure merits government intervention and if so, the most economically effective way to structure that intervention.

United States financial history over the past 40 years is littered with examples of government interventions into financial markets in response to lobbying by particular sectors (esp. housing) to the pending failure of large financial institutions. Early on we referred to these intuitions as too big to fail and the public policy issue as the too big to let fail problem. One of the themes I want to sound today is that too big to fail is a misleading term. Size is not the distinguishing characteristic that makes financial firms systemic. Section 113 of the Dodd Frank Wall Street Reform and Consumer Protection Act of 2010 (hereafter called "Dodd Frank") lists 11 such characteristics. However, the factors that lead to institutions "being treated" as systemically important also tend to be prevalent in larger firms. It is important to emphasize that decisions on how we handle economically-failed financial institutions are themselves an important source of systemic risk. We need to understand whether an institution authorities label as systemic in the handling of its economic insolvency are truly systemic, or merely politically expedient.

During a 30-year career as a financial economist I have studied financial markets, banking, payments systems, failed bank resolution, and the federal financial safety net from a public policy perspective. The ideas I express today observations below are informed by reading and research I have done in these areas, especially papers on systemically important financial institutions, the need for an asset salvage agency, and systemic banking crises.[1]

As I mentioned above, the past 40 years of US financial history is replete with examples of economically failed financial firms whose solvency resolution involved systemic considerations or were handled through regulatory forbearance (that is, were allowed to continue operations with the hope that they would recover). Examining a number of these cases and the stated rationale for how they were handled allowed me to identify four sources of systemic importance. It is important to note systemic importance in these cases was based on a judgment call in the face of a potentially disruptive event in financial markets and not hard evidence the firms were indeed systemically important.

Sources of Systemic Importance

Obviously size, an imperfect measure of systemic importance, is correlated with systemic importance because large financial firms are more likely to have characteristics of systemic importance. The $50 billion threshold set by Title I Sec 121 of Dodd Frank is probably sufficiently low that it captures the lion's share of banking companies that would be flagged under one or more of the systemic criteria discussed below. However, just relying on size does not give us an understanding of how to design laws and regulatory infrastructure to deal effectively with systemically important institutions. Along with size I would stress what I call

[1] James B. Thomson, On Systemically Important Financial Institutions and Progressive Systemic Mitigation, DePaul Business & Commercial Law Journal 8 no. 2 (Winter 2010), 135-150;James B Thomson, Cleaning up the Refuse from a Financial Crisis: The Case for a Resolution Management Corporation, The Florida State University Business Review10 no. 1 (Spring 2011), 1-23; Ozgur E. Ergrungor and James B. Thomson, Systemic Banking Crises, Research in Finance 23 (2006), Elsevier Ltd., Amsterdam, 279-310.

the "4- C's" of systemic importance: Contagion, Correlation, Concentration and Context/Conditions, and discuss how each of the 4 C's has been part of the rationale for generous treatment of the creditors, managers and stockholders of troubled financial firms.

In the systemic context, ***Contagion*** is a metaphoric way to describe the transmission of losses across the financial system or the locking up of financial markets from the insolvency of one or more major financial firms. Contagion as a source of systemic importance appears on the scene in 1974 with the failure of Bankhaus I.G. Herstatt AG, which failed coincidentally as the United States authorities were dealing with the largest protracted U.S. bank failure resolution to date, Franklin National Bank, 1974, and the 1984 FDIC rescue of the Continental Illinois Bank and Trust Company.[2] Contagion would also seem to be a factor in the 2008 Federal Reserve Bank of New York's assisted acquisition of Bear Stearns by JPMorgan Chase. The 'breaking of the buck' by Reserve Primary Money Fund in September 2008 following the Lehman Brothers bankruptcy filing in is another example of contagion. Contagion is a fundamental consequence of the degree of a mega firm's interconnectedness, be it through the payments system, a clearing and settlement system, asset holdings or off-balance sheet contracts (such as derivatives).

Currently we do not collect information with sufficient granularity for us to understand the potential for contagion in the market place or how to aggregate what information exists in ways that would let us measure, monitor and police this risk. Information and clearing requirements in the over the counter (OTC) market under Title VII Sections 725, 728, 729, 742, 763 and 764 of Dodd Frank could produce some of the information needed. However, much more needs to be done to identify the dealer's counterparties. Congress should direct the Office

[2] Walker F. Todd and James B. Thomson, "An Insider's View of the Political Economy of the Too Big to Fail Doctrine," Congressional Record, vol. 138 (no. 102), S9978-9987 (July 20, 1992), 102nd Congress, 2nd session. Reprinted from Public Budgeting and Financial Management: An International Journal, vol. 3 (no. 3), pp. 547-617 (1991). Also published as Working Paper 9017, Federal Reseve Bank of Cleveland (December 1990).

of Financial Research (OFR) to collect International Swap Dealers Association (ISDA) master agreements for the purpose of constructing measures of exposure in the OTC derivative markets. Moreover, financial institutions with assets in excess of the $50 billion threshold for systemic banking companies should be required to report to federal financial market supervisors and to their Boards of Directors any exposures to another financial firm in excess of 10 percent of their tier-I capital. Such exposure should be broken down by type – funding market, clearing and settling, interfirm balances (including correspondent balances), lending and security holdings, and off-balance sheet exposure. Collecting this information would allow the Federal Reserve to determine if the limits to be set on exposure should below the 25 percent of capital under Section 165 of Dodd Frank. It would also promote the orderly resolution of a failed financial firm as regulators could work to limit the spillover effects of the firm's failure without automatically resorting to blanket guarantees of the financial firm's creditors.

Correlation can create a too-many-to-fail problem. It occurs when many institutions hold similar balance-sheet positions.[3] Correlating one's risk taking enhances political clout to resist closure should the firm become insolvent. Financial supervisors will face pressures to forbear as the cost of dealing with an insolvent industry will be high from a fiscal and political standpoint.[4] When risky bets go bad the odds of survival are increased if a firm is one of many facing ruin. Examples of this phenomenon in U.S. financial history include the 1980s savings and loan debacle (correlated interest rate risk), the 1980s international debt crisis (correlated sovereign risk), and more recently the subprime mortgage crisis. [5]

[3] See Janet Mitchell, 1988, "Strategic Creditor Passivity, Regulation, and Bank Bailouts," CEPR discussion paper no. 1780.
[4] See Edward J. Kane, 1989, The S&L Insurance Mess, How Did It Happen? Washington DC: The Urban Institute Press.
[5] See Alessandro Penati and Aris Protopapadakis, 1988, "The Effect of Implicit Deposit Insurance on Banks' Portfolio Choices with an Application to International Overexposure," Journal of Monetary Economics, 21: 107–26.

Today, measurement of correlation across Dodd Frank classified systemic financial firms is being addressed through the Comprehensive Capital Analysis and Review (CCAR) stress tests conducted by the Federal Reserve. These tests are mandated under Title I Section 121 of Dodd Frank. While the results of the stress tests are scrutinized at the institution level as part of the capital planning review, information on the extent of loss exposure across firms subject to the stress tests under the various shock scenarios would give a clear picture of the extent to which these firms are taking on correlated risks. The stress tests should include specific industry shocks such as a decline in commercial real estate prices for financial market sectors that represent a growing share of the risk exposure of the financial services industry. Again, aggregation of risks across firms is the problem. This may require the reporting of asset exposure by 3 digit Standard Industrial Classification (SIC) codes for all CCAR firms and nonbank financial firms that meet the conditions to be considered systemically important by the Financial Services Oversight Council (FSOC).

The third source of systemic importance is ***Concentration***. Here we are referring to market concentration, the presence of a few big players in a key market or activity and the degree of contestability (the ease with which new firms can enter). Concentration becomes a source of systemic importance when the failure of a firm causes a major disruption or the locking up of a key financial market or activity. Two prime examples of this are in the set of financial contracts that are not subject to the trust-avoidance provisions of United States bankruptcy law. Currently, the seven largest US banks account for 98 percent of OTC derivative contracts written by US banks. Reportedly JPMorgan Chase has had as much as 40 percent share of the plain vanilla interest-rate swap market. It is hard to imagine that the impact of a JPMorgan Chase failure on

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fail problem,

the SWAPS market would not influence how its insolvency would be handled.[6] The other example is the tri-party repo market, a $1.6 trillion market where hundreds of billions of dollars of intraday credit is extended by the two large depository institutions (Bank of New York Mellon and JPMorgan Chase) that serve as the intermediaries (clearing banks) in that market.[7]

The fourth source of systemic importance for a financial firm is ***context/conditions***, that is, the economic or financial market conditions at the time the firm becomes insolvent. Firms that come under financial distress during a period of market fragility are more likely to be treated as systemic than firms that run aground during more normal market conditions. Context/conditions explains why Drexel Burnham Lambert filed for bankruptcy in 1990 but Bear Stearns was put through a Federal Reserve Bank of New York assisted merger in early 2008. It also partially explains why the Federal Reserve Bank of New York intervened to broker a deal for Long Term Capital Management.[8] Context/conditions includes the exercise of political clout, something members of your committee are very familiar with.

Dodd Frank Reforms

Dodd Frank was enacted in 2010 in response to the financial crisis. It is a massive piece of legislation – 848 pages and 16 Titles. The Act contains a number of provisions dealing with systemically important institutions. Below are my thoughts on Sections 113, 115, 121 and 165 and Title II of Dodd Frank. I will also discuss the need for supervisory contingency/disaster plans so as to facilitate orderly resolution of systemically important financial institutions in a time-consistent manner.

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[6] For the over the counter derivatives markets the reforms to that market under Title VII of Dodd Frank may lessen the systemic importance large banking companies may derive from the SWAPS market.

[7] http://libertystreeteconomics.newyorkfed.org/2011/04/everything-you-wanted-to-know-about-the-tri-party-repo-market-but-didnt-know-to-ask.html#.U8FZVLFwV2M

[8] http://www.clevelandfed.org/research/policydis/pdp19.pdf

Factors for Systemic Determination Under Section 113 of Dodd Frank

The period leading up the financial crisis saw the emergence of "Shadow Banks" – nonbank financial intermediaries engaged in activities that mirror banking. These shadow entities resemble banks in that they tend to employ a high degree of leverage and financed opaque assets with short-term liabilities. Shadow banks and shadow banking activities are a form of regulatory arbitrage as activities move from the more heavily regulated banking sector into a less regulated sector. Hence, it is important to identify nonbank financial firms that are systemically important.

The general criteria outlined in Section 113 of the Dodd Frank for determining the systemic importance of a nonbank financial firm are consistent with what would be suggested by my the 4-C's above. In fact, the 11 factors the FSOC is to use go beyond what I identified in my research. Setting so many characteristics that FSOC must use in determining whether non-bank firms are deemed systemically important financial institutions creates unnecessary discretion that invites political manipulation. Measuring systemic risk by the value of a firm's taxpayer put provides a more concrete and accountable way for FSOC to determine who is and is not systemically important.

FSOC's authority under Section 115 of Dodd Frank

Section 115 of the Dodd Frank provides FSOC a consultative role in the supervision of systemic financial firms. That is the FSOC can make recommendations on the Federal Reserve Board concerning regulations, supervisory standards and disclosure requirements applicable to systemic firms supervised by the Federal Reserve. It is unclear whether the FSOC's role under Section 115 will have much of an impact. The Board of Governors and other agencies are not

required to follow FSOC recommendations and other avenues exist for financial supervisors to provide input into new regulations and supervisory policies and procedures,

It may be the case however, that public and political pressure that would come with the issuance of guidance by the FSOC to the Board would influence the Board's decisions with respect to supervision of systemically important financial firms. Congress could increase the influence of the FSOC by holding hearings where the Federal Reserve Chairman must explain how the Board implemented FSOC recommendations and if it did not, why not.

Section 121 of Dodd Frank

Section 121 largely clarifies powers the Federal Reserve likely had under existing banking law and extends this authority to nonbank firms subject to supervision by the Federal Reserve. To the extent that financial system supervisors failed to act because they were uncertain as to their authority under U.S. law, Section 121 of the Dodd Frank could improve the effectiveness of the Federal Reserve in its oversight of systemically important financial institutions. I question, however, whether clarity of authority to act is constraint on financial supervisors. The Bear Stearns and AIG rescues, along with the extension of the financial safety net through aggressive use of 13(3) lending authority by the Federal Reserve and the FDIC's Temporary Liquidity Guarantee Program, suggest a willingness of financial supervisors to act when statutory authority is unclear.

Under a liberal reading one can argue that Section 121 directs the Federal Reserve Board to take into account systemic risk when reviewing mergers and acquisitions by systemically important financial companies under Federal Reserve supervision. I believe that systemic risk should be a consideration by the Federal Reserve when reviewing any proposed merger or acquisition, and in any proposed restructuring of a financial company under its regulatory

purview. Furthermore, I believe that systemic risk should be part of the Justice Department's antitrust guidelines.

Section 165 of the Dodd Frank Act (2010)

Section 165 of the Dodd Frank has five provisions of particular note. First is the limit on the leverage ratio, setting the minimum amount of equity a systemically important company must hold. Second are the resolution plan provisions ("living wills") that systemically important companies must file detailing how they would dismantle the company under Chapter 11 of the Bankruptcy Code. Third are the limits on exposure to a single counterparty which we discussed above. Fourth is the authority for the Federal Reserve to set limits on short-term debt. Finally, there is the requirement of annual stress tests.

Section 165 more than doubles the minimum leveraging standard from 33 to 1 to 15 to 1 for systemically important financial institutions. While on paper this seems like a material increase in capital standards, the 6.5 equity to assets under Section 165 of the Act is below the tier-I capital ratio for U.S. banking firms over the past two decades. Even during the financial crisis tier-I capital for the industry never fell below 10 percent of assets. Bank of America which required a second capital infusion under the Troubled Asset Relief Program (TARP), would have exceeded the minimum 6.5 capital standard at the end of 2008 without the TARP infusions. Leveraging standards are likely to fail because they are based on book value of capital and not market values. The average loss on assets for banks closed from 2007 through 2009 – despite the presence of prompt corrective action provisions which also relied on book capital valuations under the Federal Deposit Insurance Corporation Improvement Act of 1991 (FDICIA).– was around 36 percent of assets.

Resolution plans should improve the management of the systemic firms and reduce their complexity. This may indeed be happening. For instance, the number of CitiGroup's nonbank subsidiaries fell from 1378 at the end of 2012 to 993 currently. Part of this decline was due to a decline in foreign nonbank subsidiaries from 375 to 322 over the same time period. Properly implemented, these "funeral plans" should improve the management of systemic firms by having management explicitly consider worst-case scenarios. These plans should provide financial market supervisors a blueprint on how to dismantle a systemic company, including which financial markets might be affected by the demise of the firm thus allowing for a more orderly resolution of the firms. Taking a more macro view of these plans, financial market supervisors can compare plans across the major systemic firms. The macro view of the funeral plans could provide information on potential stress points in the financial system during periods of market fragility. That is how the living wills should work in principle. In practice it is too early to see if the resolution plans will have the desired impact. Beyond the review of submitted plans for their compliance with the final rule adopted by the Federal Reserve and FDIC, these two supervisory agencies need to conduct audits of these plans, analogous to the stress tests for capital planning, to determine their feasibility.

Limits on short term debt authorized under Section 165 are being implemented as part of the liquidity requirements under the Basel III international capital requirements. Specifically they would be embodied by the Net Stable Funding Ratio, one of the two Basel III liquidity ratios (the other being the liquid asset ratio). Minimum requirements for liquidity should help improve financial system stability and the resiliency of individual financial companies. Whether the Basel III approach to liquidity is the economically most desirable way to regulate liquidity is something that needs careful study.

The annual Comprehensive Capital Analysis and Review (CCAR) involves stress tests of systemic financial companies and possibly is the most important of the Section 165 reforms. It is the closest thing to assessing systemic institution solvency on a market value basis. Care must be taken that stress scenarios are calibrated over a sufficiently long period of financial history to ensure the results remain meaningful as the 2007-2009 financial crisis gets farther back in our rearview mirror. With the implementation of the CCAR it is unclear that the CCAR coupled with a straight leveraging ratio would not be sufficient and, hence, that model-based capital requirements as in Basel II and III are no longer necessary.[9]

Dodd Frank's Title II Orderly Liquidation Authority

Orderly liquidation authority (OLA) under Title II of Dodd Frank is a misnomer. The character of this new resolution authority is not new. It is modeled after and extends the bridge bank authority created by the Competitive Equality Banking Act (1987). Experience suggests that the expectation is restructuring and reorganization, with liquidation being the last resort. The resolution powers under Title II of Dodd Frank also incorporate features of the Bankruptcy Code. Two general observations about OLA: First, the main use of OLA is likely to be to handle the failure of a large bank holding company. The prospect of a disorderly resolution of the parent holding company and its nonbank subsidiaries under bankruptcy was a source of systemic uncertainty prior to Dodd Frank. Second, there are efficiencies in having a single entity, the FDIC, handle both the bank and nonbank parts of the estate of a bank holding company.

In Title II of Dodd Frank Congress grants the FDIC the ability to impose a one-day automatic stay on qualified financial contracts (QFC), allowing it time to decide which contracts

[9] A sentiment expressed in a recent speech by Federal Reserve Board Governor Tarullo. See page 15 of the Governor Tarullo's speech, which can be found at http://www.federalreserve.gov/newsevents/speech/tarullo20140508a.pdf

to bring into the bridge institution and which ones to place into part of the estate to be liquidated. This one-day stay can effectively be a three-day stay if the resolution is triggered on a Friday. Cherry picking of contracts is reduced by requiring all the contracts of a single counterparty be treated the same way. Congress should revisit the safe-harbor provisions for QFCs passed as part of the 2005 bankruptcy reforms. I believe the collateral runs by QFC counterparties on Bear Stearns and Lehman Brothers are an unintended consequence of the special treatment of QFC counterparties in bankruptcy. A limited stay and the anti-cherry picking provisions of Title II should be incorporated into the Bankruptcy Code.

It is curious that the firms exempt from bankruptcy are not subject to OLA, in particular insurance companies. AIG and Prudential have been designated as systemically important nonbank financial firms and MetLife is a bank holding company. Hence, major parts of three large systemically important financial institutions cannot be resolved under OLA, an important gap in the coverage of this authority.

Another gap in OLA is it does not extend to the foreign activities of systemically important financial firms. So international subsidiaries of systemic banks and nonbank subsidiaries of foreign banks in the U.S. complicate the resolution of these companies and remain a source of systemic importance. One might observe the movement of activities off-shore in response to OLA. A possible example of such regulatory arbitrage is the growth of CitiGroup's foreign nonbank assets. CitiGroup as a whole grew 1.60 percent from the end of 2012 through the first quarter of 2014. Its nonbank assets grew at a rate of 8.60 percent over the same period while its nonbank foreign assets grew at a rate of 29.25 percent. The reason for CitiGroup's shifting of assets offshore is unclear. However, it is consistent with regulatory arbitrage in response to OLA.

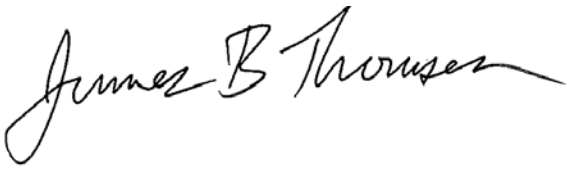
Additional steps needed to address systemic risk

Systemic importance reflects constraints faced by financial market supervisors in enforcing timely closure rules. It doesn't matter what powers Congress gives financial supervisors to conduct orderly resolutions of financial companies if regulators remain reluctant to use them. A major step forward to limiting systemic importance (ending too big to fail) is requiring financial system supervisory agencies to develop and commit to contingency plans akin to the firm's living wills for handling the failure of one or more systemically important financial institutions. These plans should contain a series of options, actions taken to contain systemic spillovers, with blanket guarantees of all creditor/counterparty claims to be, without exception, the last option on the list.[10] Scenario analysis should be used to test and refine these disaster plans. Much as the intent of Section 165 resolution planning by systemically important firms is intended to promote the orderly resolution of these firms (whether through bankruptcy or FDIC receivership), supervisory disaster plans should allow for resolution of systemic firms with the least impact on long term incentives facing these firms.

Dodd Frank was hailed by its drafters as the antidote to Too Big to Fail. While provisions in this important reform legislation move us towards the goal of reining in the effects of systemic importance in the financial system, much remains to be done.

[10] For a discussion of contingency or disaster planning see, Joseph G. Haubrich, James B. Thomson and O. Emre Ergrungor, Central Banks and Crisis Management, Federal Reserve Bank of Cleveland 2007 Annual Report and Edward J.Kane, 2001. "Using disaster Planning to Optimize expenditures on Financial Safety nets." Atlantic Economic Journal 29(3): 243–53

Respectfully,



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