Testimony of
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Chairman Shelby, Ranking Member Brown, distinguished members of the Committee, thank you for inviting me to speak with you about the appropriate criteria for determining whether a financial institution poses a systemic risk to the financial system.[1]

My main focus today is on that issue as it applies to bank holding companies (BHCs). My basic conclusions are that: (1) the threshold for automatic SIFI designation for BHCs could be raised substantially from its current level of $50 billion in assets without measurably increasing systemic risk; and (2) it would be advisable for regulators to use several criteria in addition to asset size to more accurately identify SIFIs. In fact, regulators have been exploring multi-factor approaches for SIFI designation, and those methods appear to be able to more accurately identify the institutions most likely to cause contagion than a crude size cutoff. However, best practices in this area are still evolving. Any formulaic approach that regulators adopt may need to be revised as new data become available and as market practices change over time.

I also would like to use this opportunity to briefly discuss what I see as the most serious deficiency in systemic risk oversight as it is currently conducted. That is the exemption of major government-run financial institutions from SIFI designation, and hence from any formal oversight by systemic risk regulators. Those government institutions—such as Fannie Mae, Freddie Mac, Federal Home Loan Banks, and also federal agencies like FHA and VA—are collectively much larger than the BHCs currently classified as SIFIs. They satisfy most of the other criteria suggested for SIFI designation such as a high degree of interconnectedness.[2] Federal mortgage guarantors were at ground zero of the financial crisis. Those considerations support the idea that such institutions represent an important source of systemic risk and hence should fall under FSOC's mandate.

The Dodd-Frank Wall Street Reform and Consumer Protection Act was passed in the wake of the most severe financial crisis and subsequent economic downturn since the Great Depression. Those events revealed the vulnerability of the global financial system and the real economy to cascading failures of complex, highly interconnected financial institutions, and were the impetus for the enhanced regulatory framework established. At this 5-year anniversary of the Act, and with the benefit of experience and new data, it makes sense to consider ways to improve its implementation so as to more effectively reduce systemic risk while minimizing the associated regulatory burden.

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[1] The views expressed are my own and do not represent those of the MIT Center for Finance and Policy.
[2] Other examples of governmental activities that could pose systemic risk include the student loan programs of the U.S. Department of Education and the many pension-related activities of state and local governments.

SIFI Designation for Bank Holding Companies

BHCs deemed to be SIFIs are subject to a higher level of oversight and restrictions, such as increased capital requirements and stress testing. Those provisions reduce the likelihood of spillovers of financial distress to the broader market, but entail costs for the affected institutions. The cost-benefit tradeoffs are difficult to quantify. Major systemic risk events are rare but the potential private and social costs are enormous. There is little data to assess probabilities or likely costs, and history may be a poor guide to the future. There also is considerable disagreement about size of costs imposed by SIFI status.

Despite the measurement challenges, recent analyses of newly collected data suggest that the current criteria used for SIFI designation could be improved upon in several ways.

Asset size threshold

A growing body of evidence suggests that the asset size threshold of $50 billion for BHCs to be automatically deemed as SIFIs is much lower than is necessary to protect financial stability. That conclusion rests on the findings of several studies that employ a variety of approaches to identifying SIFIs. It is also supported by the commonsense observation that however one measures it, the very largest BHCs are enormously more complex and interconnected than their mid-sized peers.

Treasury's Office of Financial Research (OFR) recently released a policy brief showing that a multi-dimensional measure of systemic risk only identifies the very largest U.S. banks as SIFI candidates.[3] That analysis identifies the eight BHCs listed in Table 1 as standing out for their systemic importance. The smallest of those, State Street, had assets of $279 billion as of March 2015.

Table 1: U.S. Banks with Highest Systemic Risk Scores	
Name	Assets in 2015 ($ billions)
JP Morgan Chase	2,577
Bank of America	2,145
Citigroup	1,832
Wells Fargo	1,738
Goldman Sachs	865
Morgan Stanley	829
Bank of New York Mellon	399
State Street	279

[3] "Systemic Importance Indicators for 33 U.S. Bank Holding Companies: An Overview of Recent Data" by Meraj Allahrakha, Paul Glasserman, and H. Peyton Young, Office of Financial Research Brief, February 12, 2015.

A very different approach to identifying systemically important banks has been proposed and implemented by Professor Robert Engle of NYU and his colleagues.[4] Their method relies on statistical analysis of stock price dynamics and bank leverage. It currently identifies five of the eight institutions listed in Table 1 as being in the top 10 of systemically risky U.S. financial institutions. I mention this study primarily because it demonstrates that very different methodologies seem to come to similar conclusions on which BHCs are most systemically important.

Just last week, the Federal Reserve issued a White Paper that discusses replacing the $50 billion asset size threshold with one of three alternatives that effectively would increase the cutoff to at least $250 billion.[5] They consider two related formulas, one developed by the Bank for International Settlements (based on size, interconnectedness, complexity, cross-jurisdictional activity, and substitutability). The second replaces substitutability with reliance on short-term wholesale funding. Both formulas identify the group of banks shown in Table 1 as having the highest systemic risk. The White Paper also suggests the possibility of setting a threshold for the determining globally systemically important BHCs based on relative systemic risk scores rather than setting a dollar size cutoff. Such an approach has the advantage of automatically adjusting over time, and certainly deserves further consideration.

Criteria for SIFI designation

There is general agreement that size alone is not the best proxy for an institutions contribution to systemic risk. Financial regulators in the U.S. and abroad have identified five broad categories of factors to consider. Those include size, interconnectedness, substitutability, complexity, and cross-jurisdictional activity. The OFR and Federal Reserve analyses described above incorporate those criteria into the risk scores used to identify the most systemically risky BHCs.

Incorporating those multiple criteria involves two sets of challenges: (1) creating well-defined metrics for each criterion; and (2) laying out a weighting scheme that determines the relative importance of each in an overall risk score. Broad considerations in making those choices include data availability, stability of outcomes, avoiding excessive complexity, and preserving transparency.

To illustrate the complexity of constructing a risk score based on multiple characteristics, it is telling that even the definition of size is not straightforward to determine. For example, the OFR and other regulators measure size in the risk scores they report by including total assets plus the net value of certain securities financing transactions plus credit derivatives and commitments as well as counterparty risk exposures.

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[4] Those statistics and a description of the methodology are available at: http://vlab.stern.nyu.edu/.

[5] "Calibrating the GSIB Surcharge," Board of Governors of the Federal Reserve System, July 20, 2015

Choosing a weighting scheme is especially difficult. There isn't a precise definition or complete agreement about what makes a financial institution systemically risky, and there is little evidence about the relative importance of the different criteria or their predictive accuracy.

It is promising that the various approaches now under consideration point to a consistent set of BHCs as SIFIs, and that size is highly correlated with all of the leading measures. However, the metrics that regulators are beginning to adopt are still new and evolving. Hence it seems prudent to allow some latitude for revising the methodology used as new data become available and as market practices and perceived risks change over time.

SIFI Designation for Non-bank Financial Institutions

It is beyond the scope of this testimony to discuss in detail the criteria for SIFI designation of non-bank financial institutions. However, similar issues regarding size cutoffs and which other criteria to include will certainly arise. In making those rules, a caution is that the relevance and relative importance of various criteria will differ considerably across different types of institutions. For example, major exchanges such as the CBOT are likely to be deemed systemic because of their centrality in certain derivatives markets, but the overall size of their balance sheets is largely irrelevant to their contribution to systemic risk. Therefore it will be important to think carefully about the specific mechanisms that generate systemic risk in each instance, and to avoid using a one-size-fits-all approach.

Government Financial Institutions as SIFIs

Several factors support the contention that the government is a significant source of systemic risk. The most obvious is its sheer size in its role as a financial institution (or more accurately, a collection of loosely affiliated financial institutions). My calculations show that just through its traditional credit programs, the government comprised a $3 trillion financial institution in 2013, and that figure increases to over $18 trillion when Fannie Mae, Freddie Mac, the Federal Home Loan Banks, deposit insurance, and the Pension Benefit Guarantee Corporation are included.[6] Figure 1 illustrates the size of those government institutions relative to the largest BHCs.

Many of the other criteria identified as important for BHCs, including interconnectedness, substitutability, and complexity, also apply to these government financial institutions. Lack of transparency and light supervision also contribute to the likelihood that they are a source of systemic risk.

However, probably more important for systemic risk than the government's direct effect on the allocation and riskiness of credit is its influence on the incentives facing private individuals and institutions through its regulatory, tax and other policies. The government's policies reflect a

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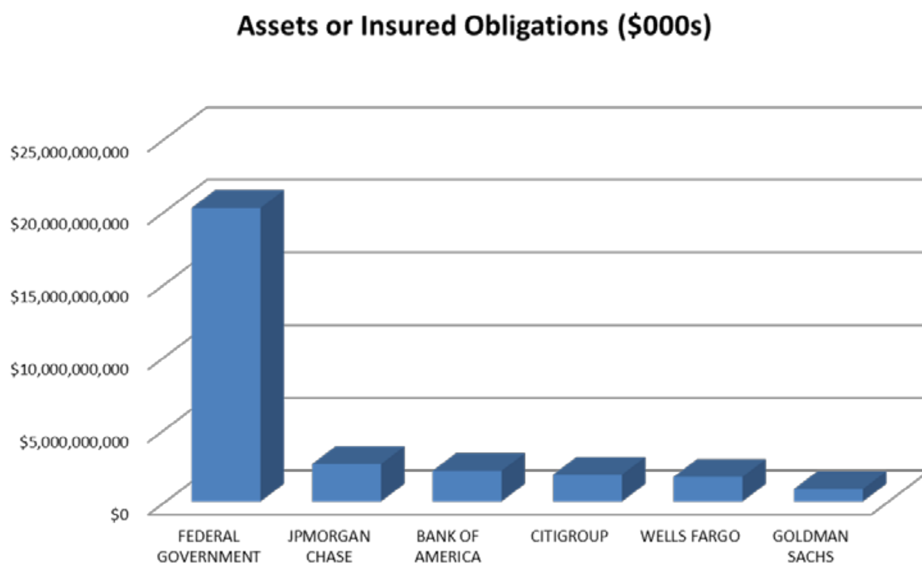
[6] "Evaluating the Government as a Source of Systemic Risk," Deborah Lucas, *Journal of Financial Perspectives*, November 2014.

variety of sometimes competing political objectives, and there is no "invisible hand" guiding the government toward adopting policies that foster efficiency and avoid the buildup of systemic risks. In fact, systemic risks arising from government actions may be relatively hard for policymakers and the public to identify because of the lack of transparency surrounding government activities.

Figure 1: Comparison of Size of Government Financial Institutions and Large Banks



For those reasons, bringing large government financial institutions under the oversight of FSOC would have important benefits for the stability of the financial system. Actions that FSOC could consider include initiating a regulatory audit, whereby the OFR would be directed to undertake a systematic evaluation of federal financial regulations and practices across agencies to identify unintended consequences that could give rise to systemic risk. It could also require the improvement and standardization of certain financial disclosures by those institutions.

In sum, it is a challenging analytical exercise to determine whether a financial institution—whether private or public—poses a systemic risk to the financial system. It is a topic we will continue to study at MIT's Center for Finance and Policy and we look forward to sharing with you our work on this topic in the months ahead.

Thank you and I look forward to your questions.