Testimony submitted to the Senate Banking Committee, hearing on "Implications of the 'Volcker Rules' for Financial Stability," Thursday, February 4, 2010 (embargoed until 10:30am).

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A. General Principles

1) The broad principles behind the so-called "Volcker Rules" are sound. As articulated by President Obama at his press conference on January 21, the priority should be to limit the size of our largest banks and to reduce substantially the risks that can be taken by any financial entity that is backed, implicitly or explicitly, by the federal government.

2) Perceptions that certain financial institutions were "too big to fail" played a role in encouraging reckless risk-taking in the run-up to the financial crisis that broke in September 2008. Once the crisis broke, the government took dramatic and unprecedented steps to save individual banks and nonbanks that were large relative to the financial system; at the same time, relatively small banks, hedge funds, and private equity and other investment funds were either intervened by the FDIC (for banks with guaranteed deposits) or just allowed to go out of business (including through bankruptcy).

3) Looking forward, we face a major and undeniable problem with the too big to fail institutions that became more powerful (in economic and political terms) as a result of the 2008-09 crisis and now dominate our financial system. Implementing the principles behind the Volcker Rules should be a top priority.

4) As a result of the crisis and various government rescue efforts, the largest 6 banks in our economy now have total assets in excess of 63 percent of GDP (based on the latest available data; details of the calculation and related information are available in 13 Bankers). This is a significant increase from even 2006, when the same banks' assets were around 55 percent of GDP, and a complete transformation compared with the situation in the US just 15 years ago – when the 6 largest banks had combined assets of only around 17 percent of GDP.

5) The credit markets are convinced that the biggest banks in the United States are so important to the real economy that, if any individual bank got into trouble, it would be rescued in such a way that creditors would be fully protected. As a result, the implied probability of default on debt issued by these mega-banks is very low – as reflected, for example, in their current credit default swap spreads.

6) The consequent low cost of credit for mega-banks – significantly below what is paid by smaller banks that can fail (i.e., banks that can realistically be taken over through a FDIC

[1] This testimony draws on joint work with James Kwak, including *13 Bankers* (forthcoming, March 2010) and "The Quiet Coup" (*The Atlantic*, April, 2009), and Peter Boone, particularly "The Next Financial Crisis: It's Coming and We Just Made It Worse" (*The New Republic*, September 8, 2009). Underlined text indicates links to supplementary material; to see this, please access an electronic version of this document, e.g., at http://BaselineScenario.com, where we also provide daily updates and detailed policy assessments for the global economy.

intervention) – constitutes a form of unfair subsidy that enables the biggest banks to become even larger. Without a size cap on individual bank size, we will move towards the highly dangerous situation that prevails in some parts of Western Europe – where individual banks hold assets worth more (at least on paper, during a boom) than their home country's GDP.

7) Just to take one example, the Royal Bank of Scotland (RBS) had assets – at their peak – worth roughly 125 percent of UK GDP. The mismanagement and effective collapse of RBS poses severe risks to the UK economy, and the rescue will cost the taxpayer dearly. Iceland is widely ridiculed for allowing banks to build up assets (and liabilities) worth between 11 and 13 times GDP, but the biggest four banks in the UK had bank assets worth over 3 times GDP (and total bank assets were substantially higher, by some estimates as much as 6 times GDP) – and the two largest banks in Switzerland held assets that were worth over 8 times GDP. When there is an implicit government subsidy to bank size and growing global opportunities to export (subsidized) financial services, market forces do not limit how large banks and nonbank financial institutions can become relative to the domestic economy. In fact, as financial globalization continues, we should expect the largest US banks – left unchecked – to become even bigger in dollar terms and relative to the size of our economy.

8) At the same time, under the current interpretation of our financial rules, a bank such as Goldman Sachs now has full access to the Fed's discount window (as a bank holding company) – yet also retains the ability to make risky investments of all kinds anywhere in the world (as it did when it was an investment bank, before September 2008). In a very real sense, the US government is now backing the world's largest speculative investment funds – without any effective oversight mechanisms.

9) Under the framework now in place, we are set up for another round of the boom-bailout-bust cycle that the head of financial stability at the Bank of England now terms a "doom loop." The likely consequences range from terrible, in terms of pushing up our net government debt by another 40 percentage points of GDP (or more), as we struggle again to prevent recession from becoming depression, to catastrophic - if we fail to prevent a Second Great Depression.

10) In this context, reining in the size of our largest banks is not only an appealing proposition, it is also compelling. There is no evidence for economies of scale in banking over $100 billion of total assets (measured in today's dollars). As a result, the growth of our largest banks since the early 1990s has been entirely without social benefits. At the same time, the crisis of 2008-09 manifestly demonstrates the very real social costs: the revised data will likely show more than 8 million net jobs lost since December 2007 – due to more than a decade of reckless risk-taking involving large financial institutions.

11) The Riegle-Neal Interstate Banking and Branching Efficiency Act of 1994 specified a size cap for banks: No single bank may hold more than 10 percent of total retail deposits. This cap was not related to antitrust concerns as 10 percent of a national market is too low to imply pricing power. Rather this was a sensible macro-prudential preventive measure – don't put all your eggs in one basket. Unfortunately, since 1994 two limitations of Riegle-Neal have become clear, (1) the growth of big banks was not fuelled by retail deposits but rather by various forms of "wholesale" financing, and (2) the cap was not enforced by lax regulators, so that Bank of America, JP Morgan Chase, and Wells Fargo all received waivers in recent years.

12) While the US financial system has a long tradition of functioning well with a relatively large number of banks and other intermediaries, in recent years it has become transformed into a highly concentrated system for key products. The big four have 1/2 of the market for mortgages and 2/3 of the market for credit cards. Five banks have over 95% of the market for over-the-counter derivatives. Three U.S. banks have over 40% of the *global* market for stock underwriting. This degree of market power is dangerous in many ways.

13) These large banks are widely perceived – including by their own management, their creditors, and government officials – as too big to fail. The executives who run these banks obviously have an obligation to make money for their shareholders. The best way to do this is to take risks that pay off when times are good and that result in bailouts - creating huge costs for taxpayers and all citizens - when times are bad.[2]

14) This incentive system distorts market outcomes, encourages reckless risk-taking, and will lead to serious trouble. While reducing bank size is not a panacea and should be combined with other key measures that are not yet on the table – including a big increase in capital requirements – finding ways to effectively reduce and then limit the size of our largest banks is a necessary condition for a safer financial system.

B. Assessment of Bank Size

1) The counterargument is that big banks provide benefits to the economy that cannot be provided by smaller banks. There are also claims that the global competitiveness of U.S. corporations requires American banks be at least as big as the banks in any other country. Another argument is that large financial institutions enjoy significant economies of scale and scope that make them more efficient, helping the economy as a whole. Finally, it is argued global banks are necessary to provide liquidity to far-flung capital markets, making them more efficient and benefiting companies that raise money in those markets.

2) There is weak or no hard empirical evidence supporting any of these claims.

3) Multinational corporations do have large, global financing needs, but there are currently no banks that can supply those needs alone; instead, corporations rely on syndicates of banks for major offerings of equity or debt. And even if there were a bank large enough to meet all of a large corporation's financial needs, it would not make sense for any nonfinancial corporation to restrict itself to a single source of financial services. It is much preferable to select banks based on their expertise in particular markets or geographies.

4) In addition, U.S. corporations already benefit from competition between U.S. and foreign banks, which can provide identical financial products; there is no reason to believe that the global competitiveness of our non-financial sector depends on our having the world's largest banks.

5) There is also very little evidence that large banks gain economies of scale beyond a low size threshold.

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[2] For more analytical analysis and relevant data on this point, see "Banking on the State," by Andrew Haldane and Piergiorgio Alessandri, BIS Review 139/2009.

a. Economies of scale vanish at some point below $10 billion in assets.[3]

b. The 2007 Geneva Report on "International Financial Stability," co-authored by former Federal Reserve vice chair Roger Ferguson, found that the unprecedented consolidation in the financial sector over the previous decade had led to no significant efficiency gains, no economies of scale beyond a low threshold, and no evident economies of scope.[4]

c. Since large banks exhibit constant returns to scale (they are no more or less efficient as they grow larger), and we know that large banks enjoy a subsidy due to being too big to fail, "offsetting diseconomies must exist in the operation of large institutions" – that is, without the too big to fail subsidy, large banks would actually be less efficient than midsize banks.[5]

d. There is evidence for increased productivity in US banking over time, but this is due to improved use of information technology – not increasing size or scope.[6]

6) Large banks do dominate customized (over-the-counter) derivatives. But this is primarily because of the implicit taxpayer subsidy they receive – again, because they are regarded as too big to fail, their cost of funds is lower and this gives them an unfair advantage in the marketplace. There is no sense in which this market share is the outcome of free and fair competition.

7) The fact that "end-users" of derivatives share in the implicit government subsidy should not encourage the continuation of too big to fail arrangements. This is a huge and dangerous form of support for private interests at the expense of the taxpayer and – because of the apparent downside risks – of everyone who can lose a job or see their wealth evaporate in the face of an economic collapse.

8) There are no proven social benefits to having banks larger than $100 billion in total assets. Vague claims regarding the social value of big banks are not backed up by data or reliable estimates. This should be weighed against the very obvious costs of having banks that are too big to fail.

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[3] Dean Amel, Colleen Barnes, Fabio Panetta, and Carmelo Salleo, "Consolidation and Efficiency in the Financial Sector: A Review of the International Evidence," *Journal of Banking and Finance* 28 (2004): 2493-2519. See also Stephen A. Rhoades, "A Summary of Merger Performance Studies in Banking, 1980-93, and an Assessment of the 'Operating Performance' and 'Event Study' Methodologies," Federal Reserve Board Staff Studies 167, summarized in *Federal Reserve Bulletin* July 1994, complete paper available at http://www.federalreserve.gov/Pubs/staffstudies/1990-99/ss167.pdf: "In general, despite substantial diversity among the nineteen operating performance studies, the findings point strongly to a lack of improvement in efficiency or profitability as a result of bank mergers, and these findings are robust both within and across studies and over time." See also Allen N. Berger and David B. Humphrey, "Bank Scale Economies, Mergers, Concentration, and Efficiency: The U.S. Experience," Wharton Financial Institutions Center Working Paper 94-24, 1994, available at http://fic.wharton.upenn.edu/fic/papers/94/9425.pdf.

[4] Roger W. Ferguson, Jr., Philipp Hartmann, Fabio Panetta, and Richard Portes, *International Financial Stability* (London: Centre for Economic Policy Research, 2007), 93-94.

[5] Edward J. Kane, "Extracting Nontransparent Safety Net Subsidies by Strategically Expanding and Contracting a Financial Institution's Accounting Balance Sheet," *Journal of Financial Services Research* 36 (2009): 161-68.

[6] Kevin J. Stiroh, "Information Technology and the U.S. Productivity Revival: What do the Industry Data Say?" *American Economic Review* 92 (2002): 1559-76.

C. Actions Needed

1) While the general principles behind the Volcker Rules make sense and there is no case for keeping our largest banks anywhere near their current size, the specific proposals outlined so far by the administration are less persuasive.

2) Capping the size of our largest banks at their current level today does not make much sense. It is highly unlikely that, after 30 years of excessive financial deregulation, the worst crisis since the Great Depression, and an extremely generous bailout that we found ourselves with the "right" size for big banks.

3) Furthermore, limiting the size of individual banks relative to total nominal liabilities of the financial system does not make sense, as this would not be "bubble proof". For example, if housing prices were to increase ten-fold, the nominal assets and liabilities of the financial system would presumably also increase markedly relative to GDP. When the bubble bursts, it is the size of individual banks relative to GDP that is the more robust indicator of the damage caused when that bank fails – hence the degree to which it will be regarded as too big to fail.

4) Also, splitting proprietary trading from integrated investment-commercial banks would do little to reduce their overall size. The too big to fail banks would find ways to take similar sized risks, in the sense that their upside during a boom would still be big and the downside in a bust would have dramatic negative effects on the economy – and force the government into some sort of rescue to prevent further damage.

5) The most straightforward and appealing application of the Volcker Principles is: Do not allow financial institutions to be too big to fail; put a size cap on existing large banks relative to GDP, forcing these entities to find sensible ways to break themselves up over a period of 3 years.

6) CIT Group was not too big to fail in summer 2009; it then had around $80 billion in total assets. Goldman Sachs was too big to fail in fall 2008, with assets over $1 trillion. If Goldman Sachs were to break itself up into 10 or more independent companies, this would substantially increase the likelihood that one or more could fail without damaging the financial system. It would also greatly improve the incentives of Goldman management, from a social perspective, encouraging them to be much more careful.

7) Addressing bank size is not a panacea. In addition, capital requirements need to be strengthened dramatically, back to the 20-25 percent level that was common before 1913, i.e., before the creation of the Federal Reserve, when the government effectively had no ability to bail out major banks. Capital needs to be risk-weighted, but in a broad manner that is not amenable to gaming (i.e., quite different from Basel II and related approaches).

8) Such strengthening and simplifying of capital requirements would go substantially beyond what the Obama administration has proposed and what regulators around the world currently have in mind. In November 2009, Morgan Stanley analysts predicted that new regulations would result in Tier 1 capital ratios of 7-11% for large banks – i.e., below the amount of capital that Lehman had immediately before it failed.[7]

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[7] Research Report, Morgan Stanley, "Banking--Large & Midcap Banks: Bid for Growth Caps Capital Ask," November 17, 2009.

9) The capital requirements for derivative positions also need to be simplified and strengthened substantially. For this purpose derivative holdings need to be converted according to the "maximum loss" principle, i.e., banks should calculate their total exposure as they would for a plain vanilla non-derivative position; they should then hold the same amount of capital as they would for this non-derivative equivalent. For example, if a bank sells protection on a bond as a derivative transaction, the maximum loss is the face value of the bond so insured. The capital requirement should be the same as when the bank simply holds that bond.

10) A strengthened and streamlined bankruptcy procedure for nonbank financial institutions makes sense. This will help wind up smaller entities more efficiently.

11) But improving the functioning of bankruptcy does not make "too big to fail" go away. When they are on the brink of failing, too big to fail banks are "saved" from an ordinary bankruptcy procedure because creditors and counterparties would be cut off from their money for months, which is exactly what causes broader economic damage. You can threaten all financial institutions with bankruptcy, but that threat is not credible for the biggest banks and nonbanks in our economy today. And if the government did decide to make an example of a big bank and push it into bankruptcy, the result would likely be the kind of chaos – and bailouts – that followed the failure of Lehman in September 2008.

12) A resolution authority as sought by the Obama administration could help under some circumstances but is far from a magic bullet in the global world of modern finance. Some of the most severe complications of the Lehman bankruptcy occurred not in the United States, but in other countries, each of which has its own laws for dealing with a failing financial institution. These laws are often mutually inconsistent and no progress is likely towards an integrated global framework for dealing with failing cross-border banks. When a bank with assets in different countries fails, it is in each country's immediate interest to have the strictest rules on freezing assets to pay off domestic creditors (and, in some jurisdictions, to protect local workers). No other G20 country, for example, is likely to cede to the United States the right to run a resolution process for banking activities that are located outside the US.

13) More broadly, solutions that depend on smarter, better regulatory supervision and corrective action ignore the political constraints on regulation and the political power of today's large banks. The idea that we can simply regulate huge banks more effectively assumes that regulators will have the incentive to do so, despite everything we know about regulatory capture and political constraints on regulation. It assumes that regulators will be able to identify the excess risks that banks are taking, overcome the banks' arguments that they have appropriate safety mechanisms in place, resist political pressure (from the administration and Congress) to leave the banks alone for the sake of the economy, and impose controversial corrective measures that will be too complicated to defend in public. And, of course, it assumes that important regulatory agencies will not fall into the hands of people like Alan Greenspan, who believed that government regulation was rendered largely unnecessary by the free market.

14) The "rely on better regulation" approach also assumes that political officials, up to and including the president, will have the backbone to crack down on large banks in the heat of a crisis, while the banks and the administration's political opponents make accusations about socialism and the abuse of power. FDIC interventions (i.e., taking over and closing down

banks) currently do not face this challenge because the banks involved are small and have little political power; the same cannot be said of JPMorgan Chase or Goldman Sachs.

15) There are no perfect solutions to the problem we now face: a handful of banks and other financial institutions that are too big to fail. The Volcker Principles are sound – we should reduce the size of our largest banks and ensure that banks with implicit (and explicit) government subsidies are not allowed to engage in risky undercapitalized activities.

16) However, the proposed details in the Volcker Rules do not go far enough. We should put a hard size cap, as a percent of GDP, on our largest banks. A fair heuristic would be to return our biggest banks to where they were, relative to GDP, in the early 1990s – the financial system, while never perfect, functioned fine at that time and our banks were internationally competitive, and there is no evidence that our nonfinancial companies were constrained by lack of external funding. (More details on this proposal are available in 13 Bankers.)

17) Much stronger capital requirements will reduce the chance that any individual financial institution fails. But financial failure is a characteristic of modern market economies that cannot be legislated out of existence. When banks and nonbank financial institutions fail, there is far less damage and much less danger if they are small.