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The Unfinished Work of Reform in the Global Financial System

Lewis B. Kaden[1]

In the summer of 2007, early signs of distress in the United States housing market signaled the beginning of what Ben Bernanke, then the Chairman of the Federal Reserve Board, would later describe as "the worst financial crisis in global history, including the Great Depression."[2] Today, almost eight years later, much of the world is still wrestling with the effects of what proved to be "the deepest post World War II recession by far."[3]

Among many other things, the financial crisis spawned a vigorous public dialogue on the steps that should be taken to prevent any comparable calamity in the future and led to the enactment of a mass of new regulation of financial institutions. Beginning in 2009, as the global financial system emerged from the crisis and began a slow and uneven process of recovery, extensive reforms to the system were set in motion by measures adopted in the U.S., Europe, and, through the G-20, in other significant financial centers around the world. Though there is broad agreement that much remains to be done to implement these reforms, many wise and well-informed participants in global finance now believe that the critical strategic work of reform has been substantially accomplished. This view is exemplified by recent comments by Mark Carney, the highly respected Governor of the Bank of England and Chairman of the Financial Stability Board, who characterized the G-20 meeting in Brisbane, Australia in November 2014 as a "landmark," and expressed the view that the "prudential requirement and supervisory framework for banking are largely settled . . . [I]t is now a question of implementation . . . [of] the agreed reform [that will make] the system safer . . . , simpler . . . [and] fairer."[4]

Although this confidence is cheering, I fear it is misplaced. While there has surely been significant progress, a great deal of important work lies ahead to meet the challenges that the global financial system

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[2] Pedro Nicolai DaCosta, *"Bernanke: 2008 Meltdown Was Worse Than Great Depression,"* WALL STREET JOURNAL (August 26, 2014).

[3] International Monetary Fund, WORLD ECONOMIC OUTLOOK, p. xii (April 2009).

[4] Mark Carney, Governor of the Bank of England and Chairman of the Financial Stability Board, *"The Future of Financial Reform,"* 2014 Monetary Authority of Singapore Lecture, Singapore, November 17, 2014 [hereafter "Carney Speech"].

will face in the course of the next decade. This paper offers a perspective on those challenges and the steps that can be taken to address them. Part I briefly reviews, for the purpose of general background, the context and causes of the financial crisis. Part II identifies the key lessons to be learned from the crisis, and Part III outlines the major reforms adopted to date in the United States, Europe and the G-20. Finally, Part IV highlights what I regard as the principal ongoing issues affecting the financial system and suggests some approaches for dealing with them.

I.

With the benefit of hindsight, it is now widely agreed that the housing and mortgage market in the United States had developed in ways that set the stage for a bursting bubble. For more than a quarter century, U.S. housing policy had promoted home ownership as a milestone for the middle class in its pursuit of the American dream. By 2004, the members of 69% of U.S. households owned their homes, up from 64% just ten years before. From 2000 to 2007, the average price of a home doubled. Although incomes were stagnant during this period, the aggregate amount of mortgage debt also doubled and the average mortgage obligation rose 63%, from $91,500 to $149,500.[5] During the same period, mortgage practices deteriorated sharply, especially with respect to low-income borrowers with weak credit histories. Access to credit was easy for these "sub-prime" borrowers, with loans often made without proof of income or other customary documentation and without the requirement of any down payment, at variable or special low initial interest rates. Innovations in securitization of mortgage loans further expanded access to credit, including borrowings by consumers of limited means for speculative investments in additional homes in resort communities. As home prices maintained their seemingly inexorable rise, mortgage securities spread throughout the financial system, with different tranches or slices of mortgage pools providing variable risks to different types of investors.

When the bubble burst and home values plummeted, millions of homeowners could not meet their mortgage obligations. Between 2006 and 2007, defaults doubled. The value of mortgage securities sold around the world suddenly evaporated, expanding the crisis exponentially to families, governments, and other investors.[6] Confidence in financial markets disintegrated, liquidity vanished, and the market value of securities fell below any measure of their intrinsic value. As the crisis spread in 2008 and 2009, the

[5] Carmen Reinhart and Kenneth Rogoff, THIS TIME IS DIFFERENT: EIGHT CENTURIES OF FINANCIAL FOLLY, p. 213 (Princeton University Press, 2009); Alan S. Blinder, AFTER THE MUSIC STOPPED: THE FINANCIAL CRISIS, THE RESPONSE, AND THE WORK AHEAD, pp. 38-39, 129-173 (Penguin Books, 2013).
[6] Blinder, AFTER THE MUSIC STOPPED, Chapter 6.

recession drove massive job losses and widespread defaults. Access to credit disappeared for consumers and many businesses, especially small and medium sized enterprises. The toll on individuals, families, and the global economy was vast and pervasive.

In hindsight, it is also clear that the impact of the Great Recession was exacerbated by structural changes in the economy, especially in the United States and Europe. Underlying structural weaknesses, including fiscal imbalances and labor market rigidity, slowed recovery in much of Europe. In the U.S., globalization and productivity improvements spurred by automation and innovations in robotics had progressively reduced the number of industrial jobs and diminished the wages and benefits available from many others. Budgetary constraints in the public sector had reduced investment in infrastructure, cutting job opportunities in construction and supplies and slowing corporate investment and growth. Although the effects of these long-term structural changes on the Great Recession spawned by the financial crisis were initially disputed, it is now broadly acknowledged that they protracted the duration of recession and made the recovery far more difficult.

As the crisis deepened in the U.S., interventions by the federal government helped avert a catastrophic collapse of the financial system. But of the 25 largest financial institutions in the country, thirteen either failed (Lehman Brothers, Washington Mutual); received government assistance to avoid failure (Fannie Mae, Freddie Mac, AIG, Citigroup, Bank of America); were acquired by others to avoid failure (Bear Sterns, Countrywide, Merrill Lynch, Wachovia); or were obliged to transform their structure as the price of access to government support and to raise private capital to avoid failure (Morgan Stanley, Goldman Sachs). In another deeply troubled sector, the U.S. government also invested $13.4 billion in General Motors and $4 billion in Chrysler to avert their failures. In the United Kingdom, substantial government assistance averted the failures of Lloyds, the Royal Bank of Scotland, and Northern Rock.

By October 2008, the Congress had authorized $700 billion to support financial institutions. In August 2009, the loss to the government was estimated at $341 billion. By 2014, however, the projected direct cost of the bailout for taxpayers had declined to $27 billion, much of which centered on the automobile industry and the community banking sector composed of small local banks. The U.S. Treasury had a positive return on all of the investments and loans that it had made to large financial institutions during the crisis, including a gain of $22.7 billion on its commitment to AIG and a $12.3 billion profit from its investment in Citigroup. Updated figures recently published by the Treasury confirm that billions more have been repaid. In this important respect, the bailout in the U.S. ended well – the taxpayers recovered their investment in the stability of the financial system and made a handsome profit. But the fact that public investment of such staggering sums had been required to save the system remained intensely controversial, and the indirect costs to economic growth and employment remained high. The devastating consequences of the crisis remained vivid in the public mind and in the personal circumstances of many millions of Americans and millions more around the world.

II.

The financial crisis revealed significant weaknesses in the roles and practices of both the financial institutions and their supervisors and regulators. Of equal or greater importance, it underscored the reality that core principles of the business, though well understood for centuries, may be eclipsed at times of stress, with disastrous results.

First and foremost, the crisis vividly demonstrated that financial institutions depend for their survival on the trust and confidence of the customers, clients and other institutions that deal with them. If trust and confidence erode, little else matters. Although the historic image of customers massed outside their local banks to withdraw their savings after an unexpected jolt may now have been supplanted by the vision of nervous counterparties rushing to click on computer keys, the underlying point is the same. Simply put, trust and confidence is one asset that a financial institution cannot live without.

This lesson was graphically illustrated during a single week in mid-September 2008. On Wednesday or Thursday of that week, Lehman Brothers had sufficient liquidity and, at least by then-existing measures, sufficient capital. By Friday evening, it faced the end of its ability to remain in business unless a willing outside investor was identified over the weekend, before regular business hours resumed on Monday in capital markets around the world. By Sunday night, when neither of the two most likely acquirers for Lehman – Barclays or Bank of America – had come through, the other large financial institutions could not produce an alternative private resolution, and the federal government refused to backstop a rescue plan, the end was clear for a storied institution. And the severe global consequences that flowed from Lehman's unavoidable filing for bankruptcy furnished the first dramatic example of the sprawling web of interconnections of a single sizeable financial institution – though one that was far from the largest – with other institutions, families, and governments around the globe.

By contrast, when on March 23, 2009, the Treasury announced its Public Private Initiative Program (PPIP), under which up to $1 trillion was made available to buy troubled assets from distressed banks, the market's anxiety calmed and confidence was restored almost immediately. The crisis slowed; a cautious and unsteady recovery began; and private investors saw the likelihood of substantial gains as the economy gradually recovered. In the end, only $22 billion of government funds were invested under the asset purchase program. Even though the recovery proved to be extremely slow in much of the world, with confidence renewed, the major banks gradually returned to profitability. They demonstrated the ability not just to repay the Treasury for its earlier assistance and deliver a positive return, but also, over the next six years, to pay more than $150 billion in fines and penalties to federal and state governments and to their customers for misconduct and poor practices prior to and during the crisis.

But resilience is just one driver of trust. Although the banks' rebound was heartening, it was limited: for many, return on equity remained low, in some cases below the cost of capital, and profits remained thin, resulting in pressure from shareholders. And the pervasive misconduct and ethical breakdowns across the system that came to light in the aftermath of the financial crisis – tax fraud, money laundering, interest rate manipulation, breaches of sanctions, trading scandals, misleading statements to investors – combined to create a massive crisis of confidence in the integrity of major participants in global finance.[7] While profitability has been restored, this powerful legacy of the crisis remains unresolved.

Second, the financial crisis laid bare an array of serious weaknesses in the internal processes of the major financial institutions – including particularly an urgent need to upgrade the quality, skills and practices of the risk management, compliance, audit, finance and legal functions, and the exercise of leadership in controls and compliance in their operating businesses. It also raised similar doubts about the resources, skills and capacity of the governing boards of the large institutions and of their supervisors and regulators in the major financial centers around the world. Today, these issues persist as fundamental challenges to effective controls and appropriate oversight of financial services.

In the years preceding the crisis, talent had been upgraded in some of the banks' principal control functions, such as finance and law, and the stature and influence of those functions within the institutions had increased. Risk management operations had gradually acquired more resources, specialized leadership, and greater independence, with direct access and accountability to boards of directors as well as senior management, and risk managers had developed more sophisticated models and procedures for assessing risks of all kinds – market, credit, operating, and reputational. But the crisis illuminated some severe

[7] Felix Salmon, *"Recipe For Disaster: The Formula That Killed Wall Street,"* Wired Magazine (February 23, 2009).

shortcomings in the priorities and depth of talent in risk management and made clear that the promise of independent judgment sometimes differed from the reality.

The severity of the problem was painfully apparent in the failure to measure concentrations of risk in mortgage debt in institutions where that risk spanned a broad range of activities – such as mortgage lending, servicing, securitization, and the funding of customers' purchases of mortgage-backed securities – by a variety of different business units and in dozens or scores of countries around the globe. Too often, risk departments missed the significance of concentrated exposure because they failed to apply their analytic techniques across operational and geographic boundaries to measure the concentration of risk that these activities produced in the multiple businesses that engaged with them. Market metrics of risk proved highly ineffective and rating agency assessments severely misguided.

In some institutions, psychological factors also undermined the efficacy of control functions. At a number of banks, for example, the senior risk officer came from a background in the sales and trading part of the company, and had moved from that environment to the risk management function while his or her peers remained in capital markets and advanced to senior management positions, often at compensation levels several times greater than that of their former colleague. In many cases, the hazards to independence inherent in this circumstance were not detected or addressed.

Third, the crisis underscored a series of misjudgments and missed opportunities by regulators. As the experience of Lehman Brothers demonstrated, when customers, clients and counterparties react to an erosion of confidence in an institution, the risk to its viability can magnify so quickly that no amount of capital or liquidity can save it. But the crisis brought home that greater cushions of capital and liquidity can help sustain confidence in the face of the moderate to significant shocks that are predictably part of the environment in which large financial intermediaries operate when they are engaged in many lines of business in many regions of the world. It also revealed that protection of consumers against improper practices by lenders and securities dealers, though plainly within the responsibility of regulators, had not received the vigorous attention it deserves – both in absolute terms, and by comparison with the regulators' focus on the basic statutory concerns with the safety and soundness of banks and the protection of investors against misconduct by broker-dealers. Perhaps most importantly, the crisis showed that regulators lacked the critical, system-wide information needed to detect an emerging crisis before it erupted and spread across the landscape.

Finally, the crisis made plain that the regulators and supervisors themselves faced ever-changing and expanding challenges as financial innovations generated new products and new practices across a complex financial system. In the major financial centers, the regulatory bodies competed for talent with the institutions they regulated, but most fell far short of the private sector in their ability to compensate the most talented people at competitive levels. As the global economy and global finance became ever more interconnected, the products became more complex, and the risks became more varied, the challenges to the capabilities of regulators grew, but their resources did not. The financial crisis put an exclamation point behind the public interest in assuring that the regulators of the financial system have the talent, training, experience and resources they need to cover all of the dimensions of their ever-widening responsibilities.

III.

Against the backdrop of these and other lessons, as the crisis ebbed and a fitful economic recovery began, debates over reform of the financial system became the focus of attention in major financial centers. In the United States, these debates principally involved the President, the leaders of his executive branch, and the Congress. In Europe, key participants included the European Union and its member states as well as various multilateral groups, including the G-20, the Basel Committee on Banking Supervision, the European Central Bank, the Financial Stability Board, the International Monetary Fund and the World Bank. But for obvious reasons, the dialogue on financial reform also necessarily came to include public officials, non-governmental organizations and regulated entities in all corners of the world. In the financial environment of the 21st Century – in which market activity is worldwide, and trades can readily be executed in any one of many financial centers – market participants, investors, regulators and elected officials increasingly recognized the importance of achieving convergence of rules and regulatory procedures across international borders. At the inception of the crisis, for example, Citigroup had trading floors in 85 cities around the world. Although some variation in local regulation must be expected among nations with different economic systems and at different stages of development, the potential for regulatory arbitrage plainly does little service to the health of the increasingly global financial system.[8] But in many areas, including accounting standards, regulation of derivatives, and measures of performance under conditions of severe stress, the critical goal of convergence, while widely recognized, proved extremely difficult to achieve.

[8] Mark Carney, Report to G-20 Leaders, *"Financial Reform: Completing the Job and Looking Ahead"* (November 7, 2014) [hereafter "Carney 2014 Report"].

In the U.S. and Europe, and in the G-20 through the Basel Committee and the Financial Stability Board, the dialogue on regulatory change triggered by the financial crisis tended to focus on a handful of issues that became the principal targets of the reform efforts.

1. Systemic Risk

Prior to the crisis, none of the public agencies involved in the oversight and regulation of financial services was focused primarily on the issue of systemic risk. Correction of this gaping omission was a primary objective, and a signal achievement, of the reform agenda.

In the United States, the intense work on reform legislation which resulted in the enactment of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (Dodd-Frank) was spearheaded by President Obama; the Secretary of the Treasury, Tim Geithner; the Director of the National Economic Council, Lawrence Summers; and the Congress, acting principally through congressional leaders of both parties and the relevant committees chaired by Congressman Barney Frank (D-Mass) and Senator Christopher Dodd (D-Conn). Early in the process, the leaders of this effort agreed that they would not tackle the challenge of the balkanized structure of financial services regulation in the U.S., where regulatory responsibility is shared by the Department of the Treasury, the Federal Reserve Board (FRB) and its regional Federal Reserve Banks, the Securities and Exchange Commission (SEC), the Office of the Comptroller of the Currency (OCC), the Federal Deposit Insurance Corporation (FDIC), the Commodities Futures Trading Commission (CFTC), and the insurance and banking regulatory authorities of each of the 50 states. Though surely a tempting target, this issue was deemed too difficult politically, in view of the support that each of these entities commands from its legislative and interest group constituencies for the preservation of its distinct and independent statutory authority.

Instead, Dodd-Frank created the Financial Stability Oversight Council (FSOC), a new entity chaired by the Secretary of the Treasury and charged with identifying and responding to emerging risks to financial stability. Under the law, bank holding companies with more than $50 billion of assets were deemed to be systemically important financial institutions (SIFIs) subject to enhanced prudential standards and more intense regulatory oversight. FSOC was also empowered to classify financial companies that are not banks as "non-bank SIFIs" in circumstances where their material financial distress or their scope, size, scale, mix of activities and interconnectedness could pose a threat to the nation's financial stability. To date, the companies designated by FSOC as non-bank SIFIs include General Electric, AIG, Prudential Financial, and

MetLife. On other issues, FSOC acts as a coordinator on regulatory policy and proposals but lacks decision-making authority.

Acting in parallel, the Basel Committee sought to coordinate global actions on systemic risk, adopting higher capital and liquidity standards, special countercyclical capital buffers, charges for exposure to other large financial institutions, and deductions for capital for certain equity investments in banks.[9] At present, the G-20 is also working on risk mitigation measures for derivatives, comparable to those adopted in the U.S., which are designed to improve transparency, including pricing through central clearing houses for most OTC derivatives and new margin requirements for derivatives that are not centrally cleared.[10]

Another important reform addressed to systemic risk, led by the U.S. and more recently adopted in Europe, was the introduction of the "stress tests" that are now annually administered to large U.S. institutions by the Federal Reserve Board. Under this regime, each of the major banks, holding companies and non-bank SIFIs undergoes a test of performance under a set of severe stress assumptions defined by the Fed each year. In the process of applying these tests, the regulators evaluate both quantitative and qualitative factors to determine whether to approve each institution's proposed level of capital return to shareholders through dividends and share buybacks. The stress tests have become a regular annual exercise for the affected firms, and market participants watch closely for the public announcement in March of the test results, which are followed soon thereafter by announcement of the Fed's decisions on the institutions' proposals for the return of capital to shareholders. In Europe, the early round of stress tests was less robust than in the U.S. Even after they were strengthened in 2014, the European tests focused solely on capital adequacy in the event of a two-year recession; unlike those in the U.S., they did not assess qualitative factors such as governance, risk management, financial planning, compliance and technology.

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[9] Blinder, AFTER THE MUSIC STOPPED, pp. 271-272; Stanley Fischer, Speech at the Martin Feldstein Lecture, National Bureau of Economic Research, Cambridge, Massachusetts (July 10, 2014) [hereafter "Fischer Speech"].

[10] In the U.S., a controversial provision of Dodd-Frank known as the "push-out" rule required that most derivatives be booked in broker-dealers rather than in banks that are part of bank holding companies. This provision was inserted in the law by Democratic leaders of Congress to help a single Senator, Blanche Lincoln of Arkansas, who was then engaged in a difficult reelection campaign that she ultimately lost, but deleted by Congressional action in late 2014, and its elimination was accepted by the President. Had it remained, the push-out rule would have made most derivatives more costly for financial institutions without any convincing evidence of its effectiveness in reducing systemic risk. For liberal critics of the banks, however, the repeal of the rule was a prime contributor to the rallying cry against the political influence of "Wall Street."

2. Capital and Liquidity

After the crisis, almost all observers agreed on the need for higher standards of capital and liquidity and lower leverage to provide stronger cushions against losses and increase the likelihood of maintaining confidence through economic cycles and risks. As a result of actions taken by the Federal Reserve Board and FSOC in the U.S. and by the Basel Committee and the G-20 globally, capital and liquidity standards were raised significantly. While the affected institutions were given extended time periods, generally until at least 2019, to comply with the new standards, market reaction generated a healthy competition among the SIFIs to meet or exceed the prescribed levels more quickly. The media charted their progress, creating a competitive playing field for the large banks, and investors, counterparties and regulators watched these ratios closely at the end of each reporting period.

The U.S. initially adopted stricter requirements for capital and liquidity than the Basel Committee, including risk-based capital surcharges for global systemically important banks (GSIBs), a higher leverage ratio, and a rule that obliges foreign banks to form U.S. holding companies that meet the U.S. capital requirements.[11] The FSB and the G-20 added additional surcharges based on assessments of interconnections and further refinement of risk weightings of different categories of liabilities on a bank's balance sheet. At present, the Federal Reserve Board is also working on measures to limit short term funding of longer term obligations, particularly those involving securities transactions, such as repos, reverse repos, and securities borrowing, as well as lending activities. Governor Dan Tarullo of the Federal Reserve Board has outlined three initiatives in this area that would incorporate short term funding into the risk-based capital surcharge for GSIB's; modify the Basel Committee's Net Stable Funding ratio to require that stable funding exceed the amount of liquid funds required over a one-year period; and establish floors for collateral haircuts in securities financing transactions, to control the risk that systemically risky activities may migrate to non-banks that are not covered by the regulatory standards.[12]

3. Recovery and Resolution

An important element of the financial reform program which deals specifically with large banks has been the work on resolution mechanisms for SIFIs. In the United States, Dodd-Frank provided the FDIC with Orderly Liquidation Authority (OLA), a regime intended to enable the FDIC to conduct an orderly resolution

[11] Fischer Speech.
[12] Daniel K. Tarullo, Governor of the Federal Reserve Board, Speech at Federal Reserve Board and Federal Reserve Bank of Richmond Conference on Banking, Housing and Urban Affairs, Washington, D.C. (September 9, 2014) [hereafter "Tarullo Speech"].

of a firm if its bankruptcy would threaten the stability of the financial system.[13] Internationally, in 2011 the FSB adopted "Key Attributes of Effective Resolution Regimes for Financial Institutions," a new standard for resolution regimes for systemic firms which is modeled largely on the U.S. approach.[14] The FSB has also put in place an important ISDA protocol to constrain cross defaults. One of the largest remaining challenges in this area concerns the development of adequate and transparent cooperation mechanisms for "home" and "foreign" regulators for the purposes of conducting orderly cross-border resolutions.[15] A significant step is FSB's proposal for a global standard for loss absorption by banks to internalize the cost of any future recapitalization.

Closely associated with the work on orderly resolution mechanisms is the "living will" exercise for SIFIs.[16] Under Dodd-Frank, SIFIs and nonbank SIFIs must periodically submit resolution plans – "living wills" – to the Federal Reserve Board and the FDIC. Each living will must describe the company's strategy for rapid and orderly resolution in the event of material financial distress or the company's failure, and must include both public and confidential sections.[17] Thus far, the FDIC has not been satisfied with the adequacy of the SIFIs' planning for their own demise. In August 2014, it rejected the living wills of all eleven financial institutions that submitted them in 2013, on the ground that "the plans provide no credible or clear path through bankruptcy that doesn't require unrealistic assumptions and direct or indirect public support."[18] The FDIC encouraged the banks to make their bankruptcy plans more credible by "establishing a rational and less complex legal structure," demonstrating they can quickly produce reliable information about their exposures, and amending derivatives contracts to make them easier to bring through bankruptcy.[19] Contrary to press reports at the time, the Fed has not yet announced its own decisions regarding the adequacy of the living wills, and it has recently been under some pressure to do so.

4. Consumer Protection

In a now-famous article published in 2007, Elizabeth Warren, then a professor at Harvard Law School and currently a United States Senator from Massachusetts, outlined a plan for a "Financial Product

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[13] Fischer Speech.
[14] Tarullo Speech.
[15] Tarullo Speech.
[16] Fischer Speech.
[17] FDIC, Title I and IDI Resolution Plans (last updated July 7, 2014), *available at*: https://www.fdic.gov/regulations/reform/resplans/.
[18] Peter Eavis, "*Federal Reserve and F.D.I.C. Fault Big Banks' 'Living Wills'*," NEW YORK TIMES (August 5, 2014).
[19] Ryan Tracy et al., "*U.S. Tells Big Banks to Rewrite 'Living Will' Bankruptcy Plans*," WALL STREET JOURNAL (August 5, 2014).

Safety Commission" – a consumer protection agency dedicated to financial products.[20] The Dodd-Frank Act created this new independent agency in 2010 as the Consumer Financial Protection Bureau (CFPB), and in 2013, the Senate confirmed President Obama's appointee, Ohio Attorney General Richard Cordray, as its first Director.[21] The CFPB's authority extends over banks, credit unions, mortgage brokers and servicers, foreclosure relief services, credit card issuers, and many other businesses that provide financial goods and services to consumers.[22] Since its inception, the CFPB has set up a consumer complaint process, pioneered a data-based method for assessing which institutions deserve the most scrutiny, and undertaken a wide range of enforcement actions against companies engaged in deceptive lending practices, including for-profit educational institutions, mortgage lenders and servicers, and online payday lenders.[23]

5. Information Data and Research

During the financial crisis, the fact that no agency of the government had the authority to gather data about market activity in financial services from all participants in the industry presented a disturbing obstacle to effective planning for reform. Entities subject to the regulatory jurisdiction of the various federal agencies were obliged to respond to their inquiries, but to other important participants in the market, such as non-banks, large insurance companies, and hedge funds, the government could only make requests. This circumstance hampered the ability of the Treasury and other agencies to analyze all available data that could bear on the design of federal initiatives to counter the recession and speed the recovery. To correct the problem, the Administration proposed and Congress approved the creation in the Treasury Department of an Office of Financial Research (OFR) with authority to gather all relevant data about financial services and transactions. Although the OFR got off to a slow start, its mandate promises that in the event of future crises, the government will have access to information it needs to exercise its authority in the national interest.[24] While some doubt whether this mandate will be fully achieved, the establishment of OFR is an important step in the right direction.

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[20] *See* Elizabeth Warren, "*Unsafe At Any Rate*," DEMOCRACY (Summer 2007).
[21] Consumer Financial Protection Bureau, About Us (last updated August 26, 2014), *available at*: http://www.consumerfinance.gov/the-bureau/.
[22] Reuters, "*New U.S. Consumer Financial Bureau Has Wide Powers"* (September 14, 2010).
[23] Lydia DePillis, "*A Watchdog Grows Up: The Inside Story of the Consumer Financial Protection Bureau*," THE WASHINGTON POST (January 11, 2014).
[24] Timothy F. Geithner, STRESS TEST, pp. 81-82, 506-507 (Crown Publishers, 2014).

6. The Structure of Financial Service Providers

The responses of governments around the world to the prospect of the failure of major financial institutions reopened debates with long pedigrees – about whether large banks are "too big to fail"; about the extent to which these institutions receive implicit or explicit public subsidies by dint of their access to government or central bank lending facilities, deposit insurance, and other forms of support, as well as a subsidy from the bond market due to the lower average cost of bonds; and about the aggregate value of these asserted subsidies. The financial crisis also revived a longstanding debate about the structure of regulated banks and, in particular, their permissible lines of business. In its current incarnation, the latter controversy has focused on whether large bank holding companies should be able to serve consumers with a full range of credit, insured deposits, and investment products; provide corporate and governmental entities with investment banking, underwriting, derivatives and a full range of trading products; and, at the same time, make proprietary investments for their own accounts and manage pooled investment funds, such as private equity, real estate and commodity investments, in which the banks' own assets are invested alongside client funds.

Historic norms in this controversial area vary from one part of the world to another. In the U.S., the Glass-Steagall Act enacted during the Great Depression forced the separation of commercial banking from certain types of securities business, as well as the separation of banking and insurance. Over time, however, as the distinction between loans and securities blurred, the logic underlying that separation eroded. Since loans could be sold or traded either as whole loans or through securitized pools of whole loans or slices or parts of loans with varying risk profiles, the divisions compelled by Glass-Steagall seemed increasingly illusory. After a series of regulatory and judicial rulings expanded the ability of banks and bank holding companies to broaden their involvement in securities activities, little remained of that law, and it was eventually repealed. The enactment of the Gramm Leach Bliley Act in 1998 to replace most of the provisions of Glass-Steagall underscored the extent to which the previous restrictions had eroded over time, as the timing of its passage was aimed at permitting a pending merger between Citibank and Travelers Insurance Company, which itself already included the securities activities of Salomon Brothers and Smith Barney.

But the financial crisis of 2007-2009 reignited the debate that had fueled the adoption of Glass-Steagall almost 75 years before. A number of legislators and commentators argued that the Great Recession demonstrated that the large financial institutions were too big and that the government's assistance proved they were "too big to fail." Others contended that the reforms in Dodd-Frank and the regulatory response across the reform agenda had significantly reduced or eliminated the risk of an uncoordinated failure that could trigger consequences to the financial system of the type it experienced after the fall of Lehman Brothers. While Congress did not take up the proposals for immediate "break up" of the big banks, it did adopt an initiative put forward by Paul Volcker, the former Chairman of the Federal Reserve Board, to prohibit bank holding companies from engaging in purely proprietary trading of their own capital. Volcker also urged that banks be barred from investing more than a modest amount of their capital and from serving as the managing entity for private equity funds.

The basic proposition of barring purely proprietary lending and obliging banks to concentrate their resources on serving clients and customers seemed clear enough, and ultimately both Congress and the President supported the "Volcker Rule." But the principle that Volcker believed could be implemented in a short and simple regulatory rulemaking proved to require a rule of almost 300 pages, as regulators wrestled with the question of how to draw the line between activities, such as market making, that are basic to client services by large financial institutions, and purely proprietary trading for the institutions' own account. After almost five years, implementation of the Volcker Rule is still in progress and the proposed deadline for compliance has been extended multiple times, with debate continuing to rage over hundreds of technical issues. In the meantime, calls for breakups of bank holding companies continue, and their appeal seems to ebb and flow with each report of new discoveries of bank misconduct and the latest settlements and rulings relating to fines and penalties.[25]

Similar debates are also ongoing in Europe. Although sharp separation of consumer and institutional services or banking and commerce is not part of the European legal legacy, there are currently vocal proponents of separation along one line or another in many parts of Europe, and varying proposals about how to achieve it. In the UK, the Vickers proposal recently led to the adoption of strict requirements for legal and financial separation of banking and securities activities under a holding company structure. These rules add costs to an institution that has both consumer and institutional businesses, and are pushing the largest UK banks, including Lloyds, Royal Bank of Scotland, Barclays, and HSBC, toward increasing emphasis on consumer banking products and services.

[25] Analysts at Goldman Sachs, not a likely source of "break-up" advocacy, recently suggested that JP Morgan might be more valuable to its shareholders if its different lines of business were separated. Tom Braithwaite, *"Bank Bondholders Are the Ones to Make Breaking Up Hard To Do,"* FINANCIAL TIMES *(*February 21-22, 2015, p. 13). Similar suggestions have been made about Citigroup.

Of greater consequence, however, is the toll that the financial crisis has taken on many of the major European financial institutions. In combination, more stringent standards for capital and liquidity, regulatory changes, and other reforms have driven many of these banks to turn inward, concentrating on service to local customers in their respective home markets and surrendering international franchise relationships, built over a century or more, which previously were strong, profitable, and important to the institutions. The ultimate result of this trend may be smaller, more local institutions with less international reach. Over the long run, this signal consequence of the Great Recession may be a disadvantage for European interests and influences in global economic affairs and policy making.

Though the pressure continues and seems to be mounting, to date, the breakup movement has not garnered sufficient strength in the U.S. to warrant a prediction of success, and it seems probable that at least some U.S. banks will continue to grow in size and strength and remain among the most powerful and respected global financial institutions. Over the next quarter century, the list of major global banks is likely to include these U.S. institutions as well as a short list of Asian banks, including one or more of the Chinese national banks and one or more of the major Japanese financial institutions. However, the likelihood that a European bank will be on that list seems much more remote today than it did before the crisis.

An Overall Assessment of the Reforms

Predictably, the details of rulemaking and implementation of the wave of reforms spurred by the financial crisis have provoked considerable division, and it is hard to find anyone who is satisfied with all of the outcomes. Overall, however, the core principles underlying the major reforms the flowed from the crisis are sound. During my time at Citi, when I interacted with regulators, policy makers and bankers in virtually all of the financial centers in the world, I believed that the experience of the crisis should convince every participant in the financial system that significant reforms were essential, including meaningful improvements in both the practices of the institutions and the skills and processes of the supervisory and regulatory agencies. In their central premises, the steps taken to date constitute a sound start toward restoring confidence through more effective prudential standards and enforcement.

I am also convinced that international convergence is critical to achieve consistency in key rules and regulation across major financial centers and to discourage regulatory arbitrage. Although convergence has proven difficult and elusive, efforts to achieve it through constant interaction among regulators, market participants, and major financial institutions are worth the attention they have increasingly received. The financial crisis has clearly driven more expansive efforts at coordination among major countries to bring rules and regulations into a more consistent pattern. Even when the goal line has seemed remote, senior industry executives, regulators and policy makers have invested ever-greater time and effort to think through convergent rules appropriate to a global marketplace. In my view, these efforts are central to the long-term health of the financial system.

I believe we must also accept the reality that convergence is a long-term undertaking. Success will turn on open, thoughtful, considered discussion featuring many rounds of proposals and counter-proposals, and is likely to come in small steps. It can be achieved only if the participants are guided by the recognition that this type of international dialogue must always be conducted in a constructive manner, and must never be shrill or personal. This approach to international dialogue, which I endeavored to implement in all of Citi's engagement with public officials, industry peers, and advocates across the full spectrum of views, is the only route to real progress. And while it is not the universal style, it characterizes the most effective participants in these discussions, of whom there are many. The global financial system clearly benefits from the high level of skill and constructive tone of the discussions about convergence that frequently occur among finance ministers, central bank governors and policy makers, elected officials, senior executives, and academic experts.

IV.

By any reasonable standard, there has been significant progress on financial reforms in the U.S., Europe and the G-20 in the years since the onset of the financial crisis. Important work remains to be done to execute the reforms; to fill in the gaps, including, for example, controls on the financial services provided by unregulated "shadow" banks; and to drive convergence globally. But as the work proceeds to implement the reforms that have already been adopted, the participants in the financial system will also need to address other significant challenges that have recently received growing attention.[26] At root, these challenges center on issues of ethics, culture, compensation and talent, all of which are crucial to the overarching issue of rebuilding trust.

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[26] Dan Awrey, William Blair and David Kershaw, *"Between Law and Markets: Is There a Role for Culture and Ethics in Financial Regulation?"* London School of Economics, Law Society and Economy Working Papers #14 (2012); William C. Dudley, *"Enhancing Financial Stability by Improving Culture in the Financial Services Industry,"* Federal Reserve Bank of New York Workshop, October 20, 2014: Daniel K. Tarullo, *"Good Compliance, Not Mere Compliance,"* Federal Reserve Bank of New York Workshop, October 20, 2014.

Ethics and Culture

In every business, "trust has many dimensions which together determine enterprise success,"[27] including the trust of customers and clients, of employees and managers, of suppliers and service providers, and of governments and regulators. In financial services as in other sectors, trust is central to business success, and it is always fragile.

The financial crisis, the Great Recession, and the painfully slow recovery undermined every aspect of the trust that is essential to the proper functioning of a complex global financial system. In combination, the enormous losses precipitated by the crisis, the dependence of major institutions on vast amounts of government assistance, and the shortcomings in client and customer service, created grave doubts about the leadership and performance of financial institutions. Public officials and customers alike also wondered whether the regulators were up to their critical tasks at a time when the financial system was under severe stress. Some of the regulators themselves grew skeptical of the governance of risk in the financial system and the adequacy of the supervision of the most significant and sizeable institutions in their charge. Many began to express apprehensions, thoughtfully and constructively, about the challenges facing their own agencies.

Over all of those discussions hangs a mounting concern about the institutional cultures and standards of conduct in the financial services industry – a concern rooted in the crisis, but clearly exacerbated by the succession of subsequent disclosures of fraud, collusion, and other unlawful conduct that have seemed to betray a pervasive breakdown in ethical standards, and have resulted in the imposition of fines, penalties, and damage awards against the industry's largest banks and brokers in unprecedented amounts. The huge legal fees and liabilities associated with these events have impeded the recovery by depressing the profits forecast by the industry leaders seeking to restore confidence. And in many cases, the concerns they engender are magnified by the ways institutions respond after it is announced that investigations have begun.

Today, the trust and confidence in the integrity of the financial industry that was progressively rebuilt in the 75 years following the Great Depression has been sorely shaken. The frequency of new discoveries of serious ethical lapses in major institutions is doing nothing to repair it. In the long run, this pronounced deterioration of confidence may prove to be a greater threat to the institutions and their

[27] Carney Speech; Carney 2014 Report.

shareholders than the financial crisis itself. Those in the industry who dismiss it as evidence of just a "few bad apples" or a "minor problem" are badly mistaken.[28] One recent survey showed that 71% of senior executives in the financial sector believe that their own firm's reputation for integrity is better than those of its peers.[29] This is alarming, because the system cannot fix a problem whose existence many of its leaders decline to acknowledge.

Even after the wrenching experience of the crisis, many leaders in financial services still fail to recognize the critical interconnection between culture and ethics and successful business performance. The fundamental goal of any enterprise, including any systemically significant financial institution, must be to build and retain trust and confidence by combining high performance with high ethical standards. As Ben Heineman aptly characterized it, the objective is "high performance with high integrity," and a culture that reinforces the conduct necessary both to maintain trust and to achieve strong business results is pivotal to that end. Such cultures are hard to build – there are many more examples of weak or substandard business cultures than models of high standards.[30] But the cardinal elements of successful cultures ought not be difficult to define.[31]

What does *not* work to drive the right combination of high integrity and high performance is to post a soaring statement of the firm's values on a plaque in the corporate office and routinely repeat it on the front page of every company brochure. Such statements, now ubiquitous, are reminiscent of the "pitch books" that are the stock in trade of consultants, bankers, lawyers and other professional advisors. Recounting their extensive experience, the many matters they have handled, the successes they have achieved, and the values they endorse and claim to live by, these firms frequently sound much the same. But experienced clients know well that they are not all alike – that neither the individuals nor the firms are identical, and that only a limited number can offer the levels of skill, capabilities and leadership, and the quality and depth of resources, which are necessary to provide first-rank service. The same is true with respect to systemically significant financial institutions. All of them can craft inspiring statements of values

[28] James O'Toole and Warren Bemis, *"What's Needed Next: A Culture of Candor,"* HARVARD BUSINESS REVIEW, June 2009.
[29] The Economist Intelligence Unit Report, *"A Crisis of Culture: Valuing Ethics and Knowledge in Financial Services"* (2013).
[30] Ben W. Heineman, Jr., HIGH PERFORMANCE AND HIGH INTEGRITY (Harvard Business Press, 2008).
[31] Emily Glazer and Christina Rexrode, *"As Regulators Focus on Culture, Wall Street Struggles to Define It,"* WALL STREET JOURNAL (February 2, 2015, pp. A1, A8).

and assemble attractive pitch books. Far fewer have the elusive blend of analytic skills, intellectual strength, experience, judgment, ethical standards, and teamwork that are essential to strong performance over time.

While recognizing that there is no single formula, I offer here a high-level list of ten core ingredients that I believe necessary to achieve the combination of high performance, high ethical standards and strong positive culture that builds trust and confidence in a financial institution and increases its chances for sustained success.

1. Knowledge and understanding of the total business, across business units and functions, by members of management.
2. Effective qualitative and quantitative measures of performance that are applied across the full range of human resource decisions, including decisions on compensation.
3. Constant upgrading of talent at all levels, in all functions and businesses, and high levels of investment in development and training, built around consistent global standards and expectations, with the recognition that investment in all of the different elements of human capital is critical to success.
4. Consistent messages about the institution's values and expectations for business conduct that are communicated by the CEO, senior management, and the leaders of all businesses, countries, and functions; spread throughout the organization and around the world; regularly repeated; and integrated into all elements of the firm's people agenda, from recruitment and promotion to performance evaluation, career development and compensation.
5. Robust and relentless enforcement of the firm's standards of conduct, with no exceptions made for those who are high producers but deficient culture carriers.
6. Consistent use of business and talent reviews to reinforce the drive for high performance and high ethical standards.
7. In the compensation structure, a balance of fixed and variable compensation, and of cash and equity, with terms for the duration of vesting and potential clawbacks which support the twin goals of ethical conduct and high performance.
8. Accountability by every person in the organization for his or her contributions to the institution's reputation, citizenship, customer and client service, teamwork, and interaction with stakeholders in both the public and private sectors around the world – all of which are

evaluated based on the complex scorecard that determines a firm's excellence in these categories.

9. Understanding of behavioral science and its potential to improve performance, promote integrity, deter misconduct, enforce standards, and ensure that the institution itself observes the highest standards after a trade goes bad or improper conduct is alleged.
10. In the institution's strategic choices, consideration of the impact of corporate structure and portfolio composition on the firm's ability to maintain high ethical standards as well as to deliver high performance.

As Leon Wieseltier said of society,[32] corporate culture is the sum of "reflective approaches" to a firm's activities. It encompasses all of its values and standards, and all of the actions through which they are executed. Though it is sometimes asserted that culture is the ultimate intangible, inherently difficult to measure, the totality of these "reflective approaches" can in fact clearly be evaluated against the qualitative and quantitative components of a scorecard that assesses both performance and integrity. Against this measure, the large financial institutions have a lot of work to do.

And the need to do it is not merely a matter of ideals or aspirations. In his most recent report to the G-20 on the FSB's agenda for work in 2015 leading up to the G-20 summit in Turkey, Mark Carney underscored two new risks and vulnerabilities to global financial stability.[33] The first is market-based financial risk, particularly the risk of adverse market reactions to rate increases as the U.S. normalizes monetary policy. If assumptions about adequate liquidity in such circumstances prove to be wrong, pricing corrections could lead to an expansion of bond issues, creating a credit shortage in the real economy. And if liquidity expectations do not stand up in a market correction, the growing assets in funds offering redemptions on very short notice could produce serious market dislocation. The second hazard Carney cited is the risk that the scale of misconduct by financial institutions will undermine trust and undercut the positive effects of the reforms that have already been implemented. To mitigate this risk, he called for more consistent regulatory enforcement of standards of conduct across jurisdictions, and indicated that the FSB will consider additional measures relating to risk governance and the structure of compensation, with benchmarks to aid their assessment.

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[32] Leon Wieseltier*, "Among the Disputed."* NEW YORK TIMES BOOK REVIEW (January 15, 2015, pp. 1, 14).
[33] Mark Carney, Report to the G-20 Finance Ministers and Central Bank Governors (February, 2015).

Compensation

Compensation of the participants in the financial services industry is a subject of inexhaustible interest and curiosity, as it is in other sectors in which the annual earnings of high-ranking executives and highly talented employees are often very high. Both the amounts that people are paid and the structure and composition of their compensation packages routinely attract intense scrutiny. The scrutiny simply magnifies the interest, and sometimes also leads to calls for regulation.

The approach to compensation in the financial sector varies around the globe. In non-market economies, incomes of top executives may be limited to amounts comparable to those of senior public officials, especially where the state owns many of the major enterprises and controls much of the productive capacity. In China, for example, chief executives of major national banks and business enterprises have a status in the political hierarchy that is comparable to that of departmental ministers in the government and are paid on that scale, although both the enterprise leaders and the senior public officials benefit from other perquisites of power and stature. In Europe, the social democratic roots of the political economies of many countries tend to exert practical constraints on decisions about pay. During the last eight years, however, political leaders in the European Union and most of its member states have also sought to impose quantitative constraints by adopting rules that limit "bonuses" to a specified proportion of base salary, generally 1x base pay, or up to 2x if approved by shareholder vote. Though the government of the UK has challenged this mandate from the EU, other governments have accepted it. To date, however, the regulations have been easily evaded by deeming additional payments to be "allowances" that are asserted to fall outside the legal definition of a "bonus." Vigorous debate continues in Europe as to whether these limitations on bonuses should be strengthened and the loopholes closed.

Historically, the political economy in the U.S. has been deeply skeptical of substantive regulation of compensation in the private sector. Occasional examples to the contrary, such as the wage regulations of the early 1990's or the limitations imposed by the Treasury's "compensation czar" on the pay of the most highly compensated employees of banks that received government assistance in the TARP program, have generally been short-lived. During the financial crisis, noted mediator Kenneth Feinberg – who had been appointed compensation czar by Treasury Secretary Geithner, with the President's support – decreed that the total pay of any highly compensated employee in the affected firms could not exceed $10 million a year. This ceiling applied to the most highly compensated individuals regardless of their role or rank, so highproducing bankers and traders were constrained along with the members of senior management.[34] For most Americans, Feinberg's ceiling represented an unimaginable sum, reserved to the realm of movie stars, rock musicians, and the most highly paid professional athletes. But in finance, it often required severe pay cuts for people in the institutions that were subject to Feinberg's jurisdiction. By comparison with previous standards in the industry, Feinberg also severely limited the portion of compensation that could be paid in cash. These rulings stimulated robust efforts by the affected institutions to repay the government quickly, to limit the time they would spend under the compensation czar's jurisdiction.

In the wake of the crisis, debate continues as to whether there should be rules or guidelines for the structure of compensation in the financial services industry, and if so, what substantive norms should be applied. Proposals fall in several broad buckets.

- Some commentators and regulators advocate longer deferrals of incentive pay, stretching the 1- to 3-year vesting periods that have previously been typical in the industry to deferrals for as long as 5 years or, in some cases, as much as 10 years. Some would combine longer deferrals with holdbacks or clawbacks that would last for longer periods and apply if the relevant business unit or the company failed, suffered a loss, or received public assistance, or if the individual were found responsible for misconduct.[35]

- Before the crisis, industry practice favored modest levels of fixed compensation and higher levels of variable pay tied to performance standards, with outcomes based either on evaluation of individual performance or on the results delivered by the relevant business unit or by the company as a whole, depending on the individual's position. Deferred compensation was generally provided in the form of equity or options, on the theory that these vehicles most effectively align the interests of executives with those of the shareholders. Coming out of the crisis, however, and mindful of the breakdowns in risk management and the substantial losses that followed, many commentators and regulators have advocated less reliance on equity incentives. Some have proposed performance bonds under which the debt would be at risk if performance lags and could be recaptured to absorb losses, limiting the firm's potential need for further resort to taxpayer assistance in the future.

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[34] Kenneth R. Feinberg, WHO GETS WHAT: FAIR COMPENSATION AFTER TRAGEDY AND FINANCIAL UPHEAVAL (Public Affairs, 2012).
[35] There are indications that the major U.S. regulators are currently working on such guidelines under the mandate of the Dodd-Frank Act. WALL STREET JOURNAL (February 17, 2015, p. C1).

- With the experience of the crisis in mind, current proposals also tend to favor a shift toward higher levels of fixed salaries as a percentage of total compensation. In several institutions where fixed pay for senior executives previously tended to top out at $200,000 to $500,000, the ceiling has since been raised to $800,000 to $1 million or more, depending on the nature of the company's business profile and the patterns of compensation in its part of the financial system. A trend toward higher fixed salaries has been noticeable in systemically significant banks, and further movement in this direction is likely if regulators in the U.S. seek to place effective and enforceable limits on bonuses, as the EU has attempted to do.

- Finally, regulators, experts, and some business leaders have recommended the application of qualitative as well as quantitative measures of performance, so that an individual's compensation is determined – and can be "clawed back" – not only on the basis of business results, but also in light of his or her performance with respect to risk, compliance, and other controls, and in light of any involvement in unlawful conduct or ethical shortfalls. Although such proposals stand traditional "pay for performance" concepts on their head, their supporters argue that purely quantitative measures for equity grants, especially if unaccompanied by clawbacks, incentivize excessive risk-taking and fail to enforce accountability for maintaining effective controls and compliance.

Thus far, experience since the crisis reveals a moderate tempering of the high end of executive compensation in the financial sector, which has tended to mean "only" $12-25 million in total annual compensation for the CEOs of the major financial institutions, compared with the much greater sums that were common in the years before. This has also driven some compression between the compensation of CEOs and a limited number of other highly compensated executive officers, with less of a spread than was the typical in the pre-crisis period. The recent "constraints" on pay in large systemic financial institutions have not influenced compensation decisions in other sectors, such as media, entertainment or technology, where the pay for top executives is frequently much higher than in financial services, even in companies of much smaller size. Nor have they affected the earnings available to successful managers and employees in substantially unregulated financial alternatives, such as hedge funds, private equity and real estate funds. In those businesses, compensation formulas typically include an allocation of management fees based on the amount of assets and a "carried interest" equal to a sizeable percentage of profit, which scales powerfully if the managers are able to raise and successfully invest large amounts of client assets.

The extent to which changes in the size or structure of compensation actually influence an institution's culture and ethics is difficult to assess, and empirical research on this issue is still relatively thin. Advocates of structural rulemaking seem to be gaining ground, but it remains to be seen whether compensation decisions can be linked effectively to meaningful behavior standards. While it is doubtful that we will see substantive regulation of the amount of executive compensation in the financial industry in the U.S., process-based rules and rules or guidelines as to the structure and composition of pay may well emerge in the future.[36]

Finally, it should be noted that the high employee mobility that has long been characteristic of the financial industry exerts strong influence on both performance and compensation. Successful bankers, traders, managers and functional leaders are in great demand, and can often change jobs in pursuit of higher pay or enhanced opportunity for recognition and leadership. When they move from one firm to another, these people bring with them the cultural norms and values, and sometimes the behavioral patterns, of the places they worked before – a phenomenon that compounds the challenges faced by institutions seeking to create and sustain cultures of performance and ethics that are consistent with their own global values. Examples abound of cases in which business combinations or lateral hires of individuals or groups have given rise to cultural conflict and confused signals about acceptable behavior, standards that will actually be enforced, and conduct that needs to be curbed. Overall, with respect to both performance and behavior, the industry's record in lateral hiring is decidedly mixed. Successful lateral hiring requires extensive orientation and training on a company's cultural and behavioral norms and its expectations of those who are joining the firm midway through their careers. Clear articulation of these standards, and clear-eyed assessment of likelihood that a prospective lateral hire will be capable of meeting them, are as important as disciplined evaluation of the likelihood that quantitative performance goals will be met. More care is needed to make effective predictions in recruitment of laterals, and both management and the board should regularly look back to test these predictions after the hiring decisions are made.

Talent Management and Development

Prior to my time at Citigroup from 2005 to 2013, I was an advisor to many large companies and their senior managements and boards. I came away from my experience at Citi believing even more forcefully

[36] Lucian A. Bebchuk, Professor of Law and Director of the Corporate Governance Program, Harvard Law School, Testimony Before the Committee on Financial Services, U.S. House of Representatives, Hearing on Compensation in the Financial Industry, January 10, 2010; Council on Foreign Relations, Squam Lake Working Group on Financial Regulation, *"Regulation of Executive Compensation in Financial Services"* (February, 2010).

than I did before that the full range of people issues – the human resources and talent agenda – is the single most important responsibility of business leadership. For most companies, human capital, from the entry level to the boardroom, is the most significant resource. Although business leaders regularly claim to recognize this point, not all manage in accordance with it. Large companies, including systemically significant financial institutions, require sufficient capital, effective technology and coordinated systems, as well as productive facilities and equipment. But as has been demonstrated repeatedly in all kinds of evaluative exercises, their success turns to a considerable extent on the skills, culture, performance, and standards of behavior of their people.

While effective cultivation of human capital is a challenge for enterprises of all sizes, it is especially challenging in large, sprawling companies whose business activities reach across many countries, each of which has its own history, culture, and political and economic system. Given this reality, it is troubling that the Human Resources function (sometimes also known as Human Capital or Talent Management) is not more highly regarded and more developed as a profession whose excellence is understood to be as instrumental to corporate success as that of other functions. Each of the three CEOs with whom I worked at Citi believed in the importance of the human capital and talent agenda and took meaningful steps to advance it. During my tenure at the firm, the Human Resources function included about 3,000 employees working in 110 countries, who were engaged in every facet of talent management, and the function had three highly talented and respected leaders. Each of them upgraded the HR function at Citi and drove significant positive changes in talent management, including recruitment, promotion and training. The company invested in all types of training, from skills and knowledge to leadership, interpersonal relations, communications strategy, coaching and mentoring, and compensation and benefits. Other large financial institutions have demonstrated similar commitment to the training and development of talent. But despite the substantial records of focus and accomplishment at many firms, I believe that more can and should be done, not just in the top-tier Human Resources departments, but throughout the ranks of the business community.

Each time we took a step forward at Citi on development plans to realize the potential of employees, or registered improvements in diversity, or upgraded management skills in the businesses and functions around the world, we saw the benefit to the company and its stakeholders. But improving all of the elements of the human capital agenda requires constant effort – to ensure that every succession plan is thoughtfully developed and appropriately influences decision-making; to maintain a comprehensive development plan for every employee, and particularly for those with high potential to contribute valuable skills and leadership to the business; to ensure that managers provide thorough and well-crafted evaluations and performance reviews; and to provide all manner of special programs that increase employees' knowledge and understanding of their own jobs and of the businesses and functions across the company and around the world, and build their appreciation of the opportunities and challenges available to them as they advance in responsibility. Most important, constant effort and focus are necessary to ensure that every employee is treated fairly, evaluated objectively and on the merits, and receives all of the opportunity to advance and succeed that he or she can handle. Successful execution of this complex agenda is critical to meet the challenge of high performance with high integrity in a systemically significant financial institution, and an outstanding HR department can have great impact on the results.

Conclusion

In the next 5-10 years, it will be imperative for systemically significant financial institutions and their regulators to reinforce their responses to the lessons learned from the financial crisis. I believe this will require concerted action on several fronts.

1. Working together, they must make the individual reforms cohere into a comprehensive system that safeguards financial stability through stronger risk management, sufficient capital and liquidity adjusted for risk, and geographic and product diversity.
2. They must build strong cultures that link high expectations for business performance with high and impregnable ethical standards.
3. They must strengthen the focus on the management and development of talent at all levels of the institutions and in regulatory supervision.
4. They must close the remaining gaps in regulation, including regulation of "shadow banking" activities, short term funding, and asset management funds that hold less liquid assets which are subject to redemptions on short notice.
5. In each significant area of regulation, they must persevere in their efforts to achieve convergence in regulatory standards across the major financial centers, particularly with respect to activities susceptible to regulatory arbitrage.

As Governor Daniel Tarullo recently observed, "We are all macroprudentialists now."[37] The experience of the past eight years suggests that the effort to improve both the quality of regulation and the quality of management and execution throughout the financial system will be an ongoing challenge. While no one can predict the timing or the triggers of the next financial crisis, we can and must act in a coordinated, thoughtful fashion to build a system that is capable of maintaining stability at times of severe stress while providing essential services through strong and effective financial intermediaries. The task is critical. Large international financial institutions have a unique capacity to deliver the services that are central to global economic growth and inclusive prosperity. In a world in which these goals appear increasingly elusive, the health of the global financial system is all the more important.

[37] Daniel K. Tarullo, *"Advancing Macroprudential Policy Objectives,"* Fourth Annual Conference on Macroprudential Tools, Office of Financial Research and Financial Stability Oversight Council, Arlington, Virginia (January 30, 2015).