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First, let me thank you for holding these hearings. The subject could not be more timely. Our financial system has failed us. A well-functioning financial system is essential for a well-functioning economy. The problems were predicted, and the still unfolding consequences are largely predictable. Millions are losing their homes, along with their life savings and their dreams for their future and the future of their children. Many who worked hard for a life time and had looked forward to retirement with a modicum of comfort face the remaining days of their lives with hardship and uncertainty. Many will not be able to send their children to college. Millions will lose their jobs as the economy goes deeper into recession. The private sector has already shed a million jobs (net) this year. We as a country will be less able to provide for any future contingency. The strength of our country depends on the strength of our economy. We have not only what are euphemistically called impaired mortgages, we have an impaired economy.

Behind this impaired economy are not just sub-prime mortgages, but, in the words of Professor Nouriel Roubini, a sub-prime financial sector. And part of the reason that it has performed so poorly is inadequate regulations and inadequate regulatory structures. Some have argued that we should wait to address these problems; we have a boat with holes, and we must first fix those holes. Later, there will be time to address these longer-run problems.

That view is wrong. The time to fix the regulatory problems is now, and that is why I especially congratulate you on holding these hearings.

Everybody agrees that a part of the problem today is a lack of confidence in our financial system. But how can there be a restoration of confidence when all we have done is to pour more money into the banks? We have simply given them more money to lend recklessly. We have changed neither the regulatory structures, the incentive systems, nor even those who are running these institutions—and who have demonstrated their inability to manage risk. As we taxpayers are pouring money into these banks, we have even allowed them to pour out money to their shareholders—who failed to exercise oversight over their executives.

To continue with the metaphor: We know the boat has a faulty steering mechanism and is being steered by captains who do not know who to steer, least of all in these stormy waters. Unless we fix both, there is a risk that the boat will go crashing on some other rocky shoals before reaching port.

This morning I want to describe briefly the principles, objectives, and instruments of a 21st century regulatory structure. Before doing so, I want to make two other prefatory remarks. The first is that reform of financial regulation must begin with a broader reform of corporate governance. Part of the problem is distorted incentive structures, including extensive use of stock options, which led to excessively short-sighted behavior and excessive risk taking. I have explained elsewhere how stock options provide incentives for bad accounting—of the kind that we have seen—moving activity off balance sheet. When Congress addressed the problems exposed in the Enron/Worldcom scandals, it didn't do anything about adequate disclosure of stock options. We need to correct that mistake, and to ask, more broadly, why is it that so many banks have employed incentive structures that have served stakeholders—other than the executives—so poorly?

The second remark is to renew the call to do something about the homeowners who are losing their homes and about our economy which is going deeper into recession. We cannot rely on trickle down economics—throwing even trillions at financial markets is not enough to save our economy. We need a package simply to stop things from getting worse, and a package to begin the recovery. We are giving a massive blood transfusion to a patient who is hemorrhaging from internal bleeding—but we are doing almost nothing to stop that internal bleeding.

We need a comprehensive recovery program. Given the mountain of debt accumulated over the past four years, there must be big bang for the buck—we must be sure that every dollar spent provides effective stimulus to the economy. And finally, the spending must be consistent with our vision of the future—we should seize this as an opportunity to undertake long postponed investments in education, technology, and infrastructure. Such spending can help transform our economy into the "green technology" of the future and help make us more competitive. We can strengthen our economy in the short run while at the same time promote long-term growth.

(Regrettably, the February stimulus package was too little, too late, and badly designed. It is no surprise that it did not work as its advocates hoped, and what limited effects it had were swamped by the subsequent increase in oil prices. Given the high level of household debt and the high level of insecurity, it is not surprising that large fractions of the money were saved or used to repay debt. This put households in a better position—but did not stimulate the economy. Besides, the problem with America is not that we consume too little, but too much; the rebates were designed to encourage that consumption binge, postponing the inevitable adjustment to some date in the future. By contrast, increased/extended unemployment benefits—with health care benefits to those who lose their jobs, critically important in our system where health insurance is employer provided—would have stimulated the economy far more in the short run, and increased infrastructure spending would have provided the basis for far stronger long-term growth.)

Some General Principles

We must begin with an understanding of the role of financial markets in our economy. It is hard to have a well-performing modern economy without a good financial system. However, financial markets are not an end in themselves but a means: they are supposed to perform certain vital functions which enable the real economy to be more productive, including mobilizing savings, allocating capital, and managing risk, transferring it from those less able to bear it to those more able. In America, and some other countries, financial markets have not performed these functions well: they encouraged spendthrift patterns, which led to near-zero savings; they misallocated capital; and instead of managing risk, they created it, leaving huge risks with ordinary Americans who are now bearing huge costs because of these failures.

These problems have occurred repeatedly and are pervasive, evidence that the problems are systemic and systematic. And failures in financial markets have effects that spread out to the entire economy.

We thus have to understand why markets have failed so badly and what can be done about these failures. Markets only work well when private rewards are aligned with social returns. Incentives matter, but when incentives are distorted, we get distorted behavior. In spite of their failure to perform their key social functions, financial markets have garnered for themselves in the US and some of the other advanced industrial countries 30% or more of corporate profits—not to mention the huge compensation received by their executives. But the problem with incentive structures is not just the level but also the form—designed to encourage excessive risk taking and short-sighted behavior.

The success of a market economy requires not just good incentive systems but good information—transparency. (This is, of course, the subject of the research for which I was awarded the Nobel Memorial Prize.) But there are often incentives, especially in managerial capitalism (where there is a separation of ownership and control), for a lack of transparency. Problems of lack of transparency are pervasive in financial markets, and those in financial markets have resisted improvements, such as more transparent disclosure of the costs of stock options. Stock options in return have provided incentives for accounting that increases reported profits—incentives for distorted and less transparent accounting. For instance, they put liabilities off-balance sheet, making it difficult to assess accurately their net worth.

Some of the "innovations" in the market, e.g. securitization and derivatives, in recent years have made these problems worse. Securitization has created new asymmetries of information. In the old days, those originating mortgages held on to them; banks knew the families to whom they had lent money. When there was a problem in repayment, they could understand its nature and work with the family on a payment plan. It was in everyone's interest for the family not to be thrown out into the street. Securitization was based on the premise that a "fool was born every minute." Globalization meant that there was a global landscape on which they could search for those fools—and they found them everywhere. Mortgage originators didn't have to ask, is this a good loan, but only, is this a mortgage I can somehow pass on to others.

Our financial markets have not only exploited these information asymmetries, but they have often also exploited the uninformed and the poorly educated. This is part of the reason for the need for strong consumer and investor protection. It is not a surprise that the problems first occurred in the sub-prime market, among less educated and lower income individuals. There was extensive predatory lending, and financial markets resisted laws restricted these abusive practices.

There is a third element of well-function markets—competition. But information imperfections often limit the extent of competition. In many markets, small and medium size businesses have access to only one or two lenders. That is part of the reason that bank failures are of such a concern: as the bank fails, information about credit worthiness held within these institutions is destroyed, and it will take time to recreate. In the meanwhile, access to credit may be limited.

America's financial markets have gone beyond these natural limitations of competition to engage in anti-competitive practices, especially in the area of credit cards. To be sure, the huge fees have helped absorb the losses from their bad lending practices, but the fact that the profits are so huge should be a signal that the market has not been working well.

In this case, the failure to have strong competition enforcement has had another consequence: we have "discovered" that there are a number of institutions that are so large that they are too big too fail. We, and they, knew that before; we, and they, knew what that implied: it provided an incentive to engage in excessively risky practices. It was a heads I win—they walk off with the profit—tails you lose—we, the taxpayers, assume the losses, because we simply couldn't let them fail.

Even Adam Smith recognized that unregulated markets will try to restrict competition, and without strong competition markets will not be efficient. More recent research has shown that markets often fail to produce efficient outcomes (let alone fair or socially just outcomes) when information is imperfect or asymmetric—but information imperfections and asymmetries are at the center of financial markets. That is what they are about. Our financial markets have even worked hard to exacerbate these problems; as we have noted, they created non-transparent products that were so complex that not even those who created them fully understood the risks to which they gave rise.

And we should be clear—this non-transparency is a key part of the credit crisis that we have experienced over recent weeks.

Well-functioning markets require a balance between government and markets. Markets often fail, and financial markets have, as we have seen, failed in ways that have large systemic consequences. The deregulatory philosophy that has prevailed in many Western countries during the past quarter century has no grounding in economic theory or historical experience; quite the contrary, modern economic theory explains why the government must take an active role, especially in regulating financial markets.

Good regulation can increase confidence of investors in markets and thus serve to attract capital to financial markets. When, a hundred years ago, Upton Sinclair depicted graphically America's stockyards and there was a revulsion against consuming meat, the industry turned to government for regulation and to assure consumers that meat was safe for consumption. In the same way, regulatory reform would help restore confidence in our financial markets.

Government regulation is especially important because inevitably, when the problems are serious enough, there will be bail-outs. Bail-outs have been a pervasive aspect of modern financial capitalism. Financial markets have repeatedly mismanaged risk, at a great cost to taxpayers and society. This is only the latest and biggest of the bail-outs that have become a regular feature of our peculiar kind of capitalism. We had the S & L bailout and the host of bail-outs from Mexico to Argentina. And we should be clear, while they are labeled with the name of the country where they occurred, they have been Wall Street bail-outs. American investors received back all or most of their money from bad loans, while the taxpayers of these poor countries had to pay.

Government is, implicitly or explicitly, providing insurance. And all insurance companies need to make sure that either the premia they charge for the risks are commensurate with size of the risks, or that the insured do not take actions which increase the likelihood of the insured against event occurring.

Some have suggested: shouldn't depositors exercise due diligence over where they put their money, and if they do that, won't that solve the problem? Furthermore, some have argued that providing guarantees to depositors creates moral hazard. The argument that providing such deposit insurance gives rise to moral hazard is absurd. How can ordinary citizens monitor the banks when the rating agencies and government regulators with their teams of auditors have shown themselves not up to the task? When the banks admit that they don't know their own balance sheet and know that they don't know that of other banks to whom they might lend? That is the reason for the cessation of lending on the interbank market. Monitoring is, to use the technical term, a public good: we all benefit if it is known that a bank is in sound financial position, and like any public good, it should be publicly provided. (There is, of course, another argument, for deposit insurance: Without such deposit insurance there can be runs on the banking system. These arguments make it clear that there should not be limits on deposit insurance.[1])

[1] The irony is that typically, all depositors do get protected. But large depositors benefit, because they have not had to pay the full deposit insurance premium.

Regulations for the Twenty-first century

So far, I have tried to explain why we need regulations. Regulations are required to: (a) ensure the safety and soundness of individual financial institutions and the financial system as a whole; (b) protect consumers; (c) maintain competition; (d) ensure access to finance for all; and (d) maintain overall economic stability. In my remarks this morning, I want to focus on the outlines of a regulatory structure focusing on safety and soundness of our institutions and the systemic stability of our system.

In thinking about a new regulatory structure for the twenty-first century, we need to begin by observing that there are important distinctions between financial institutions that are central to the functioning of the economy system, whose failure would jeopardize the functioning of the economy and who are entrusted with the care of ordinary citizens' money, and those that provide investment services to the very wealthy. The former includes commercial banks and pension funds. These institutions must be heavily regulated in order to protect our economic system and the individuals whose money they are supposed to be taking care of. Consenting adults should be allowed to do what they like, so long as they do not hurt others. There needs to be a strong ring-fencing of these core financial institutions—they cannot lend money to or purchase products from less highly regulated parts of our financial system, unless such products have been individual approved by a Financial Products Safety Commission. (In the subsequent discussion, we will refer to these financial institutions as highly regulated financial entities.)

The fact that two investment banks have converted themselves into bank holding companies should be a source of worry. They argued that this would provide them a more stable source of finance. But they should not be able to use insured deposits to finance their risky activities. Evidently, they thought they could. It means that either prudential regulation of commercial banks has been so weakened that there is little difference between the two or that they believe that they can use depositor funds in their riskier activities. Neither interpretation is comforting.

Part of the agenda of ring-fencing—one which would have other side-benefits—is to restrict banks' dealing with criminals, unregulated and non-transparent hedge funds, and off-shore banks that do not conform to regulatory and accounting standards of our highly regulation financial entities and which have systematically been used for tax evasion, money laundering, and facilitating and encouraging drug dealing and corruption. Not doing so exposes our entire financial system to unwarranted risks. We have shown that we can do this when we want, when terrorism is the issue. But the safety and soundness of our financial system is also an important social objective. Without our connivance, for instance, these secret off-shore banks could not and would not survive.

Before describing the elements of a good regulatory structure, there are three other prefatory remarks.

First, there are always going to be asymmetries between regulators and the regulated—the regulated are likely to be better paid, and there are important asymmetries of information. But that does not mean that there cannot be effective regulation. The pay and skills of those innovating new drugs may be different from those that test their safety and efficacy; yet no one would suggest that such testing is either infeasible or undesirable. *But well-designed regulatory structures take into account those asymmetries—some regulations are easier to implement and more difficult to circumvent.*

There is always going to be some circumvention of regulations. However, that doesn't mean that one should abandon regulations. *A leaky umbrella may still provide some protection on a rainy day. No one would suggest that because tax laws are often circumvented, we should abandon them. Yet, one of the arguments for the repeal of Glass-Steagall was that it was, in effect, being circumvented. The response should have been to focus on the reasons that the law was passed in the first place, and to see whether those objectives, if still valid, could be achieved in a more effective way.*

This does mean, though, that one has to be very sensitive in the design of regulations.   Simple regulations may be more effective, and more enforceable, than more complicated regulations. Regulations that affect incentives may be more effective, and more enforceable, than regulations directed at the behaviors themselves.

It also means that regulations have to constantly change, both to keep up with changes in the external environment and to keep up with innovations in regulatory arbitrage.

Moreover, as we think of regulatory systems, we have to think both about constraints and incentives—the imposition of constraints to stop certain activities, or the provision of incentives to encourage financial institutions not to do certain things, e.g. undertake excessive leverage.

Key elements of a regulatory structure

Transparency

Discussions of regulation must begin with transparency and disclosure. America prided itself on having transparent financial markets, criticizing others (such as those in East Asia) for their failures. It has turned out that that is not the case. We need improved transparency and disclosure, in a form that is understandable to most investors.

Derivatives and similar financial products should neither be purchased nor produced by highly regulated financial entities, unless they have been approved for specific uses by a financial products safety commission (FPSC, discussed below) and unless their use conforms to the guidelines established by the FPSC. Regulators should encourage the move to standardized products. Greater reliance on standardized products rather than tailor-made products may increase transparency and the efficiency of the economy. It reduces the information burden on market participants, and it enhances competition (differentiating products is one of the ways that firms work to reduce the force of competition). There is a cost (presumably tailor-made products can be designed to better fit the needs of the purchasers), but the costs are less than the benefits—especially since there is evidence that in many cases there was less tailoring than there should have been.

Transparency regulation is, in fact, more complicated than often seems the case. Various aspects of the transparency agenda have long been opposed by those in the industry, and in some places, there are moves afoot to reduce transparency. For instance, some years ago, there was resistance by those in the financial industry to the introduction of more transparent and better auctions as a way of selling Treasury bills—for the obvious reasons. More recently, there was resistance to requirements for more transparent disclosure of the costs of stock options. Companies often do not report other aspects of executive compensation in a transparent way and typically do not disclose the extent to which executive compensation is correlated with performance. (Too often, when stock performance is poor, stock options are replaced with other forms of compensation, so that there is in effect little real incentive pay.) As I have noted, stock options provide incentives for corporate executives to provide distorted information. This may have played an important role in the current financial crisis. At the very least, there should be a requirement for more transparent disclosure of stock options.

Mark-to-market accounting was supposed to provide better information to investors about a bank's economic position. But now, there is a concern that this information may contribute to exacerbating the downturn. While financial markets used to boast about the importance of the "price discovery function" performed by markets, they now claim that market prices sometimes do not provide good information, and using transactional prices may provide a distorted picture of a bank's economic position. The problem is only partially with mark-to-market accounting; it also has to do with the regulatory system, which requires the provision of more capital when the value of assets is written down. Not using mark-to-market not only provides opportunities for gaming (selling assets that have increased in value while retaining those that have decreased, so that they are valued at purchase price), but it also provides incentives for excessive risk taking. Realizing that there is no perfect information system, it may be desirable to have both sets of information provided. But at the very least, we should not abandon mark-to-market accounting. Doing so would undermine confidence in our markets.

Part of improving transparency is to restrict—eliminate—off balance sheet transactions.

There also needs to be clear disclosure of conflicts of interest, and if possible, they should be restricted.

Regulating incentives

Although transparency and disclosure have been at the center of those calling for better regulation, it does not suffice. There are several other critical aspects of a good regulatory regime.

Regulating incentives is essential. The current system encourages excessive risk taking, a focus on the short term, and bad accounting practices.

Regulating incentives of managers is, as I have already noted, a key part of this agenda, including passing regulations that move us away from rewarding executives through stock options. Any incentive pay should be long-term—or least longer term than the current horizon. Bonuses should be based on performance over at least a five year period. If part of compensation is based on shorter term performance, there need to be strong clawback provisions. Any incentive pay system should not induce excessive risk taking, so that there should be limited asymmetries in the treatment of gains and losses. Any pay system that is claimed to be incentive-based should be demonstrably so. Average compensation and compensation of individual managers should be shown to be related to performance.

But there are at least three other system reforms. First, those who originate mortgages or other financial products should bear some of the consequences for failed products. There should be a requirement that mortgage originators retain at least a 20% equity share.

Secondly, it is clearly problematic for rating agencies to be paid by those that they rate and to sell consulting services on how ratings can be improved. Yet it is not obvious how to design alternative arrangements, which is why in many sectors inspections are publicly provided (such as the Food and Drug Administration). Competition among rating agencies can have perverse incentives—a race to the bottom. At the very least, rating agencies need to be more highly regulated. A government rating agency should be established.

Thirdly, we need to reduce the scope for conflicts of interest. Instead, they have expanded, e.g. by the repeal of the Glass-Steagall Act. (The effects were evident in the Worldcom and Enron scandals. The repeal had another unintended effect, more evident in the current crisis: the culture of risk taking that characterizes investment banks but is so inappropriate for commercial banks came to dominate.) But the sector is rife with conflicts of interest—there is, for instance, a clear conflict of interest when a mortgage originator also owns the company that appraises house values. This should be forbidden.

Curbing exploitive practices

Exploitive practices of the financial sector need to be curbed. The financial sector realized that there was money at the bottom of the pyramid, and they moved with all speed to ensure that it moved to the top. The exploitive practices include pay-day loans, predatory lending, and rent-a-furniture and similar scams. There needs to be a usury law (and this also applies to credit cards) limiting the effective rate of interest paid by users of the financial facility.

Curbing risky practices

Risky practices of the financial sector also need to be curbed. The worst practices were those that were simultaneously exploitive and risky—loans beyond people's ability to pay, involving repeated refinancing which generates large transactions costs. Many of these people, when they lose their home, they lose their life savings at the same time.

In the mortgage sector, variable rate mortgages in which payments can vary significantly (as opposed to variations in maturity) should be forbidden, at least for all individuals whose income is below a certain threshold. Practices which result in excessive transaction costs (entailing frequent refinancing of loans or mortgages) should be proscribed.

A simple regulation would have prevented a large fraction of the crises around the world—speed limits restricting the rate at which banks can expand, say, their portfolio of loans. Very rapid rates of expansion are typically a sign of inadequate screening. As we noted earlier, there are seldom hundred dollar bills lying on the ground. There was a reason that banks in the past did not make loans that exceeded 90% of the value of the collateral. There was a reason that banks required documentation.

There are several alternatives to speed limits imposed on the rate of expansion of assets: Increased capital requirements, increased provisioning requirements, and/or increased premia on deposit insurance for banks that increase their lending (lending in any particular category) at an excessive rate can provide incentives to discourage such risky behavior.

We have already discussed the desirability of restrictions on derivatives as part of the transparency agenda. Such restrictions may, at the same time, be part of the "curbing excess risk taking agenda." Such products (particularly standardized products) can, in certain instances, be part of risk management, e.g. used to offset foreign exchange risk. But banks' involvement in these went beyond laying off risk. They were gambling, and that kind of activity should be restricted.

Excessive leverage has also played a big role in this (as in many other) financial crises. Commercial banks and similar institutions have to have adequate capital and provisioning of risks. But capital adequacy rules have to be carefully designed. Capital adequacy standards/provisions (reserves) have to be designed to be countercyclical. Otherwise, there is a risk that they will contribute to cyclical fluctuations. The decrease of asset values in a downturn can force cutbacks in lending, exacerbating the downturn; and in the boom, the asset price increases allow more lending. On both sides, cyclical fluctuations are amplified.

Many, looking for simple and simplistic rules, hoped that capital adequacy requirements would be all that was required—a minimal intervention in the market by those believing in free markets but recognizing that free banking has been a disaster everywhere that it has been tried. Capital adequacy standards alone, however, do not suffice; indeed, increasing capital adequacy standards may lead to increased risk taking. Moreover, while government provision of capital may provide a buffer against bankruptcy, so long as management focuses on the returns to themselves and non-governmental shareholders, depending on the form of the provision of capital, risks of excessive risk taking may not be mitigated. Capital adequacy standards are not a substitute for close supervision of the lending and risk practices of banks. Banks will have an incentive to engage in regulatory and accounting arbitrage, and regulators must be alert to this possibility. They must have sufficient authority to proscribe such behavior. Bad lending practices may increase in cyclical downturns; this necessitates closer supervision at such times. Regulators also have to be particularly sensitive to the risks of increasing leverage in booms.

Regulators need to be aware of the risks posed by various practices within the financial system which contribute to risk and cyclicity (cyclical movements in leverage, pricing, and rating of rating agencies). These can be offset by countercyclical capital adequacy/provisioning requirements; cyclically adjusted limits on loan-to-value ratios and/or rules to adjust the values of collateral for cyclical price variations.

Better designed provision requirements may help stabilize the financial system. Banks should be required to make compulsory provisions for bond defaults. Banks should put up provisions (reserves) when loans are disbursed rather than when repayments (or, rather the lack of repayments) are expected. Such arrangements will reduce the cyclical patterns that have long been a part of credit market behavior.

Regulatory Institutions

Part of the problems we have seen in our financial markets is the failure to fully use regulatory powers and to adequately enforce existing rules. Our regulatory institutions have failed us. The Fed had regulatory authority that it failed to exercise—until after it was too late, closing the barn door after the horses were out. It is not surprising: if government appoints as regulators those who do not believe in regulation, one is not likely to get strong enforcement.

It is clear that we need a reform of our regulatory structures. In the paragraphs below, I describe some of the general principles and make some remarks about specific institutional design.

The problems of enforcement mean that we have to design robust regulatory systems, where gaps in enforcement are transparent. Relatively simple regulatory systems may be easier to implement and more robust. There needs to be sensitivity to the risk of regulatory capture. It may also be optimal to have duplicative regulatory systems: the costs of a mistake overwhelm the extra costs of regulation. And one must guard against regulatory competition—allowing a choice of regulators, which can lead to a race to the bottom.

Regulatory capture is not just a matter of "buying" regulators, or even of "revolving doors," but also of the capture of ideas and mindsets. If those who are supposed to regulate the financial markets approach the problem from financial markets' perspectives, they will not provide an adequate check and balance. But much of the inadequacy of current regulations and regulatory structures is the result of financial markets' political influence, in many countries through campaign contributions. These deeper political reforms, including campaign finance reform, are an essential part of any successful regulatory reform.

The regulatory system needs to be comprehensive; otherwise funds will flow through the least regulated part. Transparency requirements on part of the system may help ensure the safety and soundness of that part of the system but will provide little information about systemic risks. This has become particularly important as different institutions have begun to perform similar functions.

That is why there is a need for a *financial markets stability commission,* having oversight of the entire financial system and providing integrated regulation of each of the parts of the system.

Such a commission would also look carefully at the interrelations among the parts of the system. Modern financial markets are complex, with complex interrelations among different institutions of different kinds, evidenced in the current crisis. A Financial Markets Stability Commission (FMSC) would assess over-all risks, looking at the functioning of the entire financial system and how it would respond to various kinds of shocks; in contrast, the Financial Products Safety Commission (discussed more fully below) would look at individual products and judge their appropriateness for particular classes of purchasers. Such a Commission should have identified, for instance, the risk posed by the breaking of the housing bubble. All of the regulatory authorities (those regulating securities, insurance, and banking) should report to the FMSC. We have seen how all financial institutions are interconnected and how an insurance firm became a systemic player. Similar functions can be performed by different kinds of institutions. There also needs to be oversight over the entire system to avoid regulatory arbitrage.

Anyone looking at our overall financial system should have recognized not only the problems posed by systemic leverage, but also the problems posed by distorted incentives. But incentives also play a role in failed enforcement and help explain why self-regulation does not work. Those in financial markets had incentives to believe in their models—they seemed to be doing very well. There was a party going on, and no one wanted to be a party pooper. That's why it's absolutely necessary that those who are likely to lose from failed regulation—retirees who lose their pensions, homeowners who lose their homes, ordinary investors who lose their life savings, workers who lose their jobs—have a far larger voice in regulation. Fortunately, there are very competent experts who are committed to representing those interests.

In designing regulatory structure, there is another point that is critical: There are large distributional consequences of financial policies (both macro-economic and regulatory). They cannot be delegated to technocrats but are an essential part of the political process.

While the economy needs a well-functioning financial system, what is in the interest of financial markets may not be in the interest of workers or small businesses. There are trade-offs. For instance, the Fed's responsibility is not to maximize the well-being of financial markets; their mandate is broader. It is important that those broader interests be better reflected in institutional design.

The Fed is too closely connected with financial markets to be the sole regulator. Some worry about the cost of duplication. But when we compare the cost of duplication to the cost of damage from inadequate regulation—not just the cost to the taxpayer of the bail-outs but also the costs to the economy from the fact that we will be performing well below our potential—it is clear that there is no comparison. But in its role in ensuring economic stability, the Fed will have to be one of the regulators. The Fed has performed abysmally. Not only did it not do what it should have done to prevent the crisis, but it arguably contributed to the crisis. And it has not had an exactly steady hand in responding to the unfolding events.

Part of the reason for the Fed's failure is that it has focused excessively on price stability—though to be sure, the mandate that we give the Fed (inflation, growth and employment) has resulted in a broader focus than in many other countries. The role of the Fed is not just to maintain price stability but to promote growth and high employment. It seemed to think that maintaining low inflation/stable prices was necessary and almost sufficient for economic stability and growth. But in fact, a single-minded focus on price stability may actually lead to greater economic instability, which requires a sound financial system. The Fed and central bankers around the world were focusing on second order inefficiencies associated with low inflation, as problems of financial market instability grew—with the resulting real loss of output and economic inefficiency that were so much larger.

Part of a new regulatory structure for the twenty first century should be a *Financial Products Safety Commission*. This would assess the risks of particular products and determine their suitability for particular users. Many of these products were allegedly designed for managing particular risks, but the people buying those products did not face the risks for which they were designed. They thus increased the overall risks which they faced. There should be a presumption that financial markets work fairly well, and as a result there are no free lunches to be had. Financial innovations that are defended as reducing transactions costs, but instead lead to increased fees for financial institutions, should be suspect. The Financial Products Safety Commission would also look at the pricing of these products. Many new financial products (derivatives) were sold as lowering transactions costs and providing new risk arbitrage opportunities, but pricing was based on information provided by existing assets, and they succeeded in generating huge fees.

Concluding comments

I want to conclude my remarks by returning to my original theme—we need to make our financial system work better. That will require more than just the reforms of financial market regulations and regulatory structures.

I noted that there has to be an alignment of private rewards and social returns. Those who impose costs on others (externalities) must be forced to pay those costs. This is not just a matter of equity; it is a matter of economic efficiency. More generally, costs of the regulation and bailing out of financial systems are part of the costs of financial intermediation. There is a presumption that efficiency requires that these costs be borne within the sector. In environmental economics, there is a basic principle, called the polluter pays principle. Wall Street has polluted our economy with toxic mortgages. It should now pay for the cleanup.

Moreover, financial behavior is affected by many other parts of our tax and legal structures. Financial market reform cannot be fully separated from reform in these other laws. Earlier, I talked about the need for reforming corporate governance and stronger and more effectively enforced anti-trust laws. Our tax laws too have played a role in the current debacle. In spite of the new complexities resulting from the so-called innovation, this financial crisis is similar to many in the past—there has been excessive leverage. Tax laws encouraged leveraging. For this and other reasons we need to rethink the preferential treatment given to capital gains. So too, new bankruptcy laws that made it more difficult for the poor to discharge their debts may have encouraged predatory lending practices. Reform in our bankruptcy law—including a new homeowners' chapter 11—would help us in dealing with the rash of foreclosures and provide incentives against bad lending in the future.

Financial markets have become global. We exported our toxic mortgages abroad; had we not done so, the problems here at home would be even worse. But with open financial markets, there is a risk in the future that we might import toxic products produced abroad, unless other countries undertake serious regulatory reform as well. It is hard to see how our national financial market could work if we had to rely on 50 separate uncoordinated state regulators. Yet that is what we are, in effect, trying to do at the global level. There is a further danger: a race to the bottom, as each country believes that it can attract finance to its borders by deregulation. That view is wrong and dangerous. Investors want to put their money in financial markets that are well-regulated.

They want to be sure that there is a level playing field, that they won't be cheated. In the past, one of the reasons that capital flowed to the U.S. was because they believed our financial markets were well-regulated and that they worked well. Today, they have little confidence that this is the case.

It would be best if we could get an agreement on a global regulatory structure. At the very least, we should strive for a modicum of harmonization. We are at a "Bretton Woods moment," a moment where the international community may be able to come together, put aside parochial concerns and special interests, and design a new global institutional structure for the twenty first century. It would be a shame if we let this moment pass.

But we cannot let reform of our own regulatory structure wait on the outcome of international discussions. We can show leadership by showing what a good, comprehensive regulatory reform might look like. We can have good regulation in our country, even if others do not immediately follow. But that may well entail restricting dealings with those that have inadequate regulatory structures, as I have already suggested.

Finally, I want to address the question: will regulation, of the kind I have suggested, stifle innovation? I would argue that, to the contrary, it may encourage *real* innovation. The fact of the matter is that most of our financial market's creativity was directed to circumventing regulations through creative accounting so that no one, not even the banks, knew their financial position, and tax arbitrage. Meanwhile, the financial system didn't make the innovations which would have addressed the real risks people face—such as how to stay in their homes when interest rates changed—and indeed, have resisted many of the innovations which would have increased the efficiency of our economy. Elsewhere, there has been real innovation—the Danish mortgage market is an excellent example, with low transaction costs and much greater security. To be sure, within America's financial sector, there have been important innovations, like venture capital firms. But this represents a small part of our financial sector, and today this innovative sector may be facing difficulties, another part of the collateral damage from the misdeeds of the rest of the financial sector. By restricting the scope for the kinds of "innovations" that have contributed not to economic growth but to economic instability—the liar loans, the financial alchemy that purported to be able to convert F rated sub-prime mortgages into products safe enough to be held by commercial banks or pension funds—hopefully this creative energy will be diverted to more constructive uses.

Good financial institutions are essential to a well-performing economy. Our financial institutions have failed us, with the predictable and predicted consequences. Part of the reason is inadequate regulations and regulatory structures. We can, we must do better, much better than we have in the past.