MY LOSING BATTLE AGAINST THE LEVIATHAN

(Public interventions of a desperate free-market economist)

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Preface

The last several months have been a very sad time for an economist like me who believes in capitalism and the free enterprise system. Not only have I had to witness the tragic economic consequences due to a lack of accountability at the corporate level, but I had to observe the government intervene in ways that deeply undermine the market economy, scaring away private capital. Last but not least, I had to witness economists abandon their principles and enter in a competition on who advocates the biggest waste of taxpayers' money.

As a free-market economist I could not sit silent on the sideline while my temple was destroyed. I felt a moral duty to shout my reasons. Regardless of my ability to be heard and change outcomes, I could not continue doing my research without trying to defend the sound economic principles I believe in. The essays that ensue are the result of this desperate effort. Written at different times during the last several months with various audiences in mind, these essays share a common purpose: find a solution to the current crisis that preserves the fundamental incentives of the free market economy and minimize the cost for taxpayers. The principles that inspire these writings are simple. First, the market is the best mechanism we know to allocate resources. Best does not mean perfect. There are occasionally situations where a modest government intervention may improve efficiency. Before advocating this intervention, however, we economists must be clear on what the source of the market failure is that justifies this intervention and limit it to the extent of this failure. Doing otherwise will risk throwing out the baby with the bath water. And we need to make sure that the long term costs of this intervention do not outweigh the benefits. As in medicine so in economic policy the first principle should be "do no harm."

There is no better subject to illustrate these principles than the real estate market. In this area the market failure is neither the falling of real estate prices nor the fact that people who cannot afford to live in their houses are forced out. Market prices adjust to direct the allocation of resources and foreclosure is a sad but necessary mechanism to address mistakes in resource allocation. The real inefficiency is that people who can afford living in their house at the current price are induced to default. They default because the way the purchase was initially financed makes it more attractive for them to leave than to stay. As the evidence suggests, houses lose between 30 and 50 percent of their value in foreclosure. Thus, unnecessary foreclosures are extremely costly. In the old days, when the mortgage was granted by your local bank, this inefficiency was eliminated through direct renegotiation. Today, securitization makes this renegotiation almost impossible. Thus, government intervention should not aim at supporting house prices, but at facilitating renegotiation in the most cost effective way. This is what the approach I propose in my "Plan B" article tries to achieve.

In thinking how to help renegotiation, the intervention should be mindful of possible long term effects. A system that makes it "too easy" for the homeowners to eliminate debt might have very negative effects on future ability to borrow. For this reason, my proposal transfers part of the value of the future appreciation of the house to the lenders, to minimize their loss.

I do not expect my proposed solutions to be perfect. They can certainly be improved upon. What is important is the spirit that motivates them: a desire to help improve the economic situation without destroying the market mechanisms that made this country rich.*

* I would like to thank Peggy Eppink and Erika Morey for their help in putting this compilation of articles together. Furthermore, I would like to thank Peggy Eppink for her invaluable editorial help in most of these articles.

Why Paulson is Wrong
The Economists' Voice (2008): Vol. 5: Iss. 5, Article 2

Luigi Zingales
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When a profitable company is hit by a very large liability, as was the case in 1985 when Texaco lost a $12 billion court case against Pennzoil, the solution is not to have the government buy its assets at inflated prices: the solution is Chapter 11. In Chapter 11, companies with a solid underlying business generally swap debt for equity: the old equity holders are wiped out and the old debt claims are transformed into equity claims in the new entity which continues operating with a new capital structure. Alternatively, the debtholders can agree to cut down the face value of debt, in exchange for some warrants. Even before Chapter 11, these procedures were the solutions adopted to deal with the large railroad bankruptcies at the turn of the twentieth century. So why is this well-established approach not used to solve the financial sectors current problems?

The obvious answer is that we do not have time; Chapter 11 procedures are generally long and complex, and the crisis has reached a point where time is of the essence. If left to the negotiations of the parties involved this process will take months and we do not have this luxury. However, we are in extraordinary times and the government has taken and is prepared to take unprecedented measures. As if rescuing AIG and prohibiting all short-selling of financial stocks was not enough, now Treasury Secretary Paulson proposes a sort of Resolution Trust Corporation (RTC) that will buy out (with taxpayers' money) the distressed assets of the financial sector. But, at what price?

If banks and financial institutions find it difficult to recapitalize (i.e., issue new equity) it is because the private sector is uncertain about the value of the assets they have in their portfolio and does not want to overpay. Would the government be better in valuing those assets? No. In a negotiation between a government official and banker with a bonus at risk, who will have more clout in determining the price? The Paulson RTC will buy toxic assets at inflated prices thereby creating a charitable institution that provides welfare to the rich—at the taxpayers' expense. If this subsidy is large enough, it will succeed in stopping the crisis. But, again, at what price? The answer: Billions of dollars in taxpayer money and, even worse, the violation of the fundamental capitalist principle that she who reaps the gains also bears the losses. Remember that in the Savings and Loan crisis, the government *had* to bail out those institutions because the deposits were federally insured. But in this case the government *does not have* do bail out the debtholders of Bear Sterns, AIG, or any of the other financial institutions that will benefit from the Paulson RTC.

Since we do not have time for a Chapter 11 and we do not want to bail out all the creditors, the lesser evil is to do what judges do in contentious and overextended bankruptcy processes: to cram down a restructuring plan on creditors, where part of the debt is forgiven in exchange for some equity or some warrants. And there is a precedent for such a bold move. During the Great Depression, many debt contracts were indexed to gold. So when the dollar convertibility into gold was suspended, the value of that debt soared, threatening the survival of many institutions. The Roosevelt Administration declared the clause invalid, *de facto* forcing debt forgiveness. Furthermore, the Supreme Court maintained this decision. My colleague and current Fed Governor Randall Koszner studied this episode and showed that not only stock prices, but bond prices as well, soared after the Supreme Court upheld the decision. How is that possible? As corporate finance experts have been saying for the last thirty years, there are real costs from having too much debt and too little equity in the capital structure, and a reduction in the face value of debt can benefit not only the equityholders, but also the debtholders.

If debt forgiveness benefits both equity and debtholders, why do debtholders not voluntarily agree to it? First of all, there is a coordination problem. Even if each individual debtholder benefits from a reduction in the face value of debt, she will benefit even more if everybody else cuts the face value of their debt and she does not. Hence, everybody waits for the other to move first, creating obvious delay. Secondly, from a debtholder point of view, a government bail-out is better. Thus, any talk of a government bail-out reduces the debtholders' incentives to act, making the government bail-out more necessary. As during the Great Depression and in many debt restructurings, it makes sense in the current contingency to mandate a partial debt forgiveness or a debt-for-equity swap in the financial sector. It has the benefit of being a well-tested strategy in the private sector and it leaves the taxpayers out of the picture. But if it is so simple, why no expert has mentioned it?

The major players in the financial sector do not like it. It is much more appealing for the financial industry to be bailed out at taxpayers' expense than to bear their share of pain. Forcing a debt-for-equity swap or a debt forgiveness would be no greater a violation of private property rights than a massive bailout, but it faces much stronger political opposition. The appeal of the Paulson solution is that it taxes the many and benefits the few. Since the many (we, the taxpayers) are dispersed, we cannot put up a good fight in Capitol Hill; while the financial industry is well represented at all the levels. It is enough to say that for 6 of the last 13 years, the Secretary of Treasury was a Goldman Sachs alumnus. But, as financial experts, this silence is also our responsibility. Just as it is difficult to find a doctor willing to testify against another doctor in a malpractice suit, no matter how egregious the case, finance experts in both political parties are too friendly to the industry they study and work in.

The decisions that will be made this weekend matter not just to the prospects of the U.S. economy in the year to come; they will shape the type of capitalism we will live in for the next fifty years. Do we want to live in a system where profits are private, but losses are socialized? Where taxpayer money is used to prop up failed firms? Or do we want to live in a system where people are held responsible for their decisions, where imprudent behavior is penalized and prudent behavior rewarded? For somebody like me who believes strongly in the free market system, the most serious risk of the current situation is that the interest of few financiers will undermine the fundamental workings of the capitalist system. The time has come to save capitalism from the capitalists.

Let's Get the Bank Rescue Right
Wall Street Journal; September 24, 2008

R. Glenn Hubbard (Columbia University), Hal S. Scott (Harvard) and Luigi Zingales (University of Chicago Booth School of Business)

The financial system is the heart of our economy and it is in trouble. If we do not fix it soon, we risk a serious recession.

The Bush administration appears to understand the urgency, but the draft legislation it put forward over the past week is cause for concern. Under the administration plan, the secretary of the Treasury would have unprecedented and unfettered power to spend $700 billion in purchasing mortgage-related assets from U.S. and possibly foreign financial institutions. The definition of "financial institution" seems to be expanding to include hedge funds and other investors. While Congress clearly understands the urgency of passing legislation to avoid a financial meltdown, some hard questions need to be answered before taking this radical step.

The administration's announced willingness to take bold action should temporarily stabilize the market. If the Fed continues its aggressive lending and announces that any further failures of institutions would be appropriately handled, there will not be Armageddon. We would then have the opportunity to ponder our next move, without rushing a plan through Congress that will affect both the financial system and taxpayers for decades to come.

Any solution should observe three guiding principles: It should (1) restore the stability of the financial system quickly and at the lowest possible cost to the taxpayer; (2) punish those who are responsible for losses; and (3) address the root cause of the crisis -- the price collapse in the residential real-estate market. In doing so, the solution should respect the rule of law by spelling out the proposal in sufficient detail for the Congress and the electorate to pass judgment. To the extent possible, it should follow proven precedents.

The administration's current proposal fails to meet these principles. The Treasury's plan has three significant problems:

First, there is the central issue of how to price the assets. When the subprime crisis hit in the summer of 2007, the Treasury's first response was to encourage the private sector to create a fund -- the so-called "Super SIV" (structured investment vehicle) -- to buy mortgage-related assets. This proposal foundered due to the difficulty of setting a price for these assets which come in complex and incomparable varieties.

Subsequent efforts to establish a price have not been successful. In fact, markets have frozen up largely due to the difficulty of pricing them. The Treasury plan does create a large and willing buyer, an element missing in the markets until now. But at what price? If Treasury pays close to par, (as Fed Chairman Ben Bernanke seemed to suggest at the Senate hearing yesterday), it is paying far too much. If it pays current prices, no one will sell due to the impact on their capital. If it pulls a price out of a hat, it will be acting arbitrarily. The proposal needs to articulate the price-setting process.

Although a reverse auction has been suggested, with asset holders "bidding" to sell their mortgage-related securities to the Treasury, such an approach raises significant problems. Most significant is the risk posed by asymmetric information regarding the value of these securities.

Because the holders of complex and incomparable mortgage-related securities have more information regarding their worth than does Treasury, Treasury is at a huge disadvantage and will likely overpay. Moreover, there will have to be many auctions of very different securities. All of this will take time to effectuate. These auctions cannot be done next week. A second issue is whether we are better served by buying assets or institutions. The stand-alone purchase of mortgage-related assets from solvent as well as struggling financial institutions, as contemplated by the current Treasury plan, raises two basic concerns. In principle, why should losses (particularly in solvent institutions) be borne by taxpayers rather than the shareholders and debt holders? The bill put forward by Sen. Christopher Dodd on Monday somewhat mitigates this concern. It gives the Treasury contingent equity or debt interests in the financial institutions from which it purchases distressed assets in the event Treasury loses money on the resale of the assets. The Treasury's plan also provides flexibility to take this approach, and we would urge the secretary to take advantage of that flexibility if this proposal were to pass.

How can we design a transparent asset purchase process that avoids arbitrariness and potential favoritism? Any such process will have to be designed from scratch, because there is no U.S. precedent for such a targeted purchase of bad assets. The Resolution Trust Corporation and the Depression-era Reconstruction Finance Corporation both entailed government ownership of failed institutions.

The final problem is potential cost. The costs to the U.S. economy of inaction are large, with potentially significant drops of economic activity in credit-sensitive sectors and deterioration in the balance sheets of households, financial firms and nonfinancial businesses. The fiscal costs of inaction are also large, including a significant decline in business and household tax receipts, and increased federal spending due to automatic stabilizers.

The fiscal costs of action, however, are substantial. The Treasury has estimated a cost of $700 billion, and some prominent economists have estimated costs exceeding $1 trillion. The actual cost could even be larger. It is estimated that some $1.4 trillion in non-Agency backed mortgage-related securities were outstanding at the end of 2007, not including unsecuritized mortgages. Efficient institutional design can reduce the share of costs borne by taxpayers, while repairing the financial system's ability to match borrowers and lenders and provide risk-sharing, liquidity and information services. Keeping costs down is important, as such a large increase in taxpayer support will constrain significantly, if not overwhelmingly, the fiscal initiatives of the next president.

Bold action can be designed with lower costs to taxpayers, while accomplishing the goals Treasury Secretary Henry Paulson has laid out. Elected officials should act quickly – but carefully.

Mr. Hubbard, dean of Columbia Business School, was chairman of the Council of Economic Advisers under President George W. Bush. Mr. Scott is professor of international financial systems at Harvard Law School. Mr. Zingales is professor of finance at the Booth School of Business at the University of Chicago.

The following is a petition that was created and circulated by Professor Paola Sapienza of Northwestern University and Professors John Cochrane and Luigi Zingales, both of the University of Chicago Booth School of Business. In total, it includes the signatures of 100 professors from several universities.

(This letter was sent to Congress on Wed Sept 24 2008 regarding the Treasury plan as outlined on that date. It does not reflect all signatories views on subsequent plans or modifications of the bill)

To the Speaker of the House of Representatives and the President pro tempore of the Senate:

As economists, we want to express to Congress our great concern for the plan proposed by Treasury Secretary Paulson to deal with the financial crisis. We are well aware of the difficulty of the current financial situation and we agree with the need for bold action to ensure that the financial system continues to function. We see three fatal pitfalls in the currently proposed plan:

1) Its fairness. The plan is a subsidy to investors at taxpayers' expense. Investors who took risks to earn profits must also bear the losses. Not every business failure carries systemic risk. The government can ensure a well-functioning financial industry, able to make new loans to creditworthy borrowers, without bailing out particular investors and institutions whose choices proved unwise.

2) Its ambiguity. Neither the mission of the new agency nor its oversight are clear. If taxpayers are to buy illiquid and opaque assets from troubled sellers, the terms, occasions, and methods of such purchases must be crystal clear ahead of time and carefully monitored afterwards.

3) Its long-term effects. If the plan is enacted, its effects will be with us for a generation. For all their recent troubles, America's dynamic and innovative private capital markets have brought the nation unparalleled prosperity. Fundamentally weakening those markets in order to calm short-run disruptions is desperately short-sighted.

For these reasons we ask Congress not to rush, to hold appropriate hearings, and to carefully consider the right course of action, and to wisely determine the future of the financial industry and the U.S. economy for years to come.

Plan B
The Economist's Voice (2008): Vol. 5 : Iss. 6, Article 4.

Luigi Zingales
Robert C. Mc Cormack Professor of Entrepreneurship and Finance
University of Chicago Booth School of Business

After pointing a gun to the head of Congress, threatening a financial meltdown in case his plan was not approved, Treasury Secretary Hank Paulson has finally arrived at the only logical conclusion: his plan will not work.

Desperate for a Plan B, Paulson is slowly warming to the suggestion of many economists: inject some equity into the banking system. Unfortunately, it is too little and too late. The confidence crisis currently affecting the financial system is so severe that only a massive infusion of equity capital can reassure the market that the major banks will not fail, recreating the confidence for banks to lend to each other. The piecemeal approach of 100 billion today, 100 billion tomorrow used with AIG will not work. It will only eat up the money, without achieving the desired effect—without reassuring the market that the worst is over. Simply stated, nothing short of a 5% increase in the equity capital of the banking system will do the trick. We are talking about 600 billion. Unfortunately, even if the government is willing to spend this kind of money, there are three problems.

First, to restore the necessary confidence, a capital infusion needs to reduce a financial institutions' risk of default to trivial levels. This implies transforming the existing, outstanding debt (roughly two trillion if we just count the long-term bonds) into safe debt. A large fraction of the equity injected will not go to generate new loans, but to provide this insurance to the existing debtholders. How much? We can estimate it by looking at the credit default swaps, which provide us with the cost of insuring the debt against default. At yesterday's prices, the cost of insuring the two trillion of outstanding long-term bonds outstanding would be more than 300 billion. Consequently, half of the capital the Government will invest in banks will not go to increase new loans, but to bail out Wall Street investors.

Second, a capital infusion does not address the root of the problem, which stems from the housing market. If homeowners continue to default and walk away from their houses, the banking sector will continue to bleed and additional equity infusions will be needed. More importantly, the very bailout plan, and the animosity it generates, will induce more homeowners who are sitting on a house with a negative equity value to walk away. Many of them will think: "Why do I have to play by the rules when Wall Street does not?"

This leads us to the third and most important problem. If we bail out Wall Street, why not bail out Detroit (probably another 150 billion) and Main Street? In fact, Senator McCain has already talked about buying out the defaulted mortgages to keep people in their homes. Even if we limit ourselves only to the subprime mortgages, we are talking about $1.3 trillion. Where do we stop? We need a different solution: a Plan B. A plan that minimizes the money the Government uses in bailing out Wall Street and Main Street to save our precious dollars for a stimulus package, which will be essential to restarting the economy.

Rescuing Main Street
Suppose that you bought a house in California in 2006. You paid $400,000 with only 5% down. Unfortunately, during the last two years the value of your house dropped by 30%; thus, you now find yourself with a mortgage worth $380,000 and a house worth $280,000. Even if you can afford your monthly payment (and you probably cannot), why should you struggle to pay the mortgage when walking away will save you $100,000, more than most people can save in a lifetime? However, when the homeowner walks away, the mortgage holder does not recover $280,000. The foreclosure process takes some time during which the house is not properly maintained and further deteriorates in value. The recovery rate in standard mortgage foreclosures (which will not take place in the middle of the worst crisis since the Great Depression) is 50 cents per dollar of the mortgage. I am generous in estimating that under the current conditions it might recover 50 cents per dollar of the appraised value of the house; right now, it is only 37 cents per dollar of the mortgage, which given a house appraised at $280,000 equals only $140,000 for the mortgage holder. In other words, foreclosing is costly for both the borrower and the lender. The mortgage holder gains only half of what is lost by the homeowners, due to what we economists call underinvestment: the failure to maintain the house.

In the old days, when the mortgage was granted by your local bank, there was a simple solution to this tremendous inefficiency. The bank forgave part of your mortgage; let's say 30%. This creates a small positive equity value—an

incentive—for you to stay. Since you stay and maintain the house, the bank gets its $266,000 dollars of the new debt back, which trumps the $140,000 that it was getting through foreclosure.

Unfortunately, this win-win solution is not possible today. Your mortgage has been sold and repackaged in an asset-backed security pool and sold in tranches with different priorities. There is disagreement on who has the right to renegotiate and renegotiation might require the agreement of at least 60% of the debt holders, who are spread throughout the globe. This is not going to happen. Furthermore, unlike your local bank, distant debt holders cannot tell whether you are a good borrower who has been unlucky or somebody just trying to take advantage of the lender. In doubt, they do not want to cut the debt for fear that even the homeowners who can easily afford their mortgage will ask for debt forgiveness.

Here is where government intervention can help. Instead of pouring money to either side, the government should provide a standardized way to re-negotiate; one that is both fast and fair. Here is my proposal.

Congress should pass a law that makes a re-contracting option available to all homeowners living in a zip code where house prices dropped by more than 20% since the time they bought their property. Why? Because there is no reason to give a break to inhabitants of Charlotte, North Carolina, where house prices have risen 4% in the last two years.

How do we implement this? Thanks to two brilliant economists, Chip Case and Robert Shiller, we have reliable measures of house price changes at the zip code level. Thus, by using this real estate index, the re-contracting option will reduce the face value of the mortgage (and the corresponding interest payments) by the same percentage by which house prices have declined since the homeowner bought (or refinanced) his property. Exactly like in my hypothetical example above.

In exchange, however, the mortgage holder will receive some of the equity value of the house at the time it is sold. Until then, the homeowners will behave as if they own 100% of it. It is only at the time of sale that 50% of the difference between the selling price and the new value of the mortgage will be paid back to the mortgage holder. It seems a strange contract, but Stanford University successfully implemented a similar arrangement for its faculty: the university financed part of the house purchase in exchange for a fraction of the appreciation value at the time of exit.

The reason for this sharing of the benefits is twofold. On the one hand, it makes the renegotiation less appealing to the homeowners, making it unattractive to those not in need of it. For example, homeowners with a very large equity in their house (who do not need any restructuring because they are not at risk of default) will find it very costly to use this option because they will have to give up 50% of the value of their equity. Second, it reduces the cost of renegotiation for the lending institutions, which minimizes the problems in the financial system.

Since the option to renegotiate offered by the American Housing Rescue & Foreclosure Prevention Act does not seem to have been stimulus enough, this recontracting will be forced on lenders, but it will be given as an option to homeowners, who will have to announce their intention in a relatively brief period of time.

The great benefit of this program is that provides relief to distressed homeowners at no cost to the Federal government and at the minimum possible cost for the mortgage holders. The other great benefit is that it will stop defaults on mortgages, eliminating the flood of houses on the market and thus reducing the downside pressure on real estate prices. By stabilizing the real estate market, this plan can help prevent further deterioration of financial institutions' balance sheets. But it will not resolve the problem of severe undercapitalization that these institutions are currently facing. For this we need the second part of the plan.

Rescuing Wall Street

The plan for Wall Street follows the same main idea: facilitating an efficient renegotiation. The key difference between the Main Street and Wall Street plans is in the ease of assessing the current value of the troubled assets. It is relatively easy to estimate the current value of a house by looking at the purchase price and at the intervening drop in value (per the Case and Shiller index). In banks, however, the lack of transparency makes this estimation very difficult. To avoid having to come up with this estimate, which would be a difficult process and one fraught with potential conflict of interests, we are going to use a clever mechanism invented twenty years ago by a lawyer economist, Lucian Bebchuk.

The core idea is to have Congress pass a law that sets up a new form of prepackaged bankruptcy that would allow banks to restructure their debt and restart lending. Prepackaged means that all the terms are pre-specified and banks could come out of it overnight. All that would be required is a signature from a federal judge. In the private sector the terms are generally agreed among the parties involved, the innovation here would be to have all the terms pre-set by the government, thereby speeding up the process. Firms who enter into this special bankruptcy would have their old equityhodlers wiped out and their existing debt (commercial paper and bonds) transformed into equity.
This would immediately make banks solid, by providing a large equity buffer. As it stands now, banks have lost so much in junk mortgages that the value of their equity has tumbled nearly to zero. In other words, they are close to being insolvent. By transforming all banks' debt into equity this special Chapter 11 would make banks solvent and ready to lend again to their customers.

Certainly, some current shareholders might disagree that their bank is insolvent and would feel expropriated by a proceeding that wipes them out. This is where the Bebchuk mechanism comes in handy. After the filing of the special bankruptcy, we give these shareholders one week to buy out the old debtholders by paying them the face value of the debt. Each shareholder can decide individually. If he thinks that the company is solvent, he pays his share of debt and regains his share of equity. Otherwise, he lets it go.

My plan would exempt individual depositors, which are federally ensured. I would also exempt credit default swaps and repo contracts to avoid potential ripple effect through the system (what happened by not directing Lehman Brothers through a similar procedure). It would suffice to write in this special bankruptcy code that banks who enter it would not be considered in default as far as their contracts are concerned.

How would the government induce insolvent banks (and only those) to voluntarily initiate these special bankruptcy proceedings? One way is to harness the power of short-term debt. By involving the short-term debt in the restructuring, this special bankruptcy will engender fear in short-term creditors. If they think the institution might be insolvent, they will pull their money out as soon as they can for fear of being involved in this restructuring. In so doing, they will generate a liquidity crisis that will force these institutions into this special bankruptcy.

An alternative mechanism is to have the Fed limit access to liquidity. Both banks and investment banks currently can go to the Federal Reserve's discount window, meaning that they can, by posting collateral, receive cash at a reasonable rate of interest. Under my plan, for the next two years only banks that underwent this special form of bankruptcy would get access to the discount window. In this way, solid financial institutions that do not need liquidity are not forced to undergo through this restructuring, while insolvent ones would rush into it to avoid a government takeover.

Another problem could be that the institutions owning the debt, which will end up owning the equity after the restructuring, might be restricted by regulation or contract to holding equity. To prevent a dumping of shares that would have a negative effect on market prices, it is enough to include a norm that allows these institutions two years to comply with the norm. This was the standard practice in the old days when banks, who could not own equity, were forced to take some in a restructuring.

The beauty of this approach is threefold. First, it recapitalizes the banking sector at no cost to taxpayers. Second, it keeps the government out of the difficult business of establishing the price of distressed assets. If debt is converted into equity, its total value would not change, only the legal nature of the claim would. Third, this plan removes the possibility of the government playing God, deciding which banks are allowed to live and which should die; the market will make those decisions.

Tomorrow is too late
The United States (and possibly the world) is facing the biggest financial crisis since the Great Depression. There is a strong quest for the government to intervene to rescue us, but how? Thus far, the Treasury seems to have been following the advice of Wall Street, which consists in throwing public money at the problems. However, the cost is quickly escalating. If we do not stop, we will leave an unbearable burden of debt to our children.

Time has come for the Treasury secretary to listen to some economists. By understanding the causes of the current crisis, we can help solve it without relying on public money. Thus, I feel it is my duty as an economist to provide an alternative: a market-based solution, which does not waste public money and uses the force of the government only to

speed up the restructuring. It may not be perfect, but it is a viable avenue that should be explored before acquiescing to the perceived inevitability of Paulson's proposals.

Cramdown: How to Fix the Credit Mess Without a Government Bailout: Quickie Bankruptcies.
Forbes; October 27, 2008

Luigi Zingales
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Countless kibitzers told Hank Paulson that there was a better way to rescue the financial system than to buy up bad mortgage paper. Many believed the government should buy preferred stock, the way Warren Buffett is doing. Here's a third way to end the crisis. It's simple and it doesn't cost taxpayers a dime. My proposal is to streamline bankruptcy in a way that would allow banks to restructure their debt and restart lending. This special Chapter 11 would be temporary, lasting only one year.

Congress would pass a law that sets up a new form of prepackaged bankruptcy. Prepackaged means that all the terms are prespecified and banks could come out of it overnight once a federal judge signs off.

Firms who enter into this special bankruptcy would have their debt converted to equity. This would immediately transform a bank's books. As it stands now, banks have lost so much in junk mortgages that the value of their equity has tumbled to zero. (In many cases the stated book value is still healthy-looking, but that's only because troubled banks have been slow to mark down weak assets.) This special Chapter 11 would allow them to convert all their debt (commercial paper, bonds and interbank lending with a maturity longer than three days) into equity. This would make them solvent and ready again to lend to customers.

My plan would exempt individual depositors. Though all deposits are considered debt, my plan would protect the little old lady in Omaha who has a $175,000 certificate of deposit. The entire amount would be exempt from the equity conversion, while at the same time the conversion would make that deposit safe.

Potential losers are institutions and individuals who hold commercial paper and other forms of debt. But there is a possible upside for these debt holders. If a bank can regain its footing and restore itself to health, then the equity could be worth quite a bit someday.

Another provision: Banks would not be considered in default as far as their contracts are concerned. Credit default swaps and repo contracts these banks hold with other financial institutions would remain in place. This would avoid any potential ripple effect.

Most people equate bankruptcy with liquidation. They think that filing for bankruptcy causes a firm to go under. On the contrary, for a firm with a healthy business, bankruptcy is simply an opportunity to renegotiate its financial claims, so that it can get its ratio of debt to equity back on track.

Ordinary bankruptcies take a long time. That's why these bankruptcies would be on automatic pilot. Unlike traditional prepacks, terms would not have to be negotiated; they would be preset for all parties in the same way. This would allow the bankruptcy to be implemented overnight.

How would the government get banks to voluntarily declare special bankruptcy? One way is to have the Fed limit access to liquidity. Currently both banks and investment banks can go to the Federal Reserve's discount window, meaning that they can, by posting collateral, receive cash at a reasonable rate of interest. Under my plan, for two years, only banks that underwent special bankruptcy would get access to the discount window. In this way solid financial institutions that do not need restructuring would stay away from bankruptcy, while insolvent ones would rush into it to avoid a government takeover.

Certainly old shareholders who think their bank is solvent but faces a temporary liquidity problem might feel expropriated by this procedure. But there is a simple solution. After the filing of the special bankruptcy the bank gets one week to decide, individually, whether to buy out new shareholders by paying the face value of the old debt claim. In this way the old debt holders can get paid in full and the old equity holders can recapture the value of their claim.

The beauty of my approach is threefold. First, it recapitalizes the banking sector at no cost to taxpayers. Second, it keeps the government out of the difficult business of establishing the price of distressed assets. If all of an institution's debt is converted into equity, its total value--its assets plus its going-concern value--remains the same. The bankruptcy changes only the legal nature of the claims on this value. Third, my plan takes away from the government the possibility of playing God and deciding which banks are allowed to live and which should die. The market will make those decisions. Most important, this plan upholds the free market principles we live by. Any other plan brings heavy-handed government intervention, weakens market incentives and sows the seeds of the next crisis.

A Bankruptcy to Save GM
Chicago Tribune, November 23, 2008

Joshua Rauh (Univesity of Chicago Booth School of Business) and Luigi Zingales (University of Chicago Booth School of Business)

Not long ago, Alitalia was one of the largest airline companies in the world. Today it is a shadow of its former self, having burned massive amounts of taxpayer money before finally entering bankruptcy with few assets remaining. The principal culprit of this debacle was the Italian government. Trying to avoid the political pain a bankruptcy would have caused, the government continued providing subsidized financing to the money-losing airline, delaying the necessary restructuring. Not only was a gigantic waste of taxpayers' money, but it was a death sentence for the very company it wanted to save. Postponing the day of reckoning weakened Alitalia's competitive position, making it lose market share it will never regain as a reorganized company.

General Motors is quickly going down the same path. There is no doubt that it needs a serious restructuring. It burned through $9 billion of cash in the first 9 months of 2008. It has a labor cost 50% higher than U.S.-based Toyota plants, and it produces cars nobody wants. It is saddled with massive pension and healthcare obligations and it is essentially insolvent: its total liabilities are more than 50% greater than the book value of its assets.

Critically, GM's position on the verge of bankruptcy is not because of the severity of the current financial and economic crisis. The current crisis is simply the proverbial straw that breaks the camel's back. Without the crisis, the camel would not have lasted long anyway.

If the US government provides GM with a $25 billion loan that allows it to continue operating under current conditions for another year or two, the money would simply be wasted and the problem postponed. GM would still be completely unable to survive in the long term. We are very sympathetic towards the pain of the hundreds of thousands of workers whose jobs are at stake. It is precisely because we are concerned about their long term welfare that we oppose a bailout. Throwing money at a drug addict only enables the addict to continue abusing drugs and ultimately shortens his life. Similarly, government money aimed at a company that needs restructuring enables it to avoid taking responsibility of its future, condemning it to a certain death.

Unfortunately, in this case the transformation of part of the debt into equity, as proposed by one of us for banks, is not a solution either. GM's problem is not a short-term liquidity crisis. A debt-for-equity swap would provide temporary relief from GM's short term obligations, but at the cost of continuing the bleeding and delaying the restructuring. GM would just continue to run down the value of its assets. The only difference with respect to a government bailout would be that investor money instead of taxpayer money would be wasted.

We believe that a Chapter 11 bankruptcy filing for GM is the only possible solution. However, we recognize that in the current environment, there are several likely inefficiencies associated with the bankruptcy process. In particular, if we do nothing and wait for GM to file for bankruptcy, which would likely happen in a month or so, we would risk a bad outcome of the proceedings, namely an inefficient liquidation of the company and a substantial amount of social disruption from the sudden loss of jobs. We therefore propose that the government oversee a prepackaged bankruptcy for GM that would give the company the restructuring it badly needs and avoid inefficient liquidation.
To be successful, this restructuring requires several elements.

First, financing must be available during the restructuring. In normal times, this debtor-in-possession (DIP) financing would typically be provided by financial institutions. However, obtaining DIP in the current environment is a risky business. The market for the provision of DIP is dominated by a few players, and it is not clear how many of them are willing to lend now. JP Morgan, for instance, has several billion of DIP financing tied up with Delphi, GM's main supplier of parts, which has been in bankruptcy since 2005. It is doubtful that JP Morgan will be willing or able to double up its exposure to the automobile industry. At the same time, GE Capital and Citigroup, who provided the DIP finance for the Chapter 11 bankruptcy of United Airlines, are unlikely to become the financiers of GM because they have problems of their own. Without DIP financing, however, Chapter 11 would lead immediately to liquidation — not a liquidation driven by market forces, but a firesale due to the current dislocation of the financial markets.

In this case, given the frictions on the credit market, it would be justified for the government to provide DIP financing. This loan would be very different from the one proposed by GM executives and unions. By being senior to all the existing debt it would be relatively safe for the government.

Second, the financing must aim to minimize the risk the company remains passive and continues wasting resources. A cautionary tale is found in the DIP financing of Eastern Airlines, which kept flying in bankruptcy until the value of its assets had been driven almost to zero. To avoid this problem, we propose that while the government provides the funding for the loans and the guarantee for most of the losses, the actual lending decision should be made by a commercial bank. In exchange for the underwriting fees, the private bank could be held liable for some percentage of the last losses on the value of GM's debt. In this way, we impose a limit on GM's ability to waste resources.
When the value of its assets has been impaired, GM will be unable to get any new financing, because the private institutions will pull the plug. In this way we avoid the risk that GM will die of premature death in Chapter 11, but we also prevent GM from exploiting the government guarantee to delay the restructuring.

Third, the GM bankruptcy must avoid setting off a costly chain reaction of other bankruptcies. In particular, the bankruptcy of related suppliers must be avoided. If GM were to default on its payments to these suppliers, many of them would be broke, with negative consequences for the other manufacturers of cars in the United States. DIP financing must therefore be sufficient to allow GM to make its payments to suppliers. Furthermore, bankruptcies of foreign subsidiaries should also be avoided. As the Lehman bankruptcy has shown, foreign proceedings are more rigid and would contribute to the possibility of excessive liquidation.

Fourth, GM must emerge from Chapter 11 as a smaller company. This necessitates shutting down the most money-losing segments of the company, while also providing incentives to foreign manufacturers to buy some of GM's assets without union contracts attached.

Fifth, GM must emerge from Chapter 11 without massive pension obligations.
Legally, the US government is on the hook for any underfunding of accrued pension benefits for US workers, with a cap of $51,750 per person year. Much of the unloading of GM's pension will therefore happen mechanically and unfortunately will come at a substantial cost to taxpayers. As showed by the United Airlines bankruptcy, it is impossible to know exactly what the magnitude of the government liability will be before the bankruptcy itself happens, due to uncertainty about the value of the assets and also the fact that the government turns the pension liability into a hard riskless claim. Our best estimate is that the underfunded US pensions themselves could cost taxpayers $23 billion.
The alternative, however, is worse: to waste money propping up GM and hope that the government pension liability shrinks going forward through a miraculous performance of GM's pension fund (and risking it might get even larger).

Sixth, GM must emerge from Chapter 11 without enormous retiree medical care liabilities. By negotiating with its white-collar employees, GM has been able to get the unfunded part of this liability down to a "mere" $34 billion. Furthermore, GM and the United Auto Workers (UAW) have agreed to a special fund for a Voluntary Employee Beneficiaries Association (VEBA). Under this agreement, however, billions of dollars of additional cash contributions are due from GM in the next several years. The agreement will have to be revisited in Chapter 11. We recommend that some of the liability be funded with shares in the reorganized company. This is how United Airlines pilots were compensated for some of their losses from uncovered pension benefits in the UAL bankruptcy.

Finally, the bankruptcy plan would have to address perhaps the biggest challenge of a Chapter 11 filing: the risk that the customers will desert GM because of concerns about the value of its car warranties. People were not afraid to fly United Airlines when it was in Chapter 11. However, a trip is a relatively short-lived transaction and a customer does not care about the fate of the airline once he has arrived home. With cars, the fear of losing the warranty might be large enough that the potential customers will shy away. Even worse, this fear might become self fulfilling: if enough customers avoid GM, the survival of the company is at risk.

To avoid this problem, we propose that GM be required to purchase insurance for its warrantees, and to do so in such a way that its incentives to improve quality are not diminished. There are already well-established third party providers of car warranties. To avoid the moral hazard, both the workers and the managers could be asked pay for the deterioration of car quality. For example, both required contributions to the VEBA and executive bonuses could be indexed to the cost of servicing the warranty.

The restructuring cost at GM will of course be high, both in human and financial terms. But the alternative is worse: to spend $25 billion on aggravating and postponing the problem. It would be better to give away that money directly to the workers rather than let GM decide how to dissipate it. At over $200,000 for each of GM's 123,000 North American employees it would a very nice gift. The taxpayers' cost would be the same, but at least the money would help secure a future to hard-hit households.

Overall, however, we believe that paying off workers and liquidating the company is equivalent to putting the patient out of his misery before attempting to administer the best economic medicine. Some may argue that GM has been receiving medicine from taxpayers for quite some time, but clearly it has been receiving the wrong medicine. A Chapter 11 bankruptcy gives a firm that needs to restructure the chance to recover. If Chapter 11 cannot save GM, then nothing can.

Economists Have Abandoned Principle
Twelve months ago nobody could have imagined government interventions we now take for granted.
Wall Street Journal, December 3, 2008

Oliver Hart (Harvard University) and Luigi Zingales (University of Chicago Booth School of Business)

This year will be remembered not just for one of the worst financial crises in American history, but also as the moment when economists abandoned their principles. There used to be a consensus that selective intervention in the economy was bad. In the last 12 months this belief has been shattered.

Practically every day the government launches a massively expensive new initiative to solve the problems that the last day's initiative did not. It is hard to discern any principles behind these actions. The lack of a coherent strategy has increased uncertainty and undermined the public's perception of the government's competence and trustworthiness.

The Obama administration, with its highly able team of economists, has a golden opportunity to put the country on a better path. We believe that the way forward is for the government to adopt two key principles. The first is that it should intervene only when there is a clearly identified market failure. The second is that government intervention should be carried out at minimum cost to taxpayers.

How do these principles apply to the present crisis? First, the market economy provides mechanisms for dealing with difficult times. Take bankruptcy. It is often viewed as a kind of death, but this is misleading. Bankruptcy is an opportunity for a company (or individual) to make a fresh start. A company in financial distress faces the danger that creditors will try to seize its assets. Bankruptcy gives it some respite. It also provides an opportunity for claimants to figure out whether the company's financial trouble was the result of bad luck or bad management, and to decide what should be done. Short-cutting this process through a government bailout is dangerous. Does the government really know whether a company should be saved?

As an example of an effective bankruptcy mechanism, one need look no further than the FDIC procedure for banks. When a bank gets into trouble the FDIC puts it into receivership and tries to find a buyer. Every time this procedure has been invoked the depositors were paid in full and had access to their money at all times. The system works well.

From this perspective, one must ask what would have been so bad about letting Bear Stearns, AIG and Citigroup (and in the future, General Motors) go into receivership or Chapter 11 bankruptcy? One argument often made is that these institutions had huge numbers of complicated claims, and that the bankruptcy of any one of them would have led to contagion and systemic failure, causing scores of further bankruptcies. AIG had to be saved, the argument goes, because it had trillions of dollars of credit default swaps with J.P. Morgan. These credit default swaps acted as hedges for trillions of dollars of credit default swaps that J.P. Morgan had with other parties. If AIG had gone bankrupt, J.P. Morgan would have found itself unhedged, putting its stability and that of others at risk.

This argument has some validity, but it suggests that the best way to proceed is to help third parties rather than the distressed company itself. In other words, instead of bailing out AIG and its creditors, it would have been better for the government to guarantee AIG's obligations to J.P. Morgan and those who bought insurance from AIG. Such an action would have nipped the contagion in the bud, probably at much smaller cost to taxpayers than the cost of bailing out the whole of AIG. It would also have saved the government from having to take a position on AIG's viability as a business, which could have been left to a bankruptcy court. Finally, it would have minimized concerns about moral hazard. AIG may be responsible for its financial problems, but the culpability of those who do business with AIG is less clear, and so helping them out does not reward bad behavior.

Similar principles apply to the housing market. It appears that many people thought that house prices would never fall nationally, and made financial decisions based on this premise. The adjustment to the new reality is painful. But past mistakes do not constitute a market failure. Thus it makes no sense for the government to support house prices, as some economists have suggested.

Where there is arguably a market failure is in mortgage renegotiations. Many mortgages are securitized, and the lenders are dispersed and cannot easily alter the terms of the mortgage. It is unlikely that the present situation was anticipated when the loan contracts were written. Government initiatives at facilitating renegotiation therefore make a lot of sense.

Our desire for a principled approach to this crisis does not arise from an academic need for intellectual coherence. Without principles, policy makers inevitably make mistakes and succumb to lobbying pressure. This is what happened with the Bush administration. The Obama administration can do better.

Greenspan Roundtable: The Wrong Prescription
The Economist.com Free Exchange; December 20, 2008

Luigi Zingales
Robert C. Mc Cormack Professor of Entrepreneurship and Finance
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ALAN GREENSPAN is factually correct in his description of the current economic environment, but he is reticent in his analysis of the causes and wrong in his prescriptions. He is right that the global financial intermediation is broken because investors are concerned about the solvency of the banks. However, his analysis is incomplete because it does not explain why investors have become fearful. He seems to hint at irrational fear ("human nature being what it is"), but this is a convenient scapegoat. Investors are correctly fearful because they do not know the value of banks' assets. When Lehman's bond in bankruptcy fetches a little more than eight cents on the dollar and when Merrill Lynch sells its loans at 20 cents on the dollar, we do not have to revert to irrational fear to explain why investors require hefty premiums to lend to banks. Given that Citigroup had to be bailed out twice in less than 60 days, the problem is not that the market wants unrealistically high levels of capital: it wants reasonable levels of correctly measured capital.

The analysis is incomplete in another way. Although Mr Greenspan quotes a 2006 statement from the FDIC that "99% of all institutions met or exceeded the highest regulatory capital requirements", he does not mention that the agency continued to hold this view until June 2008, just before nine insured institutions failed (the highest number in a quarter since 1993) and another major one had to be bailed out twice. To me, that statement indicates that regulatory capital requirements are inadequate to protect depositors. This impression is confirmed by the fact that in December 2007, the FDIC reported that 28% of the banks had an exposure to construction lending that exceeded their capital, in spite of the slowdown in construction.

All these facts suggest that the market's fear is well founded and that the regulatory agencies have not done enough to prevent the current crisis. In other words, if the market has a fault, it is not that it is irrationally spooked today, but that it was irrationally complacent in the past, an attitude shared by the Fed under Mr Greenspan.

Alan Greenspan advocates injecting another round of TARP money into banks, which he sees as a temporary fix until the market recovers. I agree that the banking system needs another massive capital infusion. As I wrote before the first injection, $600 billion was needed. Since roughly $300 billion has been plugged in, the estimate of another $250 billion is about right. The problem is that I do not see this money as a temporary fix, but as a long-term way to restore the capital of banks after major losses. For this reason, I do not think it should be provided by the government. When ordinary businesses become insolvent, the solution is not to have the government inject capital (albeit this is becoming popular nowadays), but to swap their debt into equity. There is no reason why banks should be treated any differently. Of course, depositors, who are FDIC insured, should be protected in full. It would be sufficient that the FDIC takes over the major banks and transforms their long-term debt into equity. As Pietro Veronesi and I have shown, this recapitalisation would be enough to bring the risk of default of all the major banks to pre-crisis levels.

Not only would this approach save hundreds of billions of dollars for American taxpayers, but it would uphold the sound principle that he who reaps the gains also bears the losses. Shielding investors from their deserved losses only makes them complacent and sows the seeds of the next crisis. Mr Greenspan should have learned that.

Let's Stimulate Private Risk Taking
Tax cuts are the way to nudge capital toward productive uses.
Wall Street Journal; January 21, 2008

Alberto Alesina (Harvard University) and Luigi Zingales (University of Chicago Booth School of Business)

In virtually all economics classes, including those taught by the many excellent economists on the Obama team, the idea of government spending as an engine for growth is not a popular topic. Yet despite their skepticism of Keynesianism in the classroom, when it comes to public policy, these economists happily endorse a large stimulus package that could bring our deficit to 10% of GDP. Why?

One explanation is that these economists think this recession is an extraordinary one. In normal recessions -- the argument goes -- an increase in discretionary government spending is unnecessary and even counterproductive. But in the event that a recession becomes a depression, a Keynesian stimulus package might work.

There are certainly economic models that show how government spending can shift the economy from a bad equilibrium (where people do not search for jobs because they do not expect to find them, and firms do not invest because they do not expect to sell), to a good equilibrium (where people search for jobs, and firms invest and generate demand for their goods).

But this particular recession is unique not in its dimensions, but in its sources. First, it is the result of a financial crisis that severely affected stock-market valuations. The bad equilibrium did not originate in the labor market, but in the credit market, where investors are reluctant to lend to risky firms. This reluctance is making it difficult for these firms to refinance their debt, forcing them to default on their credit, further validating investors' fear. Thus, the problem is how to increase investors' willingness to take risk. It's unclear how the proposed stimulus package would help inspire investors to do so.

The second reason this recession is unusual is that it was caused in large part by a significant current-account imbalance due to the low savings rate of Americans (families and government). Even assuming that more public spending would increase private consumption -- a big if -- such a measure would cause even more imbalance.

So how do we stimulate the economy without increasing the already large current-account deficit? It's not easy, but here is an idea: Create the incentive for people to take more risk and move their savings from government bonds to risky assets. There is no better way to encourage this than a temporary elimination of the capital-gains tax for all the investments begun during 2009 and held for at least two years.

If we fear this is not enough, we can temporarily increase the size of the capital loss that is deductible against ordinary income. This will reduce the downside of new investments and increase the upside.

More savings need to be invested, and firms need an incentive to invest in order to help aggregate demand in the short term and promote long-term growth. The best way to do this is to make all capital expenditures and research and development investments done in 2009 fully tax deductible in the current fiscal year.

A large temporary tax incentive may be just enough to jolt investors from their current paralysis to take action. Such a switch will also be fueled by the temporary capital-gains tax cut mentioned above, which will motivate people to move their savings from money-market funds to stocks, increasing valuations, investments and confidence.

Many are concerned about what we can do to help the poor weather this crisis. Unlike during the Great Depression, we have an unemployment subsidy that protects the poor from the most severe consequences of this recession. If we want to further protect them, it is better to extend this unemployment subsidy than to invest in hasty public projects. Furthermore, tax cuts have a much better effect on job creation than highway rehabilitation.

No doubt, it is much easier to sell the public and Congress a plan for more public works than tax cuts, particularly while Main Street despises Wall Street -- with some good reason. But the role of a good economic team is to courageously propose the right economic policy, even when it is unpopular. The role of a president is to sell it politically, as real change we can believe in.

Yes, We Can, Mr Geithner
VOX; 19 January 2009

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This Wednesday Mr. Geithner will be confirmed as the new Secretary of Treasury. Never before in U.S. history has this position been so important. Mr. Geithner's decisions in the next few weeks will have a dramatic impact on the length and the depth of this recession and will shape the financial sector for decades to come. Mr. Geithner comes to this job with the best qualifications. But in the last several months, he has constantly been in the eye of the financial storm and thus he might benefit from an outside perspective. Given that the prosperity of our country is at stake, I hope Mr. Geithner will allow me a few suggestions.

To begin, you need an overall strategy. Even a mediocre strategy is better than an ad hoc approach that confuses markets and fuels the perception of playing favorites. Legendary portfolio manager David Swensen (who in 23 years transformed the $1 billion of Yale endowment into $23 billion) in reference to the government intervention in this crisis commented "the government has done it with an *extreme* degree of inconsistency. You almost have to be trying to do things in an incoherent and inconsistent way to end up with the huge range of ways they have come up with to address these problems."[1]

The cost of this inconsistency is that it has forced the private capital to stay on the sideline. Short of a complete nationalization of the financial sector (which we hope is not in the plan), the problem cannot be resolved without the help of private capital. But a necessary condition to attract private capital back is a consistent and predictable strategy by the government, without which any other effort is in vain.

In designing this strategy, it is important to keep in mind the interest of the country does not necessarily coincide with the interest of the banks. Charles Erwin Wilson, who became Secretary of Defense in the Eisenhower Administration after a long career at General Motors, declared in his confirmation hearings that the interest of the country and that of GM were one and the same. Nobody would dare to say it now. The problem is that an excessive familiarity with one interest may distort the judgment of even the most well intended people. Please do not fall into this trap, Mr. Geithner.

What makes this distinction difficult is that well-capitalized banks are in the interest of the country. I agree that we need to fix the banking sector and we need to do it fast. But I disagree that this implies bailing out investors and bankers. Not only is this extremely costly for the taxpayers, but it gets in the way of a speedy resolution. And it sows the seeds of the next crisis. The current crisis is the direct consequence of the Long Term Capital Management bailout orchestrated by the Federal Reserve of New York ten years ago. It was the conviction that the Fed would always intervene to rescue traders in a liquidity squeeze that induced banks and financial institutions to leverage up to and take increasingly aggressive gambles.

The fact that the interest of banks does not necessarily coincide with the interest of the country can be appreciated from the first phase of TARP. After an initial surprise (they could not believe their ears), bankers were delighted at receiving the government money. Without it, Vikram Pandit would no longer be the CEO of Citigroup and former Secretary of Treasury Rubin would have found it more difficult to cash out the $115 million earned at Citigroup. So it is clear they like it and they want more. But what is in it for taxpayers? The first round of equity infusion and debt guarantees transferred to banks' investors $108 billion. This is not the cost of the investment; it is the size of the gift taxpayers made to banks' investors, as a reward for the good job done running their firms and monitoring their managers.

What do taxpayers receive in exchange? Nothing. As reported by the *New Your Times*, bankers privately admit that they do not use the TARP money for new loans, but only to consolidate their balance sheet and survive longer.[2] This is also consistent with our findings that the intervention does not create aggregate wealth, but only transfers it from taxpayers

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[1] http://www.youtube.com/watch?v=RsnXZgEPMSg
[2] Mike McIntire, 2009, "Bailout Is a Windfall to Banks, if Not to Borrowers" New York Times. January 18, 2009.

to financial investors.[3] In the second bailout of Citigroup, where no systemic effects are likely, taxpayers poured $60 billion into Citigroup, increasing the value of Citigroup financial claims by only $44 billion, with a net loss of $16 billion. This means that each dollar donated to financial investors cost the taxpayers $1.36. This is hardly an attractive proposition.

This outcome was easily predictable. If in the middle of a hurricane you help a damaged cargo ship to stay afloat, you cannot expect it to restart its shipping route immediately afterwards. For that to happen, either the boat should be completely refurbished or the hurricane should have passed or both. Hoping that bankers who saw the writing on the wall might restart taking risks because they were offered a lifeline is wishful thinking. If the government really wanted to use the banking wreckages to restart the economy, it should have taken over these banks and directed the flow of credit or should have poured an amount of capital so large that even scared bankers would consider restarting the lending process. Either way it would have been tantamount to a nationalization of the banking sector, with the problems that implies. And it would have required a massive amount of money. In October, my rough estimate was $600 billion in equity just for the top ten banks.[4] I am afraid I was too optimistic. Is there any limit in the subsidy taxpayers have to provide to bail out bankers?

Only in the absence of any feasible alternative to restart the lending process would this massive bailout be in the interest of the country. This is the way secretary Paulson presented it to the nation. Ironically, however, he kept changing the solution that had no alternatives. Mr. Geithner, please do not fall into this trap. We can save the banks as institutions and restart lending without a massive transfer of money from taxpayers to investors and bankers, and here is how.

One solution is the one I advanced last Fall.[5] It requires passing a new piece of legislation introducing a new form of bankruptcy for banks, where derivative contracts are kept in place and the long-term debt is swapped into equity. As Pietro Veronesi and I have shown in a recent article, such conversion will fully recapitalize the banking sector and bring down the level of risk of debt (as measured by the credit default swaps level) to pre-crisis level.[6] When I proposed it in September, they told me that there was not time.[7] When I re-proposed it in October, they told me that there was no chance to reconvene Congress after the election. But time has passed and the Congress has reconvened after the election, but there has been no discussion of this alternative that can save taxpayers hundreds of billions of dollars.

That is not the only possible plan. An alternative would be to allow banks to divide themselves into two entities, a bad bank with all the toxic assets and a good bank, with lending etc. Ownership of these two entities will be allocated pro quota to all the financial investors as a proportion of the most updated accounting value of these assets. So a bank with 30 billion of bad assets and 70 billion of good assets will see its debt divided 30-70 and its equity divided 30-70. Each $100 debt claim will become a $30 debt claim in the bad bank and a $70 debt claim in the good bank. The same would be true for equity.

On the face of it, it looks like a useless exercise. If each investor receives pro rata the two parts of the bank, what difference does it make? The answer is very simple. After the spin off, the toxic assets will not contaminate the lending part of the business anymore. On the one hand, bad banks would simply be closed-end funds holding the toxic assets. If these assets turn out to be worth more, the original investors will be rewarded. If they are worth less, the most junior claimants (common and preferred equity) will be wiped out. The good news is that these entities could be allowed to fail because their failure would only be a rearrangement of their liability structure with no negative consequences on the economy. On the other hand, good banks will have a clean balance sheet and will be able to raise private capital without too many problems. If private capital is nowhere to be seen it is because sovereign wealth funds that tried to take advantage of the situation experienced enormous losses. In November 2007, for instance, when the Abu Dhabi sovereign wealth fund took a stake in Citigroup the stock was trading at $29 per share, while today it is worth only $3.5. After these bad early experiences, all smart money stayed away.

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[3] Veronesi Pietro and Luigi Zingales, 2008, "Paulson's Gift", University of Chicago working paper, http://faculty.chicagogsb.edu/luigi.zingales/research/index.htm

[4] Zingales, Luigi 2008b, "Plan B," The Economists' Voice: Vol. 5: Iss. 6, Article 4.

[5] Zingales, Luigi 2008b, "Plan B," The Economists' Voice: Vol. 5: Iss. 6, Article 4.

[6] Zingales, Luigi 2008b, "Plan B," The Economists' Voice: Vol. 5: Iss. 6, Article 4.

[7] Zingales, Luigi, 2008a,"Why Paulson is Wrong," The Economists' Voice, 2008: Vol. 5 : Iss. 5, Article 2.

By eliminating the uncertainty on the magnitude of the losses in good banks, the spinoff will make it appealing for private capital to invest in these banks. Even if private capital would not flow back (which I doubt), a government equity infusion in the good banks would be cheaper and more effective. Cheaper because the value of debt in the good banks would be close to par and thus an equity infusion will not go to bail out the existing creditors, but only to promote lending. More effective, because instead of trying to improve the capital ratio of a $100 billion entity (in the example), the government will do it only with respect to a $70 billion one.

If the solution is so simple why has it not be done before? First, it is much simpler to get money from the government than to obtain it through hard work. So, no bank would consider doing this spinoff if it hopes to receive extra TARP money. Second, because most bank debt has covenants prohibiting exactly these splits. Even if the liabilities are shared equally between the two entities, the equityholders tend to gain from this split and the debtholders tend to lose. If the shortfall in the value of toxic assets is large enough equity in the whole entity would be entirely wiped out, while with the two split entities equityholders will retain some value in the good bank, at the cost of a lower overall repayment for the debtholders.[8]

However, this problem can be dealt with by giving debtholders of the bad bank a warrant on the equity of the good bank, increasing their payoff at the expense of the equityholders. Furthermore, the creditors have benefitted so greatly from all the government infusions of money so far that it would only be fair that they will share some of the pain for their bad investment. To allow banks to spin themselves off in two units, however, we need to pass a new law. As in October, the "nay sayers" will say it is impossible. It was possible to write a $700 billion check to Paulson, it is possible to approve an $825 billion stimulus packages, why it is not possible to pass a very short law allowing banks to spin off?

Mr. Geithner, incumbent bankers and their lobbyists will always make you believe there is no alternative to the plan that benefits them the most. You cannot fall for this old trick. The alternatives I have outlined above are not only possible, but also fair. They penalize those who invested poorly and help provide loans to businesses in need. On top of this, they achieve these goals at zero cost to taxpayers (no small feat in a time of ballooning deficits). Yes, we can Mr. Geithner…if you lead us there.

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[8] More technically, since equity is an option on the value of the underlying assets, the option on a portfolio of assets is worth less than a portfolio of options on the same assets.

A Trust Crisis

Paola Sapienza (Northwestern University) and Luigi Zingales (University of Chicago Booth School of Business)

If a modern Rip Van Winkle had fallen asleep two years ago and woken up now, he would wonder what had happened to the U.S. economy. Two years ago we were in the middle of an economic boom. Banks were eager to lend even at the cost of forgoing important covenants and corporate America (and the entire world) was producing at full steam, so much so that commodities prices were rising in anticipation of a future scarcity. Today we are quickly sliding into a deep recession. Banks are not lending and commodity prices are plummeting in expectation of a dramatic slowdown of production throughout the world.

Neoclassical economic models cannot explain this dramatic change. There was no apparent shock to productivity nor a clear slowdown in innovation. Government has kept taxes low. The Federal Reserve has kept interest rates low and cut them even further. What happened?

Everyone agrees that this crisis originated in the financial system. When Lehman Brothers defaulted and AIG had to be rescued by the government in September, the economy was still doing all right. The rate of growth during the second quarter was still a comfortable +2.8%. How could the default of an investment bank, with very limited lending to the real economy, have had such a disastrous effect?

The Missing Link

Something important was destroyed in the last few months. It is an asset crucial to production, even if it is not made of bricks and mortar. While this asset does not enter standard national account statistics or standard economic models, it is so crucial to development that its absence—according to Nobel laureate Kenneth Arrow – is the cause of much of the economic backwardness in the world. This asset is **TRUST**. As stressed by Arrow: "Virtually every commercial transaction has within itself an element of trust, certainly any transaction conducted over a period of time." Without trust, cooperation breaks down, financing breaks down and investment stops. One can bomb a country back to the Stone Age, destroy much of its human capital, and eliminate its political institution. But, if trust persists, the country may be able to right itself in just a few years, as in Germany and Japan after World War II. Conversely, you can endow a country with all the greatest natural resources but, if there is no trust, there is no progress.

Trust is our expectation that another person (or institution) will perform actions that are beneficial or at least not detrimental to us, regardless of our capacity to monitor those actions.[9] When we say we trust someone, we imply that we think that he will engage in beneficial, non detrimental action so that we'll consider cooperating with him.

While trust is fundamental to all trade and investment, it is particularly important in financial markets, where people depart with their money in exchange for promises. Promises that aren't worth the paper they're written on if there is no trust. In previous research we showed that trust can explain households' investment in the stock market and international portfolio investments (Guiso, Sapienza, Zingales, 2004 and 2008).

To study how recent events have undermined Americans' trust in the stock markets and institutions in general, we conducted a survey.

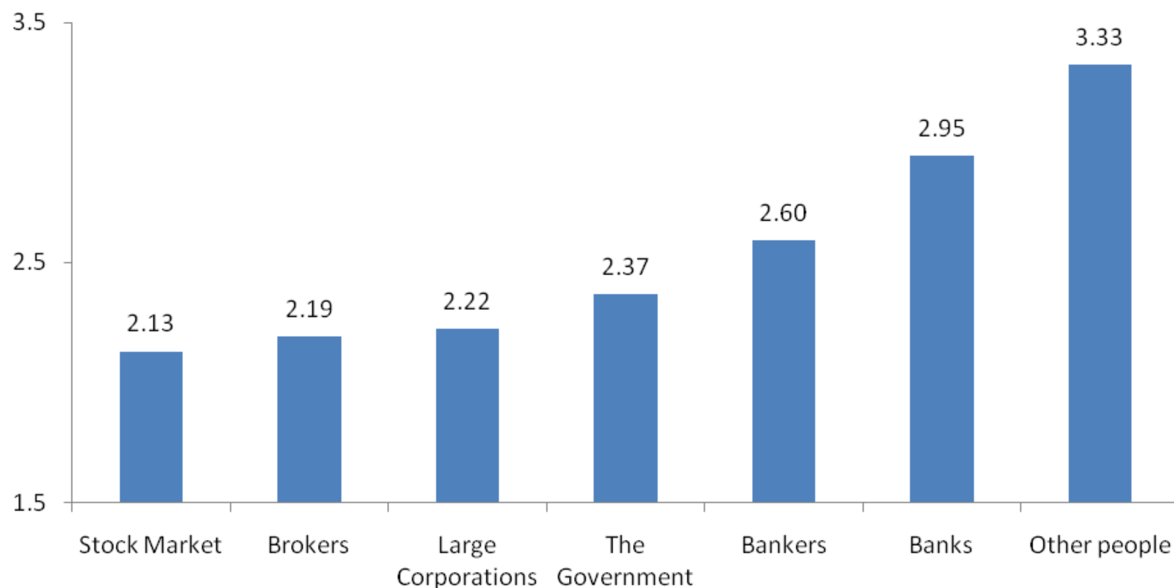
Measuring Financial Trust

Social Science Research Solutions was commissioned to conduct a telephone survey on a representative sample of 1,034 American households from December 17th to 28th 2008.[10] One adult respondent in each household was randomly

[9] This definition is taken from Gambetta (2000).

Figure 1: Trust

Average response, on a scale from 1 to 5, to the question "How much do you trust …", where 1 means "I do not trust at all" and 5 means " I trust completely,"



contacted and asked whether they were in charge of household financial, either alone or together with the spouse. Only individuals who claimed such responsibility are included in the survey.

The first set of questions asked how much people trust certain types of people or institutions, on a scale ranging from 1 to 5, where 1 means "I do not trust at all" and 5 means " I trust completely." Figure 1 reports the results. On average, people trust "other people" the most (3.33), followed by banks (2.95), then bankers (2.60), then the government (2.37), then large corporations (2.22), and finally the stock market (2.13). But this ranking is not just reflecting risk aversion. We asked respondents to answer a simple question proven to be a good proxy for risk. The top 25%, the people most comfortable with risk, showed exactly the same trust rankings as the entire sample.

Why does trust in some types of institutions (or people) suffer compared to trust in "other people" in general? Either they sub-type of people working in those institutions must be considered worse than the average person, or the institutions themselves must be thought to have negative effects on individuals. Bankers, for instance, are considered less trustworthy human beings than people in general (2.65 vs. 3.33). Banks, however, are more trustworthy than bankers (2.95 vs. 2.60), suggesting that the incentive structure within banks is believed to moderate the lack of trustworthiness of bankers. The same cannot be said for the stock market. Brokers are considered less trustworthy than bankers (2.19 vs. 2.60), but the stock market is considered as trustworthy as brokers (2.13 and 2.19).

Ideally, one would like to analyze a series of surveys conducted over time to see, for example, how recent events affected trust in the stock market. Unfortunately, such time series data do not yet exist. So we tried to elicit self-assessed change by asking people how much their level of trust changed in the last three months.

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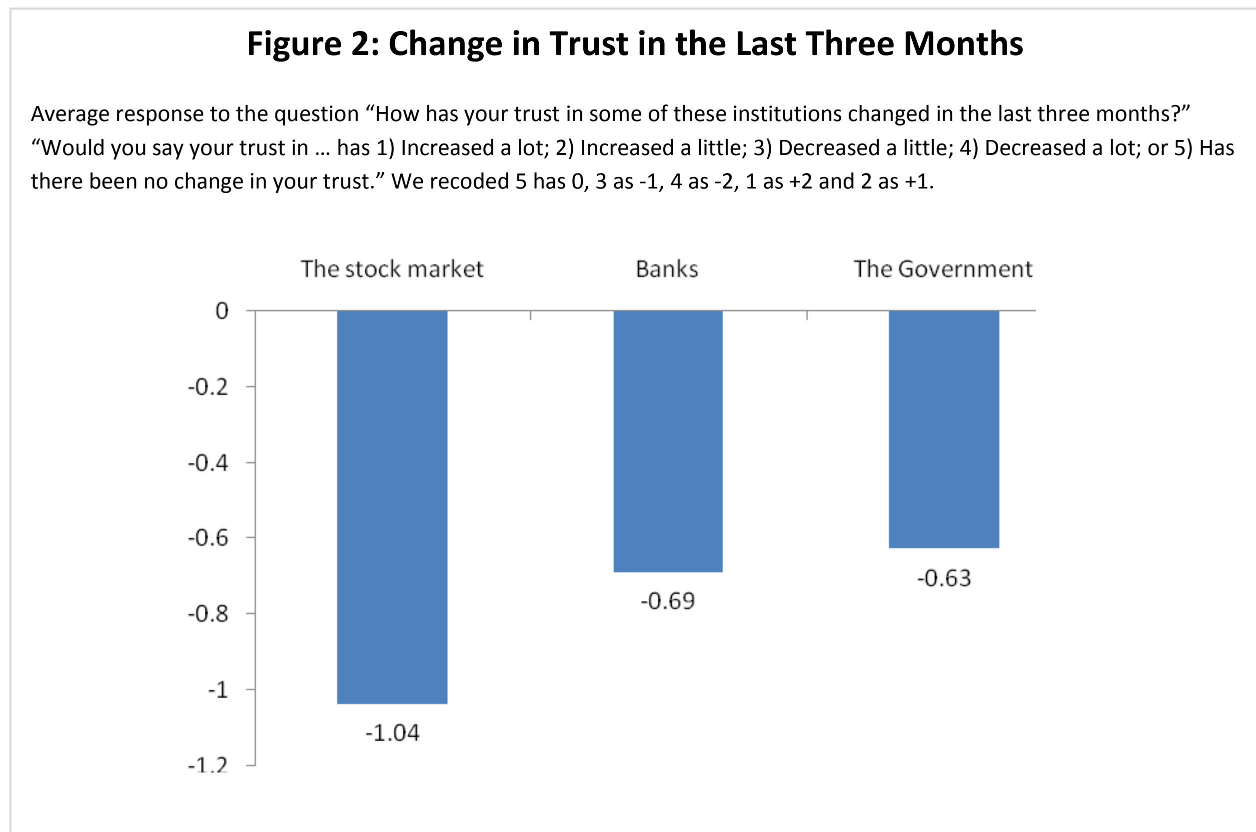
[10] The survey was conducted using ICR's weekly telephone omnibus service. It used a fully-replicated, stratified, single-stage random-digit-dialing sample of landline telephone households

Respondents were asked, "How has your trust in some of these institutions changed in the last three months?" The scale ranged from -2 to +2, with -2 meaning "Decreased a lot, -1 meaning "Decreased a little," 0 indicating no change, and +1 or +2 indicating a little or a lot of increase.

Figure 2 presents the average results. In general, trust dropped, but it dropped more for the stock market, less for banks and the Government.



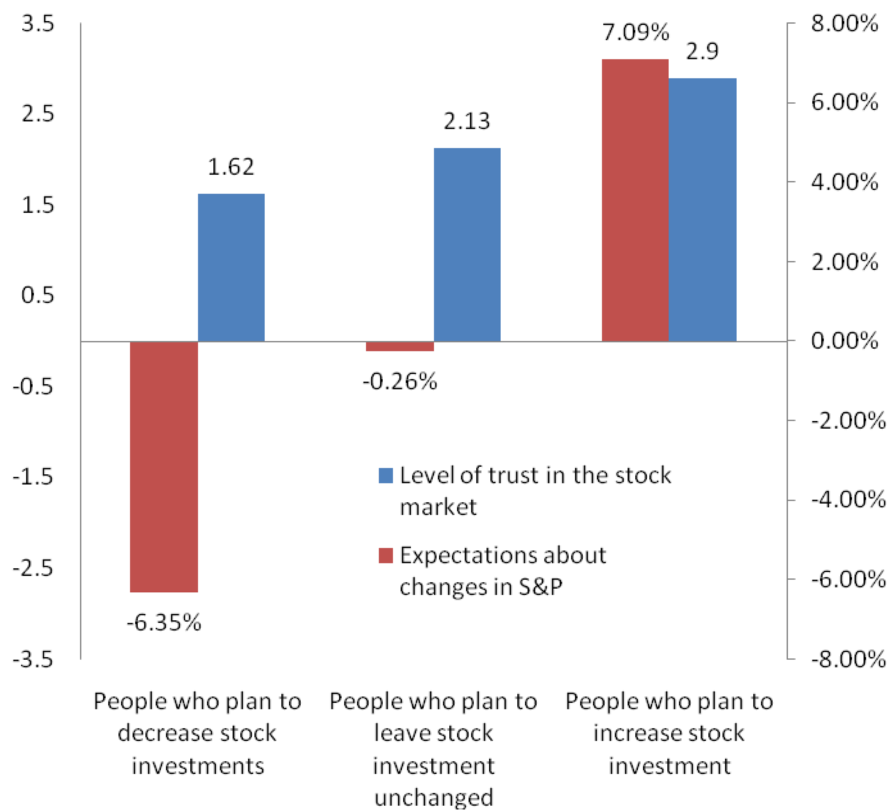
Effects of trust

Does the level of trust matter for economic decision making? Existing research seems to suggest so. But we can verify this with our sample. People were asked whether in the next few months they were planning to increase, decrease, or leave unchanged their investment in the stock market in the next few months. The overwhelming majority (80%) planned to leave it unchanged, while 11% planned to increase and 9% planned to decrease.

Figure 3 shows, that among people who planned to divest from the stock market, the average trust in the market is 1.62. Among those who planned to leave their investment unchanged, the level of trust is 2.13, while the level of trust jumps to 2.90 for people who planned to increase their stock investment. Differences in trust among these groups are highly significant.

Figure 3: Intention to Buy Stocks, Expectations and Trust

The level of trust in the stock market is on a scale from 1 to 5, where 1 means "I do not trust at all" and 5 means "I trust completely". "Expectations about changes in the S&P" is the % average return expected over the following 12 months.



Trust affects people's intention to buy stocks even after we account for their expectations of stock market performance. Respondents were asked how much they expected the S&P 500 to increase or decrease in value in the following year. 32% of the respondents expect a negative return, 37% a positive return, and 31% expect a return exactly equal to zero.

As expected, willingness to increase investments in stocks depends on whether an individual expects the market to rise or fall. But trust has a significant, positive effect on the intention to increase investment after controlling for the expectations (see Figure 3 and Table 1 in the Appendix).

We obtain very similar results if we regress the decision to buy/sell stock on the changes in the trust in the stock market and the level of expected return of the S&P in the following 12 months. Both variables have a positive and statistically significant effect.

Similarly, the decision to withdraw deposits and store them as cash for fear of a bank's collapse (an action taken by 11% of the sample) is related to trust in banks and bankers.

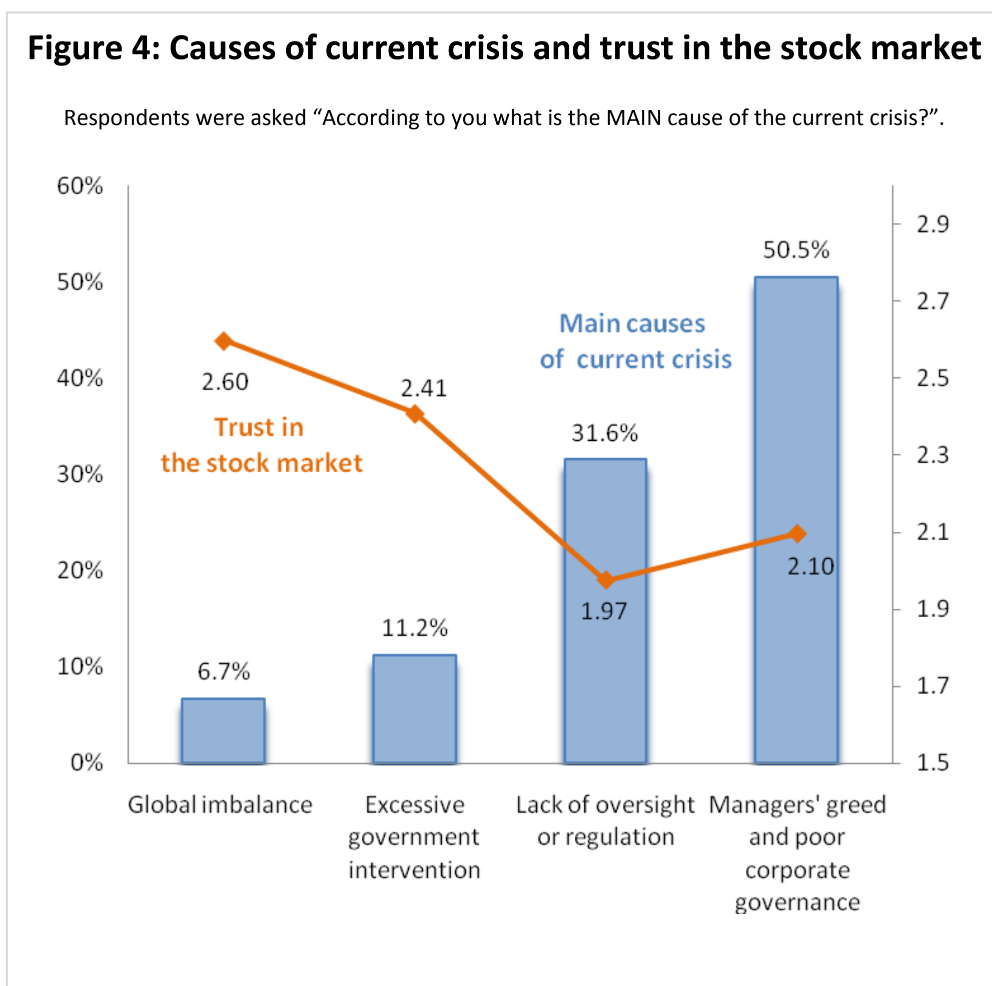
Trust in financial institutions and markets has dropped significantly over the last three months, explaining the intention to sell stock and withdraw deposits for fear of a bank's collapse. Changes in trust matter. But what causes the changes?

What Determines Trust?

It is difficult to determine what causes trust, but we can certainly establish what is associated with low levels of, and large drops in, trust. The primary culprit is the brutal loss in stock market valuations. To test this hypothesis, respondents were asked the percentage change in their financial wealth in the last 12 months. The amount lost is not correlated with the overall level of trust, but is positively correlated with the changes in the trust toward the stock market.

Thus disappointment over short term performance is one of the channels through which a stock market crisis becomes a trust crisis. To further explore the connection between the loss of trust and various events occurring during this period, we correlated levels changes of trust with the feelings respondents expressed about several key policy issues.

Respondents were first asked what they felt was the main cause of the 2008 financial crisis. They were provided with six possible answers ranging from managers' greed (the top choice with 36% of the responses) to excessive government intervention (11.2%), from lack of oversight (16%) to poor corporate governance (15%), and from lack of regulation (15%) to global imbalances (6.7%). The order in which the six possible answers were provided was randomized to eliminate any possible interviewer bias. People who think that the main cause of the crisis was managers' greed were grouped together with people who attribute the crisis mostly to poor corporate governance. Similarly, we grouped together people who think that the main cause of the crisis is lack of oversight and those who think it is lack of regulation.

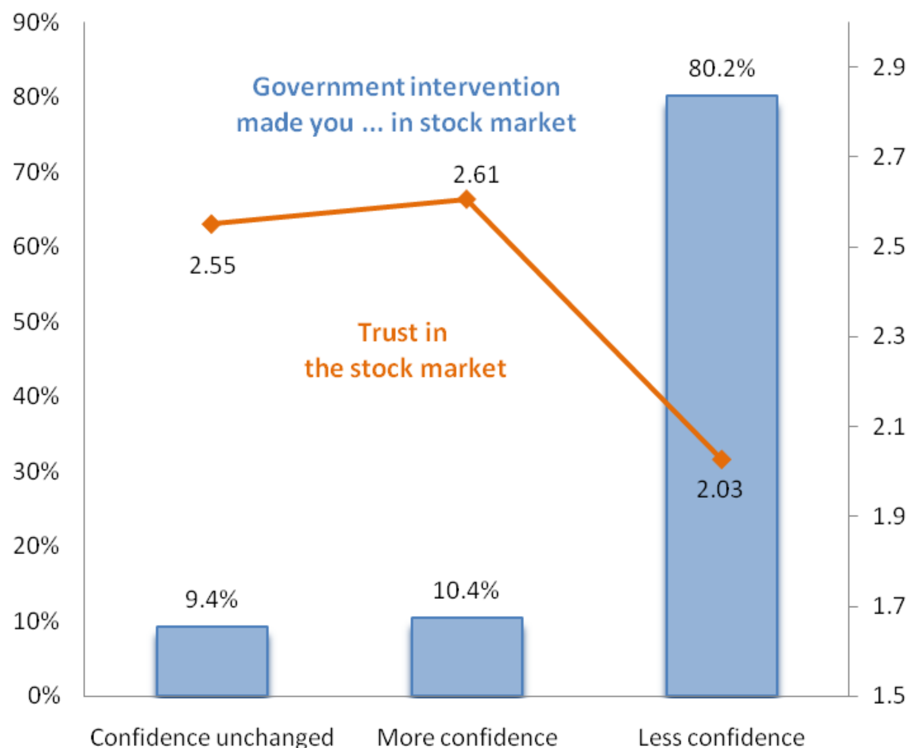


As Figure 4 shows, people who attributed the crisis to global imbalances retain much higher trust in the stock market (2.6). The same is true for those who blame excessive government intervention (2.41). The lowest level of trust was among people who thought that the crisis was due to lack of oversight and lack of regulation (1.97). A similarly low level of trust in the stock market was present among people who thought that the crisis was due to managers' greed or bad corporate governance (2.10). Lack of trust appears to be pervasive among people who are worried about bad corporate governance and lack of government intervention. These people also exhibit a bigger reduction in trust in the last few months.

We also asked whether government interventions in financial markets over the last three months made respondents more or less confident in the stock market investing. Figure 5 shows that Government intervention has made the overwhelming majority of respondents (80%) less confident in investing in the financial market. People who were made more confident by government intervention, or were not affected have a level of trust roughly 30% higher than the people who were made less confident (2.58 vs. 2.03). Self-reported changes in trust over the last three months revealed a similar pattern. While we cannot be certain of a casual link, the magnitude of this effect is such that almost the entire difference between trust in the stock market and trust in banks could be due to the negative impact of the government intervention in the last few months.

Figure 5: Recent government intervention and trust in the stock market

Respondents were asked "Have the government interventions in financial markets over the last three months make you more or less confident in investing in the stock market?"



There is an apparent contradiction in that 32% blamed the crisis on lack of government intervention, while 80% are made less confident in the stock market by the government intervention. Are we dealing with two sets of people with different political views? Or, did those in support of government intervention not like the way the government intervened?

To disentangle these two possibilities we used two additional questions. One asked the interviewees whether the Government should intervene to regulate the financial sector more. Among the 55% who think the Government should intervene more, 75% were made less confident by the government intervention in the last few months. Among the 45% who think the Government should not intervene, 85% were made less confident by the government intervention. Thus, a slight majority were predisposed to accept Government intervention, but even among them, the overwhelming majority were made less confident by the way the government intervened over the last few months.

To test whether the particular type of government intervention undermined trust, respondents were asked what they thought were the **primary** motives for Treasury Secretary Paulson's actions. 20% of the sample did not know. Of the rest, they split equally between the two motives: "the interest of the country" and "the interest of Goldman Sachs." To what extent did this perception that the secretary of Treasury was captured by the interest of Wall Street undermine trust in government intervention and ultimately the trust in the stock market? 90% of those who thought that Paulson's main motive was in the interest of Goldman Sachs were made less confident in the market by government intervention, while "only" 73% of those who think he acted in the interest of the country were made less confident. So the perception

that government is captured by business is not the only cause of dissatisfaction with the Government intervention, but it is definitely a big component of it.

Conclusions

After the collapse of Lehman, the U.S. and World economies have entered a major recession at an incredibly fast pace. A possible explanation for this decline is a sharp loss in trust in the financial sector and the economic system in general. As existing research has shown, lack of trust can have paralyzing effects on financing and investments (Guiso et. al., forthcoming). In this article we explore whether there is any basis for this hypothesis. We find that trust in the financial sector is indeed very low and is reported as having declined sharply in the last few months. This lack of trust is correlated with people's willingness to invest in the stock market and their tendency to withdraw deposits. While the heavy losses suffered can in part explain this reduced trust, a crucial factor seems to be the way in which the government has intervened. While the majority of respondents favor Government intervention in financial markets, 80% of the pro-intervention majority think that the way in which the government has intervened in the last few months has made them less, and not more, confident in the market. A big factor in this lack of trust is the perception -shared by 40% of the respondents- that the main purpose behind Treasury Secretary Paulson's act was the interest of Goldman Sachs and not the interest of the country.

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From Awful to Merely Bad: Reviewing the Bank Rescue Options
Purchasing 'toxic' assets is no easy solution
Wall Street Journal; February 7, 2009

R. Glenn Hubbard (Columbia University), Hal Scott (Harvard University) and Luigi Zingales (University of Chicago Booth School of Business)

When Henry Paulson, President Bush's Treasury secretary, first introduced the Troubled Asset Relief Program (TARP) in Congress last September, we cautioned against using government funds to buy mortgages and mortgage-related securities from banks. After the Emergency Economic Stabilization Act was signed into law in early October, the Treasury decided not to buy these assets. Instead, it used the first $350 billion of TARP funds to inject capital first into nine systemically important troubled banks, and later into insurer AIG (as part of a refinancing) and auto makers General Motors and Chrysler.

This approach seems to have achieved (albeit at a high cost for taxpayers) its principal objective of avoiding a massive collapse of the financial system. But it has not yet resulted in an increase in bank lending or the attraction of new private equity to the banking system, both of which are important to reviving the economy. There now appears to be active consideration of using TARP funds to buy "bad assets" from the banks. Major problems with so doing remain.

The central issue is how to price the assets. When the subprime crisis hit in the summer of 2007, the Treasury's first response was to encourage the private sector to create a fund -- the so-called Super SIV (structured investment vehicle)—to buy mortgage-related assets. This proposal foundered due to the difficulty of setting a price for these assets, which come in complex and incomparable varieties. If Treasury pays close to par, it is paying far too much. If it pays current prices, no one will sell because of the adverse impact on their capital. If it pulls a price out of a hat, it will be acting arbitrarily.

Initial discussions focused on using a reverse auction with asset holders "bidding" to sell their mortgage-related securities to the Treasury. Such an approach raises significant problems—most significant is the risk posed by asymmetric information regarding the value of these securities. Because the holders of complex and incomparable mortgage-related securities have more information regarding their worth than does Treasury, Treasury is at a huge disadvantage and will likely overpay. Moreover, there will have to be many auctions of very different securities. All of this will take months to execute.

Reportedly, thought is now being given to only buying "bad assets" and putting them in a fund (called a "bad bank") owned by the government. This new variation raises additional problems. First, how should "bad assets" be defined? As the recession deepens, bad assets have multiplied and will continue to multiply from mortgages and mortgage-related securities to many other assets classes, including credit-card portfolios. We see little sense in defining bad assets simply as those that have been already significantly written down. The bank may be more exposed to losses from assets that have not been significantly written down, but could well be.

Further, as the potential class of bad assets expands so does the cost of purchase. Total mortgage-related securities and mortgages held by banks alone are estimated to be $6 trillion, of which mortgage-backed securities are $1.3 trillion. Total bank assets are $16.5 trillion.

Another proposal is to guarantee the value of bad assets rather than buy them. This outcome could be accomplished by a direct guarantee of assets that remained on the balance sheet of banks (or were brought in from outside conduits or SIVs), or into one government-run bad bank.

A version of this approach was used in the second round of TARP financing for Citigroup and Bank of America. In the case of Citigroup, a $306 billion asset pool was created in which Citigroup absorbs the first $29 billion of losses, the Treasury and FDIC jointly fund 90% of the next $15 billion ($5 billion from the Treasury through TARP, and $10 billion from the FDIC), and the Fed finally funds 90% of the remaining losses. In return, the government received $7 billion in preferred stock (with an 8% yield) -- $4 billion to Treasury, $3 billion to FDIC. Under this approach, the problem of valuing the assets has been finessed into a problem of valuing the stock.

With more transparency, which Congress and its Oversight Panel would surely demand, that finesse would not work. A conservative estimate puts the value of the Citigroup option -- i.e., the potential cost to taxpayers -- at $60 billion, taking account of the stock warrants the government received. If one were to repeat this approach for all banks the cost would be as much as TARP. And, if the market for toxic assets were to fall further, the government could easily be responsible for trillions of dollars of losses. Last but not least, having the Fed become the residual risk bearer further undermines the Fed's financial stability and its ultimate independence, a concern recently voiced by the Committee on Capital Markets Regulation.

A more reasonable alternative would be to encourage banks to spin off the toxic assets into separate affiliated bad banks (as under a new reported German initiative). Ownership of these two entities would be allocated pro rata to all the financial investors as a proportion of the most updated accounting value of these assets. So a bank with $30 billion of bad assets and $70 billion of good assets will see its debt divided 30%-70% and its equity divided 30%-70%. Each $100 debt claim will become a $30 debt claim in the bad bank and a $70 debt claim in the good bank. The same would be true for equity. To limit the exposure of the FDIC to the bad bank, insured deposits and FDIC-guaranteed debt should remain in the good bank to the extent there are sufficient matching good assets. In addition, off-balance-sheet derivative contracts remain off balance sheet for the good bank to avoid the possibility that the failure of the bad bank would create systemic risk. Furthermore, convincing evidence would be needed before guaranteeing any of the liabilities of a bad bank because ordinarily a bad-bank failure should not result in systemic risk.

An alternative would be for the government to facilitate the injection of new, private-equity capital into banks by eliminating regulatory restrictions, such as bank ownership by private-equity or commercial firms, and providing protection against loss or dilution if there were to be subsequent government intervention. A subsidy for this private risk capital could even be given. As long as private capital holds most of the risk, it will certainly be allocated more efficiently than government money, minimizing the taxpayer cost of any subsidy. This idea would have to be more fully explored.

Whatever is done with respect to still solvent institutions, banks with dangerously low, or no or negative capital, should be taken over by the government through already established FDIC procedures, such as bridge loans. Just as with the Savings and Loan crisis of the 1980s, there is a significant risk that shareholders (and managers) with nothing to lose will roll the dice and lose even more. Existing shareholders with no equity should not benefit by government support. Further, a government takeover (just like a corporate bankruptcy) permits the restructuring of bank debt. As the S&L debacle shows, a decision worse than a nationalization of the banking sector is a nationalization of the losses, which still leaves the gains in private hands.

With still solvent institutions, there is no affordable and workable plan that will by itself assure that these banks will start lending and that private capital will return. We have stabilized the financial system against massive collapse, which is probably all the government can do. While we hope some more improvement may come from the bad bank or private-equity solutions outlined above, the road to further recovery of the financial system now lies principally with the economy's recovery and the success of the fiscal stimulus.

How Big Finance Bought the Bailout Plan
Did political contributions from Wall Street torpedo efforts to save America's struggling homeowners? Weighing some new evidence
Foreign Policy; February 13, 2009

Paola Sapienza (Northwestern University) and Luigi Zingales (University of Chicago Booth School of Business)

Some 2.25 million foreclosures were filed in the United States last year and at least 1.7 million are expected in 2009. This dramatic housing crisis is at the origin of the current financial and economic woes the country is experiencing. But if you were to look at Washington, you would hardly notice.

Last February, Senator Dick Durbin (D-Ill.) introduced a proposal to redesign Chapter 13 in an attempt to help homeowners avoid foreclosure. In the past year, his proposal was largely ignored. In the meantime, Congress approved a $168 billion tax cut for the first stimulus package, $700 billion to help banks, and even held an emergency session after the election to help General Motors and Chrysler. Compare it to HOPE, the limited program for homeowners approved only in October with nominal success to date.

The change in administration does not seem to have altered the focus: $825 billion for the new stimulus package and a new plan to commit between $1 and 2 trillion to create an "aggregator bank" that will relieve banks of their toxic assets at taxpayers' expense. And what about the homeowners? At most, they'll get $50 billion of the TARP leftovers. Why so much interest in helping Wall Street and so little interest in helping Main Street?

This is certainly not a reflection of the will of the American people. In a recent representative survey of 1,038 Americans, 62 percent of respondents said that the government should intervene to help homeowners who are defaulting. By contrast, 48 percent approve the government helping banks, and only 41 percent approve of the government helping GM. Even the self-declared Republicans, who vehemently oppose the bailout of GM (74 percent),

are less averse to help homeowners (64 percent). Among Democrats, the percentage in favor of helping homeowners is overwhelming (80 percent), as it also is among independents (59 percent). So why do two completely opposite administrations follow the same path?

One possibility is that the government knows what is best for the economic recovery of the country. Banks – the argument goes – are essential to the functioning of the economy. Saving banks will allow them to continue lending, which will sustain the economy.

This is certainly true, but restructuring mortgages and avoiding unnecessary and inefficient defaults will also help everybody. It will help the families who would otherwise lose their houses. It will help their neighbors who will not see the value of their homes depressed by a wave of foreclosures. It will help the economy, by supporting the consumption of all these families. It will also help banks, whose assets are directly and indirectly linked to the value of these mortgages. Hasn't the banking crisis started precisely from this sector? So why so little attention?

Another, more cynical explanation is that elected officials do not respond only to the will of the people, but also to political contributions. Is it just an accident that in 2008 the financial industry spent $442.5 million in political contributions, while the automotive industry only spent $17.3 million, and homeowners spent none?

Unfortunately, this cynical explanation finds support in a recent paper by three of our colleagues. They find that, controlling for ideology, the higher the amount of political contributions congresspeople receive from the financial industry, the more likely they are to vote for TARP. And it's not simply that representatives better predisposed toward the financial industry receive more money. In fact, political contributions did not seem to affect the vote of the 24 congressmen who retired in 2008.

This bias is no secret to the American people. In our survey, 50 percent of respondents said that former Secretary Treasury Henry Paulson was acting in the interest of Goldman Sachs, and not in that of the country. The result is a loss in the trust Americans have toward their government, their institutions, and the financial markets.

Given his campaign promise of change and the economic disaster that has resulted from Wall Street lobbying, President Obama should start with a temporary ban on banks' lobbying. Banks are using taxpayer dollars to lobby against the public interest. Second, he should drop the idea, so dear to Wall Street, of an aggregator bank and force banks' investors to bear the losses they created rather than shifting them to taxpayers. Last but not least, he should make helping homeowners his top priority – rather than just a talking point.

Yes, Obama can do it, unless Wall Street has captured him too.

Geithner's AIG Strategy
Its costs could be higher than advertised—and catastrophic.
City Journal; 18 February 2009

Pietro Veronesi (University of Chicago Booth School of Business) and Luigi Zingales University of Chicago Booth School of Business)

In spite of great expectations, the Financial Stability Plan that Treasury secretary Tim Geithner presented last Tuesday was short on details. Its biggest innovation was a way for the government to persuade private investors to buy toxic assets from banks. The investors would have started buying those assets at the banks' prices already if they thought it profitable; instead, they held back. How much will it cost for the government to change their minds? Potentially, an amount so enormous as to risk the credit of the U.S. government itself.

Judging by Geithner's past behavior as chairman of the Federal Reserve Bank of New York—where he helped lead bailout deals for Bear Stearns, Citigroup, and others last year—it's likely that the Treasury will try to attract investors by using government guarantees to cap their possible losses. On the face of it, this seems like a smart way for the government to stop the financial industry's meltdown without incurring astronomical costs. By covering some potential losses, the thinking goes, the government can calm investors' fears and lure them back into buying mortgage-related and similar securities from banks. If the government guarantee is large enough, investors can even pay for the securities at close to the value on the banks' books—sparing banks the burden of recognizing additional losses, which could push many of them into official insolvency. Last but not least, the plan minimizes the amount of money that the government must request from Congress.

To understand the problems lurking beneath this idea, though, let's analyze a similar deal: the guarantee that the federal government provided to Citigroup in November 2008. For a $306 billion pool of Citigroup assets "consisting of loans and securities backed by residential real estate and commercial real estate," the government committed to providing something like an insurance policy with a deductible. Citigroup would absorb the first $39.5 billion of losses on the loans and other securities, with the government picking up 90 percent of the additional losses and Citigroup just 10 percent. The government ingeniously divided its responsibility among the Treasury (the first $5 billion), the Federal Deposit Insurance Corporation (the next $10 billion), and the Federal Reserve (all the rest). In this way, the Treasury committed only $5 billion of the finite TARP bailout money to the deal.

The real value of the guarantee (and thus its potential cost to taxpayers) should include not only the TARP funds but also these other commitments—and it is massive. We estimate that if the government were held to the same accounting standards as private companies, the expected liability it would have to report for the Citigroup guarantee would be $66 billion. Nobody knows the true value of the volatile loans and securities underlying the deal—meaning that nobody knows the true extent of potential losses. And even the $66 billion estimate assumes that the assets comprise an average pool of residential-backed securities. Since Citigroup has a strong incentive to put the worst, most overpriced assets in the pool, the government's actual liability could easily be $78 billion or more.

Geithner's plan suggests that the government might be applying similar sleight of hand to the entire financial system. We estimate that to restore the solvency of the top 10 banks to their pre-crisis level, the banking system needs at least $4.5 trillion in purchases of its toxic securities. (That's why former Treasury secretary Henry Paulson abandoned the Bush administration's idea simply to buy up all the toxic assets—he knew that the government couldn't afford it.) Based on the Citigroup example, we calculate that Geithner would have to commit $75 billion of TARP money to attract enough private capital for the plan. But just as with the Citigroup case, that initial commitment wouldn't tell the whole story. Under proper accounting standards, and taking the entire government's commitments into consideration, the strategy would actually impose a cost of around $1.2 trillion on taxpayers.

Geithner is contemplating a Public-Private Investment Fund of $1 trillion and a similar Consumer and Business Lending Initiative of another $1 trillion—about $2 trillion in all, rather than the full $4.5 trillion. But the initial cost of the plan for the government would still come to a staggering $510 billion. And what's even scarier is the potential losses for which the government could be liable. With $2 trillion in principal at stake, we calculate that the government would face a 10 percent chance of losses greater than $1.3 trillion and a 5 percent chance of losses larger than $1.4 trillion. Such

losses, unlikely though they are, could be large enough to undermine faith in the government's solvency, leading to a currency crisis.

Some might dismiss these worst-case scenarios as purely hypothetical. After all, the crisis could still recede; the U.S. government could get lucky and make a profit on the overall transaction. But such reasoning is myopic. Underwriting insurance against rare events always seems a profitable business—until the rare event occurs. Until June 2007, insuring Lehman Brothers against default looked like a great deal. Back then, the market attributed only a 0.6 percent probability to a Lehman default (over two times lower than the probability the market attributes today to a default of the U.S. government).Fifteen months later, after Lehman had collapsed, the hedge funds and other investors that had insured the firm had to pay 92 cents on the dollar to every insured debt.

For that matter, ignoring the real risk of insuring rare events is also what brought down AIG, the largest insurance company in the world, which had insured many mortgage bonds and other securities similar to the ones that the financial industry is stuck with now. Do we want to bring down the world's most powerful government in the same way?

Anti-Trust America
A trust deficit is driving our economy down.
City Journal; February 27, 2009

Paola Sapienza (Northwestern University) and Luigi Zingales (University of Chicago Booth School of Business)

"Our workers are no less productive than when this crisis began," President Obama said in his inaugural speech. "Our minds are no less inventive, our goods and services no less needed than they were last week or last month or last year." Why, then, did the country's GDP drop by 6.2 percent in the fourth quarter of 2008? While it's true, as the president says, that America's stock of physical and human capital remains undiminished, something important was indeed destroyed last year: trust.

"Virtually every commercial transaction has within itself an element of trust," writes economist Kenneth Arrow, a Nobel laureate. When we deposit money in a bank, we trust that it's safe. When a company orders goods, it trusts its counterpart to deliver them in good faith. Trust facilitates transactions because it saves the costs of monitoring and screening; it is an essential lubricant that greases the wheels of the economic system.

The drop in trust, we believe, is a major factor behind the deteriorating economic conditions. To demonstrate its importance, we launched the Chicago Booth/Kellogg School Financial Trust Index. Our first set of data—based on interviews conducted at the end of December 2008—shows that between September and December, 52 percent of Americans lost trust in the banks. Similarly, 65 percent lost trust in the stock market. A BBB/Gallup poll that surveyed a similar sample of Americans last April confirms this dramatic drop. At that time, 42 percent of Americans trusted financial institutions, versus 34 percent in our survey today, while 53 percent said they trusted U.S. companies, versus just 12 percent today.

As trust declines, so does Americans' willingness to invest their money in the financial system. Our data show that trust in the stock market affects people's intention to buy stocks, even after accounting for expectations of future stock-market performance. Similarly, a person's trust in banks predicts the likelihood that he will make a run on his bank in a moment of crisis: 25 percent of those who don't trust banks withdrew their deposits and stored them as cash last fall, compared with only 3 percent of those who said they still trusted the banks. Thus, trust in financial institutions is a key factor for the smooth functioning of capital markets and, by extension, the economy. Changes in trust matter.

What causes the changes? Disappointment over short-term performance is only one way that a drop in the stock market becomes a trust crisis. Perceptions about the *causes* of a crisis seem to undermine trust even more: in the last quarter of 2008, 70 percent of those who believed that the crisis was due to poor corporate governance or lack of government regulation experienced a drop in trust, versus 54 percent of those who attributed the crisis to other causes, such as global imbalances.

But the main cause of the drop in trust is people's beliefs about the *type* of government intervention during the crisis. Around 80 percent of respondents felt less confident about investing in financial markets as a result of the type of government intervention in the last three months of 2008. This outcome was not the consequence of an ideological bias against government involvement; on the contrary, a majority of respondents believed that the government must regulate financial markets. They objected to the specifics of what was being done. Their trust was undermined, in part, by the perception that lobbying interests influenced the government intervention: 50 percent of respondents, for instance, thought that former treasury secretary Henry Paulson had acted in the interest of Goldman Sachs, not the United States.

For financial markets to play their vital role once again, we must restore people's faith in them. The most effective way to do so is to eradicate the perception that the government is run in Wall Street's interest. The ethics rules issued by President Obama are a good but insufficient first step. More important is to redesign the bank rescue plan so that it clearly acts in the interest of the country (having well-capitalized banks), not the interest of Wall Street (having taxpayers bail out current investors). Not only is this feasible, it is also fair. And fair rules of the game are what investors need to regain their trust.

The Better, Cheaper Mortgage Fix
How to renegotiate all those bad loans at no cost to the taxpayer.
Slate; March 2, 2009

Eric Posner (University of Chicago) and Luigi Zingales (University of Chicago Booth School of Business)

Earlier this month, President Obama announced a homeowner-relief plan that would offer $75 billion in subsidies to homeowners who have trouble making mortgage payments. The problem with the president's plan is that it does little to address the principal source of the housing crisis—the fact that the bursting of the housing bubble has plunged millions of homeowners into negative equity. Their houses are worth less than their mortgages, or "underwater." What's still needed is an approach to mortgage forgiveness that will give homeowners the right to force mortgage holders to accept terms that both sides can live with. Executed correctly, this could resolve the crisis without costing the taxpayer any money. Really.

The key to understanding our plan is that houses are worth more if kept or sold by their owners than if they are foreclosed on. Bankers tell us that when they foreclose on a house, it typically loses a great deal of value, as much as 30 percent to 50 percent. And this is on top of the loss that the house has already suffered because of the general economic downturn. This means that if you bought a house for $300,000 and today you can sell it for $240,000 but instead lose it to foreclosure, the house will eventually go for only $120,000 to $168,000. The reasons are well known: Foreclosure can be a time-consuming process, and empty houses are difficult to maintain. Sometimes, they are taken over by squatters and vandalized. And one badly maintained house can bring down the block, leading to more underwater homeowners, more mortgage defaults, and more foreclosures.

If foreclosure is so costly, why don't lenders avoid this cost through renegotiation? Renegotiations aren't happening because so many mortgages are securitized. In the old days, if you wanted to renegotiate your loan, you just called your bank. Now you have to deal with the loan servicer, who acts on behalf of the thousands of mortgage-security holders who have a right to a share of your payment. The loan servicer gains little and loses a lot if it attempts to renegotiate a loan. Securities holders don't trust servicers and threaten to sue them if they renegotiate loans; servicers usually don't lose much money if the mortgage defaults.

The solution to this problem is for the government to force renegotiations to occur. A simple plan could do this. The plan would give all homeowners who live in a ZIP code where house prices have dropped more than 20 percent the option to have their mortgage reduced to the current market value of the house. In exchange, these homeowners would yield to their lenders 50 percent of the future appreciation of the house. To avoid any gaming and future moral hazard, both the current and the future value of the house will be determined by multiplying the purchase price and the variation in the housing price index. So if you bought your house for $300,000, and the average house in your ZIP code has lost 20 percent of its value, then your new house is assumed to have a value of $240,000. If your mortgage was $280,000, now it is $240,000 (the new value of the house). You are no longer underwater.

For the homeowner, this is a very attractive proposition. Suppose he has a $300,000 mortgage on a house he bought for $350,000 but today is worth only $200,000. With the plan, he will receive a $100,000 reduction in his mortgage in exchange for giving up a portion of the future appreciation of the house should that happen. Using the tools of finance theory, we can calculate the value of the "option" that the homeowner gives to the bank. Assuming an 8 percent annual volatility in house prices and an 11-year tenure in the house, the option is worth $36,000. The homeowner loses $36,000 from the lost future appreciation but gains $100,000 in the reduction in mortgage debt: a good deal. The homeowner also has a good incentive to maintain his property. If the homeowner adds a bathroom, he reaps the full benefits of this addition when he sells the house. Although he must pay the bank 50 percent of the increase in the price of the average house in the ZIP code, he keeps any additional return if his own house appreciates more quickly than the average house because of the new bathroom.

For the lender, there is also money to be made. If he were to foreclose, he would get only $100,000 to $140,000, the market value of the house after it has declined 30 percent to 50 percent because of foreclosure. If the mandated renegotiation occurs, he gets $236,000 ($200,000 from the mortgage and $36,000 from the option). This is an excellent deal, even if some homeowners default on the renegotiated mortgage.

Now here's the bonus: This plan is very low-cost. It could be introduced as a prepackaged bankruptcy, requiring just a judicial stamp of approval. Congress is considering some similar plans that allow homeowners who enter Chapter 13 bankruptcy to reduce their mortgages to the market value of the house. But Chapter 13 cases are slow and expensive, and the country's few hundred bankruptcy judges cannot handle millions of these full-blown proceedings. Our plan, by contrast, is quick and dirty: It strips away the irrelevant elements of Chapter 13 as well as relying on ZIP code-level housing price indexes to deal with appraisals. And whereas a Chapter 13 proceeding can be used to dispose of credit-card debt and other unsecured debt—which could throw these credit markets into turmoil—our plan is limited to mortgages. Borrowers with adjusted mortgages have a better ability to pay off their other debts.

With 62 percent of Americans asking for some kind of homeowner relief, government intervention is inevitable, as the Obama administration has recognized. Although many people think that one can help homeowners only by hurting creditors and hence driving up the long term cost of credit, our plan will help homeowners and *reduce* the long-term cost of mortgages. It does so by reducing an inefficiency in the mortgage market whose magnitude had been overlooked until the current financial crisis. And unlike other proposals, it would not cost the taxpayer a cent.

We are Not All Keynesians
Economist.com, Economist Debates; March 10, 2009

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What does "being Keynesian" mean? Simply believing in the role of demand-side factors in the determination of aggregate output is an insufficient characterisation. A true Keynesian differs, in so much as he also believes that: 1) monetary policy is not the most effective tool for stabilising the economy and it may be completely ineffective in some circumstances (liquidity trap); 2) fiscal policy is effective and government spending is the preferred tool; 3) government intervention works and short-run consequences are more important than long-run ones.

With this definition in mind, there could be four ways in which the statement "we are all Keynesians now" can be interpreted. I propose that the statement is false in three out of four of these interpretations.

The first interpretation is that the economic profession has reached a consensus on Keynesian positions. This statement is definitely false. If you browse through the articles published in the leading journal of the American Economic Association in 2008, you would find that only one of the 12 articles that deal with macroeconomic issues (JEL Code E) supports (albeit very indirectly) the idea of a fiscal policy expansion as a policy tool. An even stronger imbalance is present at the pinnacle of our profession. Among the 37 Economics Nobel prize winners in the last 20 years, four received the prize for their contributions to macroeconomics. None of these could be considered Keynesian. In fact, it is hard to find academic papers supporting the idea of a fiscal stimulus.

The second possible interpretation is that there exists a consensus among economists that the causes of the current crisis are Keynesian. Even under this interpretation the statement is patently false. I do not think that any economist would dare to say that the current US economic crisis has been caused by underconsumption. With zero personal saving and a large budget deficit the Bush administration has run one of the most aggressive Keynesian policies in history. Not only has adherence to Keynes's principles not averted the current economic disaster, it has greatly contributed to causing it. The Keynesian desire to manage aggregate demand, ignoring the long-run costs, pushed Alan Greenspan and Ben Bernanke to keep interest rates extremely low in 2002, fuelling excessive consumption by the household sector and excessive risk-taking by the financial sector. Most importantly, it has been the Keynesian training of our policy-makers that has led them to ignore the role that incentives play in economic decisions. The main difference between Keynes and modern economics is the focus on incentives. Keynes studied the relation between macroeconomic aggregates, without any consideration for the underlying incentives that lead to the formation of these aggregates. By contrast, modern economics base all their analysis on incentives. In 1998, when the Fed co-ordinated the bail-out of Long Term Capital Management, it did not care about the impact this decision would have on the incentives to take risk and price liquidity appropriately. When Mr Bernanke engineered the bail-out of Bear Stearns, he did not care about the impact this decision would have on the other investment banks' incentives to raise equity capital at rock-bottom prices. When he changed his position twice in the space of two days, letting Lehman fail, but bailing out AIG, he did not care about the impact it would have on investors' confidence and incentives to invest. It is this erratic behaviour that has spooked the market and created the current economic crisis: in a recent survey 80% of Americans declare that they are less confident of investing in the market as a result of the way the government has intervened.

If Keynesian principles and education are the cause of the current depression, it is hard to imagine they can be the solution. Thus, even the third interpretation of the house statement—that we should follow Keynesian prescriptions to combat the current economic crisis—is false. I am not disputing the idea that some government intervention can alleviate the current economic conditions, I am disputing that a Keynesian economic policy can do it. With a current-account deficit that in 2008 was $614 billion, a budget deficit that was $455 billion and military expenditures of $731 billion, it is hard to argue that the government is not stimulating demand sufficiently. The current crisis is not a demand crisis, it is a trust crisis. Bad corporate governance coupled with bad government policies has destroyed the financial sector, scaring investors and freezing lending. It is as if a nuclear bomb had destroyed all roads in America and we claimed that to alleviate the economic impact of such an event we should invest in banks. It is possible that eventually

the effect will trickle down. But if the problem is the roads, you want to rebuild roads, not subsidise the financial sector. And if the problem is the financial sector, you want to fix this and not build roads.

The only interpretation under which the house statement is true is that "we"—the English/American people and their elective representatives—are all Keynesians now. Keynesianism has conquered the hearts and minds of politicians and ordinary people alike because it provides a theoretical justification for irresponsible behaviour. Medical science has established that one or two glasses of wine per day are good for your long-term health, but no doctor would recommend a recovering alcoholic to follow this prescription. Unfortunately, Keynesian economists do exactly this. They tell politicians, who are addicted to spending our money, that government expenditures are good. And they tell consumers, who are affected by severe spending problems, that consuming is good, while saving is bad. In medicine, such behaviour would get you expelled from the medical profession; in economics, it gives you a job in Washington.

The New Geithner Plan is a Flop
New York Daily News; March 25, 2009

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On Monday, the market rallied 7% at the announcement of Treasury Secretary's Timothy Geithner's plan to deal with banks' toxic assets. Should taxpayers celebrate as well? The answer is a resounding no. Geithner's plan is just a more risky and cagey version of the original plan by his predecessor, Henry Paulson: to buy toxic assets. Not only is it as likely to fail as his predecessor's, but it is also likely to create major political unrest.

The premise underlying both plans was that banks were facing a temporary liquidity problem: Many mortgages and related securities allegedly were trading below their long-term values, making banks appear insolvent. According to this view, it would be enough to inject liquidity into this market to make valuation return to its "fundamental" level, restoring the health of banks. Hence the idea to pump the government's money into this market to fix the problem.

As banks know well, however, no debtor on the verge of bankruptcy would ever admit to being insolvent; he will always perceive his own problem as a temporary liquidity one. The credibility of this position depends on the duration of the "liquidity" problem and on the existence of legitimate reasons to think that the long-term value has not dropped.

When Paulson first asked Congress for money from the Troubled Assets Relief Program, several indexes of subprime, residential, mortgage-backed securities were trading around $65 a share. Now they are trading around $30. With delinquency approaching 12% and house prices down almost 30% and falling, these losses seem more than temporary illiquidity. Even Citigroup analysts, when they judge other banks, estimate losses on subprime loans at 25% to 40% and losses on credit cards at 26% to 38%.

In other words, these problems are about as temporary as General Motors' ones. In the automakers' case, the government has used a tough-love approach, asking all the various stakeholders (including the bondholders) to make concessions. For the banks, on the other hand, Geithner has asked for concessions from no one. In fact, he has even grandfathered the managers' bonuses, while offering taxpayers' money to make bondholders and shareholders whole.

It's no surprise the market rallied. It loves to be rescued at taxpayers' expense. And it's no wonder that hedge funds endorsed the plan; they love the subsidy Geithner is providing. Between the money lent by the Federal Deposit Insurance Corp. and the money invested by the Treasury, hedge funds can buy assets for $100 - when they invest only $7. In this way, they retain 50% of the upside and only $7 of the downside. To them, it is almost free.

The irony of the plan is that it seems to replicate the same excesses that brought the crisis - carrying enormous economic and political risk.

So, what happens now?

The worst-case scenario is that the assets are really worth what the currently illiquid market thinks they are worth. In this case, the Treasury, but in particularly the FDIC, will face enormous losses. Had Paulson applied this strategy in late September, the Treasury would now be facing losses equal to 47%. On a trillion-dollar investment, we are talking about $470 billion in losses.

The best-case scenario is that the value of the toxic assets bounces back so that the government recovers all its money and the hedge funds become filthy-rich.

Even in this happy scenario, however, there is a very serious political problem: How would taxpayers react when they find out that those who reap the biggest benefits of this program are the very same people who created this mess to

begin with? Because let's realize this now: The most savvy buyers of toxic assets will certainly be those who created them.

If you think that the revelation of AIG lavish bonuses has shown all the rage of the American people, think again. When former subprime lenders will become the new billionaires, we run the risk of a populist revolution.

To Regulate Finance, Try the Market
Foreign Policye; 20 March 2009

Oliver Hart (Harvard University) and Luigi Zingales (University of Chicago Booth School of Business)

As Timothy Geithner pushes for an overhaul, it's time to rehabilitate one of the tools that got us into this mess: the credit-default swap.

Just days after announcing his plan to clean up banks' balance sheets of toxic assets, U.S. Treasury Secretary Timothy Geithner hit the airwaves, priming audiences for his next big project: a regulatory system to ensure that this financial crisis is a one-time event. "[The] core thing is to make sure that the institutions at the center of our financial system are subject to much more conservative, much tougher requirements on capital and leverage," he told NBC's David Gregory on Sunday's Meet the Press. Geithner will be taking his show on the road this week as the G20 convenes in London, where regulation will be high on the agenda.

Should we welcome Geithner's regulatory rethink? In principle, yes. If there is one lesson to be learned from the 2008 financial crisis, it is that large financial institutions (LFIs) such as Citigroup or AIG are too big to fail. Whether this doctrine is based on economics -- the cost of LFI failure is too high -- or politics -- the pressure to save LFIs is too strong -- the conclusion is the same: We need to reimagine how we regulate these institutions.

We'll explain why a market-based system is the best way to achieve this, and how credit default swaps -- yes, the same financial tools that helped get us into this mess -- can play a role. But first, some basic principles.

So what's wrong with bankruptcy for financial giants? In a free-market economy, bankruptcy accomplishes two crucial goals: it resolves conflicting claims and it shifts control away from incumbent management. By penalizing owners and managers, bankruptcy gives firms an incentive to repay their debts, thus permitting them to raise capital in the first place. But for LFIs, bankruptcy is a dangerous option. Given their size and the dense web of derivative and short-term financing contracts that these institutions have, bankruptcy spreads uncertainty throughout the economy, as we saw in the case of Lehman Brothers. So, we want a system that achieves the goals of bankruptcy, but at the same time ensures that these other contracts are safe.

How do we thread this needle? Here, we can learn from a common market practice: margin accounts. In a margin account, an investor buys stock and puts down only part of the cost. When the stock price drops, the broker who extended a loan for the rest of the stock price asks the investor to post new collateral. The investor then has a choice: He can post the collateral, thereby re-establishing the safety of his position, or he can liquidate his holding, allowing the broker to be paid in full.

This analogy can help us figure out how much capital large financial institutions should be required to keep on hand. The answer: an LFI will have to post enough collateral (equity) to insure that its liabilities are always paid in full. When the fluctuation in the value of the underlying assets puts creditors at risk, the LFI's equity holders will be faced with a margin call: They will either have to inject new capital or lose their equity. In both cases the creditors will be protected.

The main difference between margin calls and our new capital requirement system is the trigger mechanism. In a margin account, the broker looks at the value of the investments (which is easily determined since all assets are traded) and compares the value of the collateral posted with the possible losses the position might have in the following days. Creditors of LFIs, however, are often dispersed and so unable to coordinate to make a margin call. And since most LFI assets, such as commercial loans and home equity lines, are non-standardized and not frequently traded, their value is hard to assess. Another mechanism will be needed to determine when the margin is too thin.

One possibility is to leave the decision of when to make a margin call in the hands of a regulator. However, the risk here is twofold. Either the regulator is powerful, leaving financial institutions exposed to the risk of abuse, or the regulator is weak and will be unduly influenced by failing institutions and intervene too late.

Regulators should therefore rely on a market-based trigger: a credit default swap (CDS). Despite being viewed by many as a "financial weapon of mass destruction," CDSs are like any tool that can be used wisely or foolishly. In this context, they are potentially some of the best regulatory instruments available. A credit default swap on an LFI is an insurance claim that pays off if that institution fails and creditors are not paid in full. Since the CDS is a "bet" on the institution's strength (or weakness), its price reflects the probability that the LFI debt will not be repaid. Such CDSs, in essence, indicate the risk that a large financial institution will fail.

In our mechanism, when the CDS price rises above a critical value (indicating that the institution has reached an unacceptable threshold of weakness), the regulator would force the LFI to issue equity until the CDS price and risk of failure back down. If the LFI fails to do this within a predetermined period of time, the regulator will take over.

This regulatory takeover would not be dissimilar to a milder form of bankruptcy, and it achieves all the other goals of bankruptcy -- discipline on management and shareholders -- without imposing any of the systemic costs.

Credit-default swaps have been demonized as one of the main causes of the current crisis. It would be only fitting if they were part of the solution.

A New Regulatory Framework
Three agencies, based on the three main goals of financial regulation
City Journal; March 31, 2009

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The American system of financial regulation is a patchwork of agencies. At least 10 federal regulators oversee financial-services companies; different regulators sometimes supervise the same entities; and since the onset of the financial crisis, regulatory agencies have taken on roles not originally envisioned or mandated, leading to further redundancy. This patchwork is not the creation of a schizophrenic legislator, but rather the accumulation of a century of financial crises, each of which led to the creation of a new agency. In the current crisis, instead of forming yet another agency, we should rethink the country's financial regulatory architecture entirely.

History shows why our regulatory system is such a hodgepodge. The Federal Reserve was created in 1913 to address the liquidity problems experienced during the panic of 1907; eventually the Fed became responsible for controlling inflation and unemployment. The Federal Deposit Insurance Corp. (FDIC) was born in 1933 to prevent the kind of bank runs that had forced more than 5,000 banks to close in the early 1930s.

The Securities and Exchange Commission (SEC) came into being in 1934 to prevent the stock-market manipulations that had prevailed during the 1920s. And the Office of Thrift Supervision was created in 1989, following the savings-and-loan crisis of the late '80s. In fact, the Commodities Future Trading Commission (CFTC) is the only financial regulatory agency not created following a crisis; it came about in 1974 as the result of the intense lobbying by Chicago exchanges to protect their autonomy from New York.

So it's not surprising, when you consider their origins, that these agencies have recently been stepping on one another's toes. Transparency and investor protection, for example, have been pursued not just by the SEC (its proper role) but also by the CFTC and the Fed. Similarly, the Fed, the FDIC and the SEC have all been trying to help stabilize the financial system since the crisis began.

The current regulatory system runs into problems with coordination and the communication of information. Lack of coordination across different agencies can tempt industry to avoid regulation entirely. For example, state insurance regulators never oversaw credit default swaps, even though they were essentially insurance products, because they were called "swaps," which made them sound like standard derivatives. As for communication of information, consider the Bear Stearns crisis. Because the Fed didn't regulate investment banks--that was the SEC's job--it didn't learn in time the extent of Bear's poor financial condition or the risks that Bear's failure would pose to the entire banking system, and in consequence, it had no time to plan a possible intervention.

How to fix these problems? One common suggestion is centralization, in which all regulatory functions are rolled up into one organization, as Britain does with its Financial Service Authority (FSA). In practice, however, even the FSA represents only a partial centralization, because some key monetary-policy functions remain with the Bank of England. And during the Northern Rock crisis, Britain's supposedly centralized system failed at the very goal for which it was created: effective coordination. Another possibility is the so-called functional approach to regulation, in which regulators oversee entities according to the kind of function that those entities perform. So, for instance, the same regulator would oversee money market funds and banks, since they perform the same function--providing short-term liquidity to individuals and firms.

But the functional approach does nothing to eliminate two major problems with our current regulatory system. The first is the trade-off among different objectives. At the risk of oversimplification, I would say that government intervention in the financial system has three main goals: price stability, financial-system stability and protecting investors and borrowers against fraud and abuses. At present, the various regulatory agencies have to make troubling trade-offs among these three objectives. For example, when the Fed extended a loan to **Citigroup**'s ring-fenced toxic assets to help prop up the bank, it traded off price stability for financial stability. If those assets were to turn out to be worth much less than

expected, the Fed would find it impossible to recoup the liquidity it injected, which would risk causing an increase in inflation, because it would have pumped money into the economy backed by nothing. Similarly, when the Financial Accounting Standards Board (FASB) initiates new rules on mark-to-market accounting, it swaps the goal of transparency (and thus investor protection) for the goal of system stability, which can be compromised by the fact that mark-to-market may exacerbate economic cycles. Having such trade-offs made within agencies, and thus nontransparently, poses serious risks.

The second problem with our current system is that when responsibilities are allocated across agencies, it's difficult to hold any one agency or individual accountable for any outcome. Whose fault was it that Bear Stearns was forced into a shotgun merger with JPMorgan Chase? Was it the SEC's, for failing to oversee the risk of investment banks, or the Fed's, for failing to provide liquidity, or a lack of coordination between the two, or all of the above? As long as fundamental goals are divided among organizations, the blame game will prevent each from taking responsibility for the results.

Hence the need to rethink regulatory architecture along clear lines of responsibility and goals. I propose that we allocate financial regulation and supervision to three different agencies, each responsible for only one of the three principal goals of financial-system regulation. One agency would be in charge of price stability, more or less conducting the traditional monetary policy that the Fed currently conducts. A second agency would be tasked with systemic considerations, absorbing some of the extraordinary roles that the Fed has taken on during the current crisis, together with other solvency issues (often overseen by state insurance regulators). Finally, a third agency would focus on protecting the little guys, whether they're investing in stock, depositing funds at a bank, borrowing from a bank or buying an annuity or other insurance product.

The beauty of such a system is that each of the three agencies would have a very simple and easily measurable goal. The price-stability agency would have to control inflation. Its effectiveness could be easily measured by the inflation expectations embedded in the difference between standard Treasury bonds and Treasury inflation-protected securities (TIPS). The system-stability agency's goal would be minimizing the risk of a systemic collapse. Its accomplishments could be measured by the price of credit-default swaps on the major financial institutions, which captures the probability that these institutions might fail. Finally, the investor-protection agency's success could be measured through surveys of the trust that people feel in the stock market and other financial institutions. Major trade-offs among these goals--which, as we've seen, present serious problems in the existing setup--would have to occur across agencies, not within them, and thus be conducted in a more transparent fashion.

The main challenge of such a design would be striking these compromises across agencies and communicating crucial information among them. A new board could be set up consisting of the heads of the three agencies, together with a small number of other Senate-appointed representatives. Just as with the Fed board, the minutes of this new board would be publicly released (possibly with a delay), so that the trade-off decisions were transparent and the responsibility for them clearly allocated.

The current financial crisis is not due to lack of regulation, as many like to say, but to poorly designed and poorly enforced regulation. A better regulatory regime, based not on historical accident but on the chief objectives of financial regulation, would help prevent future crises and help our economy regain its vibrancy.

Stop Subsidizing the Street
Bailouts hurt much-needed entrepreneurship in the banking sector
City Journal; April 29, 2009

Paola Sapienza (Northwestern University) and Luigi Zingales (University of Chicago Booth School of Business)

The word for "crisis" in Chinese, weiji, is written with two characters: one (wei) means danger; the other (ji) means opportunity. That's because every crisis challenges the status quo and in so doing creates the opportunity for something new to emerge. "This process of Creative Destruction," wrote economist Joseph Schumpeter, "is the essential fact about capitalism. It is what capitalism consists in and what every capitalist concern has got to live in."

We have experienced the destruction wrought by the financial crisis. Now it's time to focus on the opportunities it brings. The first place to look is the site of the greatest destruction: the banking sector. While finance will remain a pillar of a well-functioning economy, it's unlikely that banking will survive for long in its current form. The current banking model is broken. Citigroup has been on the verge of failing in three of the last four downturns: this is hardly a viable business model.

Even more important is that Americans are rapidly losing trust in their banks. A survey we conducted at the end of March showed that only 29 percent of Americans trusted banks, down from 34 percent three months earlier and 42 percent a year ago. Twenty percent of respondents felt that a bank had cheated or misled them in the previous 12 months, while 10 percent had withdrawn their FDIC-insured deposits and squirreled away the cash. The word "credit," speaking of telling etymologies, comes from the Latin credere, which means "to trust." Trust is essential in banking, and it's unlikely that banks can restore it. It's always difficult to regain trust; it's easier to start anew.

Luckily, starting anew is exactly what's happening in the banking sector, with the launch of several start-ups with innovative ideas. They range from new ways to insure mortgages to new models of lending to reliable consumers by bypassing the current banking system. Many others, such as Lending Club and Prosper, are popping up on the Internet, letting investors, rather than credit officers, decide who is creditworthy. It's too early to tell if these attempts will succeed, but it's vital that they occur. Through trial and error, a new world of banking will rise from the ashes of the old one.

Should the government subsidize these efforts? In a recent New York Times column, Tom Friedman said yes, suggesting that it should dedicate a fraction of the Troubled Asset Relief Program (TARP) money to promote innovation. Fortunately, several venture capitalists have rejected the idea online, and with good reason: the government's record as a venture capitalist is rather poor. Nevertheless, the government can foster the new and innovative in a crucial way: by ceasing to subsidize the banking dinosaurs. The evidence shows that subsidies to failing companies not only waste resources in keeping obsolete and inefficient firms alive, but also delay the entry of new and more efficient organizational models.

TARP was sold as a way to keep credit flowing. It failed miserably at that task, and it has also delayed the success of new ventures that could help revive credit in the economy. For finance to begin allocating resources efficiently again, the government must stop propping up Wall Street.

Banks Need Fewer Carrots and More Sticks
Insolvent institutions should be taken over by the FDIC
Wall Street Journal; May 6, 2009

R. Glenn Hubbard (Columbia University), Hal Scott (Harvard University) and Luigi Zingales (University of Chicago Booth School of Business)

The results of bank stress tests -- expected tomorrow -- will no doubt prompt calls for further government guarantees and capital injections. But continuing to prop up the banks with government cash is a mistake. There is a better approach.

A well-capitalized banking sector is a necessary ingredient for effective intermediation and economic recovery. But today's system is not well-capitalized. How can we move in the right direction? In a market economy, the government can create the right incentives by using a combination of carrots and sticks. Thus far, the government has only used carrots with the banks. One major carrot is the Troubled Asset Relief Program (TARP). The initial infusions were very generous -- the Treasury got back securities worth $78 billion less than the $254 billion it invested -- as the Congressional Oversight Panel pointed out recently. In addition, the FDIC's guarantee of short-term debt was worth $100 billion just for the original nine TARP-participating banks. And the mortgage-related asset guarantees offered to Citibank and Bank of America were worth tens of billions of dollars more.

A new round of expensive TARP injections -- by converting the government's preferred stock into equity – may follow the release of the stress-test results. In addition, the Treasury's Public-Private Investment Program (PPIP) plans to subsidize the purchase of banks' "toxic assets" by hedge funds and other investors. We estimate that the government will spend $2 for every $1 the private sector will put in. Yet even with this large subsidy, PPIP's chance for success is low because of the substantial gulf between the bid and ask prices on the toxic assets, and the reluctance of investors to partner with the government.

Not only is the carrot approach not jump-starting lending, it is also angering the American people. It's hard to justify to taxpayers that we need to reward the same group of people who, rightly or wrongly, are perceived as responsible for the current situation.

It's time for government to use the stick, beginning with creditors. The first step should be an announcement that the FDIC guarantees of short-term debt, set to expire at the end of October, will not be renewed. Insolvent banks -- defined not by stress tests, but as those that cannot fund themselves in the private market -- will be taken over by the FDIC. Of course, this takeover plan must be clear and credible. Otherwise creditors will play "chicken" with the government, knowing that at the last minute the government will flinch and fail to remove the guarantees.

Despite the clarity of such an approach, the market might be skeptical for several reasons. First of all, the FDIC lacks the staff to oversee, let alone run, several large and complex banks which may become insolvent. Second, the FDIC's main approach so far, as with Washington Mutual and IndyMac, has been to restructure the banks for acquisition. The trouble with this plan is that it is unclear who will buy the largest banks in the near future. Finally, it is politically unappealing to have a government institution run a significant fraction of our banking sector. Waiving the specter of nationalization, the creditors may try to force the government to bail them out.

We believe these problems can largely be avoided by adopting a simple approach. Rather than taking over and running banks, the FDIC should split each bank into two parts. One part ("the bad bank") will assume all the residential and commercial real-estate loans and securitized mortgages as assets, and all the long-term debt as liabilities. In addition, "the bad bank" will obtain a loan from the "good bank." This loan is necessary because the long-term debt of the old bank is not likely to be sufficient to fund the assets of the bad bank. The good bank will have all the remaining assets, including derivative contracts and its loan to the bad bank. It will have all the insured deposits and the FDIC-guaranteed short-term debt as liabilities. Once the split is accomplished, the good bank can be cut loose from FDIC receivership.

On the one hand, this split separates the toxic assets, whose value is very uncertain, in an institution that has no insured or guaranteed liabilities and poses no systemic risk. The bad bank will be like a closed-end mutual fund and can be run as such. The good bank will be well-capitalized, and the value of its assets will be clear.

The losers in this reshuffling are the long-term debtholders who get stuck in the bad bank. For this reason, we propose that they be compensated by receiving all the equity of the good bank. The old shareholders will get the equity in the bad bank. (In any restructuring, bondholders should do better than equity.) And the FDIC minimizes its risk because it guarantees the deposits in the good bank.

In fact, long-term debtholders who have debt claims against the bad bank and equity claims against the good bank will be better off under this plan than if the bank were liquidated or continued to operate as one bank. If the bank were liquidated, bondholders would stand to lose almost all their investment. If the bank continues to operate with government subsidies, the benefit of the subsidies are shared by both debt and equity. Under our plan, the debtholders will get all of the equity in the "good bank" and therefore all the upside of its future performance.

One of the major objections to letting banks fail is the argument that they are not really insolvent; they are just facing a temporary dislocation in the marketplace. But if this observation were true, the bad bank would surge in value, and the old shareholders of the banks, who received the shares in the bad bank, would gain. If it is false, the bad bank would default and the old shareholders would receive nothing (as they should). In order for this plan to work, legislation would need to take effect before the withdrawal of the FDIC guarantee in October, so that FDIC procedures for handling failed banks can be applied to bank-holding companies. FDIC Chairman Sheila Bair has called for such legislation. Most importantly, this plan won't impose any new cost on the taxpayer.

Bold stress tests and government intervention reflect President Obama's use of Franklin Delano Roosevelt as a model in dealing with the current crisis. But he got the wrong Roosevelt. He should instead follow the motto of Theodore Roosevelt: Speak softly and carry a big stick.

Wall Street 2015
New York's preeminent industry has changed forever
Forbes.com; July 13, 2009

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In the 15th and 16th centuries, Florence, Genoa and Venice were the financial capitals of the Western world. When they declined, financial leadership shifted to Amsterdam, then to London and finally to New York, whose supremacy went unchallenged from 1945 until the end of the 20th century.

In the new millennium, however, it is showing cracks. A decade ago, companies fought for the privilege of being listed on the New York exchanges, but interest has dropped significantly since the tech bubble burst in 2000. The credit crisis has only made things worse. Will the city be able to retain its title as the world's finance king? What will Wall Street look like in 2015?

Geography alone guarantees that New York will remain one of the world's financial leaders. A globalized economy spanning 24 time zones offers room for at least three major financial centers. With one center likely in Europe or the Middle East and a second in East Asia, New York would be the natural third pillar in a hemisphere that offers little competition for the job.

If we look beyond the Americas to the broader world, however, New York's enduring supremacy is not a foregone conclusion. Besides the power of inertia--people like to trade where others trade, so they trade in New York--the city has benefited from three comparative advantages in the past: a sophisticated and well trained workforce, reliable but not intrusive regulations and (at least since Ronald Reagan's presidency) a favorable tax and political environment. All these advantages have shrunk, if not vanished.

New York's skills advantage eroded long before the 2008 crisis. Thanks to its early deregulation of brokers' commissions in 1974, New York took the lead in the quality and reliability of trade. Global companies came to the city to be traded and judged by New York's analysts. But during the 1990s, most European stock exchanges caught on. Their tardiness allowed them to adopt the most recent trading technology easily, and they moved faster and more decisively into electronic trading, creating markets that were at least as liquid as the traditional exchanges. Most of the daily trading in cross-listed companies--companies traded on both the traditional and electronic exchanges--moved back to the country of origin, eliminating one of New York's advantages.

Over the last 20 years, American business schools also helped close the knowledge gap between New York and the rest of the world by admitting more students from abroad, to the point that over 30% of the schools' populations were foreign-born. Most of these students chose to return to their home countries after they finished school, bringing new ideas and techniques with them. The financial crisis has only accelerated this process. Restrictions against hiring foreign workers imposed by the federal government's Troubled Asset Relief Program (TARP) ensure that a larger flow of talented people will head back to their native countries, further reducing the skills gap between America and the rest of the world.

New York's competitive advantage has also eroded on the regulatory front. For financial markets to work properly, the regulatory regime must strike a delicate balance between preventing fraud and abuse, on the one hand, and jeopardizing the freedom to innovate, on the other. For many years, the U.S. appeared to have achieved this balance. No longer. From Enron and World-Com to Bernie Madoff and the subprime meltdown, the Securities and Exchange Commission's reputation as an effective enforcer is in tatters.

Once, foreign companies were happy to list in New York because subjecting themselves to American regulators signaled to investors that they were transparent companies with reliable accounts. But what's the certification value of being listed on a New York exchange if the New York policers don't detect fraud? Meanwhile, the restrictions imposed ex post facto on TARP recipients, Congress' confiscatory tax on executive bonuses and contemplated populist financial reforms have

made clear that regulators will heavily interfere with private business. In fact, from both a political and a regulatory perspective, the U.S. of the future will look like a continental European country. That's not an environment conducive to financial innovation.

Finally, the crisis will have major effects on New York's competitive edge in the tax area. Despite New York City and New York state's heavy taxes, the federal government's low top tax rate and favorable treatment of hedge-fund income long made New York an attractive place for financiers to live and work. Prospective tax increases (at both the federal and state levels) and the likely closing of tax loopholes will make New York very unattractive, especially for resident aliens who can avoid higher taxes by moving abroad. New York's main consolation is that the U.K.'s fiscal deficits will prevent the British from competing too aggressively on the tax front. But new financial centers, such as Singapore or Dubai--or even old ones, like Zurich--could become a real threat.

One might argue that New York maintained its world dominance during the high-tax years of the Johnson and Nixon administrations, so higher taxes can't hurt more. But the delocalization of trade brought about by technology and the Internet has made global competition much more intense than it used to be. Bermuda, the capital of reinsurance, could easily become the capital of the hedge-fund industry as well.

The biggest threat of all to the Big Apple's financial supremacy, however, comes from Washington. The Founding Fathers wisely decided that the nation's political capital should be separate from its financial capital (in both senses of the word). Now this splendid segregation has ended. If the outcome of the Chrysler bankruptcy is any indication, Washington is willing to flex its muscle in financial decisions, altering the substance of contracts freely agreed to by private parties. In so doing, the national government has undermined the certainty of the rule of law, which was the American capital market's strongest asset.

Unfortunately, since Washington is the source of the problem, New York City can do little by itself to defend its position. Perhaps the city's best bet is to offer favorable tax treatment to the financial industry--but to do that, it had better first put its finances in order.

Pay Regulation is Not the Best Way to Address Moral Hazard
Financial Times; August 27, 2009

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Lucian Bebchuk has strongly endorsed the House of Representatives' decision to regulate the pay structure of the entire financial sector ("Regulate financial pay to reduce risk-taking", August 4). Financial institutions are special, argues Prof Bebchuk, because they impose costs on taxpayers that they do not internalise. This specialness warrants a broader role for the government in setting chief executive officers' pay in financial institutions.

I agree with his premise, but his conclusion is a non-sequitur. First, his reasoning assumes that pay regulation is the best way to address the moral hazard problem created by the too-big-to-fail policy. In fact, it is not even clear that it can help fix it. When shareholders have strong incentives to gamble at taxpayers' expense, they can easily bypass pay restrictions by providing managers with career incentives or stock awards to induce them to gamble more.

But even if pay restrictions could attenuate the moral hazard problem, are we sure that the government's regulation would help? As Prof Bebchuk admits, politicians are more interested in setting limits to the total amount of compensation, rather than in designing the optimal form of compensation. Politicians will naturally seek demagogic restrictions on total pay that will make them look good in the eyes of angry voters, but will not attenuate moral hazard.

Last but not least, Prof Bebchuk's reasoning assumes that poorly designed CEO compensations were the cause of the current financial crisis, while a recent paper by Rudiger Fahlenbrach and Rene M. Stulz show that there is no correlation between the two. Banks' specialness does warrant a role for the government: not in setting pay but in imposing effective capital requirements that eliminate the value of the free option provided by the too-big-to-fail policy.

Is such a goal attainable? From the technical point of view, it is very simple. It is sufficient to have a regulation that forces shareholders to issue more equity or lose their stock when this free option starts to be near the money.

As Oliver Hart and I explained in a recent paper, this can be easily achieved by giving a regulator the power to intervene every time the credit default swap on the debt of a financial institution becomes too high (ie, the debt is at risk).

Any other regulation is not only useless but also counterproductive because it detracts political support in favour of the ultimate objective.

Lehman and the Financial Crisis
The lesson is that institutions that take trading risks must be allowed to fail.
Wall Street Journal; September 15, 2009

John H. Cochrane (University of Chicago Booth School of Business) and Luigi Zingales (University of Chicago Booth School of Business)

One year ago today Lehman Brothers filed for bankruptcy. The weeks that followed are among the most dramatic in U.S. history. They led to a massive government intervention in the financial system—an intervention that will likely change that system forever.

Many people say that letting Lehman fail was the mistake that caused the financial crisis. To them, the lesson is that the government should never allow any "systemically important" financial institution to fail. If only Lehman had been bailed out, the story goes, we could have avoided much of a 45% drop in the S&P 500, a 4% drop in output, the rise in unemployment to 9.7% from 6.2%, and the $784 billion "stimulus" to top off a $1.59 trillion deficit.

This story is false.

The Lehman failure was not an isolated event. It was a movement in a dramatic crescendo of failures.

Two weeks prior, on Sept. 7, the government took over Fannie Mae and Freddie Mac, wiping out much of their shareholder equity. On Sept. 16, the government bailed out AIG, lending it $85 billion. On Sept. 25, Washington Mutual, the nation's sixth-largest bank, was seized by the FDIC. On Sept. 29, Wachovia, the nation's seventh-largest bank, was sold to avoid a similar fate. All this would have happened without Lehman. Meanwhile, the Federal Reserve and the Treasury Department went to Congress to ask for $700 billion for the Troubled Asset Relief Program (TARP).

Which of these events set off the financial and economic crisis by freezing lending to commercial banks? The nearby chart shows that the main risk indicators only took off after Treasury Secretary Henry Paulson and Fed Chairman Ben Bernanke's TARP speeches to Congress on Sept. 23 and 24—not after the Lehman failure. On Sept. 22, bank credit-default swap (CDS) spreads were at the same level as on Sept. 12. (CDS spreads are the cost of buying insurance against default.) On Sept. 19, the S&P 500 closed above its Sept. 12 level. The Libor-OIS spread—which captures the perceived riskiness of short-term interbank lending—rose only 18 points the day of Lehman's collapse, while it shot up more than 60 points from Sept. 23 to Sept. 25, after the TARP testimony. (Libor—the London Interbank Offer Rate—is the rate at which banks can borrow unsecured for three months.)

Why? In effect, these speeches amounted to "The financial system is about to collapse. We can't tell you why. We need $700 billion. We can't tell you what we're going to do with it." That's a pretty good way to start a financial crisis.

Subsequent reporting explained why they did it: The Fed and Treasury had felt for months that they needed legal authority to do more bailouts, and a crisis might get Congress to vote for it. But at the time, all the public saw was that our government was in a complete panic.

We inferred that the banks must be in much worse trouble than we thought. The ban on short sales of bank stocks the previous week could only reinforce that impression.

It did not help that the TARP was such a transparently bad idea. The Fed and Treasury soon figured that out, settling on equity "injections" and a bank-debt guarantee instead. Floating a bad idea does not instill confidence.

Would a Lehman bailout have averted a panic? The news would still be that Lehman failed, and markets knew bailouts would not last forever. After all, the Bear Stearns rescue in February had just postponed worse trouble.

More deeply, Lehman's lesson cannot be that the government must always bail out every large financial institution. From the 1984 failure of Continental Illinois bank to the S&L crisis of the late 1980s, the Latin American bond defaults of the

1990s, the 1997 Asian crashes, the 1998 collapse of the Long-Term Capital Management hedge fund and now this mess, financial institutions are taking more and more risks, but their bondholders keep getting rescued.

This crisis pushed our government close to its fiscal limits. The next one will be beyond what even our government can contain.

The big banks know the government will bail them out, and they are already bigger, more global, more integrated and "systemic" than ever. They are making huge trading profits—profits that must someday turn to losses. If brokerage and banking are "systemically important," they cannot be married to proprietary trading. Yet the financial-reform plans do not even talk about breaking up this marriage—they hope simply to regulate the behemoths instead.

The blame-it-on-Lehman story leads to a dangerous complacency. If we can persuade ourselves that the fault was just one policy mistake, forced on the feds by silly legal restrictions and not enough bailout power, everything can go back to the cozy way it was before.

This is a convenient story for large banks that dominate the lobbying and communication effort. And it absolves the Fed and Treasury of facing up to their long string of policy mistakes.

We don't pretend that we could have done any better. That's the point: A system with so much power vested in so few people, with so few rules, in which crises are managed with 2 a.m. conference calls, cannot possibly do better no matter how good the people at the top. Repeating the Lehman story lets us all ignore the fact that this system cannot go on.

Capitalism After the Crisis
National Affairs; Fall 2009

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The economic crisis of the past year, centered as it has been in the financial sector that lies at the heart of American capitalism, is bound to leave some lasting marks. Financial regulation, the role of large banks, and the relationships between the government and key players in the market will never be the same.

More important, however, are the ways in which public attitudes about our system might change. The nature of the crisis, and of the government's response, now threaten to undermine the public's sense of the fairness, justice, and legitimacy of democratic capitalism. By allowing the conditions that made the crisis possible (particularly the concentration of power in a few large institutions), and by responding to the crisis as we have (especially with massive government bailouts of banks and large corporations), the United States today risks moving in the direction of European corporatism and the crony capitalism of more statist regimes. This, in turn, endangers America's unique brand of capitalism, which has thus far avoided becoming associated in the public mind with entrenched corruption, and has therefore kept this country relatively free of populist anti-capitalist sentiment.

Are such changes now beginning? And if so, will they mark only a temporary reaction to an extreme economic downturn, or a deeper and more damaging shift in American attitudes? Some early indications are not encouraging.

SOAK THE RICH

A friend of mine worked as a consultant for the now-infamous insurance giant American International Group. To prevent him from starting his own hedge fund, AIG offered him a non-compete agreement: a sum of money meant to compensate him for the opportunity forgone. It is a perfectly standard and well-regarded practice — but unfortunately for my friend, his payment under this agreement was to be made at the end of 2008. So he spent the early months of 2009 living in terror: His contract was classified as one of the notorious AIG retention bonuses. At the height of the fury against those bonuses, he received several death threats. Though he had no legal obligation to do so, he returned the money to the company, hoping that the gesture might keep his name from being published in the papers. In case that failed to protect him, he prepared a plan to evacuate his wife and children. It was the responsible thing to do; after all, angry protestors had staked out the homes of several AIG executives whose names appeared in print — and only luck had prevented someone from getting hurt.

While such extreme episodes have, fortunately, been quite rare, they are symptomatic of a broad discontent. In one recent survey, 65% of Americans said the government should cap executive compensation by large corporations, while 60% wanted the government to intervene to improve the way corporations are run. And those views hardly reflect confidence in the government: Only 5% of Americans in the same poll said they trust the government a lot, while 30% said they do not trust it at all. It is just that, at the moment, Americans trust large corporations even less: Fewer than one out of every 30 Americans say they trust them a lot, while one of every three Americans claims not to trust large corporations at all.

These attitudes are familiar to students of public opinion in much of the world. But they are quite unusual for the United States. Until recently, Americans stood out for their acceptance of basic market principles and even for their tolerance of some of the negative side effects markets produce, such as marked income inequality.

Capitalism has long enjoyed exceptionally strong public support in the United States because America's form of capitalism has long been distinct from those found elsewhere in the world — particularly because of its uniquely open and free market system. Capitalism calls not only for freedom of enterprise, but for rules and policies that allow for freedom of entry, that facilitate access to financial resources for newcomers, and that maintain a level playing field among competitors. The United States has generally come closest to this ideal combination — which is no small feat, since economic pressures and incentives do not naturally point to such a balance of policies. While everyone benefits

from a free and competitive market, no one in particular makes huge profits from keeping the system competitive and the playing field level. True capitalism lacks a strong lobby.

That assertion might appear strange in light of the billions of dollars firms spend lobbying Congress in America, but that is exactly the point. Most lobbying seeks to tilt the playing field in one direction or another, not to level it. Most lobbying is *pro-business*, in the sense that it promotes the interests of existing businesses, not *pro-market* in the sense of fostering truly free and open competition. Open competition forces established firms to prove their competence again and again; strong successful market players therefore often use their muscle to restrict such competition, and to strengthen their positions. As a result, serious tensions emerge between a pro-market agenda and a pro-business one, though American capitalism has always managed this tension far better than most.

THE AMERICAN EXCEPTION

In a recent study, Rafael Di Tella and Robert MacCulloch showed that public support for capitalism in any given country is positively associated with the perception that hard work, not luck, determines success, and is negatively correlated with the perception of corruption. These correlations go a long way toward explaining public support for America's capitalist system. According to one recent study, only 40% of Americans think that luck rather than hard work plays a major role in income differences. Compare that with the 75% of Brazilians who think that income disparities are mostly a matter of luck, or the 66% of Danes and 54% of Germans who do, and you begin to get a sense of why American attitudes toward the free-market system stand out.

Some scholars argue that this perception of capitalism's legitimacy is merely the result of a successful propaganda campaign for the American Dream — a myth embedded in American culture, but not necessarily tied to reality. And it is true that the data yield scant evidence that social mobility is higher across the board in the United States than in other developed countries. But while this difference does not show up in the aggregate statistics, it is powerfully present at the top of the distribution — which often gets the most attention, and most shapes people's attitudes. Even before the internet boom created many young billionaires, in 1996, one in four billionaires in the United States could be described as "self-made" — compared to just one out of ten in Germany. And the wealthiest self-made American billionaires — from Bill Gates and Michael Dell to Warren Buffett and Mark Zuckerberg — have made their fortunes in competitive businesses, with little or no government interference or help.

The same cannot be said for most other countries, where the wealthiest people tend to accumulate their fortunes in regulated businesses in which government connections are crucial to success. Think about the oligarchs in Russia, Silvio Berlusconi in Italy, Carlos Slim in Mexico, and even the biggest tycoons in Hong Kong. They made their fortunes in businesses that are highly dependent on governmental concessions: energy, real estate, telecommunications, mining. Success in these businesses often depends more on having the right connections than on having initiative and enterprise.

In most of the world, the best way to make money is not to come up with brilliant ideas and work hard at implementing them, but to cultivate a government connection. Such cronyism is bound to shape public attitudes about a country's economic system. When asked in a recent study to name the most important determinants of financial success, Italian managers put "knowledge of influential people" in first place (80% considered it "important" or "very important"). "Competence and experience" ranked fifth, behind characteristics such as "loyalty and obedience."

These divergent paths to prosperity reveal more than a difference of perception. American capitalism really is quite distinct from its European counterparts, for reasons that reach deep into history.

THE ROOTS OF AMERICAN CAPITALISM

In America, unlike much of the rest of the West, democracy predates industrialization. By the time of the Second Industrial Revolution in the latter part of the 19th century, the United States had already enjoyed several decades of universal (male) suffrage, and several decades of widespread education. This created a public with high expectations, unlikely to tolerate evident unfairness in economic policy. It is no coincidence that the very concept of anti-trust law — a pro-market but sometimes anti-business idea — was developed in the United States at the end of the 19th century and the beginning of the 20th. It is also no coincidence that in the early part of the 20th century, fueled by an inquisitive press

and a populist (but not anti-market) political movement, the United States experienced a rise in regulation aimed at reducing the power of big business. Unlike in Europe — where the most vibrant opposition to the excesses of business came from socialist anti-market movements — in the United States this opposition was squarely pro-market. When Louis Brandeis attacked the money trust, he was not fundamentally trying to interfere with markets — only trying to make them work better. As a result, Americans have long understood that the interests of the market and the interests of business may not always be aligned.

American capitalism also developed at a time when government involvement in the economy was quite weak. At the beginning of the 20th century, when modern American capitalism was taking shape, U.S. government spending was only 6.8% of gross domestic product. After World War II, when modern capitalism really took shape in Western European countries, government spending in those countries was, on average, 30% of GDP. Until World War I, the United States had a tiny federal government compared to national governments in other countries. This was due in part to the fact that the U.S. faced no significant military threat to its existence, which allowed the government to spend a relatively small proportion of its budget on the military. The federalist nature of the American regime also did its part to limit the size of the national government.

When the government is small and relatively weak, the way to make money is to start a successful private-sector business. But the larger the size and scope of government spending, the easier it is to make money by diverting public resources. Starting a business is difficult and involves a lot of risk — but getting a government favor or contract is easier, and a much safer bet. And so in nations with large and powerful governments, the state tends to find itself at the heart of the economic system, even if that system is relatively capitalist. This tends to confound politics and economics, both in practice and in public perceptions: The larger the share of capitalists who acquire their wealth thanks to their political connections, the greater the perception that capitalism is unfair and corrupt.

Another distinguishing feature of American capitalism is that it developed relatively untouched by foreign influence. Although European (and especially British) capital played a significant role in America's 19th- and early 20th-century economic development, Europe's economies were not more developed than America's — and so while European capitalists could invest in or compete with American companies, they could not dominate the system. As a result, American capitalism developed more or less organically, and still shows the marks of those origins. The American bankruptcy code, for instance, exhibits significant pro-debtor biases, because the United States was born and developed as a nation of debtors.

The situation is very different in nations that developed capitalist economies after World War II. These countries (in non-Soviet-bloc continental Europe, parts of Asia, and much of Latin America) industrialized under the giant shadow of American power. In this development process, the local elites felt threatened by the prospect of economic colonization by American companies that were far more efficient and better capitalized. To protect themselves, they purposely built a non-transparent system in which local connections were important, because this gave them an inherent advantage. These structures have proven resilient in the decades since: Once economic and political systems are built to reward relationships instead of efficiency, it is very difficult to reform them, since the people in power are the ones who would lose most in the change.

Finally, the United States was able to develop a pro-market agenda distinct from a pro-business agenda because it was largely spared the direct influence of Marxism. It is possible that the type of capitalism the United States developed is the cause, as much as the effect, of the absence of strong Marxist movements in this country. But either way, this distinction from other Western regimes was significant in the development of American attitudes toward economics. In countries with prominent and influential Marxist parties, pro-market and pro-business forces were compelled to merge to fight the common enemy. If one faces the prospect of nationalization (i.e., the control of resources by a small *political* elite), even relationship capitalism (which involves control of those resources by a small *business* elite) becomes an appealing alternative.

As a result, many of these countries could not develop a more competitive and open form of capitalism because they could not afford to divide the opposition to Marxism. Worse, the free-market banner was completely appropriated by the pro-business forces, which were better equipped and better fed. Paradoxically, as the appeal of Marxist ideas faded, this problem in many of these countries became worse, not better. After decades of contiguity and capture, the pro-

market forces could not separate themselves from the pro-business camp. Having lost the ideological opposition of Marxism and lacking any opposition from pro-market ideology, pro-business forces ruled unchecked. In no country is this more evident than in Italy, where the pro-market movement today is almost literally owned by a businessman, Prime Minister Silvio Berlusconi, who often seems to run the country in the interest of his media empire.

For all these reasons, the United States developed a system of capitalism that comes closer than any other to the ideal combination of economic freedom and open competition. The image many Americans have of capitalism is therefore that of Horatio Alger's rags-to-riches-via-hard-work stories, which have come to define the American Dream. By contrast, in most of the rest of the world, Horatio Alger is unknown — and the image of social mobility is dominated by Cinderella or Evita stories: fantasies more than plausible dreams. This understanding of opportunity has helped make capitalism popular and secure in the United States.

But because the free-market system relies on this public support, and this support depends to a certain extent on the public's impression that the system is fair, any erosion of that impression threatens the system itself. Such erosion occurs when government connections, or the power of entrenched incumbents in the market, seem to overtake genuine free and fair competition as the paths to wealth and success. Both government and big business have strong incentives to push the system in this direction, and therefore both, if left unchecked, pose a threat to America's distinctive form of capitalism.

Although the United States has the great advantage of having started from a superior model of capitalism and having developed an ideology to support it, our system is still vulnerable to these pressures — and not only in a crisis. Even the most persuasive and resilient ideology cannot long outlive the conditions and reasoning that generated it. American capitalism needs vocal defenders who understand the threats it faces — and who can make its case to the public. But in the last 30 years, as the threat of global communism has waned and disappeared, capitalism's defenders have grown fewer, while the temptations of corporatism have grown greater. This has helped set the stage for the crisis we now face — and left us less able to discern how we might recover from it.

THE DEMISE OF AMERICAN EXCEPTIONALISM

A healthy financial system is crucial to any working market economy. Widespread access to finance is essential to harnessing the best talents and allowing them to prosper and grow. It is crucial for drawing new entrants into the system, and for fostering competition. The system that allocates finance allocates power and rents; if that system is not fair, there is little hope that the rest of the economy can be. And the potential for unfairness or abuse in the financial system is always great.

Americans have long been sensitive to such abuse. While we have historically avoided general anti-capitalist biases, Americans have nonetheless nurtured something of a populist anti-finance bias. This bias has led to many political decisions throughout American history that were inefficient from an economic point of view, but helped preserve the long-term health of America's democratic capitalism. In the late 1830s, President Andrew Jackson opposed renewing the charter of the Second Bank of the United States — a move that contributed to the panic of 1837 — because he saw the bank as an instrument of political corruption and a threat to American liberties. An investigation he initiated established "beyond question that this great and powerful institution had been actively engaged in attempting to influence the elections of the public officers by means of its money."

Throughout much of American history, state bank regulations were driven by concerns about the power of New York banks over the rest of the country, and the fear that big banks drained deposits from the countryside in order to redirect them to the cities. To address these fears, states introduced a variety of restrictions: from unit banking (banks could have only one office), to limits on intrastate branching (banks from northern Illinois could not open branches in southern Illinois), to limits on interstate branching (New York banks could not open branches in other states). From a purely economic point of view, all of these restrictions were crazy. They forced a reinvestment of deposits in the same areas where they were collected, badly distorting the allocation of funds. And by preventing banks from expanding, these regulations made banks less diversified and thus more prone to failure. Nevertheless, these policies had a positive side effect: They splintered the banking sector, reducing its political power and in so doing creating the preconditions for a vibrant securities market.

Even the separation between investment banking and commercial banking introduced by the New Deal's Glass-Steagall Act was a product of this longstanding American tradition. Unlike many other banking regulations, Glass-Steagall at least had an economic rationale: to prevent commercial banks from exploiting their depositors by dumping on them the bonds of firms to which the banks had lent money, but which could not repay the loans. The Glass-Steagall Act's biggest consequence, though, was the fragmentation it caused — which helped reduce the concentration of the banking industry and, by creating divergent interests in different parts of the financial sector, helped reduce its political power.

In the last three decades, these arrangements were completely overturned, starting with the progressive deregulation of the banking sector. The restrictions imposed by state regulations were highly inefficient to begin with, but over the years technological and financial progress made them absolutely untenable. What good does it do to restrict branching when banks can set up ATMs throughout the country? How effectively can a prohibition on intrastate branching block the redistribution of deposits, when non-integrated banks can reallocate them through the interbank market?

So starting in the late 1970s, state bank regulations were relaxed or eliminated, increasing the efficiency of the banking sector and fostering economic growth. But the move also increased concentration. In 1980, there were 14,434 banks in the United States, about the same number as in 1934. By 1990, this number had dropped to 12,347; by 2000, to 8,315. In 2009, the number stands below 7,100. Most important, the concentration of deposits and lending grew significantly. In 1984, the top five U.S. banks controlled only 9% of the total deposits in the banking sector. By 2001, this percentage had increased to 21%, and by the end of 2008, close to 40%.

The apex of this process was the 1999 passage of the Gramm-Leach-Bliley Act, which repealed the restrictions imposed by Glass-Steagall. Gramm-Leach-Bliley has been wrongly accused of playing a major role in the current financial crisis; in fact, it had little to nothing to do with it. The major institutions that failed or were bailed out in the last two years were pure investment banks — such as Lehman Brothers, Bear Stearns, and Merrill Lynch — that did not take advantage of the repeal of Glass-Steagall; or they were pure commercial banks, like Wachovia and Washington Mutual. The only exception is Citigroup, which had merged its commercial and investment operations even before the Gramm-Leach-Bliley Act, thanks to a special exemption.

The real effect of Gramm-Leach-Bliley was political, not directly economic. Under the old regime, commercial banks, investment banks, and insurance companies had different agendas, and so their lobbying efforts tended to offset one another. But after the restrictions were lifted, the interests of all the major players in the financial industry became aligned, giving the industry disproportionate power in shaping the political agenda. The concentration of the banking industry only added to this power.

The last and most important source of the finance industry's growing power was its profitability, at least on the books. In the 1960s, the share of GDP produced by the finance sector amounted to a little more than 3%. By the mid-2000s, it was more than 8%. This expansion was driven by a rapid increase not only in profits, but also in wages. In 1980, the relative wage of a worker in the finance sector was roughly comparable to the wages of other workers with the same qualifications in other sectors. By 2007, the person in the finance sector was making 70% more. Every attempt to explain this gap using differences in abilities, or the inherent demands of the work, falls short. People working in finance were simply making significantly more than everybody else.

This enormous profitability allowed the industry to spend disproportionate amounts of money lobbying the political system. In the last 20 years, the financial industry has made $2.2 billion in political contributions, more than any other industry tracked by the Center for Responsive Politics. And over the last ten years, the financial industry topped the lobbying-expenses list, spending $3.5 billion.

The explosion of wages and profits in finance also naturally attracted the best talents — with implications that extended beyond the financial sector, and deep into government. Thirty years ago, the brightest undergraduates were going into science, technology, law, and business; for the last 20 years, they have gone to finance. Having devoted themselves to this sector, these talented individuals inevitably end up working to advance its interests: A person specialized in derivative trading is likely to be terribly impressed with the importance and value of derivatives, just as a nuclear engineer is likely to think nuclear power can solve all the world's problems. And if most of the political elite were picked from among nuclear engineers, it would be only natural that the country would soon fill with nuclear plants. In fact, we have

an example of precisely this scenario in France, where for complicated cultural reasons an unusually large portion of the political elite is trained in engineering at the École Polytechnique — and France derives more of its energy from nuclear power than any other nation.

A similar effect is evident with finance in America. The proportion of people with training and experience in finance working at the highest levels of every recent presidential administration is extraordinary. Four of the last six secretaries of Treasury fit this description. In fact, all four were directly or indirectly connected to one firm: Goldman Sachs. This is hardly the historical norm; of the previous six Treasury secretaries, only one had a finance background. And finance-trained executives staff not only the Treasury but many senior White House posts and key positions in numerous other departments. President Barack Obama's chief of staff, Rahm Emanuel, once worked for an investment bank, as did his predecessor under President George W. Bush, Joshua Bolten.

There is nothing intrinsically bad about these developments. In fact, it is only natural that a government in search of the brightest people will end up poaching from the finance world, to which the best and brightest have flocked. The problem is that people who have spent their entire lives in finance have an understandable tendency to think that the interests of their industry and the interests of the country always coincide. When Treasury Secretary Henry Paulson went to Congress last fall arguing that the world as we knew it would end if Congress did not approve the $700 billion bailout, he was serious and speaking in good faith. And to an extent he was right: *His* world — the world he lived and worked in — would have ended had there not been a bailout. Goldman Sachs would have gone bankrupt, and the repercussions for everyone he knew would have been enormous. But Henry Paulson's world is not the world most Americans live in — or even the world in which our economy as a whole exists. Whether *that* world would have ended without Congress's bailout was a far more debatable proposition; unfortunately, that debate never took place.

Compounding the problem is the fact that people in government tend to rely on their networks of trusted friends to gather information "from the outside." If everyone in those networks is drawn from the same milieu, the information and ideas that flow to policymakers will be severely limited. A revealing anecdote comes from a Bush Treasury official, who noted that in the heat of the financial crisis, every time there was a phone call from Manhattan's 212 area code, the message was the same: "Buy the toxic assets." Such uniformity of advice makes it difficult for even the most intelligent or well-meaning policymakers to arrive at the right decisions.

THE VICIOUS CYCLE

The finance sector's increasing concentration and growing political muscle have undermined the traditional American understanding of the difference between free markets and big business. This means not only that the interests of finance now dominate the economic understanding of policymakers, but also — and perhaps more important — that the public's perception of the economic system's legitimacy is at risk.

If the free-market system is politically fragile, its most fragile component is precisely the financial industry. It is so fragile because it relies entirely on the sanctity of contracts and the rule of law, and that sanctity cannot be preserved without broad popular support. When people are angry to the point of threatening the lives of bankers; when the majority of Americans are demanding government intervention not only to regulate the financial industry but to control the way companies are run; when voters lose confidence in the economic system because they perceive it as fundamentally corrupt — then the sanctity of private property becomes threatened as well. And when property rights are not protected, the survival of an effective financial sector, and with it a thriving economy, is in doubt.

The government's involvement in the financial sector in the wake of the crisis — and particularly the bailouts of large banks and other institutions — has exacerbated this problem. Public mistrust of government has combined with mistrust of bankers, and concerns about the waste of taxpayer dollars have been joined to worries about rewarding those who caused the mess on Wall Street. In response, politicians have tried to save themselves by turning against the finance sector with a vengeance. That the House of Representatives approved a proposal to retroactively tax 90% of all bonuses paid by financial institutions receiving TARP money shows how dangerous this combination of backlash and demagoguery can be.

Fortunately, that particular proposal never became law. But the anti-finance climate that produced it greatly contributed, for instance, to the expropriation of Chrysler's secured creditors this spring. By singling out and publicly condemning the Chrysler creditors who demanded that their contractual rights be respected, President Obama effectively exploited public resentment to reduce the government's costs in the Chrysler bailout. But the cost-cutting came at the expense of current investors, and sent a signal to all potential future investors. While Obama's approach was convenient in the short term, it could prove devastating to the market system over time: The protection afforded to secured creditors is crucial in making credit available to firms in financial distress and even in Chapter 11. The Chrysler precedent will jeopardize access to such financing in the future, particularly for the firms most in need, and so will increase the pressure for yet more government involvement.

The pattern that has taken hold in the wake of the financial crisis thus threatens to initiate a vicious cycle. To avoid being linked in the public mind with the companies they are working to help, politicians take part in and encourage the assault on finance; this scares off legitimate investors, no longer certain they can count on contracts and the rule of law. And this, in turn, leaves little recourse for troubled businesses but to seek government assistance.

It is no coincidence that shortly after bashing Wall Street executives for their greed, the administration set up the most generous form of subsidy ever invented for Wall Street. The Public-Private Investment Program, announced in March by Treasury Secretary Timothy Geithner, provides $84 of government-subsidized loans and $7 of government equity for every $7 of private equity invested in the purchase of toxic assets. The terms are so generous that the private investors essentially receive a subsidy of $2 for every dollar they put in.

If these terms are "justified" by the uncertainty stemming from the populist backlash, they also exacerbate the conditions that generated the backlash in the first place — confirming the sense that government and large market players are cooperating at the expense of the taxpayer and the small investor. If the Public-Private Investment Program works, the very people who created the problem stand to grow fabulously rich with government help — which will surely do no good for the public's impression of American capitalism.

This is just the unhealthy cycle in which capitalism is trapped in most countries around the world. On one hand, entrepreneurs and financiers feel threatened by public hostility, and thus justified in seeking special privileges from the government. On the other hand, ordinary citizens feel outraged by the privileges the entrepreneurs and financiers receive, inflaming that very hostility. For anyone acquainted with the character of capitalism around the world, this moment in America feels eerily familiar.

THE FUTURE OF AMERICAN CAPITALISM

We thus stand at a crossroads for American capitalism. One path would channel popular rage into political support for some genuinely pro-market reforms, even if they do not serve the interests of large financial firms. By appealing to the best of the populist tradition, we can introduce limits to the power of the financial industry — or any business, for that matter — and restore those fundamental principles that give an ethical dimension to capitalism: freedom, meritocracy, a direct link between reward and effort, and a sense of responsibility that ensures that those who reap the gains also bear the losses. This would mean abandoning the notion that any firm is too big to fail, and putting rules in place that keep large financial firms from manipulating government connections to the detriment of markets. It would mean adopting a pro-market, rather than pro-business, approach to the economy.

The alternative path is to soothe the popular rage with measures like limits on executive bonuses while shoring up the position of the largest financial players, making them dependent on government and making the larger economy dependent on them. Such measures play to the crowd in the moment, but threaten the financial system and the public standing of American capitalism in the long run. They also reinforce the very practices that caused the crisis. This is the path to big-business capitalism: a path that blurs the distinction between pro-market and pro-business policies, and so imperils the unique faith the American people have long displayed in the legitimacy of democratic capitalism.

Unfortunately, it looks for now like the Obama administration has chosen this latter path. It is a choice that threatens to launch us on that vicious spiral of more public resentment and more corporatist crony capitalism so common abroad — trampling in the process the economic exceptionalism that has been so crucial for American prosperity. When the dust

has cleared and the panic has abated, this may well turn out to be the most serious and damaging consequence of the financial crisis for American capitalism.

An Economic Agenda for the GOP
Republicans need to be pro-market, not pro-business.
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For 30 years, the Republican Party dominated American political life, winning five of the seven presidential elections before 2008. But the GOP has taken its lumps of late, culminating in its loss of Congress in 2006 and the White House last November. As the party suffers not just from a leadership vacuum but from considerable internal division, its future direction is unclear. This much, however, is certain: as America struggles to emerge from a financial crisis, any renewal of the Right will require the Republicans to rethink their approach to the economy. An agenda focused chiefly on tax cuts, as the Republicans' has been since Ronald Reagan's presidency, is no longer enough.

In 1980, Reagan won the election by attracting a substantial portion of Democrats with three simple ideas. First was the fight against the Soviet Union. Second, the battle against the excesses of the state: "Government is the problem, not the solution," Reagan famously said. Third, and most relevant to this discussion, was an overarching faith in economic growth. Growth improves everyone's well-being, lifting the underprivileged from poverty and eliminating the need for costly fiscal redistribution. With growth as the objective, a deep cut in tax rates for higher-income people was not only justifiable but necessary, because it would increase the incentive to work and thus foster productive activity.

Lower taxes became a winning political weapon for the Republican Party—all the more so, perhaps, because the cuts weren't accompanied by painful reductions in public spending. Fiscal deficits, traditionally unacceptable to conservatives, had even become welcome to the Right, which regarded them as a way to "starve the beast." By burdening the state with debts, the thinking went, we could reduce its ability to expand and thus the danger that it could suffocate the economy.

In 1980, when the highest marginal income-tax rate stood at 70 percent, this economic platform was extremely attractive, as were Reagan's other key ideas. The country had just seen a decade of low growth and high inflation, defeat in Vietnam, the Soviet invasion of Afghanistan, and the humiliation of the American hostages in Tehran. It was ready for change. An entire generation adhered to the Republican Party, forming a majority so solid that it permitted George W. Bush to be elected president 20 years later.

The success of the Republican platform went well beyond the voting booth, of course. The war against the evil empire brought the collapse of Communism and the democratization of the Soviet Bloc countries. During the Reagan years, the battle against the state led to a negative real growth rate in nondefense public spending. Deregulation freed the economy from excessive constraints and, together with tax cuts, sparked enormous entrepreneurial and creative forces. A golden era of economic growth began in the early eighties and continued, aside from a few minor recessionary interludes, until 2007—a quarter-century of unparalleled prosperity. After the Reagan economic reforms kicked in, the United States grew by an average of 3 percent each year, against Germany's 1.9 percent, France's 2.1, and Italy's 1.8.

Not only did this revolution allow the U.S. to outpace Europe in income and productivity; it also transformed the country from a manufacturing economy into an innovative, high-powered service economy. Today, America does not produce iPhones, but it generates the technology and the design that permit a piece of plastic to sell for $300. It does not manufacture microchips, but it creates the technology that lets some wafers of silicon sell for thousands of dollars apiece. It does not build computers, but it develops the operating systems that run them. This transformation has enabled the United States to face the competition of emerging countries from a position of strength.

Yet today the Republican brand, so successful for over two decades, has lost some of its luster. In part, it's simply the curse of success. The war against the evil empire has been won. Taxes were substantially reduced. The battle for deregulation has achieved many of its main objectives. Deregulation was a cry of freedom that most Americans supported back when Chicago banks couldn't open branches in southern Illinois—let alone in other states; when a truck had to obtain a permit to transport merchandise across state borders; and when a government agency decided the prices

of commercial flights. But now that these restrictions are only a distant memory, the public may see further deregulation as unnecessary, or even as a cover for the financial lobby, rather than as a symbol of freedom.

In part, too, Reagan's platform lost its appeal because the Republican Party frequently betrayed it. How can Republicans effectively campaign against big government when the size of government increased by 33 percent during President George W. Bush's first term, the largest increase in federal spending since Lyndon B. Johnson? How can Republicans portray themselves as free-market paladins when Bush's last secretary of the Treasury, Henry Paulson, orchestrated the most massive state intervention in a Western economy since François Mitterrand's nationalization of the French banking system? The party has much to do before it regains credibility on this score.

The Republican approach has also lost traction because the situation of Americans changed. By juxtaposing his faith in the American dream to Jimmy Carter's portrayal of American malaise, Reagan captured the hearts of traditionally Democratic blue-collar workers who believed that with hard work, every generation would enjoy greater prosperity than the previous one. But this dream has materialized only in part. Though American GDP has doubled in real terms over the last 25 years, median real income has grown by only 17 percent. While the richest 1 percent of the population has almost tripled its real income and the richest 0.01 percent has more than quintupled it, the bottom 10 percent has increased its income by only 12 percent. While in 1980, an average high school graduate earned 26 percent less than a college graduate, in 2005 this gap had grown to 38 percent. The blue-collar "Reagan Democrats" are among those struggling the most.

America's transition to a service-based economy is one reason for its growing income inequality. A country specializing in manufacturing needs many high-quality (and well-paid) workers. By contrast, a service economy can succeed with a relatively small number of geniuses who design devices like the iPhone and earn millions, while less educated workers have fewer opportunities to make a good living.

Ironically, the relatively slow increase in American workers' wages also results, in part, from the success of the American economic model throughout the world. In the first three quarters of the twentieth century, companies operating in the United States enjoyed unique advantages: a well-educated workforce that shared pro-market values and a government sensitive to the will of the people. Much of the rest of the world was run by dictators, torn by ideological conflicts, and populated by illiterate or semiliterate people. American companies dominated easily, and American workers shared in the prosperity that came from their privileged position.

Over the last 30 years, however, these values have spread around the world. Communist countries and autocracies have become democracies. Generalized education has become the rule. And much of the world has embraced basic market principles. America has succeeded in nation-building after all—not by force, but through example. The only unfortunate consequence of this otherwise happy story, which has brought greater prosperity across the globe, is that the comparative advantage of U.S.-based production has declined, and this has put downward pressure on American workers' wage growth.

Many Americans could not help but feel disgruntled at such developments. Until recently, though, they could console themselves with the robust capital gains on their home-equity and retirement accounts. Unfortunately, the financial crisis has destroyed this comfort, too, creating significant discontent. In a survey taken in December 2008, 60 percent of Americans declared themselves "angry" or "very angry" about the economic situation.

This anger is affecting political decision making. In September 2008, when Congress voted against the first version of the Paulson plan, it did so in response to the anger pervading the country. This past March, the House of Representatives approved a 90 percent tax on AIG bonuses for the same reason. And when President Obama contradicted his advisors and condemned the bonuses paid to Merrill Lynch executives, he, too, was responding to widespread anger. The question is not whether this populist pressure will have a strong influence on policy decisions, but how: Will it work to destroy, or to improve, the market system that has brought so much well-being?

If Republicans ignore popular anger, as the party establishment did last autumn, they leave a powerful and potentially disruptive force in the hands of Democrats. The majority of the Democratic establishment does not believe in the American dream, in the importance of providing incentives for economic growth, or in the market as the best

mechanism to allocate available resources. The Democrats could channel popular anger into protectionism, 90 percent tax rates, and onerous new market constraints.

In Republican hands, though, populism could become a strong force for positive change. At the beginning of the twentieth century, facing similar conditions of rising income inequality and popular anger, President Theodore Roosevelt, a Republican, approved a series of fundamental reforms that turned the United States into a modern country. From creating the Food and Drug Administration to trust-busting, Roosevelt used public anger to counterbalance the power of large companies (and monopolies) and create a more efficient and popular form of market capitalism.

The Republican Party today must follow a similar strategy, updated for present circumstances. It has to move from a pro-business strategy that defends the interests of existing companies to a pro-*market* strategy that fosters open competition and freedom of entry. While the two agendas sometimes coincide—as in the case of protecting property rights—they are often at odds. Established firms are threatened by competition and frequently use their political muscle to restrict new entries into their industry, strengthening their positions but putting their customers at a disadvantage.

A pro-market strategy aims to encourage the best conditions for doing business, for everyone. Large banks, for instance, benefit from trading derivatives (such as credit default swaps) over the counter, rather than in an organized exchange: they can charge wider spreads that way, and they can afford to post less collateral by using their credit ratings. For this reason, they oppose moving such trades to organized exchanges, where transactions would be conducted with greater transparency, liquidity, and collateralization—and so with greater financial stability. This is where a pro-market party needs the courage to take on the financial industry on behalf of everyone else.

A pro-market strategy rejects subsidies not only because they're a waste of taxpayers' money but also because they prop up inefficient firms, delaying the entry of new and more efficient competitors. For every "zombie" firm that survives because of government assistance, several innovative start-ups don't get the chance to be born. Subsidies, then, hurt taxpayers twice. A genuinely pro-market party would have resisted more vigorously the Wall Street bailouts, in line with popular sentiment.

And a pro-market approach holds companies financially accountable for their mistakes—an essential policy if free markets are to produce sound decisions. A pro-market party will fight tirelessly against letting firms become so big that they cannot be allowed to fail, since such firms may take risks that ordinary companies would never dream of (see "'Too Big to Fail' Must Die," Summer 2009).

Being pro-market does not mean being heartless. For markets to work properly, inefficient firms must be allowed to fail, but their workers don't have to suffer unduly. In fact, it's a market imperative that they don't: the harsher their pain, the more politically feasible it becomes to subvert the market system to alleviate that pain. In Italy, for example, where unemployment insurance does not exist, governments frequently bail out large firms, fearing televised images of massive protests and the political cost of thousands of families without financial support. (The mechanism is so automatic, in fact, that some firms hire more people once they get into trouble.)

Thus a wise pro-market party understands that any strategy is only as good as it is politically sustainable. Markets enjoy political support primarily because of the well-founded belief that they do a better job of providing goods and services than any other arrangement. This conviction often weakens during major crises like the current one. So a pro-market party should favor a robust safety net—for people, that is, not companies. Of course, this safety net should be run on market principles as much as possible. For example, unemployment insurance should retain incentives to look for work, and the health-insurance industry should be opened up to competition. But defenders of markets cannot ignore the importance of providing such security for citizens.

They also cannot ignore the nation's growing income inequality, and the loss of confidence, among a substantial part of the population, that the future will be better than the past. Revolting against the devastating effects of technological change, early-nineteenth-century British workers destroyed mechanized looms. Modern Luddites don't need to resort to violence: they can resist progress by supporting protectionism and regulation. And they will do so, unless they're given a stake in the brighter future of technological progress—retraining for new jobs, sending their children to better schools, and so on.

The knee-jerk Democratic reaction is to give these poorer citizens entitlements disguised as rights: the right to a job, the right to health care, the right to appropriate a fraction of someone else's income. The Republican response should focus on providing *opportunities*. Parents should have access to good schools for their kids, regardless of their financial means or where they live. The best way to deliver on that promise is through a voucher system. Students should have better access to loans to finance their education because everyone gains from a better-educated workforce. The unemployed should have access to retraining, which can also be designed through a voucher system. Health care should be available in the marketplace; the current system, in which only employers get a tax deduction for health insurance, reduces labor mobility and increases the cost of becoming unemployed.

In the end, it's not only the Republican Party that would benefit from these policies: it's America and the world. The United States has been the inspiration for all who believe in freedom, both political and economic. Its identity, however, is predicated upon maintaining a political consensus that supports market values. Growing income inequality, the financial crisis, and the perceived unfairness of the market system are undermining this consensus.

Today, the Republican Party is the best candidate to carry the pro-market flag. Being in the opposition, it is less subject to the lobbying efforts of big business, which always sides with whoever is in power. The party's current leadership vacuum and intellectual disorientation create the perfect conditions for renewal and the emergence of a new agenda. And the nation's social tension creates a sense of urgency. Above all, the Republican Party has a moral obligation to support markets. The United States and the world are threatened by protectionism, state intervention, and dirigisme. If Republicans don't stand up for markets, who will?

A Tax on Short-term Debt Would Stabilise the System
Financial Times; December 16, 2009

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The idea of imposing a tax on financial transactions, also called the Tobin tax after the economist who first proposed it, is back in vogue. It has strong political appeal, catering to demands to punish banks for the crisis they have bestowed. It satisfies the political need to do something to avoid a repeat of the crisis. And, at a time of fiscal crisis, it provides an easy way to raise revenues without increasing income taxes. Last Friday, European Union leaders urged the International Monetary Fund to consider such a tax.

In spite of this strong endorsement, a Tobin tax has big shortcomings. First, it is hard to implement. If the tax is just on equity and bond trading, it will move most of the trading to the futures and options markets. If it extends to all traded derivatives, it will favour derivatives contracts that are not traded or new contracts created to avoid it. Second, if not applied homogeneously throughout the world, it will divert trading offshore. Do we really want all trading to move to Bermuda? Finally, the idea that such a tax would avoid a repeat of the crisis has not been proved.

According to its backers, the aim of the tax is to deter "speculative" behaviour, leading to lower volatility in asset prices. Alas, there is no evidence that it would do this.

The idea of a tax to deter socially undesirable behaviour is a good one. But if we want to prevent a repeat of 2008, we need to target the behaviour most likely to have caused the crisis. It was not caused by excessive trading, but by excessive risk-taking. What transformed a relatively small loss on subprime mortgages into a crisis was the enormous leverage of financial intermediaries, much of it short term.

As Gary Gorton and Andrew Metrick argue in a recent paper, the crisis was precipitated by a run on repos, overnight secured loans. When subprime losses hit financial intermediaries, short-term lenders, fearing bankruptcy, refused to renew lending. This progressive withdrawal of funds forced intermediaries to sell more assets, depressing prices further. It was similar to a traditional bank run, except initiated by short-term lenders.

Anticipating this risk, why did financial intermediaries choose to borrow so much in the short term? Because it allowed them to borrow more and borrow more cheaply, increasing profits. Short-term lenders, meanwhile, felt confident that they could get out of troubled companies in time. But while the exit option is available to each lender individually, it is not available to all lenders together. When all short-term lenders try to leave, not only can they not do so, they precipitate a crisis. In other words, the incentives to borrow short-term exceed what would be optimal from a social point of view.

This is a typical situation where a tax can fix the problem. By taxing the use of short-term debt (let us say with maturity of less than a year), we discourage both excessive leverage and use of short-term leverage, preventing a crisis.

If short-term debt is so dangerous, why did we not see its pernicious effects before? When inflation was high and volatile, short-term debt was both costly and risky because it carried a huge refinancing risk. The last 30 years of low and stable inflation took away those costs. The Fed's low interest rate policy created huge incentives to borrow short. Intense competition and compensation that rewarded high performance handsomely did the rest: they made it irresistible to borrow short term, with big systemic consequences.

Some people have argued that the best way to solve the problem is to eliminate the tax deductibility of debt. However, the real problem is not debt but short-term debt. In a close to zero interest rate environment, the elimination of tax deductibility will have the perverse incentive of favouring short-term debt (on which the lack of deductibility will have almost no impact) over long-term debt.

A better solution is a tax on short-term debt, especially short-term debt of financial institutions. A 1 per cent tax on our outstanding short-term debt would raise $21.5bn (€14.6bn, £13.2bn) annually just among the top nine institutions. This is not going to fix our budget problems but would be enough to pay for the surge in Afghanistan. Most importantly, it could stabilise our financial system and prevent a new crisis.

Getting the TARP Tax Wrong
The tax is neither fair nor useful
City Journal; January 25, 2010

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President Obama is right to say that taxpayers should be reimbursed for the cost of the Troubled Asset Relief Program. He's also right to try to extract that cost from TARP's major beneficiaries. A well-designed tax would be not only fair, but also could reduce, at least to some extent, the moral-hazard problem engendered by every rescue—that is, that government bailouts, by eliminating the negative consequences of perverse behavior, sow the seeds of the next crisis.

But Obama is wrong in both his target and his method. To begin with, the major direct beneficiary of TARP is, contrary to common belief, not the banking sector but the automotive sector, especially the auto unions. While $245 billion in TARP funds have been invested in the banking sector, a good deal more than the auto sector's $85 billion, the terms of the two investments are dramatically different. In the banking sector, the funds have been deployed with conditions not too far removed from market ones. As a result, the government estimates that taxpayers will actually make a profit from the intervention.

In the auto sector, however, the taxpayers' "investment" looks more like an out-and-out subsidy. In exchange for the $50 billion invested in General Motors ($30 billion of which is secured), the government received only a debt claim for $6.7 billion, preferred equity for $6.5 billion, and 60 percent of the equity in the new GM. The government subsidy was used to reduce the unions' loss. With $21 billion of unsecured claims, the UAW received proportionately more: $2.5 billion in debt, $6.5 billion in preferred equity, and up to 20 percent of common equity. The same can be said for the "investment" in Chrysler.

To add insult to injury, the government's intervention rewarded one of the main parties responsible for GM's and Chrysler's demise. As described by Roger Lowenstein in *While America Aged*, inflated pension and health-care benefits (well above those that most American workers enjoy) made GM woefully uncompetitive. In defending those benefits strenuously, the unions bet that if GM performed poorly, the taxpayers would foot the bill; and if GM did well, the unions reasoned, they would win big time. This gamble is identical in spirit to the one plaguing the banking sector: excess risk-taking under the assumption that the government will indemnify the losers.

If President Obama is really motivated by fairness and sound economic principles, he should tax the unionized auto employees, by introducing a fee on their extra benefits. This fee would help repay the taxpayers for their contributions; it would also reduce unions' incentive to retain their perks at great cost to society.

And don't forget the second-biggest beneficiary of TARP funds (at least if the program works): homeowners. The $50 billion allocated to them is, again, not an investment but a subsidy. Many of these homeowners took excessive risks: they knew that if house prices kept rising they would make a fortune, and they hoped (correctly, as it turned out) that if prices dropped, someone else would foot the bill. This gamble was not only tolerated, but also incentivized by government policy, which subsidizes households who leverage more and provides insurance to those with little or no down payment. President Obama should at a minimum eliminate the tax deductibility of debt in excess of 80 percent of the value of a house and get rid of any subsidy for low down payments.

The president is wrong in his method, too. If he plans to tax finance, he shouldn't single out the banking industry but instead target the entire financial sector, including hedge funds and mutual funds, because the low-interest-rate policy that reinflated asset prices benefited all the investors in the financial market, not just banks. Furthermore, a fee limited to the largest banks—those with more than $50 billion in assets—would increase rather than reduce moral hazard. By paying the fee, the big banks will feel entitled to government rescue: they'll think that's what they've paid for. In the future, how could the government let CIT, a $71 billion finance company, go bankrupt (as it did) when the company has paid to be rescued? Finally, while the tax is designed to punish excessive borrowing, the penalty is mild and treats short- and long-term debt identically—even though the systemic consequences of short-term debt are far worse.

If President Obama was instead motivated by the legitimate desire to avoid a repeat of the financial crisis, a much better solution would have been a tax on short-term borrowing (as I discuss here), whose excessive use has greatly contributed to the crisis. An even better approach, though, would be to impose a market-based limit on the leverage of large financial institutions (regardless of their legal nature), as economist Oliver Hart and I have proposed elsewhere.

The financial crisis provided the Obama administration with a unique opportunity to reform the financial industry's perverse incentives. But 16 months after the peak of the crisis, none of these incentives has been changed. Rather than a comprehensive reform, the new bank fee looks more like a punishment meant to placate public anger. It will strengthen the government's grip on power—and it will forestall real reform.

How to Make a Bank Raise Equity
Financial Times; February 7, 2010

Oliver Hart (Harvard University) and Luigi Zingales (University of Chicago Booth School of Business)

In the struggle to identify how to avoid a repeat of last year's financial crisis there is an emerging consensus among regulators, academics and practitioners that contingent convertible (Coco) bonds are the way to go. The idea is to have some debt in the capital structure of banks that converts into equity when a bank faces financial distress.

These bonds have some benefits. If, in an extreme downturn, the conversion were triggered, debt-holders would be forced to absorb some losses without dragging other obligations (derivatives or repurchase agreement contracts, for instance) into a bankruptcy process, an event that could trigger a systemic panic. This would save taxpayers large amounts and create incentives for creditors to monitor the issuers, instead of lending freely under the assumption that the government would bail them out.

This approach also has serious shortcomings. A much discussed problem is the conversion trigger. If based on accounting numbers, it might not be activated when it ought to be. The trigger of less than 5 per cent Tier 1 capital, which was set in the first Coco bond issue – by Lloyds Banking Group in November – would not have been activated even at the peak of the crisis. If, instead, the trigger is activated when equity prices are low, the manager could deliberately talk down the bank's value to activate the trigger and obtain equity on the cheap.

A much bigger problem has been largely ignored. If a bank is losing money because of bad investments, a Coco bond will not prevent it defaulting on derivative and repo contracts (often called systemic obligations). It will only delay the timing of a default. In fact, one advantage of debt is that it limits the resources an inefficient manager can waste: a default forces inefficient businesses to restructure and incompetent managers to be replaced. By eliminating defaults, Coco bonds increase inefficiency in the banking sector, without preventing defaults on systemic obligations and thus the risk of systemic crises.

If we want to prevent defaults on systemic obligations, we need a mechanism to induce banks to raise more equity when their capital cushion is running low. Unfortunately, this is precisely the time when raising equity is most costly, since the new funds will prop up the value of the existing debt rather than creating value for shareholders. How can we induce the banks to raise capital?

We can learn from banks themselves. When they finance the purchase of securities by investors on margin, they monitor daily the amount of collateral. If this ever drops below a threshold, they make a margin call, which forces the investor to choose between posting more collateral or losing the investment. As long as the call is made early enough (when the value of the security exceeds the amount borrowed), the investor will prefer the first option.

Banks are themselves like large margin investments. They buy most of their assets with borrowed money. The regulator could induce them to raise more equity by making a margin call at the appropriate time. Unfortunately, regulators on both sides of the Atlantic have been late to this game. Precisely because it is costly for a bank to raise equity in bad times, it is also politically difficult for a regulator to make a margin call.

This problem can be overcome, however, with an automatic trigger based on the much maligned credit default swaps. CDS prices provide up-to-date information about the risk that a certain debt will be paid. Hence we can require the regulator to make a margin call any time the CDS price of a bank's debt exceeds a certain threshold, let us say an average of 1 percentage point over the previous month. A verifiable market-based trigger makes it impossible for a regulator to delay the day of reckoning.

With all its failings, the CDS market has accurately predicted the financial institutions most at risk since the crisis began. Had this rule been in place, banks would have been forced to issue equity in the autumn of 2007 and beginning of 2008, avoiding the negative spiral we experienced in the autumn of 2008.

Not only does this rule eliminate the moral hazard present in banking, it is also fair. Why should regulators treat banks differently from the way banks treat their own customers?

The Menace of Strategic Default
Homeowners who walk away from their mortgages undermine our financial system
City Journal; Spring 2010

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Fortunately, debtors no longer face prison time, as they did in nineteenth-century London, but shouldn't they pay when they can afford to?

Eighteen years ago, when I bought my first apartment in Chicago, I asked my broker whether, if I defaulted on my mortgage, the lender could come after my income after repossessing the house. I had heard that some states didn't allow that, and I wondered if Illinois was among them. To my surprise, the broker didn't know, either, but she promised to find out. It clearly wasn't a burning question for her, since she still wasn't able to answer it the next time we met. Our ignorance wasn't unique. Confident that house prices would never stop rising, most Americans never bothered to check what would happen if they defaulted. After all, who would walk away from a house worth more than the mortgage?

Today, the matter is far from theoretical for the 15.2 million American households holding mortgages that exceed the value of their homes. It will help determine how many of them choose to "default strategically"—that is, walk away from their mortgages even when they can afford them, because they've determined that it's no longer worth it to keep paying. And that, in turn, will help determine the future health of the American housing market—and thus of the U.S. economy.

Many people think that we don't have to worry about widespread strategic defaults. When I discussed the problem with a board member of one of the top four American banks, he categorically denied its existence: "The idea that people would walk away from their homes when they can still afford to pay the mortgage is unfounded." A study from the Federal Reserve of Boston seems to confirm his skepticism. Evaluating Massachusetts homeowners during the 1990–91 recession, it found that only 6.4 percent of "underwater" borrowers—that is, those burdened with mortgages that exceeded the value of their homes—ended up in foreclosure. And not all of those households were defaulting strategically; many, presumably, were actually unable to pay their mortgages.

Unfortunately, such evidence may not tell us much about the likelihood of strategic default today. During the 1990–91 recession in Massachusetts, home prices fell just 22.7 percent from peak to trough, and most borrowers had made 20 percent down payments—so few owed much more than their houses were worth. Even people who had bought at the peak owed, on average, just 3 percent more than the value of the house. Over the last few years, by contrast, home prices have fallen by 40 to 50 percent in several areas, and many borrowers had put very little or nothing down when they bought their houses. Furthermore, during the current recession, the problem affects not only those who bought houses at the peak but also those who took advantage of rising house prices to take some money out in a refinancing. This wasn't the case in 1990–91, when home-equity lines of credit were extremely rare.

Strategic default is hard to define, of course, and presents difficulties for researchers. What exactly does it mean to be able to pay a mortgage? If I default because I'm unwilling to work extra hours to pay my mortgage, is that a strategic default or a necessary one? Nevertheless, a growing body of evidence suggests that in the current recession, strategic default exists and is rising.

The most convincing evidence comes from a study by Experian and the consulting firm Oliver Wyman that tries to measure strategic default by identifying people who go straight from having always been current on their mortgages to being 180 days late—while staying current on all their other debt obligations, such as credit cards and auto loans. The idea is that if somebody pays the credit card but not the mortgage, it's probably because he wants to default on the mortgage, not because he must. The study estimates that in 2008, 17 percent of all U.S. defaults were strategic, though that figure differs tremendously across groups and regions. For instance, 27 percent of defaults among people with high credit scores appear to be strategic, a figure that jumps to 40 percent in California.

A study by the Amherst Securities Group takes a different approach. It shows that in areas where homeowners generally weren't underwater, under 1.5 percent of subprime mortgages became nonperforming each month during the third quarter of 2009. But in areas where the average mortgage exceeded the current value of a house by 20 percent or more, the rate of monthly subprime defaults was 4.5 percent. The difference between the two rates probably isn't due to homeowners' *ability* to pay, because the study corrects for unemployment. The assumption, therefore, is that it's due to homeowners' *willingness* to pay when they see how much more expensive their mortgages are than their houses. The difference between the two default rates—the 1.5 percent "natural" rate and the 4.5 percent rate in areas where home prices dropped significantly—suggests that in those areas, *two-thirds* of defaults seem to be strategic.

Survey-based evidence also suggests that strategic default has become widespread. A survey conducted by the Chicago Booth/Kellogg School Financial Trust Index, which I helped design, asked a representative sample of 1,000 Americans how many people they knew who had defaulted and how many of those people had defaulted even if they could still afford to pay their mortgages. According to the respondents in March 2009, 23 percent of their acquaintances' defaults were strategic. By September, that fraction had increased to 36 percent.

Though the rate of strategic default is hard to determine, one thing seems certain: the more you owe, relative to the value of your house, the likelier you are to default strategically. Nobody will do that if his mortgage is just 10 percent larger than his house is worth. Of households that owe 50 percent more than their houses are worth, the same survey suggests, 25 percent will default strategically. And a New York Fed study estimates that of households that owe 62 percent more than their houses are worth, a full half will default strategically. The good news is that many homeowners seem unwilling to default even when they owe a lot more than their houses are worth. The bad news is that we aren't sure why they hold off—or how long they'll continue to.

In fact, what's surprising isn't how many homeowners choose to default strategically, but rather how few do so, given the strong monetary incentives. In many areas, prices have fallen so steeply that the monthly mortgage on a house—if it was acquired just before the housing bubble burst—is twice as expensive as the monthly rent on an identical house. If you were holding such a mortgage, why *wouldn't* you default?

The law doesn't provide much incentive to stay put. It's true that 39 states permit a lender to come after a borrower's other assets and income if he defaults (as I would have discovered, had I done my homework 18 years ago). And it's also true that even in the 11 states that don't allow that, the restriction applies only to original home loans used to purchase property, not to home-equity lines of credit, while there is some legal uncertainty regarding mortgages issued to refinance existing mortgages. Nevertheless, lenders rarely slap borrowers with a deficiency judgment—a court injunction to pay the difference between the face value of a mortgage and the proceeds that the lender earns by repossessing and selling the house. The procedure is costly and generally not worth the expense because of the limited assets that most Americans own aside from their homes.

The tax code likewise doesn't impede people from defaulting strategically. Until recently, it's true, people had to pay taxes on any forgone debt. If you walked away from a house worth, say, $100,000 less than you owed the bank for it, that $100,000 was essentially income, and you had to pay income tax on it. However, in December 2007, Congress made mortgage debt cancellation nontaxable for personal residences. Congress's aim was to facilitate the renegotiation of underwater mortgages, but the move had an unintended consequence: reducing the cost of walking away.

What does prevent people from strategic default, it seems, is their sense of what's right. More than 80 percent of Americans think that it's immoral to default on a mortgage if you can afford to pay it, according to a recent paper by Luigi Guiso, Paola Sapienza, and myself, and these people are 77 percent less likely to declare their intention to default strategically than people who don't find the act immoral. Perceived social norms also seem to affect the propensity to walk away: knowing somebody who defaulted strategically, or living in an area where many people have done so, makes a person much more likely to declare his willingness to follow suit.

Recently, though, some scholars have begun questioning the moral imperative not to default. Roger Lowenstein, writing in the *New York Times*, wonders why we should expect homeowners not to default strategically, when banks routinely do so with their underwater investments. Similarly, Lowenstein likens strategic defaults to the "walkaways" that prominent companies have made, such as Tishman Speyer's default on its Stuyvesant Town property in New York. The analogy

isn't apt, however, because in commercial real estate, contracts explicitly state that borrowers can transfer ownership of the collateral in lieu of repaying the debt. With such an agreement in force, there is no moral obligation to pay any residual debt after the property has been transferred. Such a provision is not present in home mortgages in most states.

University of Arizona law professor Brent White goes further, arguing that defaulting on a mortgage when its value exceeds the value of the house is the rational thing to do and that homeowners refrain only because of media "scare stories" pushed by powerful lenders. He suggests that the government should encourage borrowers to default when it's in their economic interest, which would force banks to renegotiate the loans. His solution is akin to encouraging people not to pay taxes in an effort to induce the government to reduce fiscal pressure: it might work, but at the cost of putting the entire system at risk.

How much risk? If the underwater homeowners who currently refuse to default changed their minds and decided to abandon their mortgage commitments, the results could be catastrophic. The more people walk away, the more houses get auctioned off, further depressing real-estate prices. This additional decline would push more homeowners into negative territory, leading to still more defaults. Adding to the deadliness of this cycle would be the fact that as more strategic defaults occurred, the social stigma associated with them would lessen. Such a continued collapse is already a distinct possibility in several states: Nevada (where two-thirds of all homeowners are underwater), Arizona (51 percent), Florida (49 percent), Michigan (48 percent), and California (42 percent). Every time a borrower defaults, moreover, he makes future mortgages more expensive (because lenders have to cover the cost) and the mortgage market more inefficient (because many potential borrowers are shut out). This higher cost and reduced availability of credit would depress house prices even more, jeopardizing the possibility of an economic recovery.

Undermining the social norm to repay mortgages, as Lowenstein and White do, is thus a very bad idea. You might just as well say that when a theater is going up in flames, it's "rational" to trample other people in rushing to the exits.

Not only did the real-estate crisis shove millions of homeowners underwater; it also jeopardized the very social norms that it rests upon. To prevent a complete breakdown in social norms—a breakdown that could take decades to reverse—it's necessary to facilitate mortgage renegotiations, especially in the areas most affected by the drop in home prices. Unfortunately, the major lenders oppose any reduction of mortgage principal. They're playing a dangerous game of chicken, gambling that the real-estate market will recover and that any dollar of principal reduction now will be a dollar less in profit for them later. (Even if the market doesn't recover, they don't have much to lose, since if they collapse they're likely to become wards of the state.)

Eric Posner and I have proposed a simple solution to the problem of underwater mortgages. We envision a reform of the bankruptcy code that, in areas where house prices have dropped precipitously, would require lenders to give homeowners the option of resetting their mortgages to the current value of their houses. In exchange, the lenders would get 50 percent of the houses' future appreciation. To keep homeowners honest—that is, to prevent them from doing minimal upkeep in the knowledge that they stood to gain less from a home-price increase—the capital gain would be measured based on an average of houses selling in the area, rather than on the change in the value of the actual house.

This proposal eliminates all the incentives for a strategic default without excessively rewarding the borrowers. In fact, the proposal's main appeal is that it tries to split the costs and benefits fairly between lenders and borrowers, without having taxpayers subsidize both, as the Obama administration's interventions have done. Unfortunately, that makes our proposal unpopular. Since it doesn't unduly favor any constituency, it isn't supported by any. And since it doesn't spend tax revenue, it isn't favored by politicians, who never tire of rescuing some people with other people's money.

Curbing Risk on Wall Street
National Affairs; Spring 2010

Oliver Hart (Harvard University) and Luigi Zingales (University of Chicago Booth School of Business)

The financial crisis of 2008 had many causes. They ranged from a housing bubble to excessive speculation, and from inadequate accounting rules to reckless corporate governance. But at the heart of the meltdown were the financial industry's distorted incentives — created in large part by decades of misguided government policy — which caused bankers and investors to take enormous risks without due regard for their consequences.

The easiest way to make money on Wall Street was (and remains) heavy borrowing and extreme risk-taking. The reason is simple: There has long been a sense — which has only grown stronger over the past year — that the government will step in if the situation gets out of hand. Anyone who runs a large financial institution and makes a huge bet on a loan or investment understands that one of two outcomes is now possible: Either he'll get lucky and make a bundle, or he'll get unlucky and walk away (with Uncle Sam left holding the bag). Why should the titans of finance bother to keep risk in check if the government is going to bail out ruined gamblers? Being judged too important to the economy to fail is a financial institution's one sure bet.

Although much has changed in the wake of the crisis, this basic dynamic has not. If anything, it has grown worse. This was affirmed in October by Neil Barofsky, the special inspector general of the Treasury's Troubled Asset Relief Program. Responding to a question about whether the situation had improved over the previous year, Barofsky said:

I think, actually, what's changed is in the other direction. These banks that were too big to fail are now bigger. Government has sponsored and supported several mergers that made them larger. And that guarantee — that implicit guarantee of moral hazard, the idea that the government is not going to let these banks fail — which was implicit a year ago, it's now explicit.

The message to Wall Street has clearly been that large financial institutions are now shielded from the consequences of their own decisions.

It is even possible to assign a numerical measurement to this expansion of the "too big to fail" regime. As a recent study by Dean Baker and Travis McArthur showed, the advantages large banks enjoy over small banks have only increased since the crisis. Between 2000 and 2007, large banks (those with assets of more than $100 billion) could borrow money at interest rates that were about 0.29 percentage points lower than those available to smaller banks. In the period since, the spread has grown to 0.49 percentage points. This increased spread is the market's estimate of the benefit of the implicit insurance offered to large banks by the "too big to fail" policy.

For the 18 American banks with more than $100 billion each in assets, this advantage corresponds to a roughly $34 billion total subsidy per year. This subsidy distorts the marketplace by hampering the ability of small banks to compete, which in turn leads to greater bank concentration. This increases the power of banks at the expense of depositors and borrowers, and all but ensures that banks will be even bigger the next time a rescue gets called in. In 1998, the Federal Reserve Bank of New York only had to coordinate a rescue of Long Term Capital Management, costing the major creditors $3.6 billion. In 2008, the government had to spend $700 billion to save the whole financial sector. What will we face in 2018 if we don't change course?

And yet changing course is far from easy. The government's serial-bailout approach can't just be written off as indulgent folly: In many cases, it has been the most practicable response to very real threats to the financial system, and to the lack of options for assessing and constraining the risks taken by large financial players. But what the Obama administration has proposed as an alternative is hardly an improvement: Its regulatory approach would throw the baby out with the bathwater, preventing American banks from competing and thriving in an attempt to keep their risk-taking in check.

What we need now is a better way to judge and restrain that risk, but without placing undue constraints on economic growth and the freedom of the market. Of course, balancing these two crucial yet seemingly divergent aims will be no small feat.

AVERTING FUTURE BAILOUTS

If "too big to fail" is so evidently bad, what other options do we have? One approach would be to remove the implicit guarantee given to large banks by making it clear that the government will not step in to protect them should they fail. But such pledges alone would not get us very far, as policymakers in a crisis would be very unlikely to hold to them — and might even be wrong to. The sudden failure of a large bank could in fact be catastrophic for the nation's financial system. And when politicians are faced with catastrophe, long-term concerns tend to take a back seat to the immediate crisis.

Another option is to make the alternatives to intervention more palatable. This is the logic behind the Obama administration's proposal that financial institutions prepare so-called "living wills" — contingency plans for how to unwind their obligations in the event of failure at minimal cost to the system. All market players would understand in advance what would be involved in the failure of a particular institution, and it would be clear to all that massive intervention would not be required and, more important, should not be expected. In principle, this is a good idea; in practice, however, every institution would have a strong incentive to sabotage its own "living will" — designing it so that it would fail to protect the system from the shock of the firm's collapse, and so requiring the government to step in and keep the firm afloat.

A third option would be to avoid the circumstances that create the need for interventions, by restricting the risks that financial institutions can take. If neither government nor the firms can be relied on to refrain from passing the costs of excessive risk-taking on to the public, then the risk-taking itself should be prevented.

This is clearly the best option for changing the behavior of large financial institutions and correcting the distorted incentives that produced such disastrous consequences in the past few years. But everything depends on just how the particular remedy would be carried out in practice.

Many proponents of this approach suggest severely restricting the activities in which large financial institutions may engage, in essence radically simplifying the nature and range of permissible transactions. This is what the Obama administration has recently proposed — prohibiting banks from owning, investing in, or advising hedge funds or private-equity funds, and prohibiting proprietary trading with bank funds. Such a policy would be very costly and doomed to fail: very costly because it would require prohibiting the involvement of large financial institutions in an enormous range of financial activities that now allow them to profit and compete; doomed to fail because such regulations are extremely easy to bypass. It takes no time for a clever financier to design a contract that gets around most restrictions. Most important, the 2008 financial crisis was not caused by deposit-taking banks that assumed excessive risk through their proprietary trading desks, but rather by investment banks that took excessive risk in their portfolios and by commercial banks underwriting too many bad real-estate loans. President Obama's proposal would not prevent either of these activities.

Instead of restricting particular activities, then, regulators should restrict the total amount of risk that large financial institutions may undertake. In what follows, we propose a means of doing exactly that, while minimizing the burdens of such restrictions on the larger economy.

In general terms, this is not a new idea in banking regulation. It is in the spirit of the Basel I and Basel II accords of 1988 and 2004, in which many of the world's central bankers agreed to establish some minimal capital requirements for banks to help safeguard their solvency. But our proposal differs from the Basel approach in two key respects.

First, it does not put its faith in the abilities of rating agencies to assess the risks taken by financial institutions, as the Basel accords did. Rating agencies are useful up to a point. But when a change in rating can unleash enormous economic consequences, rating agencies cannot be relied on to make the right call, because they are extremely sensitive to the

practical outcomes of their decisions. American International Group was still rated AA two days before it received an $85 billion bailout from the government.

Second, our proposal would not place its trust in regulators themselves to act in time, since the incentives they face almost always argue against swift action before a crisis. There is no political payoff for an early intervention, especially given the uncertainty that surrounds all such decisions. After Washington Mutual was taken over in 2008, there were still people complaining that the government acted too early. Preventive banking regulation is something like pre-emptive war: There is no credit for the pain avoided, while there is plenty of blame for the pain inflicted. Experience shows that regulators simply cannot be relied upon to resist these pressures.

Any successful mechanism to contain the risks that large financial institutions take, and so to avoid future bailouts, would therefore have to be driven not by refereeing institutions but by the market itself. It would need to rely on the market's ability to collect relevant information promptly, and to make it known widely.

REGULATING RISK

How can the market be expected to assess the risks large institutions take if market players know that those institutions will eventually be bailed out in a crunch? The very existence of the "too big to fail" policy makes it extremely difficult for the market to usefully measure and analyze such risks.

Fortunately, the logic behind "too big to fail" itself may actually offer a way around this problem. As many observers have noted, the government's reason for bailing out large financial institutions is not exactly that these firms are so large that their failures would crush the whole system. Rather, the government's concern has been that these firms are so *interconnected* with other financial institutions — through their various transactions, obligations, and contracts — that a default might trigger losses among an enormous number of counterparties, producing further defaults that would cascade out of control.

To function properly, the financial system needs to operate under the assumption that certain assets, such as deposits, are "worry free." Depositors with money in, say, checking and savings accounts should not have to monitor counterparty solvency, or worry about which banks their bank is dealing with. This sense of security saves a great deal of anxiety and cost — which ultimately allows the system to operate more efficiently. But this belief can be sustained only if the prompt and full repayment of so-called "sensitive" or "systemically relevant" obligations is not in question. People need to know that not just bank deposits, but also short-term interbank borrowing and the network of derivative contracts, are secure enough that they won't suffer even if their bank collapses. In a system built on trust and confidence, the fundamentals have to be secure to allow people to take sensible risks at the margins.

Once we understand that the issue addressed by "too big to fail" is the interconnectedness of large financial institutions, and therefore the stability of the larger system, we can make some important distinctions. Not all of the debt held by large financial institutions, and not all of the transactions they engage in, are systemically relevant in this way, and so in need of such total protection. Specifically, long-term debt is not "systemically relevant." There is no reason for a large financial institution to hold bonds or other long-term debt in other financial institutions. This debt mostly resides in the massive portfolios of mutual funds and pension funds, which can absorb losses in the value of such debt in the same way they absorb losses from equity investments. A default on that debt, therefore, would not trigger a cascade of bank failures the way a default on short-term debt could.

Our proposal, then, is for a new system of regulation that protects the systemically relevant obligations of large financial institutions — making sure they would be repaid by the institution (not by taxpayers) in the case of bankruptcy — but leaves open the possibility that non-systemically relevant obligations will not be protected.

Under this new system, banks would be required to hold two layers of capital to protect their systemically relevant obligations. The first layer would be basic equity — not much different from today's standard capital requirement, except for the fact that the amount of equity required would be determined not by an accounting formula, but by a market assessment of the risk contained in the second layer.

That second layer would consist of so-called "junior long-term debt." Being explicitly labeled "junior" means this debt would be repaid only after the institution has made good on its other debt, and so also means that it would involve more risk for those who buy it (therefore offering higher rates of return). Such debt would provide an added layer of protection to basic equity because, in the event the institution defaulted, the junior long-term debt could be paid back only after other (more systemically relevant) obligations have been repaid. Perhaps most important, because this layer of debt would be traded without the assumption that it would always be protected by federal bailouts, it would make possible a genuine market assessment of its value and risk — and therefore of those of the financial institution itself.

This is the crucial innovation of the approach we propose. The required second layer of capital would allow for a market-based trigger to signal that a firm's equity cushion is thinning, that its long-term debt is potentially in danger, and therefore that the financial institution is taking on too much risk. If that warning mechanism provides accurate signals, and if the regulator intervenes in time, even the junior long-term debt will be paid in full. If either of these two conditions is not met, the institution may burn through some of the junior-debt layer — but its systemically relevant obligations will generally still be secure. In this case, the firm may suffer, but the larger financial system will be kept safe.

This remedy would work more or less as a margin-call system does in the stock market. When an investor buys stocks on margin, he puts down only part of the cost; as a result, he must show that he has enough collateral to cover the risk his broker is taking in lending him the money to make up the difference. If the stock price drops below an agreed-upon level, that risk increases. The broker then issues a "margin call" — which means the buyer must either provide additional collateral or sell his stocks to pay back the broker in full. The system of financial regulation we are proposing would treat large banks the same way: They would have to show the regulator that they have enough collateral (in the form of equity) to ensure that all of their debt — not just the systemically relevant part — could be paid in full. And if declines in the value of their underlying assets put the banks' debt at greater risk, they would face a kind of margin call from the regulator, forcing them to either post additional capital or submit to liquidation — allowing their debt to be repaid either way.

The success of this system rests, of course, on the timely intervention of the regulator tasked with making that "margin call." If the intervention were too slow in coming, the bank's long-term creditors could be at risk (though as long as the delay was not too severe, the systemic obligations would still be shielded). Thus, it is essential to have an effective mechanism that assesses risk and triggers a response — operating as both a warning to the regulator and a means of compelling him to act swiftly.

A MARKET-BASED TRIGGER

In a normal margin account, a broker considers the total value of the investment — which is easily determined, since all assets are traded — and compares the value of the collateral his client has posted with the likely risk of loss. If the collateral is insufficient to cover a plausible decline in the stock's value, he calls for more collateral. In the system we propose, of course, the value of the "investments" (that is, the value of the financial institution's assets) is not as easy to determine, because the assets — commercial loans and home-equity lines, for example — are not standardized and not frequently traded; they do not have a clear price. It is therefore difficult to tell when the equity the bank has posted is too thin to protect the existing debt — and so difficult to know when the bank has taken on too much risk. In addition, debt holders are often dispersed, and incapable of coordinating a margin call. If a margin-call approach is to be followed, then, it requires an easily observable, automatic trigger.

Ideally, such a trigger would be market based — i.e., tied to the price of some traded security. This means it would incorporate and reflect all the information available in the market, which traders gather because it is profitable for them to know it. The breadth and diversity of the market also mean that such a signal would be hard to corrupt, and not subject to political pressures like those that can be focused upon a single credit-rating agency or government regulator.

To avoid unnecessary fluctuations and false alarms, the trigger should also be a security traded in a market with a lot of liquidity, and therefore stability. And its price should be closely linked to the financial event we want information about: in this case, the fact that an institution's long-term debt is at risk.

Equity prices, for instance, fail to satisfy this final criterion. As long as there is the possibility of a significant upside, equity prices will stay relatively high even when the company is close to bankruptcy and the debt is at risk of not being paid in full.

The price of the junior long-term debt would be a better place to look. When the equity cushion is running thin, that long-term debt becomes endangered and will start trading below par. This option, though, fails to meet another criterion: The bond market, where such debt might be traded, is highly segmented and illiquid; bond prices are therefore unreliable signals.

There is, however, a security that is linked to bond prices but remains very liquid: the credit default swap. A credit default swap is essentially an insurance claim that pays off if the underlying entity fails and creditors are not paid in full. The buyer of a CDS for a bank's debt, for instance, makes periodic payments to the seller (which is a third party, not the bank itself) and receives a payoff if the bank defaults on that debt. (A CDS differs from insurance, however, in that the buyer need not actually own the underlying security — e.g., the bank's debt.)

Since a CDS is basically a bet on the odds of a particular firm's failure, the CDS price reflects the market's assessment of how likely it is that the firm's debt will not be repaid in full. It thus offers exactly the instrument we seek. Under our system, the CDS price for a bank's long-term debt would be used to gauge the risk of the equity cushion's being devoured by losses. If the CDS price were to rise above a critical threshold — thereby flagging imminent danger — the regulator would force the institution in question to issue equity (that is, to offer new stock for sale) until the CDS price moved back below the threshold. If the price did not fall below that threshold within a predetermined period of time, the regulator would intervene.

Credit default swaps have developed a bad reputation lately, as they are often cited as one of the causes of the financial crisis. The problem, though, was not with credit default swaps as such, but with the way they were traded. To profit from the higher margins available in an opaque market, large banks lobbied heavily against requiring credit default swaps to be traded in an open exchange and to be properly collateralized. A seller in the futures market, for instance, has to update his collateral position daily, which protects the buyer against the risk of the seller's default. But the CDS market before the crisis required no such protections — allowing AIG, for example, to sell enormous amounts of "insurance" without posting the proper collateral. When the risk increased and the buyers asked for the collateral, AIG had to be rescued. So credit default swaps are not bad per se; they can be dangerous only to the extent that they are not properly collateralized. When traded in an organized exchange, the CDS is a very useful instrument for reducing the exposure to credit risk — and its price offers just the signal upon which our system relies. Fortunately, there is now a clear trend toward moving credit default swaps onto exchanges, which will naturally require better collateralization to protect the exchanges' members. Thus it seems likely that CDS prices will become increasingly reliable.

Another benefit of this transparent, market-based signal is that it helps to address two major risks posed by regulatory intervention in the financial system. One is that a regulator could arbitrarily close down well-functioning financial institutions for political reasons. The other is that a regulator, under intense lobbying by the regulated, can be too soft — a phenomenon known in the banking literature as "regulatory forbearance" (and a contributing factor to the 2008 crisis). Our mechanism removes most of the regulator's discretion to make either error: The regulator cannot intervene if market prices do not signal distress, and yet it would be difficult for the regulator to avoid intervening when the market *does* signal — to everyone — that a firm is in trouble. As added incentive, we would allow bondholders in a regulated institution to sue the regulator if the trigger were clearly set off without any action being taken. Since the required subsequent intervention would stabilize the value of the bonds, bondholders would have a legitimate cause of action.

And just what form should the regulator's intervention take? Here, too, we think the presence of a market-based trigger for action makes it possible to adopt targeted, prudent measures that avert both overreaction and under-response.

If the trigger were to be set off by a too-high CDS price, the regulator would be required to carry out a "stress test" on the financial institution to determine if it is indeed at risk. In a stress test, regulators use sophisticated algorithms to run "what if" scenarios that examine whether a financial institution has sufficient assets to survive serious financial shocks. A stress test should precede any other action, so that extraneous panic is not allowed to bring down financial institutions unnecessarily. If, for instance, a few significant hedge funds or other investors lost confidence in a bank on the basis of a

rumor or misperception about its strength, and began to buy credit default swaps as protection against its failure, the CDS price would rise and might trigger regulatory action. It is important that the regulator first test the validity of the concern before acting on it.

If the bank passed the test and showed the regulator that the CDS price was not accurate, the regulator would then declare the company adequately capitalized. But if the bank failed the test, the debt was found to be at risk, and issuing equity did not improve its situation, the regulator would replace the institution's CEO with a receiver or trustee. This person would be required to recapitalize and sell the company, guaranteeing in the process that shareholders were wiped out and creditors — while not wiped out — received a "haircut," meaning that the value of what they were owed would be reduced by some set percentage. That haircut is crucial in ensuring that the market prices credit default swaps in a way that takes regulator interventions seriously — showing that creditors will pay a price for an institution's failure — and so makes the trigger more reliable.

This regulatory receivership would be similar to a mild form of bankruptcy. But while it would achieve the chief goals of bankruptcy — imposing discipline on investors and management — it would avoid bankruptcy's worst cost: the possibility that one firm's failure could take down the entire financial system.

A potential risk of this proposal is that the news that a regulator is performing a stress test on a bank might scare off the short-term creditors and induce a run on the bank. This problem can easily be fixed by having the regulator temporarily guarantee the bank's senior debt for the brief period of the stress test itself. With our early-warning system and double layer of protection, the systemic obligations (which in our mechanism are all "senior" debt) will essentially always be paid. So the government is not assuming real risk; it is only defusing the risk of a run. This guarantee can then be lifted when the bank is deemed well capitalized (and more junior debt is issued) or, if the bank is put into receivership, when it emerges from receivership.

THE CONCEPT IN PRACTICE

In addition to setting out the conceptual case for the trigger and the form of intervention, putting this approach into practice requires us to specify two parameters: the particular size of the junior-debt cushion financial institutions should be required to have, and the particular threshold CDS price for triggering regulatory action.

The best way to estimate both is to try to apply our proposal to the financial crisis of 2008. When we do, the first thing we learn is that the CDS rate is in fact a powerful predictor of the fate of large financial institutions in a crisis. Table 1 shows the one-year CDS rates for the nation's largest financial institutions throughout the crisis in basis points per year. (A CDS rate of 11 basis points means that it costs $11 to insure a $10,000 debt against default for a year.) The dates we have chosen are what is now taken to be approximately the beginning of the crisis, the end of 2007, the date of the rescue of Bear Stearns, and the date the initial TARP proposal was rejected by Congress.

While it is true that the CDS market did not anticipate any problem until the summer of 2007, after that point the market provided a remarkably accurate indicator of the eventual fate of the major financial institutions. As the table makes clear, the market early on singled out Washington Mutual and Bear Stearns as the two most problematic institutions. In fact, if one had to predict in August 2007 the five institutions that would go under first on the basis of their CDS rates, one would be correct in four out of five cases. By the end of 2007, the data showed a decisive worsening of the situations of the investment banks and Washington Mutual. In late December, the market put the probability of Washington Mutual's defaulting within a year at 10%. By March 2008, that estimate had risen to 30% — and yet the regulator waited until September 25 to take over the bank.

TABLE I: ONE-YEAR CDS RATES OF THE MAJOR FINANCIAL INSTITUTIONS AT KEY DATES DURING THE CRISIS

Financial Institution	8/15/2007	12/31/2007	3/14/2008	9/29/2008
Bank of America	11	29	93	124
Wells Fargo	23	45	113	113
J.P. Morgan	19	32	141	103
Citigroup	15	62	225	462
Wachovia	14	73	229	527
Washington Mutual	44	422	1,181	3,305
Goldman Sachs	28	78	262	715
Morgan Stanley	31	129	403	1,748
Merrill Lynch	29	159	410	666
Lehman Brothers	38	100	572	1,128
Bear Stearns	113	224	1,264	118
AIG	31	59	289	821

All figures are in basis points per year.

This history of the crisis read through the lens of CDS rates can also help us see approximately where and when the CDS-rate trigger should be set. If our goal is to intervene between, say, six and nine months in advance of a genuine failure, we can go back and see how high the CDS rates of failed institutions were six to nine months before the failures occurred. We can then determine the false positive rate by looking at how many stable institutions the trigger mechanism would have flagged as questionable.

Table 2 presents a one-month average of one-year CDS rates six months and nine months before the "failures" of major institutions. We use failure here loosely, because Bear Stearns, Merrill Lynch, AIG, and Citigroup did not fail — they were of course rescued by the government, either through a shotgun wedding or a direct taxpayer bailout. The classification "surviving" is also open to debate, since Goldman Sachs and Morgan Stanley could also be said to have been saved by the government. But these labels generally correspond to how the practical fate of these institutions has been understood.

TABLE 2: TRIGGER RULE SIMULATIONS

"Failed" Institution	Date of "Failure"	Average CDS Six Months Prior	Average CDS Nine Months Prior
Bear Stearns	3/14/2008	121	10
Lehman Brothers	9/15/2008	288	106
Washington Mutual	9/25/2008	957	430
Wachovia	9/30/2008	176	45
Merrill Lynch	9/15/2008	282	177
AIG	9/16/2008	234	70
Citigroup	9/30/2008	162	44

All figures are in basis points per year.

As the table demonstrates, all the "failed" institutions had CDS rates above 100 basis points six months before collapsing; only Lehman Brothers and Washington Mutual had CDS rates above 100 nine months before they went under. With the exception of Bear Stearns, though, all of the institutions had CDS rates above 40 nine months before their respective failures.

In Table 3 we look at the false positives; that is, when the institutions that did not fail would have first set off our market-based trigger.

TABLE 3: FALSE POSITIVE SIMULATIONS

"Surviving" Institution	False Positive Date with Trigger at 100	False Positive Date with Trigger at 40
Bank of America	9/22/2008	1/22/2008
Wells Fargo	9/18/2008	11/23/2007
J.P. Morgan	9/29/2008	2/15/2008
Goldman Sachs	2/14/2008	8/20/2007
Morgan Stanley	11/13/2007	8/22/2007

All figures are in basis points per year.

For the commercial banks — Bank of America, J.P. Morgan Chase, and Wells Fargo — the 100 basis points threshold would have been

only after the Lehman failure that sent the financial industry into a panic. For the two investment banks — Goldman Sachs and Morgan Stanley — it would have been crossed in February 2008 and in November 2007, respectively. It is

unclear, though, whether these are really false positives: One could easily argue in retrospect that these two institutions did in fact need more capital back then. The 40 basis points threshold, by contrast, definitely seems to generate too many false positives — since it would have triggered an intervention in Wells Fargo back in November 2007. A trigger at 100 basis points therefore seems roughly appropriate.

With the benefit of this information, we can also consider the appropriate size of the junior-debt cushion. Given our trigger rule and the potential delays in a regulator's response, the junior-debt layer should be thick enough to fully protect the systemically relevant debt. Suppose we wanted to make sure each institution had a sufficient cushion to endure a delay of six months: It would be reasonable for us to set the rules such that after an institution has exhausted its equity layer, the probability of its running through the junior-debt layer in six months is less than 5%. If asset volatility is around 8% per year, our calculations suggest that maintaining a layer of junior long-term debt worth roughly 11% of assets will offer the necessary protection. By today's standards, this figure is hardly high: For the eight largest banks, the long-term debt-to-asset ratio in September 2008 was 19%. A new regulatory system that required a CDS rate below 100 and a long-term debt layer of at least 11% would therefore not be a great burden for the major banks today.

The key to our proposal is not the toughness of the initial rules, but rather the promptness of the corrective action triggered by a market signal. This lack of a harsh crackdown means the transition to our system would be relatively painless for the banks. Our approach would also have several other significant advantages over today's regulatory system, not to mention most of the ideas for reform now being proposed and debated. For one thing, it would be quite simple, and not very different from the system of capital requirements currently in place. Second, it would be easily applicable to diverse financial institutions — such as hedge funds and insurance companies, as well as banks — if policymakers wanted to expand its reach. Many mechanisms designed explicitly for banks would be difficult to adapt to other financial institutions, but our system is based on three simple concepts that are easily portable: an equity cushion, a junior-debt cushion, and a CDS trigger. Third, this approach would overcome the natural tendency of regulators to forbear by introducing a trigger determined not by one person but by the whole market. Last, but surely not least, our mechanism would not rely on significant amounts of taxpayer money.

BEYOND TOO BIG TO FAIL

The financial crisis of 2008 resulted from a series of misguided policies, failures of regulation, and missed signals. Unfortunately, much of the conversation about regulatory reform since has revolved around ideas that would only extend and exacerbate all three. Even worse, the actions taken in the aftermath of the crisis — and the remedies now being proposed — seem likely to further solidify the dangerous perception that some institutions are just too big to fail.

That perception dulls competition and distorts the allocation of capital — favoring excessive risk-taking, and sowing the field for the next crisis. What we need instead is a means of curbing reckless risk-taking, and especially the incentives that drive it, while making sure not to unduly constrain economic activity, investment, and growth.

The combination of a new capital requirement for large financial institutions with a new market trigger for regulatory action would offer just that balance. It could be introduced today without causing any serious hardship to financial institutions or the larger economy, without costing taxpayers much (if anything at all), and without requiring much in the way of new legislation. Our proposal would also offer a means of averting future bailouts, of re-establishing some confidence and order in the system, and of allowing once again for genuine competition in the world of finance. It would offer an opportunity to apply the lessons of the financial crisis without overreacting — and, most important, to protect the dynamism of American capitalism without neglecting the government's responsibility to protect the American public.

Credit Default Swaps on Trial
Project-Syndicate.org, April 19, 2010

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CHICAGO – The lawsuit filed by the US Securities and Exchange Commission against Goldman Sachs for securities fraud, charging the bank with misrepresenting the way a collateralized debt obligations (CDO) had been formed, has revived public disgust at credit default swaps (CDS), the instrument used to bet against these CDOs. Before the 2008 financial crisis, CDSs were an esoteric product, known only to a restricted number of sophisticated investors and specialized academics. Today, they are a household name, synonymous with unruly speculation, boundless greed, and, ultimately, systemic instability.

Indeed, CDSs are blamed as one of the main causes of the financial crisis. The legality of Goldman Sachs' behavior will be determined by a court of law, but CDSs' odious reputation is jeopardizing the survival of this instrument in the court of public opinion.

Riding the populist wave, several politicians have proposed a ban on CDSs. The recent Greek crisis has further galvanized the anti-CDS camp. After all, isn't it the fault of the CDS market's avaricious speculators that Greece was on the verge of default and that Greek public employees have had to endure deep wage cuts?

In a word, no. Far from being the spawn of the devil, CDSs are a useful financial instrument that can improve not only financial stability, but also the way that companies and countries are run. Banning them will do more harm than good. Any attempt in that direction is detrimental, because it would divert attention from the useful goal of disciplining the CDS market to make it more transparent, stable, and efficient.

One key advantage (if not *the* key advantage) of capitalism over central planning is the information conveyed by market prices. When the demand for potatoes at the current price exceeds supply, the price of potatoes rises, signaling scarcity. Individual farmers do not need any bureaucratic directive to decide whether to plant more potatoes: an increase in prices creates an incentive to plant more potatoes; a decrease in prices is a signal that they should plant less.

The same is true with stock prices. An increase in the stock price of steel manufacturers suggests an increase in the demand for steel, which induces entrepreneurs to start more steel plants and investors to provide them with the money. Conversely, a decrease in the stock price of steel manufacturers leads entrepreneurs to liquidate existing plants and dissuades investors from committing more resources to the sector.

Unfortunately, sometimes prices fail to perform this signaling function properly, as the dot-com and housing bubbles in recent years showed. During the dot-com bubble, prices signaled huge demand in the Internet sector. For this reason, hundreds of millions of dollars were wasted in advertising improbable companies on TV and building network capacity beyond any foreseeable need. During the housing bubble, prices signaled a severe scarcity of houses. So billions of dollars were poured into new developments in remote locations where nobody wants to live.

Given the large misallocation of resources in such cases, it is vital to understand why prices failed to provide an accurate signal to investors. Why did the United States, with the most developed financial market in the world, experience two major bubbles in less than a decade? An expansive monetary policy is partly to blame, but the real problem is an institutional setting that favors bullish sentiment.

Pension funds, mutual funds, and investment banks are all long in the stock market. Shorting a stock is difficult and risky: it is difficult because borrowing stocks is hard to do, and it is risky because shorting has limited upside but infinite downside. In other words, the traditional securities available to investors make it easier to bet in favor of a company than against it, causing prices to be affected more by irrational exuberance than by panics.

In this respect, CDSs are unique. Because they function as insurance on borrowers' ability to meet their obligations, they make it easier to express a negative opinion on a company or a security. To express a negative view via the CDS market, investors do not need to locate securities to borrow (a prerequisite to shorting), and they risk only a limited premium, while they have the opportunity to gain many times that.

It was the CDS market that allowed the negative – and correct – view of the housing market held by John Paulson and others finally to be embedded into market prices. They made the bubble burst. While painful for the rest of society, this is healthy. The longer a bubble lasts, the more damage it causes.

The same reasoning applies to the Greek crisis. The CDSs on Greece provide a useful signal of the country's compromised financial situation. It is thanks to the spike in the CDS market that the Greek government tightened its budget and improved its fiscal position. Medical tests, too, often bring bad news, but abolishing medical testing does not solve problems, it only hides them, making them worse.

The reason that politicians and corporate managers alike hate CDSs is precisely because CDS rates are so useful and so prompt in exposing their mistakes. Nobody likes to be found wrong. For this reason, politicians and powerful businessmen often cajole the press, the credit rating agencies, and even the analysts to portray their actions in a positive light. As the main source of negative information that is not sensitive to power, the CDS market is feared, and politicians want to eliminate it.

Of course, the CDS market is not perfect. In fact, it is not really an organized market, but only an informal virtual exchange. The existing rules are designed not to make it transparent or resilient, but to make it more profitable for large institutions like Goldman Sachs and JP Morgan. So intervention is needed to formalize the CDS market and force appropriate collateralization, so that no government has to step in to rescue any counterparty. But regulating the CDS market does not mean banning it. To do so would only sow the seeds of the next bubble.

A Better Plan for Greece
A restructuring, not a bailout
City Journal; May 7, 2010

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It seems like déjà vu: using fear, a political leader pushes down the throats of violently opposed voters an expensive bailout plan that benefits banks. That description applies not only to U.S. Treasury Secretary Henry Paulson in 2008 but also to German Chancellor Angela Merkel and French President Nicolas Sarkozy in 2010. Make no mistake: the €110 billion bailout plan, organized by the European Union and the International Monetary Fund and backed by Merkel and Sarkozy, is designed not to save Greece but to avoid painful losses to German and French banks, which hold massive amounts of Greek debt. According to Barclays's estimates, French financial institutions hold €50 billion of Greek debt, while German ones hold €28 billion.

Just as Paulson did, Merkel and Sarkozy have artfully presented the situation as a choice between bailout and catastrophe. Any reasonable person would choose to avoid the disaster that an uncontrolled default would cause and reluctantly back a bailout. But there is another way out: restructuring, which was a feasible option in the Paulson case and is feasible now as well. Just as many private firms do when facing the threat of default, the Greek government could restructure its debt. In fact, Greece as a sovereign borrower is in a much stronger bargaining position than a private company.

Here's how it could work. The first thing Greece needs to restructure its public finances is time. So the initial step of a restructuring plan would be a forced extension of debt maturity by three years. This extension, amounting to a partial default, would saddle holders of debt issued by the Greek government with a 15 to 20 percent loss. Temporarily liberated from the need to refinance its debt, Greece would need only the money to finance its budget deficit, which it must bring down dramatically in the next few years. Any credible fiscal policy plan must shrink the budget deficit to €20 billion this year and €5 billion the following year. The International Monetary Fund would be in the best position to extend the €25 billion in loans to cover these deficits. The IMF could make the loans conditional on these deficit cuts' being reached and could also make the loans senior to all the existing debt—as debtors in financing lending do in U.S. bankruptcy law—which would keep the funds from propping up the existing debt.

Such a plan would admittedly be risky because of the impact it could have on banks in Greece. French and German banks would not be affected in a major way; most of the Greek debt that the two countries hold is owned by insurance companies and mutual funds, which can absorb the shock, rather than by banks, which hold just €18 billion of debt in France and €19 billion in Germany. Thus the worst-case 20 percent loss that Greece's partial default could impose on debtholders would represent €4 billion for each country's banks—a significant blow, but not enough to imperil the entire European banking system. The Greek situation is different. According to Barclays's estimates, Greek banks hold €42 billion of Greek debt. There, a 20 percent loss would equal €8 billion, potentially too much to bear. The failure of Greek banks could then easily spread a panic throughout Europe.

So a restructuring plan would require an IMF intervention in the Greek banking system: not a bailout, but a temporary takeover of insolvent banks. The IMF could act as a receiver, guaranteeing the banks' systemic obligations (deposits and interbank debt) while wiping out shareholders and also, to the extent the losses require, long-term debtholders. Then it could temporarily recapitalize these banks and sell their shares in the marketplace as soon as the market stabilized. This part of the plan would not require more than €8 billion, and the IMF would be likely to recover all of that (and more) at the time the banks were sold. So the total amount of funds required would not exceed €33 billion, an amount that the IMF could feasibly cover on its own.

This restructuring plan would cost European taxpayers nothing while preserving marketplace incentives. The current bailout plan, by contrast, rewards banks and individuals who invested in risky Greek debt, contributing to moral hazard and distorting future market signals. But the restructuring that I propose would never be discussed in Europe, let alone approved. In Paris and Frankfurt, as in Washington, the will of the banks matters more than the will of the people.

Banking on the IMF
Project-Syndicate.org, August 18, 2010

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CHICAGO – The biggest financial nightmare looming over the world economy is the insolvency of a large international bank. Be it because of a sovereign default or because of large losses accumulated under complacent accounting rules, the insolvency of a large bank (particularly a European bank) is far from a remote possibility. Even if it were a remote possibility, the 2008 financial crisis has taught us that rare events occur.

What makes this possibility the financial nightmare of choice, worse than the collapse of Lehman Brothers in 2008, is the fear that many sovereign states have already shot all their bullets and would thus be powerless to intervene. Credit default swaps (CDS) of major southern European banks trade slightly lower than the CDS of their sovereign states, indicating that the market does not perceive the latter as able to support the former.

Unfortunately, almost two years after Lehman's collapse, little has been done to address this risk. The United States Congress is about to finalize a bill that will grant resolution authority over major US financial institutions to a newly formed systemic council. The procedures to trigger this intervention, however, are complex and the funding is sufficiently opaque that the bill will not eliminate collateral damage from a large bank failure even for US institutions, let alone for international ones, whose unwinding would require coordination by several states, with varying degree of solvency.

To minimize the risk of an unruly collapse, it is necessary to approve an international resolution mechanism with authority over all major international financial institutions. The goal would not be to rescue banks and their creditors, but to minimize the disruption that an uncontrolled default might cause.

This institution should be an international version of the US Chapter 11 Bankruptcy Code. But, while the goal of Chapter 11 is to save the ongoing value of a firm, the goal of the international resolution mechanism should be to preserve the ongoing value of the counterparties of insolvent financial institutions.

The first problem to resolve in approving this mechanism is who should have this authority. The obvious answer is the International Monetary Fund.

Created after WWII to finance temporary imbalances of the members of a fixed-exchange rate system, the IMF has been in search of a cause since the demise of the dollar exchange-rate system in 1971. More importantly, through its numerous rescues of sovereign states, the IMF has acquired expertise in debt restructuring, while developing a reputation for toughness and impartiality, which would be very useful in these situations.

The IMF also has the unique advantage of being the only depositary of international reserves. In the absence of an international fiscal authority, the IMF is the organization that comes closest to being one.

When a large financial institution is insolvent, the IMF should take it over, guaranteeing its short-term obligations, but wiping out the shareholders and repaying the long-term creditors only after all the other creditors (including the IMF itself) is repaid. Some people would scream that this is tantamount to nationalization, but it is no more a nationalization that the US Chapter 11 bankruptcy process is.

Takeover by an international organization has three advantages over a domestic solution. First, it makes certain that the cost (if the losses exceed the combined value of equity and long-term debt) is shared by the international community and not only by the country where the institution is located, making the intervention credible even when the sovereign state is not.

Second, by removing decision-making power from the national government that hosts an insolvent institution, this solution minimizes the potential distortions created by the lobbying power of the incumbent bankers. Would you trust the Greek government to run a Greek bank in a non-corrupt way after a government takeover? The IMF would be better.

Finally, thanks to IMF involvement, even less advanced countries would be able to take advantage of the best international expertise to address the problem. If a major oil spill in Haiti, were to threatening the Gulf of Mexico, wouldn't we want the best technology (and not just the technology available in Haiti) to try to contain it? Why should it be any different in financial markets?

The last problem to be resolved is the trigger. In the case of the US resolution authority, this has been a very controversial issue. The fear was that powerful banks would exploit national government help, asking for intervention too soon.

Two safeguards can avoid this problem in the international context. First, rigid rules that wipe out shareholders and penalize long-term creditors are a clear deterrent from bankers' point of view. Second, because IMF intervention would reduce the influence of powerful domestic insiders, early intervention would be less attractive to them. The trigger should be the domestic government itself. Refusing international help in such instances would mean electoral suicide for any government that faces a major bank collapse.

There are few areas in which government intervention is known to create value: reducing the devastating effects of a bank run is one. Only a government that is sufficiently powerful, in terms of legal authority and solvency, can do so. Unfortunately, in the international arena these two conditions are almost never met. Empowering the IMF to take over failed international banks would fill this gap – and chase away our worst nightmare.

The Bonus Risk
Project-Syndicate.org, August 18, 2010

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CHICAGO – In its July session, the European parliament approved some of the strictest rules in the world on the bonuses paid to bankers. The aim is to curb risk-taking by financial institutions.

The new rules require that no more than 30% of bankers' bonuses be paid in cash, that between 40% and 60% be deferred for at least three years, and that at least 50% be invested in "contingent capital," a new form of debt that converts to equity when a financial company is in distress. The most innovative aspect of these new rules is that the limits do not apply only to financial institutions' chief executive officers, but to all the top managers (though the definition of top managers is delegated to national parliaments).

The alleged justification for this major interference in private contracting is the systemic effect that these bonuses can have. High pay in the banking sector, so the argument goes, rewards success but does not penalize failure. Managers can easily move from firm to firm when things go badly, avoiding any punishment. This system rewards managers for taking risks, even when the risk is excessive. This distortion is perceived to be one of the main causes of the 2008 financial crisis.

The problem with this argument is that there is no evidence supporting the first crucial link in its logic. Much research has tried to establish a connection between bankers' compensation schemes and risk-taking, but has failed to find one. At most, such research has found that more highly paid executives took greater risks, but it is unclear whether this is a cause or an effect. Executives in highly leveraged institutions should be paid more, because they bear more risk.

To be sure, these investigations are limited to the top five executives, for which data is publicly available. Unfortunately, there is no publicly available data to establish a causal relationship between bonuses' pay-for-performance sensitivity and risk-taking for lower-level managers.

In this respect, the Financial Crisis Inquiry Commission (FCIC), established by the United States government, has a unique opportunity. Thanks to its subpoena powers, the FCIC can collect and analyze such data. It is to be hoped that when its report is published in December, we will be able to answer this question.

If we assume that a causal relationship exists, the European directive seems to be fairly well designed, with one main shortcoming. It is well designed because it interferes not with the level of compensation (as many have demanded), but with the form that this compensation takes. It requires that most of an annual bonus not only be deferred for three years, but also that it be put at risk. If the company performs poorly in the three years, the manager will lose part or all of his or her accumulated bonus. This reduces incentives to take risk, though it does not eliminate them.

The main shortcoming is that these restrictions can be circumvented easily, since they apply only to bonuses, whereas banks maintain discretion over the mix between salary and bonus. Currently, bank managers receive their bonuses at the beginning of each year, with the level based on their individual performance during the previous year. It would be very easy to transform last year's bonus, based on last year's performance, into this year's salary. The salary, which can be paid entirely in cash, will be renegotiated every year, thereby skirting all the regulatory restrictions. Without direct government intervention, it would be difficult to fix the problem.

In large financial institutions, however, the incentive to gamble at taxpayers' expense does not apply only to managers; it extends to bondholders, who are *de facto* protected by the government. Having access to insured credit, banks' shareholders find it irresistible to borrow excessively. Restricting managers' incentive pay without changing shareholders' incentives will only force shareholders to be more actively involved in the company and choose other ways to increase the level of risk-taking.

If the problem is the moral hazard implied by being too big to fail, the solution is not to restrict pay, but to eliminate the hazard by forcing shareholders to issue more equity or lose their stock when banks' debt starts to become risky. As Oliver Hart and I explained in a recent paper, this can be done easily, with a regulator intervening every time the credit-default swaps on the financial institutions' debt becomes too high.

If we want to intervene on pay in addition to (not instead of) reforming capital requirements, the most effective way is a variation of the tax imposed by former British Prime Minister Gordon Brown: a special tax on all compensation above a certain threshold that is not paid in stock. This tax would have two positive effects: it would induce banks to recapitalize, thereby reducing their excessive leverage, while forcing managers to have more skin in the game.

If the solution is so simple, why has no elected body implemented it? My fear is that politicians want to be perceived as tough on bankers, but have no interest in really fixing the problem.

The Scaremongers of the Roundtable
Project-Syndicate.org, October 26, 2010

Luigi Zingales
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CHICAGO – How often do you see capitalists screaming and even going to court to defend the principle that legitimate owners cannot exercise any control over their property? It is not happening in Latin America or in socialist Sweden, but in the United States of America.

The capitalists in question are nothing short of the upper echelon of corporate America: the Business Roundtable, a powerful group composed of the CEOs of major US corporations, which promotes pro-business public policies. The object of their contention is the much-debated "shareholders' access to proxy" rule, adopted by the Securities and Exchange Commission (SEC) last August to address the fundamental lack of accountability of corporate boards.

In the current system, corporate boards are self-perpetuating entities. To be elected, a board member needs to be nominated by the current board, where executives have considerable influence. As a result, board members owe their loyalty to the managers who directly or indirectly appoint them – and thus have little incentive to dissent, lest they be punished with exclusion.

Even independent directors, often acclaimed as the solution to all problems, are subject to the same pressure. To change this state of affairs, institutional investors must be allowed to propose their own slate of directors. The possibility of being rejected in a real election would naturally make board members accountable to shareholders, indirectly making the executives accountable as well.

The SEC rule was an attempt to grant institutional investors this right. It did it in a very mild format. Companies with a public shared worth less than $75 million were exempted, and shareholders who want to propose a slate must hold at least 3% of voting power of the company's securities and have held it continuously for at least three years.

This is a very high hurdle. In June 2009, the largest US pension fund (Calpers) owned less than 0.3% of large companies such as Coca Cola and Microsoft. Thus, one had to coordinate ten such funds to reach the quorum. And even that would not suffice. The average pension fund has an annual turnover of 70%, which means that the probability that a stake is retained continuously for three years is less than 3%. Thus, to achieve that 3% of voting power and maintain it for three years continuously, one would have to assemble hundreds of institutions.

But even this cautious attempt to strengthen accountability generated an irate reaction from the Business Roundtable. "As our country works to emerge from this recession," its executive director wrote, "American companies need to be focused on creating jobs and encouraging innovation to put us back on a path to sustained economic growth. This unprecedented intrusion into areas historically reserved for the states would handcuff directors and boards, shut out the vast majority of retail shareholders, and exacerbate the short-term focus that is now seen as one of the root causes of the financial crisis."

Ironically, in 2007, in response to an earlier SEC proposal to grant shareholders' access to proxy, Wachtell, Lipton, Rosen & Katz, a law firm famous for its anti-shareholders'-rights positions, used the opposite argument: "No real-world crisis has shown that the current system needs radical revision. Five years after Enron and WorldCom, the capital markets are well into a cycle of unprecedented vigor."

In other words, if the stock market is doing well, we should not change the rules of the game that are credited for this success, , but if it is doing poorly, the rules of the games are not responsible and we cannot afford to change them. That is a peculiar notion of accountability.

To block the rule, the Business Roundtable filed a petition with the US Court of Appeals to invalidate it. The rule had been out for review for years, but the Business Roundtable accused the SEC of having "failed to engage in evidence-based rulemaking," because it did not assess the rule's effects on "efficiency, competition, and capital formation," as required by law.

This is just a pretense. A similar rule has been in place in Italy since 2005, and there is no sign that efficiency, competition, or capital formation have been affected. There is some early sign, though, that board members nominated by institutional investors have the courage to stand up to management when it comes to excessive executive compensation. Is this the revolution that the Business Roundtable is afraid of?

Unfortunately, the scare tactics employed by the Business Roundtable worked. Following the suit, the SEC suspended not only the application of its rule mandating companies to grant access to qualified shareholders, but also a rule that was making it easier for shareholders to introduce a bylaw granting them access, even though the Business Roundtable had not challenged that rule. It is a great victory for business executives, but a huge defeat for the principles that should guide capitalism.

Unpopular Financial Reform
Most Americans don't like the Dodd-Frank Act.
City Journal; October 29, 2010

Paola Sapienza (Northwestern University) and Luigi Zingales (University of Chicago Booth School of Business)

Since the financial crisis began two years ago, the American public has expressed considerable support for increased regulation of the financial sector. The Dodd-Frank Wall Street Reform and Consumer Protection Act, which President Obama signed into law in July, was the result. The act represented the most sweeping overhaul of the nation's financial system since the Great Depression. But did it satisfy the public demand for reform?

The latest findings of the Chicago Booth/Kellogg School Financial Trust Index offer an answer to that question—and it's not what the president and his fellow Democrats want to hear. According to the index, which we direct, only 12 percent of respondents declare themselves "satisfied" or "very satisfied" with the new law, versus 54 percent who declare themselves "unsatisfied" or "very unsatisfied" with it. Not surprisingly, the vast majority of Republicans (80 percent) are dissatisfied. More surprisingly, a full 54 percent of independents are dissatisfied, and even among Democrats, only 35 percent report being "satisfied" or "very satisfied."

This negative view derives, in part, from the unpopularity of Congress. To isolate that factor, we decided to vary the phrasing of our question, alternately asking respondents about the financial reform approved by *Congress* and about the financial reform signed into law by *President Obama*. When the Obama phrasing was used, respondents (and especially Democrats) rated their level of satisfaction higher. But even then, overall satisfaction reached only 52 percent. That's a meager result for a bill aimed at providing better consumer protection.

To explore the reasons for the widespread dissatisfaction, the Financial Trust Index asked two questions related to the key provisions in the bill: the creation of the Consumer Financial Protection Agency (CFPA) and the new regulation of banks to prevent future bailouts. The responses suggest that the Dodd-Frank bill failed to win over American voters on both counts. Only 34 percent of respondents think that the CFPA is a "useful agency to protect consumers." The majority of the opposition seems to come from the perception that the CFPA represents "useless bureaucracy" (27 percent) and "overreaching of government power" (25 percent). Fourteen percent think that it is an "insufficient first step to protect consumers." Not surprisingly, there is a huge ideological division on this issue between Republicans and Democrats. The worrying aspect for the Obama administration, however, is that it has lost the support of independents (most of whom oppose the CFPA) without energizing Democrats (only 58 percent of whom support the agency).

The administration has done even worse in selling the financial reform as a way to prevent future bailouts. Only 33 percent of respondents think that the new banking regulation will achieve that goal. The administration hasn't even succeeded in convincing Democrats (53 percent don't think the regulation will suffice), and it has lost independents by a wide margin (70 percent are skeptical). Such unpopularity is surprising—and perhaps indicative of the Dodd-Frank act's actual weakness.

How to Improve the Financial-Reform Law
A brief proposal to protect the system—without stifling innovation
City Journal; November 23, 2010

Oliver Hart (Harvard University) and Luigi Zingales (University of Chicago Booth School of Business)

Now that the Dodd-Frank financial-reform bill has become law, the real battle begins. Despite the law's 2,000 pages—or possibly because of them—there is much ambiguity about what its eventual impact will be. The Wall Street Reform and Consumer Protection Act, as the law is officially known, grants the Federal Reserve enormous regulatory power. The Fed can now unilaterally decide that any financial institution is "systemically important"—meaning that its failure could destabilize the financial system itself—and impose any sort of regulation on it, such as requiring that it hold more equity capital, limiting the amount of short-term debt it can issue, forcing it to write up a living will, and so on.

Unfortunately, the law does not adequately define what "systemically important" means. The largest banks can in theory be exempted from the classification (though this is unlikely), while the smallest hedge funds—should many of them pursue similar strategies, meaning that they might all fail simultaneously—can fall under it. The lack of a clear criterion will likely make the designation difficult to appeal; it's really up to the feds to decide. For many institutions, the "systemically important" label could amount to a regulatory death sentence, without a fair trial.

Some might argue that giving the Federal Reserve this loosely defined power is a necessary evil. The 2008 financial crisis exposed the financial system's endemic risks, they claim; inadequate regulation could lead to more instability and further taxpayer-financed bailouts. Yet should we subject the entire financial system to heavy regulation and bureaucratic (if not political) arbitrariness, seeking to avoid a repeat of the financial crisis?

There is a better alternative. The Federal Reserve can announce what minimum conditions firms must meet to avoid being designated as systemically important. Each firm can then decide whether to meet those conditions or face federal regulation. And basic principles of economics can tell us what these minimum conditions should be. For a financial firm to cause a systemic shock, two conditions are necessary. First, the firm must be at risk of defaulting and harming the value of financial claims held by depositors and *other* financial institutions—that is, it has systemic claims against it. Second, it must be sufficiently large or sufficiently interconnected that the losses caused by a default spread through the entire economic system. While the second condition is difficult to assess, the first is not. Fortunately, as long as we can prevent a financial institution from becoming at risk of defaulting on its systemic claims, we don't need to get the second definition right. With an early-warning system in place and enough equity and long-term debt (which is better able than the short-term kind to absorb losses) in its capital structure to act as a buffer and absorb losses without jeopardizing systemic claims, even the largest financial institution will be safe—and thus unimportant systemically.

But how do we create an effective early-warning system? And who should determine the appropriate amount of long-term debt and capital? And how do we ensure that clever financial engineering doesn't sabotage any such requirement? The answer is to delegate these tasks to the market. The yield of risky debt exceeds the yield of Treasury bonds with the same maturity because the market requires compensation for the expected loss in case of default. Therefore, the difference in the yield reflects market perception of the probability of default. (This market estimate is reliable only if the creditors don't expect to be bailed out. The Dodd-Frank bill allows for the long-term debt of systemically important financial institutions to receive a haircut in case of default. It would be better, however, if the Fed announced in advance that it will impose a haircut as a matter of policy.)

With a potential haircut firmly in place for systemically important institutions, the Fed can then announce in advance a level of bond yield spread above treasuries that it considers low enough for an institution to be considered non–systemically important. Let's assume, for instance, that this threshold is set at half of a percentage point (50 basis points). This yield spread implies that, under reasonable assumptions about losses on default, the market attributes a 1 percent chance to that event. Even if unlikely, though, the possibility of a default could still be devastating to the financial system if it imposes heavy losses on systemic obligations. For this reason, along with the early-warning system, large financial institutions should have a large cushion of long-term debt (let's say 20 percent of assets). With this cushion in place, even in the rare event of a default, only the long-term debt would suffer a loss; the systemic obligations will be protected. Thus, the demise of an institution meeting these specifications would not have any impact on the system as a

whole. As long as a financial institution satisfies these strict criteria, therefore, it should not be considered systemically important.

In practice, the market for long-term bonds is segmented, because of different maturities and covenants. Thus, a better indicator than the yield on long-term debt is the cost of insuring the long-term debt against default. The price of a credit-default swap (CDS), expressed in percentage points per year, represents the cost of that insurance. The 50 basis points yield spread equates to a CDS price below 50 basis points. Therefore, we propose that the Fed enforce a rule of the form: "For a financial institution not to be considered systemically important, it must have at least 20 percent of its capital in junior long-term debt and a CDS price on this debt below 50 basis points." The moment either of these two conditions is violated, the institution will be deemed systemically important and subject to all the other conditions required by the Fed.

Such a rule would have no cost in terms of the financial system's stability. If financial institutions follow the rule, they pose no threat. If they don't, they become subject to the same requirements that they would have had to satisfy under a straight application of the Dodd-Frank bill. The rule would give financial institutions the option between two regimes, letting them select the least costly one. More important, it will spare the most vibrant financial institutions from the rigidities and bureaucratization that a strict application of the Dodd-Frank bill would entail.