Economics
The Open-Access, Open-Assessment E-Journal

Discussion Paper
No. 2010-1 | January 4, 2010 | http://www.economics-ejournal.org/economics/discussionpapers/2010-1

The Crisis and Beyond: Thinking Outside the Box

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Please cite the corresponding journal article:
http://www.economics-ejournal.org/economics/journalarticles/2010-23

Abstract
In this paper the author attempts an analysis of the current financial/economic crisis that is wider ranging and more fundamental than he has been able to find. For this purpose he reviews some social science literature that views the current crisis as an episode in the secular decline of the United States and more generally of the Western Democracies. The timidity of current reforms, which is striking when compared to those that followed the excesses of the Gilded Age and the Great Depression, can be understood in this framework. The author discusses alternatives to the financial bailouts and shows how the crisis could have been dealt with more efficiently and at little cost to taxpayers. Finally, he discusses fundamental reforms that would greatly reduce the volatility of financial markets and increase their efficiency.

Paper submitted to the special issue “Managing Financial Instability in Capitalist Economies”

JEL: E31, E42, E58

Keywords: Deficit financing; financial crisis; financial instability; full reserve banking; toxic assets

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> If our response to the crisis focuses only on the symptoms rather than the underlying causes of the crisis, then we shall bequeath to future generations a serious risk of another crisis even worse than the one we have experienced.
> Mervyn King (2009).

> In the 1930s there were all kinds of alternative understandings, from socialism to more extensive governmental involvement. There was a range of different approaches. But what I am struck by now is the narrow range within which palliatives are being modeled. We are supposed to work with the financial system. So the people who helped create this system are put in charge of the solution. *There has to be some major effort to think outside the box*.
> Sheldon S. Wolin[1]

1. INTRODUCTION

From the beginning of the current crisis as an American mortgage crisis, to a more general financial crisis, to a global economic crisis, I have followed the voluminous writings of economists, and the vacuous pronouncements of politicians, usually to the effect that whatever policies they adopted were "without alternative". My interest is precisely in the alternatives that are alleged not to exist. I am under no illusion regarding the likelihood that many of the proposals that I am making have a chance of being realized in the foreseeable future, but I feel that it is my duty as a scientist to describe the world as I see it, irrespective of whether this view is acceptable to the ruling elites.

To make this point more concrete, consider full reserve banking, proposed by Milton Friedman[2] and advocated also in the present paper. It would eliminate the greatest cause of financial instability. I do not know of a single substantive argument in favor of the current system of fractional reserve banking. Yet, Friedman's advocacy had no effect; at the onset of the present crisis bank reserves were worldwide close to zero. Should Friedman not have made his valid argument given that it could not penetrate the power structures that exist around the financial and banking industries?

In section 2 I review some recent literature that argues that the United States have become so dominated by financial and business interests that they have in effect become a plutocracy. The dominance of special interests precludes structural changes required to serve the general interest. I argue that other western democracies have largely followed the US along this path.

[1] Quoted from a conversation by Hedges (2009, p. 149); italics supplied.
[2] Friedman repeated this proposal on a number of occasions. The clearest ans most complete statement of his views on macroeconomic policy generally including the full reserve proposal is Friedman (1948).

Discussions of the crisis have tended to focus on specific proposed remedies. I find it useful to give, in Section 3, a more general discussion of the *types* of policies available and their advantages and disadvantages in relation to both *efficiency* and *equity*.

In discussing concrete policy proposals, I follow a rough chronology, discussing first those that should have been taken as the crisis evolved, then the more fundamental reforms that should be considered for the long run. The initial crisis responses everywhere were bailouts involving magnitudes previously encountered only in astronomy. It is, I believe of more than passing interest to consider what the alternatives would have been.

Short term reactions to the crisis that could have been taken are the subject of Section 4. The first proposals deal with the financial derivatives that have come to be known as 'toxic assets'. I argue that toxic assets that are unethical by their very construction should be declared invalid. This applies in particular to naked credit default swaps. Financial institutions are in general both the issuers and the holders of toxic assets. It would have been desirable to force these institutions to reveal their holdings of toxic assets, to classify them into broad classes and to mandate the cancellation of cross obligations for each class, valuing the assets at face value. These two proposals would have eliminated the bulk of toxic assets at no direct cost to taxpayers.

Although about two years have passed since the beginnings of the US mortgage crisis, it is by no means over. Both foreclosures and the voluntary abandonment of housing continue at a brisk pace. Two measures would have prevented much of this misery. The first is an across-the-board cut in the values of existing sub-prime mortgages, to be reflected in the same proportional cut in mortgage payments. The second is a moratorium on payments for families in temporary financial difficulties due to unemployment, illness, or any other reason. These measures would have, at no cost to the taxpayer, relieved much of the misery resulting from the mortgage crisis and they would have placed the costs where they belong -- with the perpetrators.

An aspect of the crisis discussions that has irritated me the most is the implicit, or explicit claim that there is no alternative to governmental borrowing to finance the deficits incurred for stabilization purposes. It baffles me how such nonsense can be so universally accepted. Of course, there is a much better alternative: to finance the deficits with fresh money.

In Section 5 I discuss structural reforms that would make the economy more stable and more efficient. The fundamental reform of the financial sector calls for the complete separation of commercial and investment banking and the imposition of full reserves on both sectors. It is unfortunate that the principal supporters of full reserve banking have been Libertarians who have viewed it as a step towards the elimination of central banks and of discretionary monetary policy. I view these as logically distinct issues that should be kept distinct to avoid confusion and I concentrate on the distinct arguments for full reserve banking.

The financial industry is arguably the most corrupt, deceptive and inefficient of all industries. There are three reasons for this: **a.** Consumers do not understand the products of the financial industry, are unable to evaluate them rationally, and are therefore sold inferior products. **b.** Modern corporations, including those in the financial industry operate very largely without any control from their owners—those who directly or indirectly hold the corporations stock. **c.** Of all of the financial transactions that take place, only a minute fraction, namely the new issuance of stocks or bonds, actually serve to finance corporations.

My final proposal is based on the conviction that the problems described above cannot be solved by bureaucratic interventions, but that they will be solved more or less automatically if ownership control over corporations is restored. I propose entities analogous to the traditional savings and loan associations, but with two important differences: **a.** They should be genuine cooperatives actively managed by their members. **b.** In addition to making all types of loans to individuals, they should also be enabled to make loans or equity investments in firms. Such *savings and investment associations* (SIAs) would require enabling legislation and then could evolve over time to ultimately challenge and replace exiting financial institutions.

Section 6 is a summary and not too optimistic look to the future.

2. WHY THERE WILL BE NO FUNDAMENTAL STRUCTURAL REFORMS

The basic tenor of this paper is positive in the sense that I propose policies and institutions that would in my opinion vastly improve economic performance, at the same time reducing the inequality of wealth. The negative aspect is that the chances of adoption for these proposals are quite remote. This section will be devoted to a brief discussion of why this is so.

2.1. The Larger Picture

The inability of a society to develop rational, if necessary also radical, policies to deal successfully with the problems facing it is a sign of the decline that occurs when it ages and looses its vigor. That this is so for the United States has been argued in a number of important recent books. With a time lag, the situation is not very different for the industrialized democracies of Europe. The common vision of this literature is that democracy in the United States has eroded; the institutions remain formally intact, but their substance has been subverted to serve the special interests over the general interest. The principal means of this subversion have been corporate control over the mass media, dependence of politicians on corporate campaign contributions and the power of lobbies.

The most comprehensive and scholarly exposition of these themes is Wolin (2008). He uses the term ‘inverted totalitarianism’ for a system that maintains the trappings of democracy, but not its essence. I find this term somewhat confusing and prefer ‘pseudo democracy’. A further theme extensively discussed by Wolin is the incompatibility with democracy of imperialism generally and the American variety in particular. The same theme has been treated with much detail Johnson (2006) as well as in his earlier books.

Pseudo democracy, particularly in its modern media dominated form, produces an alienated, delusionary mass public, afflicted by multiple forms of social disintegration. This has been the subject of many books. Certainly one of the best is Hedges (2009) *Empire of Illusion*, which has the added advantage of being very recent (as of this writing) and gives many references to important earlier work.

A related work, unfortunately available only in German, is Grünewald (2006). The author describes the findings from a large set of in-depth interviews. The key finding is that the mass of Germans live in a virtual world defined by the media and unrelated to their real needs. They observe events in their society with emotional detachment, as if witnessing a movie. Opinions are adopted and discarded without any strong commitment. Values are taken to be relative, so often is truth. The book evidences that the cultural evolution of a European country is not much different from that of the US.

The books that I have mentioned describe a social and cultural decline and specific developments that contributed to it; they do not inquire regarding a deeper level of causation that quite generally leads to a life cycle of societies, analogous to that of individuals, passing through the stages of growth, maturity, age and finally death. The question of why societies decline has been a focus of the research of Mancur Olson (1982, 2000). It is natural for individuals and groups to try to advance their specific interests within the larger society. The smaller and more homogeneous such a group is, the more effectively it can advance its particular interest. The society as a whole is the largest and most inhomogeneous group and thus least able to defend, or even to comprehend, its own interests. With the passage of time, narrow interests therefore tend to advance relative to the general interest. Moreover, this process is self-reinforcing: The more influence the special interests acquire, the better they are positioned to increase their influence even further.

The final book that I would like to mention in this section is Starobin ((2009). He discusses not only the rise and subsequent decline of the United States, but in addition explores various visions of a world subsequent to American dominance.

I end this section by quoting from an Op-Ed piece by Bob Herbert In today's (October 27, 2009) *New York Times*:

> Americans have tended to watch with a remarkable (I think frightening) degree of passivity as crises of all sorts have gripped the country and sent millions of lives into tailspins. Where people once might have deluged their elected representatives with complaints, joined unions, resisted mass firings, confronted their employers with serious demands, marched for social justice and created brand new civic organizations to fight for the things they believed in, the tendency now is to assume that there is little or nothing ordinary individuals can do about the conditions that plague them.

2.2. Elites, Social Science, Economics

Powerful special interests acquire over time auxiliary service personnel that helps them to maintain and extend their power. An important function is the provision of a suitable ideology to guide the actions of the power holders and legitimize their position in the larger society. At various times and places this function has been performed by priests, philosophers and more recently by social scientists and publicists.

It is now commonplace that the crisis could not have assumed anything like the dimension that it took had not the neoliberal ideology permeated the top levels of decision making in the financial industry as well as among regulators. Even the most influential of all deregulators, ex Fed chairman Allen Greenspan has admitted as much.[1]The ideology could not have become so influential among decision makers, had it not first swept the economics departments and business schools. Ideology in general and particularly the role of ideology in social science are important, but neglected topics. I have discussed this in Hillinger (2008a). Here I will limit myself to discussing some recent remarks by Paul Krugman (2009) *How Did Economists Get It So Wrong?*

> It's hard to believe now, but not long ago economists were congratulating themselves over the success of their field. Those successes — or so they believed — were both theoretical and practical, leading to a golden era for the profession…

[1] You can watch his statement on You Tube at: http://www.youtube.com/watch?v=3ggPHNuEEH8&feature=fvw

> Few economists saw our current crisis coming, but this predictive failure was the least of the field's problems. More important was the profession's blindness to the very possibility of catastrophic failures in a market economy…
>
> As I see it, the economics profession went astray because economists, as a group, mistook beauty, clad in impressive-looking mathematics, for truth…
>
> By 1970 or so, however, the study of financial markets seemed to have been taken over by Voltaire's Dr. Pangloss, who insisted that we live in the best of all possible worlds. Discussion of investor irrationality, of bubbles, of destructive speculation had virtually disappeared from academic discourse.

I have no quarrel with Krugman's description of the state of economics, either in these quotes, or in his lengthy article, but his explanation in terms of economists' attraction to beauty is at best a side aspect. Beauty is in the eye of the beholder and few other than practitioners think of mathematical economics as being beautiful.[1] There were two other and more powerful reasons for the triumph of neoclassical economics: First, the fact that mathematical models demonstrating the efficiency of markets appeared to supply a scientific foundation for the ideology of neoliberalism that was spreading among political and business elites. Secondly, the use of mathematics in economic theory, along with the use of sophisticated statistical techniques in econometrics, where taken to be *prima facie* evidence of the scientific maturity of the discipline.

Regarding the future of macroeconomics, Krugman writes:

> Economics, as a field, got in trouble because economists were seduced by the vision of a perfect, frictionless market system. If the profession is to redeem itself, it will have to reconcile itself to a less alluring vision — that of a market economy that has many virtues but that is also shot through with flaws and frictions…What's probably going to happen now — in fact, it's already happening — is that flaws-and-frictions economics will move from the periphery of economic analysis to its center.

I agree with Krugman regarding the direction that economics is taking. For decades high prestige accrued to economist who could elegantly navigate topological spaces; now it is more likely to reward access to nuclear resonance tomography. Where I differ is that I am not sanguine about this development. The study of the non-rational aspects of human behavior has long been the domain of sociology and psychology. I don't claim that these fields are irrelevant to economics, but they are not economics. I do not believe that the study of brain scans in experimental economics, or of reams of high frequency financial data in macroeconomics, will by itself produce better economic policies, or lead to the creation of better institutions. Much, perhaps most, malfunctioning of economic institutions involves the rational reactions of individuals to perverse incentives. Devising incentives which will lead to better social outcomes requires the analysis of rational, not of irrational behavior.

2.3. A Case History of Fundamental Reforms

Since the outbreak of the crisis, politicians and other commentators have been insistently demanding 'fundamental reforms'. Often this mean no more than that they wish to reform the bonus systems for executives of banks and other corporations and that they demand a better capitalization for banks. Our societies and particularly the politicians seem to have lost the very conception of truly basic institutional reforms. It

[1] I once loaned a copy of Paul Samuelson's *Foundations* to a colleague from the math department; he returned it after a few days with the comment "not interesting"!

therefore seems useful to look back at an era when such reforms were not only thought about, but also vigorously advocated and ultimately put into place.

Kevin Phillips (2002) *Wealth and Democracy* examines the alternating periods of economic expansion followed by financial excess and the concentration of wealth until the bubble burst and was followed by a period of economic retrenchment accompanied by political and economic reforms. In the view of Phillips, the period of American history that most resembles the financial excesses leading up to the current crisis was the Gilded Age which extended roughly from 1865 to 1900. The first wave of opposition to the excesses of the Gilded Age was the Populist movement; largely rural and focused on the advocacy of cheap money. At the 1896 Democratic national convention the Populist candidate William Jennings Bryan held his famous 'cross of gold' speech, but was narrowly defeated.

As farm conditions improved, the Populist movement petered out. It was succeeded by the Progressive movement; more urban, more sophisticated, more durable and more successful. Phillips assigns to the Progressive era a period of around 40 years and the presidencies of Theodor Roosevelt, Woodrow Wilson and Franklin D. Roosevelt. I have no quarrel with this, but I would like to also suggest a different division of the time axis. Suppose we describe a period of increasing concentration of wealth and of increasing influence of wealth on politics as a 'movement to the right' of the political spectrum, and a period of increasing equality and increasing popular influence on politics as a 'movement to the left'. Furthermore, I suggest a focus on a long term trend, ignoring minor reversals, or periods without a clear trend. From such a perspective, one can argue that the United States was moving to the right from Colonial times through the Gilded Age. Considering the extensive social programs of the Kennedy and Johnson administrations and the fact that both social spending and social legislation had been expanding even faster under Nixon than under Johnson[1]; and that the reversal of Progressive era reforms began only under Reagan; it seems reasonable to speak of a movement to the left for a near century, extending from around 1890 to the Reagan inauguration in 1981. This interpretation is also supported by Table 1, which shows peak wealth as a multiple of median wealth increasing from 1780 to 1875 and declining from 1912 to 1982.

Table 1
The Largest American Fortunes—
Dollar Values and Multiples of Median Family Wealth

1790 $1mil. 4000	1803 $3 mil. 10,000	1830 6 mil. 17,000	1848 $20 mil. 50,000	1868 $40 mil. 80,000
1875 $105 mil. 210,000	1890 $200 mil. 370,000	1912 $1 bil. 1,250,000	1921 $1 bil. 800,000	1940 $1.5 bil. 850.000
1962 $1 bil. 138,000	1982 2.bil. 60,000	1992 $8 bil. 185,000	1995 $11 bil. 240,000	1999 $85 bil. 1,416,000

Source: Phillips (2002), Chart 1.5.

[1] Nixon had even seriously considered the adoption of a guaranteed minimum income.

I will not attempt coverage of all the reforms and social programs initiated during the long period of movement to the left, limiting myself instead to two quotations that give both a flavor and an idea of the magnitude of changes made. My first quotation, from Phillips, discusses the aftermath of the election of Theodore Roosevelt.

> The Republican Roosevelt…was the first president to seriously grapple with the excesses of the Gilded Age…
>
> The turnabout was extraordinary. Although Bryan bad lost his political battle in 1896, within six or seven years many of his ideas and issues were marching forward again--and even winning--under more sophisticated Progressive leadership. Years later, Bryan's widow, editing his memoirs in 1925, claimed as his legacies the federal income tax, popular election of U .S. senators, publicity of campaign contributions, woman suffrage, a department of labor, more stringent railroad regulation, monetary reform, and, at the state level, initiative and referendum. (pp. 47-48).
> at the state level, initiative and referendum. (pp. 47-48).

This brief quotation makes clear that the post Gilded Age drive for reform was entirely different from the reforms, or reform discussions, that are taking place in the wake of the current crisis. This difference will be discussed further below.

My second quote from Weissman (2009) involves a jump forward in time to the administration of George W. Bush. The topic here is the repeal of legislation and regulation that had been enacted during the Progressive era and later to reign in financial markets.

> Over the 1998-2008 period, the financial sector spent more than $5 billion on U .S. federal campaign contributions and lobbying expenditures.
>
> This extraordinary investment raid off fabulously. Congress and executive agencies rolled back long-standing regulatory restraints, refused to impose new regulations on rapidly evolving and mushrooming areas of finance, and shunned calls to enforce rules still in place.

He describes 12 instances of such deregulation. I quote the first 4 items on his list and give the headings for the remaining 8 items:

> 1. The repeal of Glass-Steagall
>
> The Financial Services Modernization Act of 1999 formally repealed the Glass-Steagall Act of 1933 and related rules, which prohibited banks from offering investment, commercial banking, and insurance services. In 1998, Citibank and Travelers Group merged on the expectation that Glass-Steagall would be repealed. Then they set out, successfully, to make it so. The subsequent result was the infusion of the investment bank speculative culture into the world of commercial banking.
>
> The 1999 repeal of Glass-Steagall helped create the conditions in which banks invested monies from checking and savings accounts into creative financial instruments such as mortgage-backed securities and credit default swaps, investment gambles that led many of the banks to ruin and rocked the financial markets in 2008.
>
> 2. Off-the-books accounting for banks
>
> Holding assets off the balance sheet generally allows companies to avoid disclosing "toxic" or money-losing assets to investors in order to make the company appear more valuable than it is. Accounting rules -- lobbied for by big banks – permitted the accounting fictions that continue to obscure banks' actual condition.

3. CFTC blocked from regulating derivatives

Financial derivatives are unregulated. By all accounts this has been a disaster, as Warren Buffett's warning that they represent "weapons of mass financial destruction" has proven prescient -- they have amplified the financial crisis far beyond the unavoidable troubles connected to the popping of the housing bubble. During the Clinton administration, the Commodity Futures Trading Commission (CF TC) sought to exert regulatory control over financial derivatives, but the agency was quashed by opposition from Robert Rubin and Fed Chair Alan Greenspan.

4. Formal financial derivative deregulation: the Commodities Futures Modernization Act

The deregulation--or non-regulation--of financial derivatives was sealed in 2000, with the Commodities Futures Modernization Act. Its passage orchestrated by the industry-friendly Senator Phil Gramm, the Act prohibits the CFTC from regulating financial derivatives.

5. SEC removes capital limits on investment banks and the voluntary regulation regime

6. Basel II weakening of capital reserve requirements for banks

7. No predatory lending enforcement

8. Federal preemption of state enforcement against predatory lending

9. Blocking the courthouse doors: Assignee Liability ‘Escape

10. Fannie and Freddie enter subprime

11. Merger Mania

12. Credit rating agency failure

There is one important deregulation not included in this list and in fact little noticed: it is the gradual reduction in reserve requirements for transaction accounts at commercial banks, leading to their virtual abandonment. This has two aspects: One is the steady reduction in the ratio of required reserves; the other is the exception of all transaction accounts other than checking accounts. Effective reserve requirements are now less that the vault cash that banks habitually keep for current transactions. deCarbonnel (2009) gives an excellent review of these ‘reforms’. He cites Federal Reserve documents that show **a.** The FED felt that reserve requirements were no longer needed since the FED stood ready to bail out the banking system if required. **b.** Reserve requirements were thought to be an unfair ‘tax’ on banks. I have not found an easily accessible source on reserve requirements in the countries of the European Union, but it is clear that since the Basel II agreement on bank regulation the focus is on the capital structure of banks not on reserve ratios.

The quotations from both Weissman and Bryan illustrate an important point: The laws and regulations at issue were formulated by people who were thinking in a common sense manner about what it takes for institutions to function as intended. It does not require a genius to understand that allowing banks to speculate with their depositor’s money is not a contribution to the stability of the banking system. In current debates and in government actions to deal with the crisis this common sense understanding of how institutions function is either lacking, or being deliberately ignored.

Regarding corruption and the collusive behavior of wealth and politics I first give some quotations from Phillips that paint the broad picture, followed by a discussion of some of the more recent episodes.

> It stands to reason that bribery, embezzlement, fraud, swindling, and other "hard"--criminal--forms of avarice rise with the heat of soaring stock indexes, market worship, and the glorification of consumption and gain.
>
> The 1980s and 1990s saw political and governmental corruption in the United States recapture the laxity of the Gilded Age and Roaring Twenties. In the late twentieth century, however, venality was also endemic among the other Group of Seven industrial nations -- Japan,
> Germany, Italy, France, Canada, and Britain -- a moral convergence to match the contagion of market-driven philosophy….
>
> Less obtrusive hut at least as important has been the corollary corruption of thinking and writing -- the distortions of ideas and value systems to favor wealth and the biases of "economic man." In this sense, too, the eighties and nineties echoed the Gilded Age and the 1920s. (317-318).

Clearly, there is a fundamental difference in the quality of reforms that where implemented then and those that are being considered now. In the following section I mention some of the factors that plausibly account for at least a part of the difference.

2.4 The Obama Administration: "Change" or Continuity?

2.4.1 The Continuity of Influence and Corruption

Barak Obama's presidential campaign and victory raised inordinate hopes in millions of people, not only in the United States, but world wide. "Yes we can" has echoed all over the globe. Politician's throughout the world are studying and trying to imitate the strategies that led to his electoral success. "Change" and "hope" were iconic words that Obama endlessly repeated, with "hope" evidently meaning the hope for change. Anyone familiar with the literature already reviewed must have been skeptical regarding Obama's ability to initiate changes comparable to those that followed the Gilded Age. Unlike Theodore Roosevelt, the first post-Gilded Age reform president, Obama is not supported by a strong reform movement that exists independently of him and on which he could draw to fill the key positions of his administration. Instead, through the Clinton, Bush and Obama administrations, much of the key personnel are unchanged. This is particularly true in the area of economics and finance.

At this writing, the Obama administration is in office about one year and there has been a substantial amount of reporting, by journalists and others, on the continuing dominance of the financial sector over politics and the resulting corruption. I want to reference here just a few items from this literature and also mention some of the facts that seem most relevant.

One fact that emerges is that the influence of the financial sector, reaching back at least to the Clinton administration, is concentrated in a single firm: Goldman Sachs.

> Indeed, Goldman Sachs has been nicknamed "Government Sachs" by its rivals, for it always seems to have at least one of its top officials strategically placed inside government to bend federal financial rules to its benefit. In the 1990s, for example, two Goldman foxes --Robert Rubin and Larry Summers -- were inside the Clinton administration henhouse, where they helped craft the deregulation scams that enriched their former banks, before the scams caused the crash of our economy.

> Following that crash, up stepped Hank Paulson, who had been Goldman's CEO before George W. plucked him off the Street to run the very bailout that has now deposited so much of our money in his bank. With Bush's demise, Hank is gone, but not Goldman. That sly Goldman Fox from the Clinton years, Larry Summers, is back, this time in Barack Obama's henhouse, where he's top economic advisor. (Hightower,2009).

> The history of the recent financial crisis, which doubles as a history of the rapid decline and fall of the suddenly swindled-dry American empire, reads like a Who's Who of Goldman Sachs graduates. By now, most of us know the major players. As George Bush's last Treasury secretary, former Goldman CEO Henry Paulson was the architect of the bailout, a suspiciously self-serving plan to funnel trillions of Your Dollars to a handful of his old friends on Wall Street. Robert Rubin, Bill Clinton's former Treasury secretary, spent 26 years at Goldman before becoming chairman of Citigroup-which in turn got a $300 billion taxpayer bailout from Paulson. There's John Thain, the asshole chief of Merrill Lynch who bought an $87,000 area rug for his office as his company was imploding; a former Goldman banker, Thain enjoyed a multibillion-dollar handout from Paulson, who used billions in taxpayer funds to help Bank of America rescue Thain's sorry company. And Robert Steel, the former Goldmanite head of Wachovia, scored himself and his fellow executives $225 million in golden-parachute payments as his bank was self-destructing. There's Joshua Bolten, Bush's chief of staff during the bailout, and Mark Patterson, the current Treasury chief of staff, who was a Goldman lobbyist just a year ago, and Ed Liddy, the former Goldman director whom Paulson put in charge of bailed-out Insurance giant AIG, which forked over $13 billion to Goldman after Liddy came on board. The heads of the Canadian and Italian national banks are Goldman alums, as is the head of the World Bank, the head of the New York Stock Exchange, the last two heads of the Federal Reserve Bank of New York - which, incidentally, is now in charge of overseeing Goldman.
> (Taibbi, 2009).

The most dramatic incident exemplifying the clout of Goldman Sachs occurred on September 15, 2008. It was a day of hectic meetings at the Federal Reserve culminating in two momentous decisions: To let Lehman Brothers go under and to rescue AIG: Lehman Brothers were the principal competitors of Goldman Sachs, while AIG faced claims from Goldman Sachs potentially totaling 20 billion. Present when these decisions were made was, guess who, Goldman Sachs CEO Lloyd Blankfein.[1]

The direct influence wielded by Goldman Sachs is unique, but all industries try to obtain at least indirect influence by channeling funds to politicians and their election campaigns.

The most direct evidence that we have regarding the expectations that different sectors have regarding political candidates comes from campaign contributions. The following table totals contributions made to the Obama and McCain campaigns.

Contributions to Obama and McCain Campaigns, Millions of Dollars

	Business	Non-Business	Financial	Health	Labor
Obama	178	106	39	19	0.5
McCain	84	11	29	7	0.3

Source: OpenSecrets.org

The first column shows that Obama received more than twice as much as McCain from the business sector. Various factors may have influenced this outcome. For

[1] This was revealed by the financial journalist of the New York Times, Gretchen Morgenson in an article on September 28. Goldman Sachs has claimed that 10 of the 20 billion were otherwise covered.

example, the McCain/Paley tandem may have seemed too erratic and undependable to many business executives. Whatever the role of such factors may have been, the huge edge for Obama certainly indicates that that the business sector was not afraid of him. That Obama topped McCain by a factor of nearly 10 in the non-business sector is of course a reflection of his sensationally successful internet campaign. The financial and health care sectors are the ones where both the electorate and the candidates saw the greatest need for radical reforms; both sectors heavily favored Obama. The final column shows that within the non-business sector the contributions of labor are a comparative pittance, reflecting the decline of the labor movement.

The next table on the congressional campaigns also shows a substantial edge for the Democrats. I don't have a business--non-business breakdown, but it is clear that most contributions came either directly from the business sector via the political action committees (PACs), or from wealthy individuals with business ties.

Contributions to Congressional Campaigns, 2008, Millions of Dollars

	House	Senate
Democrat	97	57
Republican	59	35

Source: OpenSecrets.org

The traditional orientation of America's political parties: the Republicans towards business and the Democrats towards labor, is clearly no longer valid. Instead, the business sector dominates both parties and throws its support to one or the other as the occasion demands.

In the light of the above, little by way of fundamental reform can be expected from the Obama administration. Since, as of this writing, the administration has been in office for about a year, we can check how accurate that prediction is.

2.4.2. Obama's Record: The First Year

As I am writing these lines, the Obama administration has been in office for 11 month and the anniversary of the Lehman bankruptcy occurred a few days ago. Enough time has passed for a first assessment of the Obama record: is it more in line with his campaign rhetoric "Change", "Hope" and "Yes we can" and the high minded aims proclaimed in his presidential addresses, or is it, as the earlier sections would lead us to expect mainly pandering to special interests. Many critics, with whom I agree, have argued that it is the latter. The full argument can only be made when one compares possible alternatives to the policies that were adopted. That is the purpose of the paper as a whole. A few aspects related to this question will be discussed in this section.

I am not an expert regarding the details of the various US bailout programs, nor would such detail be very illuminating for my purpose. I concentrate on the most important aspects. Prins and Hayes (2009) estimate the total volume of the bailout, including direct payments as well as guaranties the ultimate cost of which is unknown and will be accruing over a period of ears, as 17.5 trillion, or 17.5 multiplied by 10exp12. A better feeling for this magnitude is obtained by translating it to a per capita basis: it is equivalent to 60,000 dollars for every adult and child. Overwhelmingly, the funds went to the behemoths of the financial industry, the automotive industry received less than one trillion and direct assistance to consumers amounted to less than 2 trillion.

Regarding the financial sector, it is noteworthy that regional banks that had adhered to the traditional practice of financing local businesses, had stayed clear of the speculative mania with derivatives and thus had not contributed to the crisis, went empty handed. As a consequence of the crisis they are bankrupting at a steady rate; so far this year 95 banks have been closed and a total of 200 banking failures due to the crisis have been forecast.

The American subprime mortgage crisis was the seed of the world financial and economic crisis. Households that lost their homes because they could no longer service their mortgages are the ones most severely and most unjustly impacted by the crisis. The severity of the loss of ones home needs no elaboration. The injustice resides in the fact that many unsophisticated low income people where conned into buying houses that they obviously could not afford. The financial industry profited then, and after being bailed out at huge expense to taxpayers, is profitable again. No comparable largess has accrued to their victims.

As I am writing, I checked the internet for the latest data on foreclosures and found the following:

> Sept. 10 (Bloomberg) -- Foreclosure filings in the U.S. exceeded 300,000 for the sixth straight month as job losses that boosted the unemployment rate to a 26-year high left many homeowners unable to keep up with their mortgage payments.

I quote from an editorial in *The New York Times*, July 5, 2009, titled ‘Not Much Relief’.

> Unless substantially more relief is forthcoming, Moody's Economy.com projects that some seven million homes will fall into foreclosure this year and next. Of those, nearly 4.5 million will result in distress sales, prolonging the recession by adding to the downward pull on house prices, home equity and household wealth. And those dire projections may prove too optimistic.
>
> Banks say they are overwhelmed by the clamor for relief and are working hard to meet demand. We have heard that before. In May 2007. a group of banks and loan servicers went to Washington to promise a solution for troubled borrowers. The problem has only gotten worse.
>
> A more plausible explanation is that banks feel no great urgency to act. They are being buoyed by immense government support. And the Obama plan -- which provides up to $75 billion in subsidies and incentive payments to help lenders and borrowers come to new loan terms -- imposes no real penalty on lenders if the modifications don't happen.

Even those cases in which mortgage modification is granted are no cause for jubilation. According to government statistics cited by Morgan Housel on the investment site Fool.com, July 2, 2009, more than 60 percent of modified mortgages are delinquent after only 6 months. A July 7, 2009 article on the same site points out that the subprime crisis has morphed into a prime crisis: As of March, 2009, prime foreclosures are running at more than twice the rate of subprime.

Comparing both the magnitude and the effects of aid given on the one side to the financial sector and on the other to households and homeowners, the difference is striking and disturbing, both in relation to magnitudes and the effects achieved. Equally disturbing is the fact that the government has started a program that is laying the foundation for the next mortgage crisis, equal to or bigger in magnitude than the present one. The new subprime takes the form of mortgages that are guaranteed by the Federal Housing Administration (FHA). For the real estate industry this is a proposition with which they cannot lose, since the bailout is already guaranteed. No wonder, these mortgages are being pushed vigorously onto all takers, regardless of their financial status. No down payment is required and as an incentive the buyer is actually left with some cash on signing![1]

I will briefly survey some other aspects of the Obama administration's policies: The bailout is not only astronomically large, it is also deeply flawed. This has been pointed out by prominent economists including Paul Krugman and Joseph Stiglitzt. The most complete analysis is due to Snower (2009), who also cites the earlier literature. He writes:

> ... there is something fundamentally wrong with the Geithner Plan--it generates a potentially gigantic amount of redistribution and, furthermore, the redistribution is completely unnecessary, since it is completely irrelevant to the job of bailing out the banks.

Another passage in Snower's paper sheds light on the politics of the bailout:

> ... the banks' toxic assets, along with the resulting bailouts and guarantees are fiendishly complicated and opaque. Not surprisingly, strategies that are complicated and misguided receive far less public scrutiny than those that are uncomplicated and misguided. This is one reason why the financial crisis was permitted to occur--the financial instruments were too complicated for their buyers, sellers, or regulators to understand. By the same token, the complexity of Geithner Plan also contributes greatly to its chances of political success, for now most voters don't understand the terms of the bailout. (This, I will argue, is the strongest point in its favour.)

In other areas of policy Obama's performance is equally disappointing when compared to his campaign rhetoric. A central plank of his platform was universal health insurance including a public option. The Obama administration never proposed comprehensive legislation for health care reform, leaving the task to the congress, where the power of lobbyist is at a maximum.

> Now President Obama has left the legislative "details," as the White House likes to call them, to our esteemed lawmakers on Capitol Hill. This has fed an every-member-for-himself mentality, an instinct that needs no nourishment. Lawmakers of every political leaning are putting forward their own ideas, none of them as tough-minded or comprehensive as a single administration-initiated proposal might have been. Why? Because senators and members of the House represent discrete districts that are driven by their own local and political imperatives. They don't represent the country as a whole --nor, when the subject is as complicated and has so many regional differences as health care, should we expect them to. (Cocco, 2009).

There is an action that the administration did take: They met quietly with representatives of the pharma industry and assured them that the government would not use its purchasing power to drive down drug prices. (Reich, 2009).

Saving the environment is a subject to which Obama brings his formidable eloquence, as he did in his speech before the United Nations. Here as elsewhere, his words do not translate into action. The central legislation here is the administration's carbon-cap-and-trade proposal. Following is an excerpt from the analysis by Morris (2009):

> The bill looks to reduce greenhouse-gas emissions by about 1 billion tons by 2020 and then gives away over 1 billion tons of carbon allowance to polluters free of charge. And then, adding insult to injury, it allows polluters to purchase 2 billion tons of carbon offsets, three-quarters of which could

[1] The subject was researched by Levine (2009). Warnings on the subject have also appeared in *The Wall Street Journal*

> come from overseas...
>
> To be successful, a market-based strategy must raise the price of carbon sufficiently to change corporate and personal behavior. But the bill clearly demonstrates the lack of political will in Washington to impose such a dramatic price increase. Indeed, the bill explicitly notes that the purpose for rewarding free allowances in such enormous quantities is to mitigate price increases.
>
> As a result, the EPA estimates the bill would raise the price of a gallon of gasoline by about 20 cents. No one can suggest with a straight face that such a trivial price increase will change driving habits.

As a suitable conclusion to this section I refer to an article by the former chief economist of the IMF Johnson (2009). He notes the basic similarity of the US financial crisis with the various crises of the developing economies over the past decades. In all cases powerful actors, closely connected to and receiving privileges from their governments were able to vastly enrich themselves. Ultimately, their excesses led to the collapse of their economies. The governments of these countries, being weak and in desperate need of obtaining hard currency, which only the IMF would be willing to supply, were forced to accept the conditions imposed by the IMF. Generally this involved Nationalizing the banks and allowing the bankruptcy of at least some of the oligarchs. The difference in the case of the US is that it is (still) the world's most powerful country and has the unique privilege that its debt is in its own currency, which it can print without limit. The IMF therefore has no clout that would allow it to impose reforms on the US. Johnson's prediction is that the US will muddle along with minimal reforms and will as a result experience a prolonged depressed economy, analogous to Japan's 'lost decade'. I believe that this prediction is already being validated.

3. A TYPOLOGY OF POLICY OPTIONS

Policies to deal with the crisis are being advocated and discussed in many different places. What I feel has been missing is an understanding of what kinds of policies are available *in principle* and what the advantages and disadvantages of each kind are. I will discuss here three broad types of policy measures that can be adopted in order to deal with a perceived problem. In order of their popularity, which is unfortunately the inverse order of their usefulness, they are: **a.** establishing some agency to deal with the problem, **b.** establishing some clear rules for the agents that have been involved in the problem, **c.** enabling those who are affected by the problem so that they themselves can solve it.

3.1. Regulatory Agencies

In order to prevent a recurrence of the current crisis, politicians are intensively debating **a.** limitations on executive bonuses, and **b.** new regulatory agencies to watch over financial markets. The idea of governmental regulating of executive compensation is widely and correctly seen as populism. This leaves regulation as the principal idea for improving the functioning of financial markets. It is easy to see why this solution is so popular with politicians: It requires no intellectual effort and it panders to the public's yearning to have someone 'in charge'. The problem with regulatory agencies is that once the crisis that led to their establishment fades, and with it public attention, the agencies tend to come more and more under the influence of the industries that they are supposed to regulate. That is precisely what happened with the agencies that were supposed to control the financial markets before the crisis. It is hard to see why, after some reorganization, this will be different in the future. Paradoxically, the fact that regulatory agencies are generally so inefficient is one reason for the ease with which they are adopted: special interests, knowing that they do not have much to fear are likely to accept them as the lesser evil and will refrain from any strenuous opposition to their establishment.

An important but neglected issue when considering the creation of a regulatory agency is: does genuine scientific knowledge exist to guide the agency in carrying out its function? In some fields such as environmental protection or disease control such knowledge undoubtedly exists. In others, specifically in the areas of monetary policy and the control of capital markets, this is in not the case. Here the mathematical/statistical models supplied by economists have been used by the agencies to supply the *appearance* of science for their policies. This function has neither helped the agencies' performance, nor has it been good for the economics profession.

In the United States the relations between economists and agencies are dominated by the Federal Reserve. In a well researched article Grim (2009) writes:

> The Federal Reserve, through its extensive network of consultants, visiting scholars, alumni and staff economists, so thoroughly dominates the field of economics that real criticism of the central bank has become a career liability for members of the profession, an investigation by the Huffington Post has found.
>
> This dominance helps explain how, even after the Fed failed to foresee the greatest economic collapse since the Great Depression, the central bank has largely escaped criticism from academic economists. In the Fed's thrall, the economists missed it, too.

One of the most important functions of a regulatory agency for the financial markets is to counteract the excessive appetite for risk that characterizes booms Rajan (2009) has pointed to the fact that the euphoria characteristic of booms permeates all sectors of society and that there is no reason for assuming that regulators would be exempt. Also, the political pressure on regulators would be immense not to take any action that might deflate a financial bubble. The actions and pronouncements of ex Fed Chairman Allen Greenspan in the years leading up to the crisis evidence the validity of Rajan's argument.

3.2. Rules

By a rule I mean a law that specifies some relatively simple condition that agents must adhere to. Examples in the present context are ratios that specify minimum required bank reserves to deposits, or minimum equity that banks must maintain relative to total assets.

Passing a rule means that a substantive decision has been made. The advantage of a rule is that it is usually fairly clear and relatively easy to enforce. This contrasts with the lack of transparency often characteristic of the rulings of regulatory agencies. The lack of transparency connected with the various crisis bailout programs has been noted by critics. Of course, regulatory agencies can and do pass rules, but passing the job to agencies both prolongs the time until a rule is formulated and gives more chances to special interests to influence the formulation of the rule in their own favor.

Of course, a rule may be good or bad, depending on the quality of the analysis on which it is based and the influences of ideology and special interest. For example, the

Basel II agreement specified that banks must value their asset at current market prices rather than at historical cost. This decision seems to have been influenced by the neoliberal ideology that the market is always right. But, in a crisis the prices of financial assets may decline precipitously, driving banks towards insolvency and making the crisis worse than it would otherwise be.

Having a simple rule has great advantages, but it is often objected that such a rule cannot take account of the individual characteristics of the cases that fall under it. However, attempts at complex regulation, or relegation to courts, in order to take individual circumstances into account are usually futile, they do not lead to greater fairness, but to greater costs. One difficulty is that lawmakers are unable to foresee the details of the cases that may arise under a given law. A further problem is that the more detailed the legislation is, the more these details are subject to the influence of lobbies who try to inject those details that benefit their clients. There is wide agreement that in all advanced societies the laws have become too complex without having become particularly fair. Indeed, legislatures seem to be mainly occupied with passing laws intended to remedy defects of previous laws, while producing new defects that will be the motivation for future legislation. Simple rules will be prominent in the proposals made in this paper.

3.3. Empowerment

The basic assumption that underlies both capitalism and democracy is that individuals are both the best judges of and the best defenders of their own interests. This statement is subject to the caveat that individuals must be sufficiently well informed to be able to determine their interest and they must be empowered to defend their interests. If these conditions are given, the role of the state can be minimal, essentially reduced to the prevention of criminal behavior. Creating the conditions for empowerment is therefore the best policy; unfortunately it is also the most difficult to devise and to realize. Generally new institutions are required that can be designed only with creative thought, rare in the political arena. Empowerment also means that existing institutions will lose power and existing special interest will loose income; both will strenuously oppose the empowerment solution. Existing institutions that were helpless in preventing the current crisis will argue that they need more power, not less, to prevent the next. A good example is the vast increase in the powers of the Federal Reserve in spite of the fact that it not only failed to see the coming crisis, but was largely instrumental in creating it.

4. HOW THE CRISIS SHOULD HAVE BEEN DEALT WITH

4.1. Basic Toxicology

Since the tem came into use around 2006/7, an immense amount has been written about toxic assets and their role in causing the near collapse of the banking system and consequently the world economic crisis. Toxic assets are those for which the market has dried up because market participants no longer know how to value them and believe that in any event they are worth much less than previously thought. When assets in the portfolio of a bank turn toxic, the ratio of its assets to its liabilities may fall below the legal requirement with the consequence that the bank, unless bailed out, would be closed.

During 2007/8, when the crisis was still primarily a US mortgage crisis, the assets that were regarded as toxic, or potentially so, were collaterized debt obligations. CDO's are derivatives that bundle and repackage primary income producing securities. CDO's are divided into 'tranches' with different risk. In case of defaults on the primary securities, investors in the different tranches are paid out in the order of seniority. Investors in tranches with lower seniority received higher returns to compensate for the higher risk.

During the years of the US housing boom, CDO's were wonderful money making instruments. Banks pushed subprime mortgages on families that could not afford them, convinced that they would pass on the risk to the investors in CDO's. Investors who bought the CDO's did not understand the risk and were lulled into a false sense of security by the ratings given to CDO's by the rating agencies that also profited handsomely. Ironically, the banks themselves invested heavily in CDO's so that the risk that was supposed to be passed on, in the end largely stayed with them.

As the financial crisis unfolded, it became clear hat another derivative asset, that was quantitatively even more important, was becoming toxic and was threatening the international financial system: credit default swaps (CDS's) and their more toxic variant, naked CDS's. An ordinary CDS insures a creditor against the default of the debtor, in principle a reasonable financial instrument. The issuers of CDS's, above all AIG, began to sell CDS's freely to anyone who demanded them, regardless of whether they were actually creditors of the company against whose default they were buying insurance. These 'naked' CDS's where simply bets on the default of the company in question. So far so bad, but the situation was made much worse by the fact that financial deregulation had removed the prohibition against short sales when the price of a stock is already declining. If a company is in some trouble and the price of its stock is declining, then a speculator can short sell the stock, thereby accelerate the decline, and perhaps encourage more speculation against the stock. The company's reputation is impaired and it may be driven into a bankruptcy it could otherwise have avoided. The holder of the naked CDS then collects.[1]

Buying a naked CDS and speculating against the debtor company is analogous to buying insurance on somebody else's house and than putting the torch to it. Both naked CDS's and short sales on the 'down tick' should never have been allowed.[2]

4.2. Detoxifying the Financial Markets

Nowhere is the popular political mantra that the policies taken are without alternative more absurd than with regard to the trillion dollar bailouts of financial institutions. I propose three measures that would have dealt with the toxic asset problem at no direct cost to taxpayers and with greater speed than the bailouts. Moreover, these proposals would largely *eliminate* the toxic assets, rather than quarantining them in bad banks as was done.

4.2.1. Outlawing Naked CDSs

Regarding the size of the CDS market, I found the following in Prins (2009):

> In an incestuous frenzy, institutions bought and sold credit protection to one another, with money they borrowed from one another. Since 2000, the CDS market exploded from $900 billion to more than $45.5 trillion. That's about twice the size of the entire U.S. stock market. (p. 60).

The speculative frenzy referred to by Prins was not in the rather humdrum business of insuring outstanding loans; it was rather the speculation with naked CDSs. With respect

[1] The market for CDSs suffered from a variety of other structural and regulatory flaws. A good overview is given by Whalen (2009).

[2] Several proposals for restricting short sales are currently under consideration by the SEC.

to these there are two issues: The first refers to those institutions, above all AIG; that issued naked CDSs and would have defaulted on them in the absence of government intervention. It is defensible that the government secured the legitimate obligations of these institutions in the interest of the stability of the financial system. However, that they did the same for the morally tainted bets that naked CDSs are is completely indefensible.

I would have gone one step further: Ideally the principal international monetary authorities should simply have declared all naked CDSs to be void. At one stroke, and at no cost to taxpayers, this would have eliminated the largest chunk of toxic assets in the financial system. The balance sheets of financial institutions would immediately have been greatly improved, since the CDSs had been marked down as assets on the balance sheets of buyers, not as liabilities on the balance sheets of sellers.

4.2.2. Collaterized Debt Obligations

The financial crisis began in the US when default rates on subprime mortgages began to rise and as a consequence the market in these securities dried up and their values had to be drastically marked down on the balance sheets of financial institutions. In an earlier paper (Hillinger,...) I had proposed that the values of subprime mortgages as well as the payments on them should be drastically cut, for example by 40 or 50 percent. This would have greatly reduced the burden on the affected home owners and the loss to the issuers would be moderate, since they would still receive half or more of the payments on mortgages that would otherwise default completely. I still think that this would have been an appropriate measure, but it is now clear to me that the CDO problem is part of a wider problem, namely the treatment by the Obama administration of the household sector quite generally. For example, the biggest problem of the US housing sector has become the default rate on prime mortgages, either because of rising unemployment, or because home owners are abandoning their houses when their value falls below the remaining cost of the mortgage. I turn to this broader topic in the next section.

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4.3. Helping the Household Sector Through the Crisis

4.3.1. Ameliorating Unemployment

The most striking and disturbing aspect of Obama's crisis management is the disparity between the alacrity and lavishness of the corporate bailout and the slow, hesitant and modest aid going directly to households. Of course, the argument is always that everything that is being done has the aim of aiding the general economy and thus ultimately the households. There is however nothing in economic theory that suggests that households will ultimately benefit more from the trickle down effects of corporate subsidies than from direct measures. It all depends on the specific measures taken in a specific situation.

In terms of supporting the economy, the measures of the Obama administration were massively inefficient and much good could have been done by using these funds to support households directly. A related question is how social programs, particularly those intended to combat a crisis, should be financed. I will argue in the next section that they should be financed with fresh money, not by borrowing.

Social programs in the industrialized world are highly complex and differ from country to country as do their cultures and traditions. It is usually possible to choose from a bundle of reasonable measures and the details would, in any event have to be worked out in concrete situations. I therefore limit myself to pointing out the general sort of measures that could and should have been taken, particularly in the US and that to some extent have actually been implemented elsewhere.

It is well known that the social safety net is more highly developed in Europe than in the US, the most prominent example being the large number of people without health insurance in the US. The program that is most directly relevant for ameliorating a recession is unemployment compensation. In the US this is limited to 26 weeks with a possible 13 week extension at times of high unemployment, thus reaching a maximum of about 10 months. In Germany the regular duration after a minimum of three years employment is 18 months, nearly double the US duration. This is not the only difference. In Germany, the government offers extensive training possibilities to the unemployed.[1] A special program initiated specifically to deal with the current crisis provides financial incentives to firms that keep employees on a part time basis rather than laying them off. This program is also coupled with training possibilities for the employees. A principal aim of the program is to enable firms to keep qualified employees that they will need when the recession ends. The program is being credited with contributing substantially t the relative benign record of the German labor market so far.

It seems clear the US should have done, and still should do, much more to support the labor market. Directly such measures have the greatest impact on the welfare of the general population; by supporting consumer spending and loan repayments they counteract the overall recession. Compared to the financial bailouts, such programs have the moral advantage of benefitting the victims, not the perpetrators of the crisis.

4.3.2. Ameliorating Defaults

The income support programs described in the previous section would reduce defaults on mortgages and other obligations, but would still leave some major problems in this area that should be dealt with in a more direct fashion.

[1] Many of these have been of dubious quality, but that is a separate issue, any government program can be well or poorly run.

The programs of the Obama administration for mortgage relief are complex, require homeowners to attempt renegotiations with their mortgage suppliers and ultimately have to be decided in the courts. These negotiations are time and resource consuming and the results, in terms of actually granted relief, have been unimpressive. I propose instead clear and incisive rules that would be immediately applicable and proved relief to many home owners.

Regarding subprime mortgages, I already suggested above that their value as well as the associated payments be cut by 40-50 percent. This would accomplish at one stroke what now has to be attempted in negotiations that often fail because the mortgage companies are unwilling to voluntarily make concessions. Mortgage rates have fallen sharply and this rule would simply enforce the immediate reduction of all subprime mortgages.

Defaults on prime mortgages are by new outstripping those on subprime. There are two reasons: One is inability to pay, due increasingly to unemployment. The other is the abandonment of houses when mortgages go ‘under water’, meaning that the remaining payments are worth more than the value of the house. A rule to provide immediate and broad relief could be formulated along the following lines: Using regional indexes of housing prices for the period 2000-2007, as well as of declining housing prices in 2008-9, estimate the ‘bubble inflation’ on housing prices in each of the years 2000-2007. This is a task not beyond the ability of a good econometrician. Some arbitrary assumptions would have to be made, but this is in any event unavoidable. The rule would then specify that all prime mortgages of a given year and a given region would have their value and associated payments reduced by the amount of the bubble inflation. This rule should largely do away with the problem of ‘under water’ mortgages as well as easing the payments on others.

These rules will solve many but not all problems. Defaults may occur for many reasons, such as illness or divorce. Such cases may ultimately have to be resolved in court. How well this is done, largely determined by relevant legislation how this should be done is beyond the scope of this paper, as well as my own competence.

4.4. Financing Deficits

The theory of stabilization policy calls for governments to run surpluses in good times and to use the accumulated assets to finance deficits in bad times. The reality is different. Generally, the governments of the industrialized nations --but not only these-- run deficits in good times and widen these out in bad times. In the present crisis, government debt has increased dramatically due to the financial bailouts. Currently 20 of the 27 member nations of the European union are in violation of the EU rule that new debt should be less than 3 percent of GDP. Reducing the burden of debt is generally regarded as the most important as well as most difficult task that is going to face governments when the recession ends.

Of all the mindless mantras that politicians endlessly repeat as though stating irrefutable truths none has irritated me as much as the statement that there is no alternative to borrowing in order to finance deficits. Of course there is! Governments can simply create fresh money, a process often referred to as “printing money”, even though most money nowadays is not in the form of printed paper.

Before proceeding, some background information is in order. Generally, governments cannot legally print or otherwise create money. If they run a deficit, they must finance it by borrowing, either from the public through the issue of bonds, or directly from the central bank. The treasury pays interest on its debt to the central bank, but this is returned to the treasury, after deducting the expense of running the central bank. In theory, the treasury debt to the central bank has to be repaid, but in fact, the debt is always rolled over and expanded to allow for a growing money supply. The entire process is somewhat of a charade. The motivation behind it is the idea that politicians cannot be trusted to run a responsible budgetary policy. In the same spirit, lawmakers often impose ceilings on their own borrowing that subsequently are invariable raised, or broken.

When a deficit is financed by borrowing from the public there is no money creation, since the money that is injected through government expenditures was previously withdrawn. Since it is likely that most of the funds lent to the government where previously parked in financial assets, the deficit financing will still have a net positive effect on the real economy. However, the borrowing will have raised interest rates, making it more difficult for firms to finance investments. Deficits financed by borrowing are therefore less expansionary than those financed with fresh money.

In the current crisis, central banks have massively intervened in the bond markets, buying up the bonds that their governments had issued for the bailout of the financial sector. The net effect is the same as if the treasuries had borrowed directly from their central banks, except for one important difference: Both in the initial marketing and in the subsequent central bank purchases of government bonds investment banks take their cut. Reportedly this is the principal factor in the quick turnaround of investment bank profits and anew escalating bonuses for their executives. In addition wealthy individuals who had to be induced to first buy and then sell the bonds have profited. Ultimately paying for this merry go-round is of course the taxpayer.

Deficits financed with fresh money do lead to inflation. The important point in this connection is that as long as the money creation remains an episode that is terminated along with the deficit spending, the resulting inflation will also be episodic and will come to an end as the monetary impulse exhaust itself. Most forecasts for the world economy expect sluggish demand and slow growth for a number of years following the crisis. There are even fears of a deflation such as characterized Japan's 'lost decade'. Given such prospects, the expectation of an inflationary episode would have a desirable stimulating effect. The long run effects of government debt are much less positive. An (unlikely) repayment would have a contractionary effect on economies that are likely to be weak for some years. The more likely scenario is that the already heavy burdens of interest payments on the public debt will increase and will keep governments from making other, more desirable expenditures.

5. FUNDAMENTAL REFORMS

5.1. The Dysfunctional State of Financial Markets

It is the veil of custom that keeps Societies from realizing how poorly, from a social/economic perspective, financial markets perform even in the best of times. Their primary function is to channel savings to investments. This function is served when firms issue new equity or debt obligations or when consumers borrow. But these are only a vanishingly small fraction of all of the transactions that take place. In the vast majority of transactions securities a passed from hand to hand without any new funds going to either businesses or consumers. The only sectoral flow that is taking place is from the general public to the financial sector in the form of a great variety of often hidden fees.

When a private investor goes to a bank or broker in order to get advice, he is generally faced by a salesperson working at least partly on a commission basis. The advice given is more likely to be determined by the commissions that can be earned then by what would be in the best interest of the investor.

No other industry is based to such an extent on manipulating the consumer and on selling him what is in the interest of the seller, not the buyer. On the way to my office I can see the manipulative, dishonest advertising in the display windows of banks. In the years of a stock market boom, and right up to the bursting of the boom, they suggest that the investor not loose out on the large gains to be made by investing in stocks. After the bust they emphasize guarantee products telling the customer that he has a chance of a nice profit without risk of loss. The customers do not understand how much potential profit they are loosing to pay for the guarantee, or how little it is worth to receive just the nominal value of an investment after say ten years.

Generally, the lower on the incomer scale individuals are, the less their financial sophistication, the worse the financial advice they get and as a result, also the worse generally the performance of their investments. Currently, in Germany a woman is suing a bank that advised her to invest all of her retirement savings in “safe” Lehman Brothers debt obligations. Wealthier individuals generally fare better and in the best position are the very wealthy families with their family offices, where the managers of their assets are their own employees. In this way the financial industry is contributing to the increasing disparity of wealth.

The most fundamental shortcoming of the financial markets as presently constituted is that they do not lead to an effective control of the managements of firms on the part of the shareholders. Instead, there is effectively a self perpetuating cartel of top managers, the business schools that produce them, and the management consultancies. This cartel recruits the following generations of managers and determines who will rise to the top.

This system has two consequences. One is the custom of excessive manager salaries and bonuses that has recently drawn so much public attention and criticism. The other is the inefficiency in the allocation of resources between firms. In economic theory, efficiency in the allocation of resources requires that this allocation be made by the owners of the capital. Under the present system this occurs only on the rare occasions when firms issue new shares. The consequence is that firms finance their growth very largely out of retained earnings. Managers have an incentive to maximize the growth of their firms, since the salaries that are customarily paid to top managers area closely related to the size of their firms. Most firms therefore pay out little or nothing in the form of dividends that could be invested elsewhere by their recipients. Capital does not flow to those areas of the economy where profits are greatest as economic efficiency would require. This effect is reinforced by the fact that old established industries, particularly if they employ a large labor force, are politically influential and tend to benefit from governmental support and subsidies not given to newer and smaller firms. All of this contributes to an aging and increasingly sclerotic society.

In the basements of the investment banks there are huge computers running day and night, processing data from financial markets around the world, looking for and executing promising trades. What is the social benefit of this activity? As far as I can see there is none. The gains made by the banks are at the expense of less sophisticated traders and if the losses are sufficiently large, then the taxpayers are asked for a bailout. The increase in speculative activity contributes to the volatility of markets. In the real economy it is accepted that the state exercises some control over what firms are allowed to produce, or to sell. Why should this not also be the case for financial markets?

The financial industry and above all central banks have succeeded in surrounding themselves with an aura of science that suggests that in order to understand basic aspects of finance one needs the equivalent of a PhD in mathematics. This prevents an understanding of finance that is based on elementary common sense.

I suggest that the deepest level cause of this dysfunction is the separation of ownership from management. The shareholder owners no longer decide on hiring, firing and remuneration of 'their' managers and they have only a partial control over the allocation of their capital among alternative investment opportunities. The most fundamental reform would therefore be to restore owner control of corporations.

5.2. Why Fundamental Reforms of the Financial Sector are so Difficult

In the real economy it is generally understood that the government has a responsibility to regulate the products that firms want to bring to the market so as to prevent harmful or socially undesirable consequences. For example, pharmaceutical products are regulated almost everywhere. In the financial markets this regulatory function of the government is much less recognized or performed. For example, naked credit default swaps should never have been allowed. Yet, even now that their disruptive role in the causation of the financial crisis has been well described and is not controversial, they have not been forbidden.

One reason for this reluctance is that politicians in the United Stats and England have been sold on the idea that only the largest financial firms can effectively compete internationally. Since most of these are headquartered on Wall Street or in the City of London, the implication is thought to be that any restrictions that would reduce the size of the largest firms would reduce the dominant position of these financial centers.

A deeper reason is the difference between social science, specifically economics, and natural science. Regulation of the real economy has much to do with genuine science. For example, the approval of drugs is essentially a question of pharmacology, specification rules for buildings and other structures are based on civil engineering. Industries have often been able to pay some scientists to serve their interests, but they have not been able to subvert entire professions. For a long time the tobacco industry found some scientists who would argue that the dangers of smoking had not been 'proven'; some scientists associated with the oil industry still argue that greenhouse gases are not the causes of global warming. Ultimately the weight of scientific opinion makes such claims unbelievable. In economics an analogous process of first establishing what is factually the case, then securing professional agreement on it and finally carrying this knowledge into the public and political realms simply has not taken place. Instead, the economics profession has followed the dominant ideological trends. Over the past decades that has been the neoliberal ideology according to which it is best to leave markets unregulated. Advice counter to this ideology was not forthcoming from the profession.[1]

5.3. Are There Simple Solutions?

The first thing that comes to my mind in relation to fundamental reforms is that the subject does not exist in public debates. It is an invariant feature of fundamental reforms

[1] The argument that economics has been ideologically driven is made at length in Hillinger (2008a).

that, at least in their basic conception, they are simple. The belief in the existence of simple solutions that will work has been lost. In large measure this is a consequence of the failure of the great ideological movements of the Twentieth Century: fascism, communism and most recently neoliberalism. Each of these movements had a simple solution to the world's ills. Profundity in my view is the ability to identify those simple ideas that are valid out of the vast universe of simple ideas that are false, or even quite stupid. The latter are the usual products of simple minds and it is this association that makes the successful advocacy of simple ideas, no matter how valid, so difficult.

"There are no simple solutions" is another popular mantra that politicians often advance. If one looks at the proposals that are advanced in the political realm, one does not find them to be complex. If they are broadly applicable, they tend to be vacuous in the sense that they state some desirable goal, but no mechanism for reaching it. For example, the German government is planning to create a new agency charged with the early detection of imbalances in financial markets. Clearly, this is something that should have been done by existing central banks and other financial institutions. Nothing is said as to why the new agency would perform any better than the old ones. Governmental regulations that have a substantive content tend to be highly specific. The broad institutions of society, such as the financial markets, are regulated by an agglomeration of regulations that were made to deal with specific problems as they arose, or to benefit some influential special interest. The resulting system of laws is certainly complex, but it is not a complexity resulting from rational design.

The complexity of governmental institutions is actually desirable from the point of view of those who are in charge of them; because by making the functioning of the institution inscrutable, criticism is deflected, or cannot even articulate it self. It also helps to hide the often symbiotic relationship between governmental agencies and special interests.

5.4. Beyond the Veil of Custom: Fundamental Financial Reforms

In this section I ask what kinds of financial institutions we should ideally have. For this purpose, two sorts of questions need to be answered: What are the functions that need to be performed and what are the *unalterable characteristics of financial markets* that need to be taken into account when designing institutions to perform these functions. The most important functions are **a.** To provide depository facilities for storing money with complete safety, with the possibility of withdrawal at any time, and convenient methods for effecting payments. These are the functions of money as traditionally defined: to serve as a means of payment and as a store of value. **b.** To organize and facilitate the flow of funds from savings to investment. **c.** To provide a variety of insurance services.

Next I discuss the financial instabilities that impair the performance of the functions listed above, particularly in a time of crisis. Broadly speaking, there are two types of instability that may however take many forms and interact. One kind of instability results from the fact that the liquid reserves kept by banks are only a minute part of their deposit liabilities. Banks are therefore unable to meet a large and sudden demand for withdrawals. People, who, rightly or wrongly, believe that such withdrawals may be imminent, act rationally when they attempt to withdraw their own funds first. These are self-fulfilling expectations that create the situation that they feared.

The other instability is that of the financial markets. The basic cause of this instability is that the value of a financial asset is not anchored in the real economy in the same way as the value of a real good or service. The prices of the latter cannot deviate greatly from the cost of producing them, i.e. the cost of labor and the rent of machines, which are relatively stable. The prices of financial assets depend not only upon expectations regarding future earnings, that are highly uncertain, but beyond that, they depend upon the expectations that people have about the expectations of others. But even this is not enough; even if all people had the same expectations regarding future income streams; it is not clear how these should be discounted to present values. According to economic theory, individuals will convert expected future income streams to expected future utility streams; these are discounted by a subjective discount rate to yield a discounted present utility which is then compared with the utility of current consumption. On the basis of this comparison individuals make their decisions to save and invest. These decisions in turn impact the prices of financial assets and their expected returns. This description makes clear that the process of searching for equilibrium of the financial markets will not only be long drawn out, but also affected by much uncertainty and liable to waves of collective optimism or pessimism. The idea of rational markets that instantaneously find their equilibrium is, when applied to financial markets, a fantasy. The wholesale adoption of this fantasy as reality by the economics profession has done much harm over the past decades.

The two types of instability interact with each other and with the real sector thereby causing an instability of the entire economy. For example, a decline in the prices of financial assets may negatively impact the balance sheets of banks and lead to a run on bank deposits. Both of these developments impact the real economy negatively by reducing demand and ultimately production and incomes. Negative developments of the real sector then reinforce expectations in the financial markets.

While a degree of instability is in the nature of the financial markets, the extent and force of this instability is very much dependent on institutional detail. This is the subject of the following sections.

5.5. Reform of the Payments Sector

Originally this section was titled ‘Reform of the Banking Sector’, but subsequently I became convinced by Telser (2008) who argued that in contemporary economies there are significant means of payment, such as credit cards, which are not issued by banks but are just as important for the safety and controllability of the payments system as traditional bank accounts. The traditional idea of separating commercial banking and investment banking therefore needs to be broadened to separate all accounts that are involved in payments from investment activities. Since almost all of the public debate has had the narrower focus, I will initially adopt that focus also, but then broaden the discussion towards the end.

5.5.1. Separating the Payments and Investment Functions

Before proposing reforms of an institution, it is useful to state what functions the institution is expected to perform and why and to what extent it has failed to perform these. In his speech on banking reform, Melvyn King (2009) has stated these functions succinctly:

> The banking system provides two crucial services to the rest of the economy: providing companies and households a ready means by which they can make payments for goods and services and intermediating flows of savings to finance investment. Those are the utility aspects of banking where we all have a common interest in ensuring continuity of service. And for this reason they are quite different in nature from some of the riskier financial activities that banks undertake, such as proprietary trading.

Now that we know what banks are supposed to do, let us look at how they have failed do it. That they were massively dysfunctional in the current crisis needs no elaboration, but, perhaps that was a rather singular aberration. On the contrary, the current crisis has a recurrent pattern that is typical and can be observed as far back as we have data. The most comprehensive study of this subject is Reinhart and Rogoff (2008) who examined banking crises and their impact with a sample of 66 countries dating back to 1800. They find that basic patterns are similar for high income, middle income and low income countries and these patterns are also stable over time with one exception: Following a banking crisis, fewer countries in recent decades defaulted on their sovereign debt.

Following is a summary of their findings:

> The historical frequency of banking crises is quite similar in high- and middle-to-low-income countries, with quantitative and qualitative parallels in both the run-ups and the aftermath. We establish these regularities using a unique dataset spanning from Denmark's financial panic during the Napoleonic War to the ongoing global financial crisis sparked by subprime mortgage defaults in the United States.
>
> Banking crises dramatically weaken fiscal positions in both groups, with government revenues invariably contracting, and fiscal expenditures often expanding sharply. Three years after a financial crisis central government debt increases, on average, by about 86 percent. Thus the fiscal burden of banking crisis extends far beyond the commonly cited cost of the bailouts. Our new dataset includes housing price data for emerging markets; these allow us to show that the real estate price cycles around banking crises are similar in duration and amplitude to those in advanced economies, with the busts averaging four to six years. Corroborating earlier work, we find that systemic banking crises are typically preceded by asset price bubbles, large capital inflows and credit booms, in rich and poor countries alike.

It is clear that banks have experienced a degree of instability not seen in the real economy and that this instability has impaired their functioning and imposed huge costs on society. Given the pervasiveness of crises in history, it is surprising how little attention has been given to them, particularly in mainstream economics. Almost invariably, each boom that precedes a crisis is accompanied by claims of exceptionalism; the current boom is always said to be different and the beginning of a new era of permanent growth, rather than the prelude to a crisis. Exceptionalism fades in the crisis and the search for explanations begins anew, unfortunately largely oblivious insights found in the past.

As a consequence of the present crisis there has been a renewed interest in authors outside the economic mainstream who have focused on the instability of capitalist economies, most prominently Karl Marx, Keynes and Minsky[1]. Minsky regards his own work as an elaboration of the ideas of Keynes and argues that these have been ignored by the modern economic mainstream. The key idea with both Keynes and Minsky is that the prices of financial assets depend on expectations of future returns on these assets and that such expectations are both volatile and subject to mass sentiments.

One can accept the above analysis and still ask if there are not institutional features that could be changed to reduce the extent of fluctuations and to ameliorate their consequences. In this section I raise this question specifically in relation to the banking sector.

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One cause of banking sector instability that has long been recognized and motivated important post-Gilded Age reforms is the merging of commercial and investment bank activities. Such mergers were prohibited by the Glass-Steagall act, the repeal of which has been identified as an important contributing factor to the crisis. It is evident that if banks are allowed to speculate with the money of bank depositors, the danger of bankruptcy will increase. Both the current Governor of the Bank of England, Mervyn King (2009) and the former Chairman of the Federal Reserve Paul Volker (2009) have pleaded for the separation of commercial banking and investment banking.

> There are those who claim that such proposals are impractical. It is hard to see why. Existing prudential regulation makes distinctions between different types of banking activities when determining capital requirements. What does seem impractical, however, are the current arrangements. Anyone who proposed giving government guarantees to retail depositors and other creditors, and then suggested that such funding could be used to finance highly risky and speculative activities, would be thought rather unworldly. But that is where we now are.
> (Mervyn King).

Both King and Volker express skepticism regarding the announced policies of their governments for dealing with future crises. In essence, these involve establishing regulatory authorities that would identify banks that are ‘too big to fail’, monitoring them closely and taking regulatory measures to rein them in whenever their risks appear to reach dangerous levels. Similar approaches are also being taken within the Euro Zone countries. There are no objective criteria for determining which banks constitute a systemic hazard. That Lehman Brothers was in this category became apparent only *after* it had been allowed to collapse. Equally difficult is to determine the level of risk. The usual risk measure for banks, the ration of own to total capital may appear to be perfectly safe and then suddenly become inadequate as conditions change. Finally, the very act of defining banks that cannot be allowed to fail improves their credit worthiness and thus gives them an unfair advantage relative to competitors.

Given the power of the financial lobbies, it is not surprising that the proposals of King and Volker are not finding favor with their respective governments. Coming out of this crisis there is an even greater concentration at the top of the financial industry with the associated risk of an even bigger crisis in the future.

An aside on ‘banks that are too big to fail’: Such banks exist only to the extent that they exist in the minds of policy makers. The systemic risk does not come from such a bank’s failure *per se*; it comes about if claims on the bank become worthless. The two events are distinct and the first does not imply the second. A failed bank can and should be taken over by the state along with any remaining assets. The state can then honor claims on the bank, restructure it and ultimately sell it to the private sector. That is the superior alternative to bailing out failing banks.

I return to the argument made by Telser (2008) and mentioned at the beginning of this section. The separation of commercial banking from investment banking is desirable but not sufficient since it does not cover the means of payment that do not originate with the commercial banks. These are credit and debit cards as well as checking facilities offered with money management accounts by brokers. These are as much means of payment as a check drawn on a bank account. Should a firm such as Visa or Master Card become insolvent the threat to the payments system would be as great as from the failure of any bank. The only way to insure the integrity of the modern payments system is to prohibit all participating institutions from engaging in risky investments.

5.5.2. Full Reserve Banking

The second fundamental reform that I advocate is full reserve banking (FRB). It strengthens the idea that the suppliers of payment facilities should not be allowed to engage in risky investments by prohibiting them from engaging in any investments at all. After all, there are no investments without risk. Furthermore, the investments made by the suppliers of payment facilities are necessarily longer term than their liabilities. This is most clearly the case for commercial banks that make consumer loans on the basis of deposits that can be withdrawn at any time. Credit card companies faced with defaults on their loans to card holders may experience difficulty in reimbursing merchants for sales made against their cards. Credit defaults have been increasing and some commentators have warned that a credit card crisis, similar to the subprime mortgage crisis may be in the making. It seems clear that if the soundness of the payments system is regarded as being supremely important, as it should be, FRB applied to all suppliers of payment systems should be seriously considered.

The idea of FRB was advanced by Henry Simons (1934, 1936) at the University of Chicago. It was one element in a broader design of economic institutions for a society with a maximum of freedom and a minimum of discretionary activities on the part of the state. Along with Jacob Viner and Frank H. Knight, Simon represented the first generation of the Chicago School that in the following generation was led by Milton Friedman and George Stigler. Friedman (1948) advanced ideas similar to those of Simon, including FRB. Finally, the entire set of ideas became part of the Austrian school of economics and is thought to be part of the libertarian tradition.

I have considerable sympathy for the Chicago/Austrian/Libertarian (CAL) program. For example, I agree with Friedman that discretionary anticyclical policies will not be successful because there is a lack both of the required scientific knowledge and political will. Nevertheless I want to consider FRB in isolation, apart from features with which it has no logical connection, or where the claimed connection is in my view incorrect. Thus, a principal source of support for FRB has been the idea, dear to the hearts of CAL adherents, that FRB would preclude active monetary policy and make the Federal Reserve obsolete. I will argue that the reverse is true, that it would be *easier* to conduct an effective monetary policy (should one wish to do so) under FRB than under fractional reserves.

Among pragmatic reformers, full reserve banking has not enjoyed anywhere near the support that has been given to the idea of the separation of commercial and investment banking. The most likely reason is separations and mergers among firms including banks are common, whereas there has been no experience with full reserve banking. For the latter, the veil of custom is therefore more impenetrable. In order to penetrate behind the veil, it is useful to ask first of all how fractional reserve banking came about. On this I found an excellent article in the internet from which I quote:[1]

> The principle elements emerged in the operations of London goldsmiths in the latter half of the 17th century. The activities of these artisans had been confined mostly to buying, selling, and working with silver and gold plate, under the auspices of a guild with the corporate title of the Wardens and Commonalty of the Mystery of Goldsmiths of the City of London.

[1] Downloaded from the following site: http://www.investmentsandincome.com/banks-banking/banking_origin.html

> Contemporary accounts indicate that merchants ceased to keep their cash in the Royal Mint when, in 1640, King Charles I appropriated £200,000 of private money from the mint. Merchants subsequently found that they could not trust their own clerks to hold their money, and they therefore turned to the goldsmiths as a safe depository.
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> The goldsmiths soon found themselves with money for which they had no immediate use, and they began to lend the money out at interest to both the merchants and the government. Finding substantial profit in this business, they began to solicit deposits and pay interest on them. The goldsmiths eventually discovered that the deposit receipts they provided were being passed on from one person to another in lieu of payment in coin, which prompted them to begin lending paper receipts rather than coins. By promoting acceptance of the receipts as a means of payment, the goldsmiths discovered they could lend more than the gold and silver coin they had on hand, a practice that became known as holding fractional reserves. The new "mystery" of the goldsmiths, as a contemporary pamphleteer noted, was banking.

Generally commercial innovations came about because of a recognized need. This is true for the invention of first commodity money, then paper money and later checking accounts as well as for the origin of joint stock companies and many other innovations. Clearly, fractional reserve banking did not arise in response to a social need. It came about solely because it enabled first goldsmiths and then banks that used this innovation to increase their profits relative to those who did not. The current crisis has amply shown that mere short run profitability is not a sufficient condition for a financial innovation to be socially desirable.

What are the arguments for and against FRB? The argument against is evident. If bank reserves in the form of cash or deposits at the central bank are only a small fraction of their deposit liabilities, then banks will not be able to satisfy an unexpectedly large and sudden demand for withdrawals. Since all depositors know this, there will be a mass movement towards withdrawal even on the part of those not in current need of their funds. The periodic occurrence of such ‘banking crisis' has been much ameliorated by the introduction of deposit insurance; it has not been banned as illustrated by the run on the Black Rock savings bank in England which was one of the triggers of the current crisis in that Country.

Partial reserve banking is procyclical. In a boom the demand for credits is high and banks are generous in granting them. This triggers the process of monetary expansion. The reverse is true in a recession.

Arguments in favor of fractional banking? I don't know any! There is nothing in economic theory to suggest that the creation of money on the part of the banks is necessary, or desirable in order for banks to perform their two basic functions: the management of payments and the channeling of funds from savings to investment. This is not to say that the change from the present system to one of FRB would be simple; no major change of institutions ever is. The change would best be effected at the same time as other changes involving financial markets that are discussed below.

Support for FRB came from the Chicago School and more recently from the Austrian School of Economics and was thus connected to the neoliberal concern of keeping the state as much as possible out of the economy. In the present context I agree with this position in so far as FRB very largely obviates the need for governmental interventions to prevent the collapse of the payments system. The neoliberal supporters of full reserve banking are however motivated by a second consideration as well: They believe that under FRB there could not be a monetary stabilization policy. The reverse is actually true. A principal difficulty in conducting an effective monetary stabilization policy is that the lag by which the effects of an increase in the money supply work themselves out is "long and variable".[1] After reviewing empirical literature on the quantity theory of money, Dwyer and Hafer (1999) write:

> Some of the evidence above is based on average inflation rates and money growth rates over thirty years. If it takes a generation for the relationship between money growth and inflation to become apparent, perhaps it is not surprising that central bankers and practitioners put little weight on recent money growth.

The voluminous work in macroeconomic theory and econometrics notwithstanding, monetary policy very largely consists of 'leaning against the wind, more precisely against the wind that blew a few months earlier since it takes that long for the firs relevant statistics to appear. No central banker would claim to know the path of the economy years or even decades into the future just as he does not know the timing of future effects of present policies. An expansionary policy to fight a recession may have its principal effect in inflating a subsequent boom.

Governments and central banks can evidently change the money supply under FRB, for example by running a deficit or through open market operations. The difference is that the initial change is the only change since there is no money multiplier to expand the money supply through successive rounds of bank lending. There will still be multiplier effects and lags in the real sector, so hat stabilization policy would still pose an intellectual challenge, but the conduct of monetary policy would be much easier.

I conclude the present section with a thought experiment designed to look at the problem from the other side of the veil of custom. Suppose that industry and technology are pretty much as today, but that deposit banking as well as central banking had not been invented, payments being effected by means of paper money or coins. This method being found to be excessively cumbersome a committee of distinguished personalities is assembled to ponder the possibility and details of establishing a system of deposit banking that would, among other benefits, allow electronic transfers of funds. Suppose further that a member of the committee were to make the following proposal: "Given the untrustworthiness of governments they should not be allowed to issue money. Instead a new central bank should be created for this purpose. Moreover, the private banks should be allowed to multiply any money issued by the central bank by a large factor such as 10, or even more.[2]" The author of this proposal would undoubtedly have been regarded by his fellow committee members as being more than slightly nutty. However, he would have been describing the system that we actually have!

5.5.3. A New Idea

Shy and Stenbackas (2008).have advanced a proposal that should make it much easier to gain political support for and to implement a fundamental reform of the banking sector. Their idea is instead of going to a complete FRB system in one step, to simply require banks to offer FRB accounts in addition to whatever other accounts they are

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[1] Friedman often used this phrase in arguing against the feasibility of an effective monetary stabilization policy.

[2] The bank deposit multiplier is the inverse of the reserve requirement. The current reserve ratio for checking accounts in the US is 10 percent. However, Telser (2007, 2008) that for the total US money supply a reserve ratio is practically non existent. The reasons are: Banks can shift funds between checking accounts and savings accounts for which there is no minimum reserve requirement. New methods of pyment such as credit or debit cards or brokerage checking accounts for which there are no reserve requirements.

presently offering. They do not use the FRB terminology, instead specifying that banks cannot engage in any lending on the basis of these deposits. That is another way of defining the same thing. The bank customers would then have a choice between absolutely safe FRB accounts and others.

These FRB accounts should be insured, preferably privately, or through a government guarantee. Unlike the present deposit insurance, this would not be insurance against bankruptcy. Bankruptcy would not endanger these accounts; their management would simply be taken over by another bank. Insurance here would be solely against fraud, such as fraudulent withdrawals or transfers. Regarding the riskier partial reserve accounts, governments should declare that they will no longer receive explicit or implicit government guarantees so as not to give an unfair competitive advantage to these accounts.

The beauty of this proposal is that it is very simple to implement and allows the banks to continue all of their current activities. As more and more of the funds needed for transaction purposes are shifted into the FRB accounts, the current danger to the payments system from potential bank failures will disappear.

5.6. Regulatory Reforms of Financial Markets

In this section I discuss reforms that governments could implement and tha would greatly stabilize the financial markets. They are: **a.** requiring all financial products to be licensed, **b.** specifying the activities in which firms of a given type are allowed to engage, **c.** breaking up financial conglomerates.

5.6.1. The Licensing of Financial Products

It is by now common place that the financial crisis was to a large extent caused by the proliferation of complex financial derivatives that were understood by no one. That the uncontrolled issuance of novel financial products can cause great harm is one of the lessons of the current crisis. The further lesson to be drawn for financial regulation is that firms should not be allowed to freely create and market financial products. Instead the rule should be that a financial product can only be marketed after it has been approved by the relevant regulatory authority. The fundamental criterion should be that a substantial social benefit can be expected from the introduction of the product. The benefit should be clear and substantial, because the proliferation of financial instruments that are ill understood is by itself to be valued negatively. This proliferation increases the ability of financial institutions to create and sell products that enhance their short term profits without an equivalent benefit to the investors. At the same time, this proliferation greatly increases the difficulty of effective regulation. Also, there is the danger that ill understood investments will fail and endanger the stability of the financial system as a whole.

I do not claim that it is easy to decide which products provide a sufficient social benefit to justify their existence. I do argue that the burden of proof that a financial product offers a net social benefit should fall on the potential issuer of the product. Cautionary examples are the derivatives that played such a large role in causing the present crisis. Another category of financial products that we would be better off without are the so-called ‘certificates’ that have been issued in great variety in Europe. A certificate is essentially a bet that certain financial asset, or index, will behave in a certain way, For example, an investor who believes that some stock will appreciate can buy a certificate that will participate more than proportionately in an increase of the price of that stock. There is of course a cost; should the price of the stock, instead of rising fall and penetrate a certain barrier, then the certificate becomes worthless. Investors can bet on rising or falling prices of many assets, or on sideways movements. Common to all of these bets is their lack of transparency. The average investor has no means for objectively determining the odds involved in these bets. The attraction of certificates to investors is based on the fact that they appeal to irrational emotions, either of excessive confidence, or excessive fear. Lack of transparency allows the issuers of these products to charge high fees. Certificates are not much more than devices for channeling funds from investors to issuing banks. It would be better if they were forbidden.

5.6.2. Licensing Financial Activities

Activities engaged in by financial firms may be undesirable even if they involve no novel or exotic products. I am thinking particularly about the vast increase in proprietary trading engaged in primarily by investment banks, but to a lesser degree by mot financial institutions. I do not see any social purpose served b y these activities. In the short run bank profits are increased; in the longer run there is an increase in the probability that the institution will bankrupt or have to be bailed out. There may be more activities in this category then I am able to identify. The subject overlaps with the preceding section since most activities involve products. There is also an overlap with the following section since activities that are unobjectionable when carried out in isolation may become objectionable in certain combinations.

5.6.3. Forbidding Financial Conglomerates

In the debates about long run financial reforms the problem of 'banks that are too large to fail' occupies a deservedly prominent place. The solution that appears to be favored by governments is to identify such banks and to subject them to strict controls. This proposal is subject to the general problem that controls tend to be lax and inefficient once the crisis that motivated them fades from memory. Another problem is the lack of criteria for identifying banks that would pose a systemic danger if they failed. The authorities recognized the systemic relevance of Lehman Brothers only when it was too late. Once banks have been identified as being systemically relevant it is not clear what requirements should be imposed to insure their safety. For example, an own capital to debt ration that might be needed in a crisis would be regarded as too onerous in good times. Finally, the explicit or implicit guarantee given to a bank that is classified as being too big to fail would give that bank an unfair competitive advantage.

An alternative proposal that has been gaining strength is to break up banks that are too big to fail. This would do away with the need to establish special control mechanisms for systemic banks. It leaves the problem of how to identify such banks. Just how a large bank is to be divided into smaller parts is also unclear.

I prefer to begin with a different question: Do we wish to have financial conglomerates, i.e. financial firms that pursue several lines of business that are not closely related? If, as I believe, the answer to this question is negative, and conglomerates are split into their constituent parts, we will no longer have banks that are too big to fail. The separation of commercial and investment banking will also take place as part of a larger separation process. Financial conglomerates are undesirable for the following reasons:

a. Any part of a conglomerate can accumulate losses that bankrupt the conglomerate as a whole, including its healthy units. This occurred several times during the current crisis, most dramatically in the case of AIG. More generally, most bank failures were caused by some particularly risk-prone unit within the bank. The systemic damage would have been much less if the failing units had been standalone firms.
b. A unit of a conglomerate can place riskier securities in the market than a comparable independent firm because customers know that the liabilities of the unit fall on the conglomerate as a whole.
c. Conglomerates increase the risk that there will be no effective oversight because the top management fails to understand what some units are actually doing. Again, AIG is the prime example.[1]

Having to bail out financial firms that are to big to fail has imposed horrendous costs on the taxpayers of many nations. The costs are thus obvious; what about benefits. I find it hard to think of any argument that would suggest that the units of a conglomerate are more efficient than they would be as standalone firms. It is true that some administrative functions could be performed more efficiently in a larger organization, but these can equally be outsourced to specialized firms. Generally, the arguments against splitting up large financial conglomerates boil down to arguments in favor of large size. Moscovitz and Housel (2009) have examined these arguments and have found them to be entirely without merit. I summarize here their main findings:
a. Bank customers do not favor large banks with monopoly power. Large corporations generally divide their business among several banks to obtain a better competitive position. This also shows that firms do not depend on large banks in order to obtain large loans.
b. Studies of bank mergers do not reveal any economies of scale.
c. The fear that when domestic conglomerates are broken up the new smaller units will not be able to compete with large foreign conglomerates is unfounded. Firstly, there is no evidence of greater efficiency of larger banks. Secondly, several European conglomerates have already been broken up—the list so far includes Lloyds, Royal Bank of Scotland, Northern Rock and ING.
d. The principal beneficiaries of bigness are the top executives of the firms involved, as the following table indicates:

	JP Morgan Chase ($2 trillion total assets)		Bank of the Ozarks ($2.9 billion total assets)	
Year	Return on Assets	CEO Compensation	Return on Assets	CEO Compensation
2005	0.7%	$22.3million	1.6%	$464,997
2006	1.1%	$39.1 million	1.4%	$774,064
2007	1.1%	$34.3 million	1.2%	$825,588
2008	0.2%	$19.7 million	1.2%	$912,336
Average	0.775%	$28.85 million	1.35%	$744,246

Source: Capital IQ, a division of Standard & Poor's

Corporate CEOs tend to regard themselves as being responsible for the growth rates achieved by their companies. By that logic, JP Morgan has to pay its CEO on average

[1]

37.23 million for one percent growth, which is about 68 times the amount of 551,293 paid by the Bank of the Ozarks.

Excessive salaries and bonuses paid to financial executives have been a principal focus of public wrath, and varies measures for limiting these are being discussed, or have already been implemented. The impact of such regulation appears to be slight. The reforms proposed in this paper, by reducing the size of financial firms as well as their speculative activities, would automatically lead to lower compensation for executives and traders.

5.6.4 Evolution of News Financial Institutions

The principal political and economic institutions of western democracies evolved from below. Not only were they not imposed centrally, they often had to overcome the resistance of vested interests of the monarchy, the aristocracy and the church. I believe that efficient capital markets in the 21st Century also require a new institution that can only evolve from below.

As I already stated above, at the deepest level the current dysfunction of the financial markets is due to the disjunction of ownership and management that leaves the managers free to follow their own agendas that generally differ from those of the owners. The most comprehensive way to establish owner control would be through investment cooperatives. Ordinary investors would buy shares of the cooperative and in return obtain voting rights. These might be some combination 'of one investor one vote' and a voting share based only on the invested amount. Analogously to the family offices of very wealthy families, the cooperative could have professional investment managers who would be salaried employees of the cooperative, possibly with a bonus based on performance. The cooperatives would invest directly in firms, either with equity or with loans. Alone or with other cooperatives they would also send members of the cooperative to the board of a company in which they invested equity. The granting of consumer or mortgage credit would also be a possibility.

I don't want to go into more detail because such institutions would have to evolve and there may in fact evolve a variety of such cooperatives with different specializations. To some extent the evolution will also depend on the legal frameworks that are created. An early form might be a cooperative that invests in local companies about whom it is easier to be well informed.

Savings and loan associations that are formally cooperatives exist in many countries, but they are cooperatives in form only; the 'members' do not actively appoint and control the management. A Genuine cooperative requires sophisticated members who can participate in the decisions and in the work that has to be done. Genuine cooperatives have for this reason existed mainly in agriculture among independent farmers. Much interest and some sophistication regarding investments already exist in the general population. This is evidenced by many internet investment blogs. There are also investment clubs in many countries where individuals manage their investments together. It would simply be a further step to the investment cooperatives that I am proposing.

6. CONCLUSIONS

In concluding I return to the opening theme of a civilization that is in decline. Such a civilization largely creates the problems that it is unable to solve. The leading exponent of that civilization, the USA is accelerating its decline with senseless wars it cannot win in Vietnam, in Iraq and in Afghanistan. It is building up its chief competitor China, while allowing its own industry to decline. The current crisis could not have assumed anything like its actual magnitude, had not the defenses against such a disaster, that were put up after the Gilded Age and the Great Depression been willfully demolished. This paper describes even stronger defenses against a recurrence of a similar crisis. The systematic and informed analysis of alternative institutional arrangements should be a prime function of the social sciences. This paper is intended as a contribution to that end.

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