

## **Proposal for redesigning the Financial System: Lessons learned from the crisis**

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**Abstract:** this paper analyzes the singularities inherent to the financial industry, in relation to other businesses, and its implications to financial crises throughout history. The efficient markets hypothesis is questioned, and its impact on the deregulation of the financial system is analyzed. Finally, the causes of the current crisis are investigated, and the general lines to be addressed for the redesign of a financial system to achieve an efficient and equitable capitalism are suggested.

**Keywords:** financial crisis, systemic risk, financial deregulation, creative destruction, moral hazard

### **1.1 The Singularities of the Financial System**

The financial system is made up of institutions, most of which are privately owned and pursue profits. They are regulated by government agencies (Central Banks, more or less independent from national governments). If a financial institution fails, it can endanger the entire system, or a significant part of it (systemic risk). That gives this business a very singular nature (Acharya, 2010), which does not occur in any other industry. The bankruptcy of a company, either in the automotive sector (e.g. General Motors), energy sector (e.g. Enron), oil industry (e.g. Texaco), telecommunications (e.g. WorldCom), aeronautical industry (e.g. United Airlines), etc., does not involve a risk to the overall economy. On the other hand, these failures are inscribed on what the Austrian economist Joseph Schumpeter called "creative destruction": the shareholders of the failed companies have to bear the losses, and other investors eventually will buy the businesses or their assets. It is the essence of capitalism that makes it both efficient and equitable. But in the financial sector the situation is very different. The high price volatility of financial assets is very important to monitor, particularly by regulators, as it may be the

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primary cause of financial asset bubbles that cause instability and adverse effects on economic activity. Hence, the importance of fixing efficiently the asset prices in the financial markets. Financial institutions receive the money, usually on a short term basis, from economic units with surplus cash. On the other hand, this money is offered to businesses or families in need of credit, for investment in productive projects, the purchase of real estate, homes, etc., providing loans typically at longer term. In this way they perform a risky quantitative and qualitative transformation of the financial resources received. This mutation of short-term funds into long-term resources involves a relevant singularity inherent to the financial system. In certain circumstances, it can trigger a financial crisis. Also, unlike other industrial companies that trade with goods and services, financial institutions deal with trust assets, which have an intangible support: trust. These singularities of the financial system make it very vulnerable to crisis situations and throughout history government institutions (Central Banks, Deposit Insurance, etc.) have been created to deal with this. Those institutions have helped to give some stability to the system.

However, the crises have not disappeared, and the mechanisms used to overcome them have opened up many questions. Some of them have to do with the high costs of the bailouts undertaken by the taxpayers, the increase of moral hazard induced in the system and its consequences in the creation of future crises, the lack of "sanctions" for managers, directors and shareholders of the financial institutions rescued, etc. So, the basic principle of capitalism, the appropriation of both gains and losses, has been changed into a very different one: the appropriation of profits with an unacceptable socialization of losses. To support that, it has been argued that crises are unpredictable, as a phenomenon of nature. This argument pretends to justify the exemption from liability of bankers and regulators. In 2009 the CEO of Goldman Sachs, Lloyd Blankfein made a request to American congressmen to "avoid a response designed to protect us only against one of those extraordinary storms that happen only every hundred years". However, the successive financial crises that have plagued capitalist economic history have shown that far from being an unusual situation, as a "black swan" (Taleb, 2007), crises are more common than previously thought. We should call them "white swans" (Roubini and Mihm, 2010). Some have even gone so far as to argue that the crisis is in the genome of capitalism. In his way, that was what Schumpeter maintained. The historical evidence for this argument is relevant: from the speculative bubble of tulips in Holland in 1630, to the crisis of U.S. trusts in 1907, to the Great Depression of 1930 and to the current crisis in the first decade of the 21st century. In all these cases a similar pattern was found, shattering the myth of crisis unpredictability. Quite the contrary, a careful study must be done of the circumstances in which events happened to identify the causes of the recent crisis. Moreover, some proposals to reform the current financial system to prevent crisis in the future should be attempted as well.

## **1.2 The teachings of the Financial Crisis**

The recent financial crisis triggered a global economic collapse, but it also put in a "crisis" situation the economic science itself. From its origins, Economics strug-

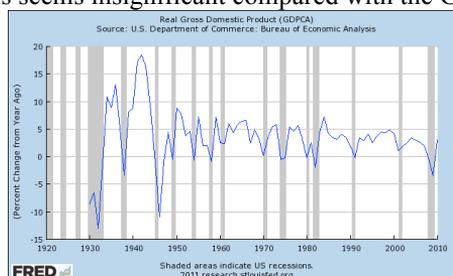
gles to be a science. In the last century, trying to emulate the elegance and infallibility of the natural sciences, it was equipped with equations, mathematical models, etc.. But behind this facade of “one scientific truth”, there is a tremendous diversity of conflicting views, especially regarding the controversial issue of financial crises. The study of how and why markets collapse has recently been named as "Economy Crisis". It is a complementary and very different way of conventional economics, which is devoted to show how and why markets work, and the reason why they do it well. In the origins of the profession, we find Adam Smith's "invisible hand" as its first and greatest exponent. But Smith did not recognize the many vulnerabilities of capitalism. In the next century, many economists reviewed and refined the ideas of Smith. In fact, there was consensus on the economy of the XIX century, around the idea that markets were basically self-regulated, always moving towards a quasi-magical balance. Many economists (Ricardo, Say, Walras and Marshall) improved Smith's vision and began to build the mathematical structure to prove their arguments. Faith in the basic stability of markets led to an important corollary: if markets can be self-regulated and their collective wisdom is always right, then the price of the assets purchased and sold on the market are accurate and justified. Based on the work of the French mathematician Louis Bachelier they attempted to validate mathematically this theory. They would demonstrate the absence of the concept of undervalued or overvalued assets, or what is the same: the market is a perfect reflection of the underlying fundamentals. Empirically, it was clear that asset prices change, often dramatically, but always it would be a rational and automatic response to the arrival of new information. The evidence of the Great Depression should have put an end to these doctrines, but the academic departments of Economics and Finance breathed new life into that old fallacy. In the University of Chicago professor Eugene Fama and other proponents of liberal policies began to develop complex mathematical models in order to demonstrate that markets are fully rational and efficient. Many economists supported this thesis in the postwar years, and recognized that markets can be more or less efficient depending on certain variables. But the central idea remained an axiom in the business schools and in the departments of Economics and Finance. In the early 1970s, the efficient market hypothesis had become a widespread belief, with enormous impact on the formulation of government economic policies and deregulation of financial markets. However, not everyone subscribed it. The most radical criticism came from the Yale economist Robert Shiller. In the early 1980s, through a rigorous statistical analysis, Shiller conducted a research which showed that prices of shares on the stock market show much more volatility than the efficient market hypothesis could explain. At the end of the decade, he and other critics had compiled a spectacular collection of data showing that the price of the assets are rarely held constant in an equilibrium state, but shifted without control or order. One day investors can react with excessive optimism and the next day give way to panic and abandon the assets at bargain prices. These oscillations are not rational. They are irrational impulses of the masses (Shiller, 2003). But one thing is questioning the myth of the efficient market, and another quite different is to explain precisely why markets are inefficient. This task was done by professionals of new fields,

halfway between Economics and Psychology: Behavioral Economics and Behavioral Finance. New models of human psychology in relation to financial markets were developed. Recent research in this field has contributed to better understanding of the phenomena of creation and bursting of asset bubbles and financial panic. The Feedback Theory is based on "fundamentals of human behavior," according to Shiller. One fundamental is the "self-attribution bias" (Kent, Hirshleifer and Subramanyam, 1998), whereby investors engaged in a speculative bubble do not attribute the increased profits to the fact that they and thousands of other equally naïve, take part of the bubble deceit, but to his own smartness. A series of biases, misrepresentations and other trends often feed irrational speculative bubbles and the particular justifications that inevitably accompany them, especially the belief that the old rules of business are no longer in force, and now "the economy has entered a new era". In short, capitalism does not seem to be a self-regulated system, but rather is prone to bouts of "irrational exuberance", alternating with unfounded pessimism, making it extremely volatile and unstable.

This had already been anticipated by the post-Keynesian economist Hyman Minsky, who devoted his life to create a theoretical structure on the foundations of J.M. Keynes theories. Minsky focused on various forgotten chapters of Keynes's General Theory, referring to banks, credit and financial institutions, and synthesized them with other concepts of Keynes Treaty of Money, concluding that the "financial instability is intrinsic and endogenous to the capitalist system". This approach represented a stark contrast to the economics profession in the postwar era: in the equations and models used by the architects of the so-called neoclassical synthesis, had little place -if any- for banks and other financial institutions, despite their failure could collapse the economic system as a whole. Minsky proposed to change the situation by demonstrating how banks and other financial institutions became increasingly complex and interdependent, and could lead the whole economy towards collapse. The focus of his analysis was the debt: how it is accumulated, distributed and valued. This raised the Financial Instability Hypothesis (Minsky, 1982), classifying debtors of the economy into three categories, depending on the type of financing used: covered, speculative and Ponzi debtors. The first ones are those who are able to satisfy both principal and interest on their debt, the second ones only the interest having to refinance the capital, and the third ones are the most unstable because they are unable to pay neither interest nor capital. Minsky noted that during a speculative boom, the amount of debtors covered decreases, while speculative and Ponzi debtors increase. During the boom period the price of assets (e.g. house prices) goes up and all borrowers are driven to take on even more debt. As the volume of unpaid debt shoots at full speed, the probability of the system to suffer a financial catastrophe increases. The trigger of the crisis is almost irrelevant. It could be the bankruptcy of a company, the discovery of fraud, or just a sudden loss of confidence in the future. When the pyramid of debt begins to crumble and credit crunch happens, we are in the beginning of the financial crisis.

Of all crises, the Great Depression of 1930 has left the most teachings. Its legacy has allowed now, eighty years later, to qualify the crisis we are currently suffering as "only" a "Great Recession". The period between both events was named as the

"Great Moderation": controlled inflation and sustained economic growth (Gali and Galimberti, 2009). In the Great Depression, with unemployment rates of 25%, mass bankruptcies of banks and companies, the thesis of "laissez-faire the liquidators" supported by the U.S. Treasury Secretary Mellon, and President Hoover, was clearly inefficient. It was not until the arrival of President Roosevelt and his New Deal -inspired by the ideas of Keynes- who with strong government intervention, was able to escape from the Great Depression (Romer, 2009). However, some researchers have given the main credit for the economic recovery to the Second World War. Others have questioned the effectiveness of the medicine recommended by Keynes and have attributed to the poor performance of the Federal Reserve the fact that the crisis has reached the size of tragedy (Friedman and Schwartz, 1963). Figure 1.1 shows how since the government raised its stake in the economy in the 1970's, and since it uses monetary and fiscal policy to smooth economic cycles, the volatility of GDP has fallen exponentially. Even the current Great Recession crisis seems insignificant compared with the Great Depression.



**Figure 1.1** Volatility of U.S. GDP from 1920 to 2010

At the outbreak of the recent crisis of the early XXI century, the Federal Reserve and other global central banks have acted decisively to prevent the "liquidity trap" of the Great Depression, obtaining acceptable results in the short term. Nevertheless, the long-term costs remain to be seen (Bernanke, 2009). Unfortunately, after the postwar period the teachings of Keynes fell into disfavor. Part of the mistake may be in the biased interpretation of Keynes ideas: it is true that in times of falling aggregate demand to increase public spending is recommended, but it is also true that in times of economic boom the reservoirs of the public treasury should be filled, in anticipation of future crises, in order to maintain a balanced budget in the long term. Policy makers often enthusiastically adhere to the first part of the recommendation, forgetting the second part. With the rise of the paradigm of the Efficient Market Theory, the regulations established after the Great Depression to provide financial stability was dismantled step by step. The suppression of the Glass-Steagall Act, which stated the careful separation of the commercial banks from the investment banks and many other wise regulations are a good example of these policies.

### **1.3 The genesis of the Great Depression of the early XXI century**

The origins of the current crisis are in the so-called Great Moderation period following the oil crisis of the seventies. As was already said, the prevailing economic

theory from the 1970s postulated that efficient markets self regulate themselves, so government intervention should be limited to a minimum, and crises were a strange phenomena that belong to the history of developed countries, and in the future eventually will only affect the emerging economies. This state of the art coupled with the economic interests of the financial market players create a mechanism that finally burst in the early third millennium. The deregulation of financial markets resulted in increased systemic risk, due to the concatenation of a diverse array of factors. One was the creation, through mergers and acquisitions, of global financial institutions (assumed to be "too big to fail"), which eventual bankruptcy would put at risk the system as a whole. In case of a crisis, the regulator would be trapped in the following dilemma: either let the financial institution in trouble drop to bankruptcy as it would be technically prescribed, assuming the risk of putting the whole system at the expense of collapse, or rescue it solving the problem in the short term, but increasing the so-called moral hazard and induced risk (transmitting the message to the market that in the future, any institution in a similar situation should be rescued, which would not be worth to act prudently). The long-term negative consequences are evident (Dowd, 2009). Another consequence of the deregulation of the system was what Paul McCulley named "Shadow Banking System" (McCulley, 2009). The shadow banking system includes financial institutions that appear to behave as banks, but paradoxically are not regulated like banks. The problem is that this status allowed financial institutions to venture into off-shore vehicles, off-balance businesses, and taking great risks. In the shadow there are no capital requirements and the financial institutions, through qualifying assets with the help of rating agencies at the highest credit quality, and with high levels of debt and high leverage, made the financial system too vulnerable. Financial institutions found a mechanism for generating endogenous liquidity, outside the central banks control. In our country, the Bank of Spain banned banking assets off balance and consistent practice of selling fully associated risk through asset securitization to unwary investors. However, the extreme accessibility of wholesale funding helped to leverage the banking system. This helps to explain the credit crunch and the worst recession in Spain since the 1940s. Other factors caused that the financial market has become extremely complex and vulnerable: the financial system agents, seeking to maximize their profits in the short term, led them to create business models that proved to be extremely dangerous to the health of the whole system. The way in which commercial banks granted mortgage loans to insolvent customers, how investment banks abused of financial engineering, and the way how rating agencies created AAA titles which finally ended up in investment portfolios worldwide, shows the way to disaster. A perverse bonus system for bankers, with incentives and rewards for short-term results, knowing that in the long term the system would eventually collapse, is behind this problem (Rajan, 2005). These wrong incentives, combined with excessive leverage allowed to take deposit funds with government-guarantee to play them in risky ventures. At the end all this led to a situation in which the risks are outside financial institutions, held by unsuspecting investors. If the crisis happens the subsequent bailout and its costs are assumed by the defenseless taxpayers.

## 1.4 Redesigning the Financial System

At this point, we are in the worst scenario: many financial institutions have been rescued and are confident that it will happen again in future crises. They had not faced any significant regulatory scrutiny and there is no system that can declare a state of insolvency if necessary. It is essential to try to redesign a financial system with appropriate incentives to serve the goal of "refunding capitalism" with solid foundations, to reach its relevant and strategic social function. The problems to be addressed are multiple and complex, and will have perhaps the opposition of financial institutions that will try by every means to maintain the privileges of the current status-quo. The main issues to be addressed are:

- The establishment (or reestablishment) of legislation which clearly separates the business of commercial banking (taking deposits and lending) from investment banking (securitization, leverage, etc.), establishing "Chinese walls" between them, preventing the "regulator's dilemma" that is doomed to rescue speculative bets of investment banks, to avoid damaging the rightful interests of depositors of commercial banks.
- Specific regulation for hedge funds, preventing their funding in the commercial banking system (with government guarantee of deposits), being allowed only for high risk investors (speculators).
- Simplification of securitized financial products, in order to allow proper valuation of the underlying investment risk.
- Reform the business model of the Risk Rating Agencies, to solve the current problems of conflict of interest (to collect fees from the issuers and act both as consultants and qualifiers), promoting the emergence of qualified competitors in this field.
- Promote the "Schumpeterian Creative Destruction". In particular, to address the reorganization of institutions deemed "too big to fail".
- Avoid the so-called "Regulatory Arbitrage" that is the avoidance of regulatory standards, creating ad-hoc legal structures.
- Rebuild and reorganize the structure of regulation, prioritizing the work of officers in charge of carrying it out, improving their remuneration and social status.

As Lloyd Blankfein, CEO of Goldman Sachs, maintained, bankers deserve their huge compensations as they perform the "work of God." This remarks caused outrage, particularly in those who were losing their jobs or their houses by the collapse of the financial system. Another approach should be taken: paraphrasing Georges Clemenceau, we could say that "Banking is too important to be left to bankers". Capitalism has a fundamental rule: there should be no profit without risk. If the risk of a business is so high that in case of bankruptcy it could jeopardize the viability of the capitalist system as a whole, the logic conclusion that follows is that this business can only be assumed by society as a whole (the taxpayers). Does it make sense then that such activity is held in private hands? Is it not a flagrant contradiction of the current status-quo that, while in times of crisis financial institutions are unable to bear the losses inherent to their activity and had to be bailed out by the taxpayers, in the good times they do not give up to their profits

or share their benefits with the society? We will have to consider whether companies that would have gone bankrupt without the help of taxpayers, deserve to continue being a "hunting ground" of short-term speculators.

It is convenient to mention Schumpeter once more, as an exponent of the Austrian School of Economics, which is characterized by a deep skepticism of government intervention, both fiscal and monetary policy. Just as it seems clear that in the short term Keynesian prescriptions were effective in preventing the collapse of capitalism, it is also true that in the medium and long term the proposals of Schumpeter can be very useful. As mentioned, Schumpeter developed a powerful theory of entrepreneurship that is often summarized with the words: "Creative Destruction". In the long run, it is imperative that insolvent banks, businesses and families go to bankruptcy. Keeping them alive is extending the problem indefinitely. Minsky (1982) pointed out that to solve a financial crisis in the medium and long term requires that everyone (families, companies and banks) reduce their indebtedness. To socialize debts, through endless government bailouts, is unsustainable, unfair and immoral. The successful resolution of the crisis in which we are now immersed, depends heavily on a pragmatic approach that incorporates the idea of a controlled "creative destruction". The priority issue of our time is how to manage this task.

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