



## SEARCHING FOR CAUSES OF THE CURRENT FINANCIAL CRISIS: ON RISK UNDERASSESSMENT AND IGNORANCE

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**Abstract:** *The paper presents the author's views on one underlying cause of the current financial crisis: the erroneous assessment of risk by market participants. We argue that besides other convincing explanations of the causes behind the recent financial turmoil such as loose government and central bank policies, the process of market liberalization, investors' appetite for risk and excessive financial modeling, we need to recognize the fact that underassessment of risk by market participants and policy makers is a major cause for the current crises, as for previous ones. This underestimation of risk comes largely as a result of two realities: first, risk magnitude was not entirely known by market participants, due to an interlinking of securities, structures, and derivatives built around the subprime mortgages; second, market participants ignored these risks to a large extent, in a world where access to financial markets was as easy as never before.*

**Keywords:** *financial crisis, risk underestimation, subprime mortgages*

**JEL Codes:** *G01, G32*

At the beginning of the 21<sup>st</sup> century, world capital markets were in a new era of globalization and most likely nobody was considering the possibility of a reverse of globalization. During the first eight decades of the 20<sup>th</sup> century, worldwide financial assets grew at about the same pace as the global GDP, with the exception of times of war, when governments' debt rose more rapidly. In the United States,

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the total value of financial assets as a percentage of GDP has grown more than twice as much since 1980 as it had in the previous eighty years. At the global level, equities and private debt accounted for most of the increase in financial assets since 1980, as companies and financial institutions turned increasingly to capital markets for financing. By 2007, the total value of global financial assets reached a peak of \$194 trillion, equal to 343 percent of GDP, which means a degree of financial depth – an indicator defined as the ratio between financial assets value and GDP – never known in history before. Financial assets growth until 2007 may be explained by numerous factors, including advances in communications and technology, financial markets liberalization and deregulation, and innovations in financial products. But 2008 brought a break of the growing trend, as the value of financial assets fell by 16 trillion US dollars to only 178 trillion US dollar. Equities are the main class of assets responsible for this drop, according to research developed by McKinsey Global Institute at end 2009.

The increased value of global financial assets and financial flows provided the world economy with significant liquidity, which nourished unjustifiable increases of security prices in some markets. Additionally, hedge funds increased the credit risk in financial markets due to excessive use of leverage. Moreover, the lack of information with respect to these players was amplifying the risks. The financial euphoria in the last years, the unprecedented number of financial innovations, the development of highly risky financial instruments, not always sufficiently tested and understood, the insurance and reinsurance of risk (although the risk remains somewhere in the system), the globalization and the interconnectivity between markets and industries, all these led financial markets to a tipping point. This point was reached when investors realized that the risk premiums they were asking were much lower compared to the size of risk exposure they faced. And then financial crisis was already in the picture.

Since the end of 2008 economists, analysts and alike have tried to come up with convincing explanations of the causes behind the recent financial turmoil: some have been blaming loose government and central bank policies, some have been pointing towards the process of market liberalization, some have been focusing on investors' appetite for risk and some are trying to show that excessive financial modeling is to be hold responsible for financial markets collapse. Behind all these possible explanations, nevertheless, we need to recognize the fact that

underassessment of risk by market participants and policy makers is a major cause for the current crisis, as well as for previous ones.

Financial crises are all different and all similar. Radelet and Sachs (1998) advance a taxonomy of financial crises, building on a number of characteristics that may be seen as the main initiating causes of financial crises: (1) a speculative attack on the exchange rate – either attacks based on „fundamentals” deterioration and or purely speculative attacks -; (2) a financial panic; (3) an asset bubble burst; (4) a moral hazard crisis, under the form of implicit or explicit bail-outs; and (5) the acknowledgment of a threatening debt, followed by erroneous measures. When we look carefully at these characteristics, all of them appear as a result of a sudden recognition by market participants of the true level of risk they are exposed to. And when market participants, especially the private ones, connect properly again the risk with the risk premium, a financial market correction is typically the answer. Sometimes, in case the “irrational exuberance”, as Greenspan put it, was too high, market correction takes the form of a financial market collapse.

Stock markets are volatile and we see returns fluctuate widely, regardless of the country. Brock (2002) notes a curious aspect of market crises and financial instability: they do not mirror the underlying economy, at least not in developed countries. While the risk has increased in capital markets, the real economy has experienced the opposite. To take the example of the United States, the GDP volatility has dropped steadily in the past fifty years, the same being true for disposable personal income. With greater stability in economic productivity and earnings, and with broader access to borrowing, the variability of consumption on a yearly basis is less than a third of what was in the middle of the 20<sup>th</sup> century. The same pattern is to be found in Europe, where both GDP and consumption have become more stable over the course of the past fifty years. At the same time, the average annual standard deviation in the S&P 500 index was higher during the past twenty years than it was fifty years earlier. Bookstaber (2007) explains this paradox – the fact that the total risk in financial markets has grown in spite of a significant decline in exogenous economic risk – as a key symptom of the design flaws within the system, as risk should be diminishing, but this is not actually happening.

Unfortunately, we have seen this phenomenon in an acute form in the current financial crisis. Even more dramatic is the fact that risk magnitude was not entirely known by market participants, due to an interlinking of securities, structures, and derivatives built around the subprime mortgages. Subprime mortgages are an

innovative financial instrument designed with the goal of allowing poorer riskier borrowers to access the mortgage market. In a world of declining long-term interest rates and falling inflation, asset prices, including houses, were quickly growing. For home owners in both developed and developing world, the rise in price assets was felt immediately and directly, as the value of their real estate soared. Before 2007 countries such as United States, United Kingdom, Spain, Australia, India and Romania were facing real estate booms and they are not the only ones to experience the phenomenon. As a result, the demand for very-high yielding securities based on subprime mortgage loans rose significantly. Subprime mortgage originations in the United States rose to incredible levels, as they increased threefold between 2002 and 2005<sup>31</sup>. The central design feature of subprime mortgages was the ability of borrowers to finance and then refinance their homes based on capital gains due to house price appreciation over short horizons and then turning this into collateral for a new mortgage. This resulted in unique structures for subprime mortgages securitization in the form of residential mortgage-backed securities (RMBS), which quickly entered underlying portfolios of collateralized debt obligations (CDOs). At their turn, these portfolios were often used for the management of asset-backed securities (ABS), RMBS and commercial-backed securities (CMBS) portfolios. Moreover, financial institutions entered in the process of selling CDO tranches at their market value or their risk was swapped in negative basis trades. At the same time, additional risk linked to subprime securitization was induced in the system by the use of credit default swaps as inputs for CDOs. It is obvious that this nesting of securities and derivatives generated a loss of information regarding the original sources of risk behind the instruments.

In 2006 a new synthetic index of subprime risk was introduced in the United States, called ABX, which traded over-the-counter, and allowed for the information on subprime mortgages market value and risks to be revealed. This offered market participants the chance to show their views on the value of subprime securities, even though the original source of risk was not known entirely and could not be easily dismantled. In 2007 the value of this index fell, indicating a reversal in market value of mortgage-backed securities. The information provided by ABX trading, coupled with the lack of information related to where did the risk

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<sup>31</sup> Unfortunately, as Greenspan (2008) notes, the size of subprime mortgage increase did not become generally evident until 2005: in 2002, subprime mortgages had accounted for only 7 percent of United States regular mortgage originations, but in three years the subprimes rose to a 20 percent share.

originally come from, led to a loss of confidence on the part of banks with regard to their debtors' ability to honor their contractual obligations. In short, the information asymmetry between the sell-side of the market and the buy-side regarding the complexities of the subprime chain of securities and derivatives was corrected by the introduction of the ABX index, which revealed and aggregated values of the subprime bonds with centralized prices, until the index fell.

The fact that information about risks was largely not known to market participants does not tell the true story of the current financial turmoil. Besides not knowing the size of risks, market participants ignored these risks to a large extent. In 2005 and 2006, when demand for subprime mortgage loans surged, risks seemed low because during the years of increasing house prices defaults on such loans were extremely rare – partly because the availability of new home equity and refinancing loans was high -. Around the world, institutional investors such as pension funds, hedge funds and investments banks were highly interested in such products, which stimulated demand even more. As a consequence, supprime lenders were engaging in new loans followed by immediate resell to securitizers, which in turn encouraged more and more people to apply for mortgages, given the relaxed terms of the loans<sup>32</sup>.

Certainly, the best attitude towards these problems would have been prevention. One of the questions that came often in the mind of many analysts is why the world economies were totally unprepared to face such a shock. There are in the current financial crisis at least two similarities with the previous crises: on one hand, the crisis was caused by an underestimation of risk undertaken by banks, and, on the other hand, the governmental interventions materialized by money injections and nationalization permitted the moral hazard to fully manifest itself. After the financial crisis of the 1990s we saw a huge debate about the reconfiguration of the international financial architecture. The current crisis shows, unfortunately, that discussions were not materialized in concrete steps for restructuring the international financial system, in a framework of financial markets liberalization and of increased complexity of markets and instruments.

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<sup>32</sup> For example, a mortgage could have been obtained without a down payment, with an adjustable rate that offered the possibility of the debtor to decide how much he wanted to pay every month for the loan, or even without having to document the income or the assets that were backing up the loan.

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