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FINANCIAL INNOVATION AND MORAL HAZARD

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Abstract: *The key to understanding this financial crisis are the financial innovation and moral hazard concepts. Financial innovation consists of turning some non-liquid assets into liquid assets, tradable on the free market. Moral hazard refers to someone's willingness to take excessive risks just because they know someone else will come and save them from the possible negative consequences.*

Key words: *financial innovation, moral hazard, solutions, securitization.*

1. Financial Innovation

Many speculative balloons start when a burst of innovation or of technological progress foreshadows the dawns of a new economy. I think financial innovation represents the most important cause of the present global financial crisis. Where did it come from? How did it determine the emergence of the present financial crisis?

In the 1970s, the National State Association for Mortgage Loans (Ginnie Mae) issued the first securities guaranteed by mortgage loans. That is, it developed a portfolio of the loans granted, and then issued bonds based on this portfolio. Therefore, instead of waiting for thirty years to recover its money from a mortgage loan, Ginnie Mae was able to cash a significant amount of money on the spot, from the bond buyers.

In their turn, investors who were buying these new bonds got a certain share of the income flows/fluxes/receivables cashed from the owners who were paying their loan instalments.

This scheme was revolutionary. Thanks to this procedure, rapidly named "securitization" or "titlization", some non-liquid assets such as mortgage loans could now be put together and turned into liquid assets, tradable on the free market. These new instruments had a name as well: mortgage-backed securities. In time, other representative government organizations, such as Freddie Mac and Fannie Mae, entered the securitization business. They were joined by investment banks, brokerage companies and residential construction companies. But what was the investment banks' role?

Investment banks were usually the institutions in charge of developing portfolios of mortgage bonds. In partnership with the one who had closed the mortgage loan contracts, the investment bank organized a "special purpose vehicle" (SPV). This SPV then issued bonds or securities guaranteed with mortgage receivables, which they sold to investors. This way everybody got what they wanted. The house owner got a loan, and the mortgage broker and the assessor got their commissions. The mortgage lender made nice profit rapidly, without having to wait for thirty years. The investment bank cashed a fat commission for the assistance granted, although it had gotten rid of the loan risk, placing it to someone else. And the investors who bought the bonds were enthusiastically

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waiting to cash up a constant flow of incomes, as the house owners were paying back their mortgages. (Roubini, Mihm, 2010, pp. 114-116)

Although the securities guaranteed with mortgage loans became more popular in the 1980s, it was only in the 1990s that they started gaining momentum. The new concept was quite simple: it is much better to sell mortgages and get a nice profit in your pocket, in advance, than keep them in your balance accounts – and risk that one day they might become non-performing. As securitization became a very much used procedure in the 1990s and the 2000s, mortgage brokers, loan assessors, commercial banks, investment banks and even public institutions such as Fannie Mae and Freddie Mac stopped thoroughly and cautiously checking up mortgage fanciers. Consequently, applicants invented inexistent incomes and brought no written proof of their salary. The most scandalous of these were named "NINJA'', by the acronym of "No Income, No Job or Assets"'- (the beneficiary of the loan had neither incomes, nor job nor assets).

Securitization did not stop here. Financial companies dealt with turning into securities mortgages granted to real estate developers for retail projects, as well as other types of consumer loans: credit cards, loans for studies and car loans. Corporate loans were securitized as well: loans granted to already indebted companies, loans for industrial development and commercial loans. This way, charter leasing contracts, incomes from forestry and mining exploitations, penalties for outstanding taxes to the state, revenues of the local and state authorities got to be securitized in 2008.

You may ask what rating agencies did, under the circumstances. In theory, rating agencies should have made an alarm call. But they had serious reasons to grant high ratings to the securities they were analysing. Acting this way, they were getting a good commission precisely from the entities they were rating, plus the promise of some future contracts. Had they made a realistic rating, they could have lost the commission, plus any other future commissions. For them, it was much more profitable to grant a bank the financial equivalent of good behaviour grades and to hope that nothing wrong would happen. In the eve of the crisis, over half the rating companies' profits were based on AAA ratings, many of which undeserved. (Roubini, Mihm, 2010, pp. 117-120).

But how did the financial securitization evolve? Anybody who holds a normal security, guaranteed with a mortgage, naturally undertakes a certain degree of risk: the owner of the mortgaged building might not reimburse the loan. In this direction, "financial engineers" on Wall Street came up with an elegant solution: Collateralized Debt Obligations – CDO. A CDO emission was going to be divided into tranches. The simplest CDOs had only three tranches: the minimum eligible –the equity tranche, the middle tranche – the mezzanine tranche) and the first rank tranche, called senior tranche. Buyers in the minimum eligible tranche got the highest profit, but also took over the highest risk. If any debtor in the mortgage loan portfolio did not observe their obligations, the loss resulted was felt firstly by equity tranche holders. The mezzanine tranche was less risky, but the buyers also bore losses, if debtors didn't pay their loans. The senior tranche was at the top. The holders of this tranche were the first paid when cashing receivables, and the last that bore losses in case of payment failure.

Under this entire impressive edifice of structured financing something was rotten in the USA. It was based on a pile of substandard, dubious and risky mortgage loans, graded with BBB rating, which were put together and stuck under a mortgage security, also rated BBB. This was afterwards divided into tranches and the senior tranche – which represented about 80% of the total mortgages used – got an AAA rating. The procedure turned some dubious assets into a gilded security, although the mortgage assets portfolio it

was based on remained just as risky as before.

Securitization did not stop here. It then continued with combining some CDOs with other CDOs, and then dividing them into tranches. These CDOs, based on other CDOs (called "CDOs square"), fade, however, compared with other products designed in Wall Street laboratories: CDOs from CDOs on CDOs, or CDO-cubed. These are joined by synthetic CDOs which put together a pile of non-payment risk insurances to imitate a basic CDO. Some of these esoteric products had more than three tranches, and sometimes reached fifty or even one hundred, each of them representing a certain level of risk tolerance.

Looking back, the danger of this kind of financial innovation is easy to understand. Endlessly dividing and "hashing" the loan risk and transferring it in all direction, the system found itself operating with financial tools that were unknown, complex, non-liquid and dangerous. (Roubini, Mihm, 2010, pp. 118-123)

Daniel Dăianu identifies the following causes for the American crisis: the failures of the rating agencies, the rise of the systematic risk, the distorted payrolls, the conflicts of interests, the casino transactions, the absence of the regulating system, the speculations, the inadequate financial system, the repelling of the Glass-Steagall Act, the securities based on mortgages, the toxicity of the packing and repacking of the financial products, the managers' irresponsible conduct, the managers' payrolls, the toxic quantitative models, the overrating of the entrepreneurial spirit, the instability of the financial markets, the Ponzi Scheme on NASDAQ; but he considers the essential cause to be greed (Dăianu, 2009, pp.161-163).

2. Moral hazard

Although the financial engineers who got us stock with monstrosities such as CDOs-cubed fully deserve to be blamed, many other problems started accumulating, such as defective management of financial companies.

The key to understanding this situation is the "moral hazard" concept. This, if you wish, trading on unknown ground from a moral point of view, refers to someone's availability to undertake some risks, especially excessive risks, which they would have normally avoided, only because they know someone else will jump and save them from the possible negative consequences, or even save them financially speaking.

Moral hazard played an important role in the present economic crisis. In the securitization chain, a mortgage broker who knowingly brought a lying loan to a bank was paid for his effort, but bore no responsibility for what was going to happen in the rest of the circuit followed by the loan he/she had brokered. Similarly, the stock exchange operator who laid enormous sums of money on the line on a CDO, was generously rewarded if they managed to win, and only rarely be held responsible if they failed. Even if they were fired, there was no way anyone could withdraw their earnings accumulated by that time.

Moral hazard affected the financial services sector to an overwhelming proportion, due to the way these companies paid their employees. Instead of simply offering them a salary, market operators (traders) who were working in investment banks, coverage funds and financial services companies were rewarded for their performance through an annual reward system. Although bonuses have been playing an important role in the salary system of these companies, in the years before the crisis they had increased exponentially and all big investment banks such as: Goldman Sachs, Morgan Stanley, Merrill Lynch, Lehman Brothers and Bear Stearns paid higher and higher sums of money. In 2005, these banks paid bonuses worth USD 25 billion, in 2006, the sum was of 36 billion and a year later, 38 billion. (Roubini, Mihm, 2010, pp. 124-125)

More precisely, the rapport between performance premiums and basic salary reached astronomical proportions. In 2006, the average bonus represented 60% of the total salary fund of the five biggest investment banks. In many cases, the figure was much higher; bonuses ten-twelve-fold higher than the basic salary became something common in many companies placed in the core of financial disintegration. The great irony was that when these companies ended up surviving only on artificial breathing devices, they continued paying bonuses.

The bonus system, which aimed at short-term profits made during one year, encouraged risk undertaking and excessive indebtedness of the personal capital, on a huge scale. This was nowhere better seen that with AIG, company specialised in insuring events that had almost zero chances of ever materialising. On a short term, the approval of engaging huge sums of money as insurance against some unlikely catastrophes brought substantial returns, profits and bonuses for traders and their employers. On a long term, the inevitable happened, and, at that time, companies such as AIG were very close to crashing down. In the end, the consequences of the decisions made by these reckless players were born by someone else, that is, the American tax-payer.

In theory, this moral hazard eruption, overflowing to all directions, should have been stopped, but this did not happen. Why? The answer lies in what economists call "principal-agent problem". In large capitalist enterprises, the principals (that is, shareholders and management board), have to employ other people, that is, managers (agents), to fulfil their wishes and take care of the business. Unfortunately, agents invariably know more than the principals know about what happens in the business, and they are able to follow their own selfish interests in a way that can be destructive for the business.

Theoretically speaking, shareholders should be able to prevent AIG collapse, as they are the last link of the chain, the supreme owners of the financial company. But in fact, shareholders do not have too many reasons to call the reckless market operators and managers to order. Why? Financial companies are counting more on money borrowed for financing current operations, than regular commercial companies, and therefore, when the daily operations problem is put forth, shareholders do not take too much risk. They have no interest in discouraging traders from undertaking high risk. In fact, they have countless reasons to have them do exactly the opposite. If risks taken bring the expected profits, shareholders get plenty of dividends. If they do not, shareholders only risk losing their little sum of money invested in the company shares.

In theory, there would be a last wall of defence against moral hazard: people who lend money to banks and other financial institutions. The funds regular banks borrow from clients are under the form of sums deposited into accounts. But most of them come under the incidence of deposit guarantee law in the banking system. Therefore, even if a bank plays recklessly with the depositors' money, they do not have to lose sleep over anything, knowing that the state guarantee will take care of their money boxes, which makes them indifferent to taking steps to have the banks that make the wrong decisions punished. (Roubini, Mihm, 2010, pp. 126-128)

Not all financial institutions are covered by the law on bank deposit guarantee, but since there is a lesson on financial crises that we all know, when the situation becomes desperate, a last resort lender will show up to fix things up. Since the Great Depression, central banks have constantly made the decision to fulfil this role. It happened again in the thick of the present crisis, when the Federal Reserve delivered at unprecedented levels liquidities destined to investment banks and other institutions that were not bound by the deposit guarantee law.

Knowing that there is a last resort lender, financial institutions felt less stimulated to keep high volumes of liquid assets as a cushion reserve in case of massive withdrawals from depositors. In case of crisis, they knew they could count on central banks all over the world, to offer them help. From this point of view, calculations of all players in the financial system proved accurate: both in the USA and abroad, central banks did all they could to throw life buoys to companies going down. There was only one dramatic attempt to attack the moral hazard problem – they let the company Lehman Brothers sink; though followed by frenetic efforts to save some huge segments of the financial system.

Banks have to be forced to keep enough liquidity, and shareholders need to take their own risks and have something to stimulate them keep the companies they are supposed to supervise under observation. Unfortunately, in the years that climaxed with the crisis, the state authority was nowhere to be found. (Roubini, Mihm, 2010, pp. 129-130)

As regards the involvement of the Federal Reserve, we are making the following observation: Fed stands there watching without moving a finger, while speculative balloons are catching shape and asset prices soar through the roof. Then, when the balloon bursts, Fed knocks itself out and tries all possible tricks to reduce the damages produced. This way of acting wastes resources in vain. We think that it is better to prevent than treat. This is true for the current financial crisis as well. The strategy Fed applied generates moral hazard at a monumental scale. Looking at the way Fed has been evolving for over two decades, investors now have all the reasons to draw the conclusion that central banks will do absolutely nothing to stop the development and increase of a speculative balloon – and, in fact, they may even encourage it, joining the "new economy" choir of admirers – but they will do all they can to limit their losses. (Roubini, Mihm, 2010, pp. 393-394)

The experience shows that the first to react to a crisis are the local investors who tend to gather information from various sources and who also take a higher risk. They are, generally speaking, the first who sell the national assets. Still, the contamination really starts to spread when the foreign investors decide to leave the respective country, as well as other countries which are in a similar situation and which are considered to be the virtual candidates to the next crisis. In these instances, one can speak about a trend setting, because the interests of these international investors are based directly on global factors and they would most probably follow the example of other investors than of the fundamental principles of the countries they invested in (Dehesa, 2007, pp.247-248).

3. Solutions

Daniel Dăianu also proposes three solutions which could be counted as learning: understanding of the systemic risks at national level, of the contamination and contagion effects; the need to regulate the financial markets as a whole (including the so-called parallel banking system, of the rating agencies, of the payroll bands, and a process of securitizing the loans) and the need for common accounting standards, regulated globally (Dăianu, 2009, pp. 172-173).

The question about what has to be done with the banks' non-performing assets has been threatening in the air ever since the beginning of the crisis. As long as there are loans not paid back, and as long as the securities derived from these loans keep losing value, banks will not be able or wish to grant loans. As a solution, the governments have launched a variety of proposals, all meant to extract the respective assets and dispose of them, thus giving banks the freedom to resume operations.

a) The most promising proposal asked banks to go through a radical surgical intervention which involved taking s bank with problems and splitting it into

two: a "good" bank, where all performing assets should go, and a "bad" bank, which should contain all the others. The "good" bank could then start granting loans, attracting money and capital and resuming its normal activity. In exchange for getting rid of its toxic residues, the bank shareholders and creditors without firm guarantees were to take over a proportional loss to the non-performing assets disbranched from the balance and concentrated in the "bad" bank. In its turn, this was going to be managed by some private investors who hoped to make profit from a correct liquidation of its assets.

b) Another option is that the government to buy the banks' toxic assets. The price paid would be established through "reverse auction" in which the sellers "auction", by displaying the lowest price they are willing to accept in order to get rid of a certain asset. It remains to be seen whether this system manages to set an accurate price for the assets. Banks participating in the auction would have all reasons to prevent a too sharp price fall.

c) A third option for the government would be to form a sort of insurance alliance with the banks in difficulty. Let us suppose a bank has toxic assets that were initially worth about USD 50 billion. In fact, the bank agrees to pay a deductible franchise – for example, it would take over the losses of the first USD 3 billion - and the government would cover most of any other additional losses over the rest of 47 billion. In exchange for the guarantee that it will not have to pay "in advance" more than an USD 3 billion loss. This method devolves upon the state to subsidise the losses registered by some private banks.

As far as the financial system is concerned, the basic idea is that the government should subsidise the private investors who accept to buy the toxic assets and thus to remove them from the banks facing difficulties. This is precisely the idea standing at the basis of the public-private system investment plan, which was launched in 2009. The shortcomings of this method consisted in the fact that these low-interest loans are without right to appeal, that is, if things do not go well, investors are allowed not to pay them, without being penalised. (Roubini, Mihn, 2010, pp. 294-298)

We think that the first solution is the best (that is, the idea of dividing and transferring non-performing assets into a "bad" bank). This approach reduces government-borne costs to the minimum, leaving the problem in private hands. Consequently, it draws the line on moral hazard and gives banks that have reborn all possible reasons to grant loans again. But it also forces investors to undertake some loss, and therefore to suffer now, not later.

For the companies that are "too big to be left sinking" there is a simple solution, and that is dividing them.

The most liberal economies of the world, the American and the British ones, nationalized numerous financial institutions under the pretence of saving the small business, but in fact covering the huge losses provoked by leaderships of those institutions. We consider that the state should not be merely the fireman on duty, and the losses should not be supported by the wider society. We ask ourselves the following question: can a financial crisis be replaced with a moral one? Is it all right for those responsible for hundred billions of dollars detriments to retire unhindered with hefty allowances and for the population to suffer the costs?

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