THE FINANCIAL CRISIS &CRYPTOCURRENCIES

NIȚĂ Sorin Cristian*

Abstract. *The 2008 financial crisis left its toll on the world, the effects being well felt even today. The GDP of the world`s biggest military & economic powers went downhill, and only after a few years and a lot of borrowing was the trust restored to a level that allowed the economy to start working. The objective of this paper is the analysis of the financial crisis and the crypto currency phenomenon, which at first sight, looks a lot like the bubble that formed prior to the mortgage crisis.*

Keywords: *GDP, Financial crisis, crypto currencies, trust.*

Starting with 2007, the financial crisis quickly transformed, from the housing bubble burst that took place in the US to the worst recession the world has witnessed from the great depression. Contrary to the widely held perception during the boom before the crisis, the global economy was by no means as healthy and as stable as suggested. Also there were interlinked and complex factors behind the crisis, factors such as loose monetary policy, global imbalances, misperception of risk and weak financial and fiscal regulation. Also beyond the aggregate picture of GDP collapse and increasing unemployment, the impact of the crisis was rather diverse, reflecting differences in initial conditions, transmission channels and vulnerabilities of economies, along with the role of government policy in mitigating the downturn.

Some companies failed in following their own risk politics, and also managers, that failed at restraining themselves in taking some excessive risks. Thus, a bubble formed in the housing market, bubble that was fueled with increases in prices from day to day. As any traditional bubble, fueling it meant an eventual burst. As time was passing by, people saw with their own eyes the prices going up in their own towns, and started to expect that these prices will keep their rising near the trend line, continuing to believe so, even in the last moments.

The increase in the number of loans to people classified as subprime only helped the increase of the bubble, just like throwing gas onto the fire

* The Bucharest University of Economic Studies, e-mail: nitasorincristian @gmail.com;

that was already burning. Before the year 2000, the subprime mortgages were almost inexistent, but with the passing of time, these mortgages had seen an impressive growth.

The continuing rising in prices in the housing market together with the financial innovations basically transformed subprime clients that were invisible to the mortgage market, into quite attractive customers. This is how products knows as ARM`s started to appear. Products in which an advance payment was rarely necessary and even allowed clients to postpone an installment if the situation demanded it, these facilities being based as well on increase in prices. Even so, the access of subprime clients to mortgages wouldn't have had such success without other financial innovations such as mortgage securitization or adding them together in a pool of mortgages in order to be AFS to other investors that received pro-rata payments out of the principal and interest. Thus, the Wall Street investors financed a large number of clients, wishing a mortgage. In this way, the private sector created new ways to pack these subprime loans, known as CDO`s in order to share the cash flow to different classes of investors, depending on their risk appetite.

The above mentioned financial innovations, allowed Wall Street to view subprime clients at the same level as conforming clients. Thus, through the decision of redirecting a large amount of investor funds towards this sector, lots of non-conforming people managed to obtain a mortgage. These policies practiced in the market, prospered under an expansionist monetary policy practiced by the Federal Reserve Fund and also weak market and fiscal legislation. With low interest rates and with regulators that weren`t able to observe potential market problems, the financial institutions kept borrowing until they were indebted many times above the percentage that they were able to repay that debt . Furthermore, banks created entities held in the Off balance sheet known as SIV`s (Structured investment vehicles) in order to acquire mortgage assets that weren`t subdued to the capital requirements.

As more loans were granted, the prices increased and the debts were rolled over and over. The situation though, was getting close to a completely different path, starting with mid 2007 when the financial markets went into a state of panic. The first ones that went bankrupt were the non-banking loaners due to the small capital reserves at their disposal followed by investment and hedge funds, all of them being affected by massive withdrawals from the financial system. Towards the year end of 2008, the effected expanded to countries such as Ireland and Japan, no country being able to truly resist the shockwave.

One fact that sustained this state of crisis was technology and financial innovation, them being one of the main pillars of globalization. In 2010, Joseph Stiglitz started discussing the recipe for a successful financial disaster: Weak regulations, lots of liquidity with low interest rates, a speculative bubble and policies that support borrowing, subprime borrowing

Looking backwards, there were many telltale signs that the crisis will take place. Even more intriguing is the fact that the vast majority of investors, academies and officials were actually aware of the signs but chose to ignore them. More so, the trend was to make profuse claims about a new prosperous era. There was a general euphoria about the conditions in the new economy with many voices claiming the usual saying: "This time is different".

Once the economies started to recover, some things started to change with regards to the way that risk is perceived. A general change in the behavior of the private business environment is visible. From an aggressive risk appetite, lots of companies went towards a more prudent approach, some of them even becoming risk adverse. Also, from a regulation point of view, IFRS 9 came to ease up the accounting for the financial instruments, them being regarded with a more unitary approach in order to be able to avoid harmful financial innovation.

Looking forward, a new innovation with financial implications has appeared: Crypto currencies. Crypto currency can be defined as a digital asset designed to work as an exchange mean, just as normal currency, difference being the fact that it uses cryptography to secure it`s transactions and also to control the creation of additional units. The same principle stands behind the verification of asset transfer. Opposed to normal currencies, crypto currencies work on a decentralized principle, more units being created only by the pure advancement of technology and by the passing of time, while normal currency are printed by central banks.

The control of each crypto currency works through the block chain, which represents a public transaction database, working just like a sort of accounting ledger, this ledger containing all transactions ever made. The most commonly known digital asset is the „Bitcoin". Few know that the inventor of the system (the unknown Satoshi Nakamoto) never intended to create a currency. In late 2008, Satoshi said the managed to invent a peer to peer electronic cash system. This has been attempted since the 90`s but all attempts had failed. The single most important part of Satoshi Nakamoto`s creation was the fact that he found a way to build something new: a decentralized digital cash system.

A crypto currency for example, Bitcoin is made out of a network of computers called miners. Every miner has access to a record compiling the complete history of all transactions and thus of the balance of every account.

A transaction is represented by a file that says. Put in simple words, it should look like this "X gives a quantity of Y Bitcoin to Z" and is signed by X`s private key representing a basic key cryptography. After signed by that key, the transaction is broadcasted in the network, sent from one peer to every other peer through that record earlier mentioned. The transaction is immediately known by the whole network but it only gets confirmed after a specific amount of time.

Confirmation is the most critical concept in crypto. As long as a transaction is unconfirmed, it is pending and can be forged. When a transaction is confirmed, it is forever written in the block chain. It is no longer forgeable, it cannot be reversed. The only ones that can confirm these transactions are the miners. They are the core in this entire system. They take transactions, stamp them as legit and spread them in the network. After a transaction is confirmed by a miner, every node has to add it to its database. It has become part of the block chain. For this job, the miners get rewarded with a token of the crypto currency, for example with Bitcoins.

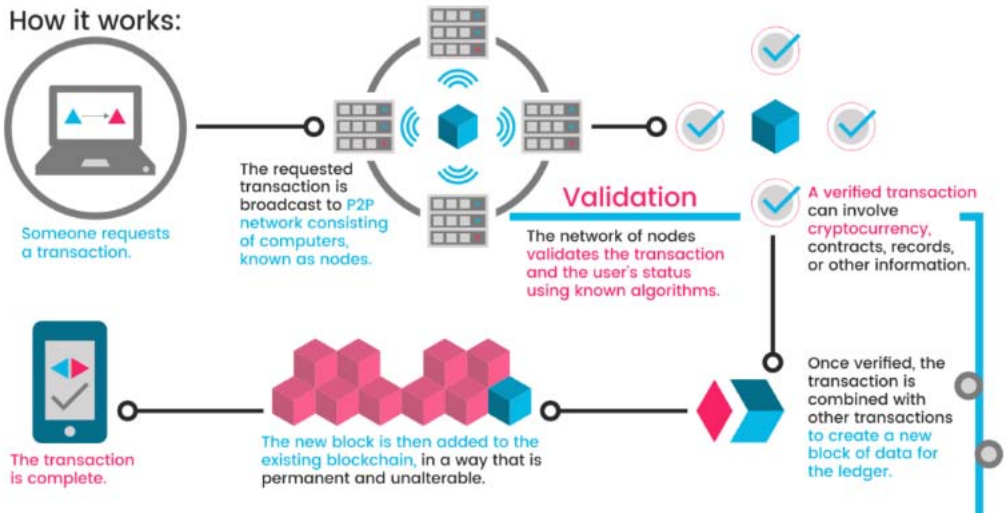

Figure 1. How crypto works.

In December 2017, the crypto currency market has seen an increase that no other market has ever undergone. Bitcoin`s market cap alone, went

up from 17 BLN USD at the start of 2017 to as high of 314 BLN USD at the end of the year. The price for 1 Bitcoin went up from around 900 USD in Jan 2017 to nearly 18K USD at the year end. This increase, attracted more and more views towards this market, and made a lot of people invest their savings into this market.

Figure 2. Bitcoin price and market cap evolution

Aside from the Bitcoin, which is the leading crypto currency thousands of altcoins exists for example Ethereum, Dash, Litecoin, Monero Etc. The main problem with this market is the volatility that stands behind it. From 18k USD at year end, currently a Bitcoin is valued by the market around 8k USD. It is easy to spot how fast a buyer could loose a large amount of his savings. The euphoria didn't remain unnoticed by the central banks either. After the disaster with the financial crisis, it did not take long for the central banks to react and to try and discourage this phenomenon. It is still early to foresee a potential collapse of the financial system caused by crypto, but a healthier financial system is clearly in place, looking at the precaution that the central banks are handling situations.

REFERENCES

[1] Smith, Adam, *The wealth of nations*, London: Middlesex, 1979.

[2] Smith, Adam, *The wealth of nations* London: Everyman's Library, 1981.

[3] Albers, Thilo; Uebele, Martin, *The global impact of the great depression,* în: *Economic History working paper series, 218/2015*. London: The London School of Economics and Political Science, 2015. Available online: http://eprints.lse.ac.uk/64491/1/WP218.pdf

[4] Blinder, Alan S.; Zinder, Mark, *How the Great Recession Was Brought to an End*, 2010.

[5] Temin, Peter, *The Great Depression,* in: *NBER Historical Working Paper, No. 62*, November 1994. Available online: http://www.nber.org/papers/h0062.pdf

[6] Forbes, Kristin; Frankel, Jeffrey; Engel, Charles, *The Global Financial Crisis: Project Synopsis*, Summary of the research papers written for the NBER project on the Global Financial crisis and discussed at Bretton Woods on June 3-5, 2011. Available online: http://web.mit.edu/kjforbes/www/ Papers/Global% 20Financial% 20Crisis--Project%20Summary-final.pdf
[7] Dougherty, Carter; Schwartz, Nelson; Norris, Floyd, *Financial Crisis spread in Europe*, în: New York Times, 5 Octomber 2008. Available online: http://www. nytimes.com/2008/10/06/business/06markets.html
[8] Sher Verick, *The Great Recession of 2008-2009: Causes, consequences and policy responses*, în: IZA (Institute for the Study of Labor) Discussion Paper No. 4934, May 2010. Available online: http://ftp.iza.org/dp4934.pdf
[9] Nită Sorin Cristian, *Financial Crisis – From the US to the EU*, Proceedings of the *8th International Conference The Future of Europe,* ASE Bucharest, International Economic Relations Faculty, 16-17 November 2017.
[10] www.coinmarketcap.com