Undergraduate Economic Review

Volume 16 | Issue 1 Article 17

2019

The Substantial Growth of Shadow Banking, Financial Technology and Digital Currency and Their Respective Roles in Shaping the Next Financial Crisis

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Abstract

Based on Goldman Sachs' model and the state of current affairs, an underlying possibility of a financial crisis occurring in the foreseeable future does exist. This could be due to ongoing trade war and negotiations with different countries, the new policies introduced by political parties and their respective impacts, high amounts of corporate and student debts along with auto loans in the economy, thus indicating signs of excessive leverage and resulting in depressing consumer confidence. International issues such as Brexit, the existing currency and debt crisis with Turkey, and China's debt bubble could also contribute to the global growth slowdowns. Experts such as Nouriel Roubini, Brunello Rosa, Diego Zuluaga, Arthur Guarino, and many more believe that the macroeconomic variables highlighted above are the probable catalysts of the next crisis. Therefore, this paper discusses two issues, Shadow Banking and Financial Technology, which could potentially imbalance the financial markets but are not well addressed to the stakeholders of the macroeconomy, regarding their causes and implications. Moreover, it chats about how they stemmed from the Global Financial Crisis (GFC) of 2000-2008 and how they pose growing risks to the current monetary system. This paper does not consider or highlight the influences of the global pandemic known as the COVID-19 pandemic.

Keywords

Financial Technology, Financial Crisis, Shadow Banking, Regulation, Cryptocurrency

In order to predict the root causes of the next financial crisis, it is imperative to learn about factors which were instrumental in the rise and fall of money markets in the past and map their presence in the strong growth trajectory of the U.S. economy in recent times. In 2010, Mark Jickling, a Financial Economist at the Congressional Research Crisis, compiled a report titled as *Causes of the Financial Crisis*, which briefly highlighted numerous reasons that contributed to the intensity of the crisis and instability of various markets.[1] The countless reasons attributed to recent episodes of various financial crises stem from the banking system's credit expansion strategies, the unregulated use of financial instruments, lenient supervision of banking practices, and decline in underwriting standards, which contributed to the global downturn. This behaviour created excessive leverage in the economy and promoted financial liberalization with widespread repercussions leading to propagate the possibility of financial shocks, bubbles, and asset price busts. These were crucial signs of economic distress recognized in the case of the Dot-Com bubble and the real-estate boom, during which the share prices in the tech sector and property rates rushed to large numbers, thus triggering the monetary crisis.

Additionally, as the equities and securities markets expanded, financial models became more innovative and complex. It became more difficult to track the flow of money, evaluate the quality of financial products, and assess the authenticity of the source when traded between buyers and sellers. The chances of a systemic risk increased substantially due to the rising opaqueness in the financial system and the interrelatedness of various agents. Furthermore, the crucial contribution of financial innovation developed new instruments and market structures, namely Over-the-Counter Derivative (OTC), with institutions benefitting from them in an unregulated secondary market along with transforming the maturity date had a significant impact on the financial markets. With sensitive and classified information trading in an informal and unorganized market, this resulted in a lack of transparency and spreading risks, thus reducing individual accountability.

Over and above that, the proliferation of the shadow banking industry has contributed to jeopardizing the financial equilibrium in several markets. The unregulated sector of shadow banking has the edge over other financial institutions as they act as non-depository financial intermediaries that specialize and engage in lending practices by facilitating credit from liquid markets. Considered as one of the significant contributors of the 2008 financial crisis, shadow banking aims to earn higher returns by providing funds loans in exchange for collateral from the borrowers, repackaging the loans into long-term investments such as securities such as CDOs, bonds and mortgages to agents in

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[1] (Congressional Research Service, 2019)

secondary markets to invest in them for a return on its maturity. By engaging in maturity transformation, borrowing funds to invest, and not accepting deposits, its operations and activity are not subjected to any regulations like traditional banks, which leads to having high leverage and performing actions such as securitization, which can multiply the possibility of systemic risk and financial crisis as it impacts various components of the financial system.

To date, many regions around the globe, such as the Middle East and the European countries still have not recovered from the effects of the GFC. However, over the last decade, the shadow banking system has witnessed substantial growth, rising to a $52 trillion industry in 2017, as claimed by the *Global Monitoring Report on Non-Bank Financial Intermediation* published by the Financial Stability Board (FSB).[2] According to a report titled as *The Credit Creation Functions of the Shadow Banking System and the Challenge on the Monetary Policy*, published by the *Journal of Financial Research*, author Li B writes, "there is more competition in non-interest income market than loan and deposit market in China. Less competition in the loan market increases bank profits and shadow banking also improves the profitability of Chinese banks."[3] With the increased regulation and reduced competition in the retail banking sector since 2008, along with the reduced bank leverage ratio, a substantial proportion of the supervised banking activity has shifted to the "Peer-to-peer (P2P) lending" system.

Posing as a significant source of systemic risk, this network of unregulated financial intermediaries comprising of sophisticated financial vehicles & investment and financial holding companies, along with their interlinked transactions, could have a severe impact on the economy and plague financial services and monetary system. Since the entire market is developed on the foundation of the collateralization process, the excessive leverage is created on multiple underlying assets collateralized and securitized among several lenders. As liquidity pressure builds up, the sale of significant positions with a lack of understanding and valuing assets engender a domino effect, thus influencing various economic agents. Furthermore, as the central bank does not support shadow banking, the lack of funds to provide will eventually form a shadow banking crisis.

Several vital indicators and influencing determinants play integral parts in the formation of the next boom, bust, and recession. After recognizing the ascending delinquency and unemployment rates during the 2008 GFC, the Federal Open Market Committee's (FOMC) weapon of choice to deal with the decline in the economy was the Expansionary Monetary Policy. By effectively implementing the policy and using financial instruments, particularly the interest

[2] (Financial Stability Board, 2019)
[3] (B and G, 2011)

rate and quantitative easing methods, households and firms were inclined to raise consumption and investments. This was due to the low cost of borrowing and increased supply and circulation of money, mainly credited to large-scale asset, mortgage-backed securities, and government bond purchases by the Fed. However, this optimism was stretched till 2016, when the credit-fuelled economy displayed signs of rising inflation rates escalating from 1.27 percent in 2016 to 2.54 percent in 2018, according to economic statistics site *Statista*.[4] In order to minimize the possibility of an inflationary spiral and its consequences, quantitative tightening, also known as the contractionary fiscal policy, was enforced to lower the price levels. As a result, the interest rate hiked four times during 2018, thus reducing its attractiveness and slowing down business activity.

Secondly, the emergence of financial technology, cybercrime, and the monetization of new cryptocurrencies are the new areas of concern which could potentially hamper the financial stability and spark an economic downturn. However, as cyberspace and trading platforms grow, the volume, value, and sensitivity of information collated and organized increases, with many individuals exposing their data either unintentionally or purposefully for using certain services. Therefore, there exists a high chance of vital data being leaked to unethical groups due to internal and external security breaches, which could be shared without consent among various stakeholders without informing how will it be utilized. With improved accessibility to utilize modern financial technology, thanks to digital transformation, and easier penetration into the payment systems of various sophisticated platforms, cyber spying corrupts the precious data of various economic parties, thus risking the Intellectual Property (IP) and generating financial losses with an approximate range from $ 600 billion to $1 trillion.[5] Although it offers multiple benefits such as reduced capital costs, avoiding third-party participation, and improved efficiency, it is of the utmost importance to take measures to develop a secure network and mitigate cyber risks to prevent cyber espionage, manipulation of financial information, and sparking adverse technological shocks in markets.

In March 2019, KPMG, an accounting and management consulting firm, voiced their concern regarding this matter by outlining the implications, risks, and regulations associated with fintech in a report titled as, "Regulation and supervision of fintech."[6] KPMG highlights that since fintech is a more efficient and modern yet sophisticated approach towards high-risk financial operations and services, many consumers and firms are unaware of its nature and mechanism, hence are not capable or may not possess the skill-set of pinpointing the risks attached with fintech along with developing the

[4] (Duffin, 2019)
[5] (Pham, 2019)
[6] (KPMG, 2019)

methodology to mitigate them. Additionally, the cross-border transactions which take place beyond the framework of the regulatory and standard-setting bodies are receiving increasing attention. Furthermore, in a report published on June 2017, the *Financial Stability Board (FSB)* corroborated similar concerns as well as asserted that the periodic testing and upgrading of various systems is critical for the systematic and sustained operations of fintech, which protect the data and network from several security violations.[7] With the increased dependency and alliance with the services of third-party organizations, the potential risks intensify as well due to the possibilities of a data breach such as an event of system failure, inferior quality of service, poor resilience, or issues surrounding data privacy. Therefore, the FSB has exhibited the dire importance of developing contingency plans to reduce the impact of systems failure and assist with the recovery of operations. Another approach to validate, secure, and utilize the information in the most efficient manner is by conducting Privacy Impact Assessment (PIA) which mitigates the risks associated with technology by a high margin. This is a logical proposition to eliminate chances of privacy invasion on a large scale. Apart from this, the systemic importance of each firm in markets of distinct characteristics, the creation of new financial products, and the exposure to new methods of distributions and use could lead to severe financial misconduct. To quote a working paper released by the IMF, “The threat landscape for MENAP and the CCA countries shows that cyberattacks are increasing in volume, diversity, and complexity.”[8] Consequently, many nations are taking steps in response to alleviate the event and impact of cyberattacks by investing in more secure technology and framework as well as developing and offering educational initiatives to individuals and employees to increase their awareness, understanding, and attends to such threats and situations.

Additionally, since its discovery, the escalating growth of trading cryptocurrencies on a global scale could lead to the development of the next bubble, as its massive availability on numerous portals supports the secure transfer of payments, which is not regulated by a higher authority. If the monetary policies are too rigid and severe, excessive demand for the speculative asset could create an asset bubble, which did burst in 2008 after due to a lack of knowledge and irrational behaviour where everyone followed the same course of action. Considered as an alternative currency, the proliferation of this medium of exchange does have the potential to promote criminal behaviour. In January 2019, *Biditex Exchange*'*s* piece of writing, as cited from the popular publishing platform known as *Medium* discusses the risks of investing and

[7] (Fsb.org, 2017)
[8] (International Monetary Fund (IMF), 2018)

dealing with digital currency in the future.[9] Firstly, since cryptocurrencies are not regulated and supervised by the central banks of nations, a sound policy and framework surrounding various digital and virtual currencies for sectors and subsectors of different scales, platforms, and participants do not exist. Therefore, several issues arise due to the lack of legal recognition and the ambiguous nature of this industry, such as dictating the constitutional principles of transactions, the code of conduct expectations from market participants, the taxation structure present for transaction types, amounts, and platforms, etc. The officials of the US Securities and Exchange Commission (SEC) quoted that many players who practice cryptocurrency trading and investments, do not follow the state laws mediated by the financial regulatory authorities.

Also, in a research paper titled, "Issues and Risks Associated with Cryptocurrencies such as Bitcoin," authored by Félix Brezo and Pablo G. Bringas, the issues addressed above could lead to crimes and , namely tax evasion.[10] Moreover, they assert that virtual currency platforms are often used for money-laundering purposes, were tracking the source, destination, and the amount is close to impossible, thanks to the use of data anonymization software. In another article posted by *The Risk Management Association (RMA)*, the not-for-profit professional organization believes that risks around lack of liquidity and cash crunch exist due to the high transaction costs, low liquidity generating exchange platforms, and the constant trading of currencies, where actors liquidate as quickly as possible.[11] Furthermore, the requirements of leading-edge equipment essential for cryptocurrency mining, trained individuals, the volatility of various coins, the accessibility to such technology in LEDCs, and countless reasons from this emerging market could pose risks to its disruption and jeopardize a part of the financial system.

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[9] (Medium, 2019)
[10] Félix Brezo and Pablo G. Bringas, "Issues and Risks Associated with Cryptocurrencies Such as Bitcoin," in Issues and Risks Associated with Cryptocurrencies Such as Bitcoin (Bisbao, Biscay: IARIA, 2012), pp. 1-7)
[11] (Rmahq.org, n.d.)

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