Dollarization 2.0 a Cryptocurrency: Impact on Traditional Banks and Fiat Currency

Article in International Journal of Academic Research in Business and Social Sciences · June 2018 CITATIONS READS 8 2,586 4 authors: Williams Kwasi Peprah Amos Oppong Afriyie Andrews University Valley View University 84 PUBLICATIONS 271 CITATIONS 4 PUBLICATIONS 20 CITATIONS SEE PROFILE SEE PROFILE Joseph A Abandoh-Sam **Emmanuel Oppong Afriyie** Valley View University Kumasi Technical University 8 PUBLICATIONS 20 CITATIONS 4 PUBLICATIONS 10 CITATIONS SEE PROFILE SEE PROFILE





⊗ www.hrmars.com ISSN: 2222-6990

Dollarization 2.0 a Cryptocurrency: Impact on Traditional Banks and Fiat Currency

Williams Kwasi Peprah, Amos Oppong Afriyie, Joseph A. Abandoh-Sam, Emmanuel Oppong Afriyie

To Link this Article: http://dx.doi.org/10.6007/IJARBSS/v8-i6/4213 DOI: 10.6007/IJARBSS/v8-i6/4213

Received: 01 Feb 2018, **Revised:** 29 May 2018, **Accepted:** 17 June 2018

Published Online: 26 June 2018

In-Text Citation: (Peprah, Afriyie, Abandoh-Sam, & Afriyie, 2018)

To Cite this Article: Peprah, W. K., Afriyie, A. O., Abandoh-Sam, J. A., & Afriyie, E. O. (2018). Dollarization 2.0 a Cryptocurrency: Impact on Traditional Banks and Fiat Currency. *International Journal of Academic Research in Business and Social Sciences*, 8(6), 341–349.

Copyright: © 2018 The Author(s)

Published by Human Resource Management Academic Research Society (www.hrmars.com)

This article is published under the Creative Commons Attribution (CC BY 4.0) license. Anyone may reproduce, distribute, translate and create derivative works of this article (for both commercial and non-commercial purposes), subject to full attribution to the original publication and authors. The full terms of this license may be seen at: http://creativecommons.org/licences/by/4.0/legalcode

t. http://creativecommons.org/ncences/by/4.o/legalcode

Vol. 8, No. 6, June 2018, Pg. 341 - 349

http://hrmars.com/index.php/pages/detail/IJARBSS

JOURNAL HOMEPAGE

Full Terms & Conditions of access and use can be found at http://hrmars.com/index.php/pages/detail/publication-ethics





⊗ www.hrmars.com ISSN: 2222-6990

Dollarization 2.0 a Cryptocurrency: Impact on Traditional Banks and Fiat Currency

Williams Kwasi Peprah

Lecturer at School of Business, Valley View University, Kumasi Campus - Ghana Email: williams.peprah@vvu.edu.gh

Amos Oppong Afriyie, PhD

Lecturer at School of Business Valley View University, Kumasi Campus - Ghana Email: aoafriyie@vvu.edu.gh

Joseph A. Abandoh-Sam

Lecturer at Computing Sciences and Engineering, Valley View University
Oyibi, Accra - Ghana
Email: abandoh@vvu.edu.gh

Emmanuel Oppong Afriyie

Lecturer at Information Technology Department, Valley View University

Techiman - Ghana

Email: eoafriyie@vvu.edu.gh

Abstract

Globalization aided by the internet has now come to stay, which has brought in cryptocurrency to support local and international financial transactions. This qualitative study used content analysis research techniques to assess the impact of cryptocurrency on traditional banking and fiat currency. The findings of this study were, firstly cryptocurrency has similar features and function of banks and fiat currency, as it operates through the internet. Secondly, cryptocurrency functions as a unit of account, medium of exchange, store of value and an intermediary on fund accumulation and distribution. Thirdly, cryptocurrency which is dollarization 2.0 has come to restore the confidence and convenience of financial globalization in that it eliminates the third party from interfering with the transactional process. Lastly, its influence on central banks and governments is the elimination of seigniorage. What cryptocurrency requires now is the legal tender status through regulations.

Keywords: Currency, Cryptocurrency, Dollarization, Dollarization 2.0

Vol. 8, No. 6, May 2018, E-ISSN: 2222-6990 © 2018 HRMARS

Background of the Study

It has become official that globalization via the internet now has its currency to aid financial transactions. The internet has been noted to be the most significant avenue for the promotion of globalization (Borcuch, Pilat-Borcuch & Swierczynska-KAczor, 2012) and the cryptocurrency acceptance will soon equate the usage of the internet (Innopay, Boersma, Burgers, Hurjstee & Rood, 2014). The concept of cryptocurrency poses a challenge to the financial system. Hence this challenge needs to be overcome for all to adapt to it freely.

At the recent conference organized by the Central Bank of England, the chief of the International Monetary Fund (IMF) Christine Lagarde (2017) spoke on the topic 'Central Banking and Fintech a brave new world?'. She noted that the cryptocurrencies would soon be safer and easier to use globally than the paper bill and as a result, she mentioned cryptocurrencies as dollarization 2.0. She emphasized that cryptocurrencies threaten the existence of bank, central bank regulation of the industry and the dollar currency as a haven. In 2014, Dourado and Brito research study concluded that a further investigation is required to address the influence of the cryptocurrency on governance and currency in that the cryptocurrency is tradable for fiat currency. Now that the central banks are noting its global adaptation and the public interest to use it, it is in the interest of Government agency to work around the clock to see its legality.

It is upon this premises that this study investigates the impact of the cryptocurrency on the banking systems and currencies in general. The organization of this study is a literature review on the cryptocurrency, dollarization verse dollarization 2.0. It will conclude with a discussion and recommendation on cryptocurrency impact on traditional banking and currency.

The Statement of Problem

The curiosity of this study is to address the idea of the free range of cryptocurrency without regulation and its influence on fiat currency and banking. However, if the central bank is not up to the task to control cryptocurrency then as internet gives common room for business, humanity will find any other medium to satisfy their needs. Hence the onus rests with the governments, central banks, and private banks to put in place measures to take care of this panic. Motsi-Omoijiade (2017) has also noted this same problem of lack of and need for cryptocurrency regulation and its related intermediation activities amidst high volatility of its purchasing power (Harwick, 2016).

Literature Review

After the economic crisis of 2008, the dollar devalued, and this brought a lot of macroeconomics instability among nations who used the US dollar as their haven (Verick & Islam, 2010). Eichengreen and Flandreau (2012) have noted that in the 1910s and 1920s the United States of America (USA) government promoted the dollar as the international currency and the great recession caused people to lose confidence in the US Dollar.

This phenomenon was part of the reasons why Satoshi Nakamoto's introduction of the cryptocurrency in 2009. The cryptocurrency that Nakamoto (2008) developed was an electronic cash system which was peer to peer that eliminated the interference of a third party called the

Vol. 8, No. 6, May 2018, E-ISSN: 2222-6990 © 2018 HRMARS

clearinghouse. It was based on a decentralized network and the use of encryption keys to aid in removing fraudulent transactions (Heid, n.d and Farell, 2015). CFA Institute (2014) denoted the cryptocurrency as a computer-generated currency which does not depend on any central authority to track, verify and record the transactions where ownership of proof is known and prevent double sent transactions. PricewaterhouseCoopers (PWC) 2015) has also stated that the cryptocurrency is "a medium of exchange created and stored electronically, using encryption techniques to control the creation of monetary units and to verify the transfer of funds" p.2. PWC further noted the unique features of the cryptocurrency to include no intrinsic value, no physical form, no legal tender and it is a decentralized network with no third party involvement.

According to Evans (2015) initially, to obtain the cryptocurrency, it required mining. This process is algorithm processing on the internet which is costly in that it requires the high use of energy and computing power. It is the algorithm which has prevented it from being manipulated due to the blockchain community as a decentralized virtual currency. The sustainability of the cryptocurrency relies on the internet. Evans (2015) indicated the current use of the cryptocurrency to include providing globalized electronic transactions, an alternative store of value or wealth instead of the USD, an investment and intermediate trading currency. These unique features are what make cryptocurrency, dollarization 2.0.

Dollarization by Nicolo, Honoham & Ize, (2003), is the term used when a country accepts another country's currency as legal tender. However, Winkler, Mazzaferro, Nerlich, and Thimann, (2004) and Edwards and Magendzo (2001) have asserted that dollarization is accepting the US dollar as a country's legal tender. Countries accept the dollar for legal trade because of its high value and low depreciation. At the moment, due to the "great recession," the dollar has lost this feature of instilling confidence and convenience (Chey, 2013). Therefore, dollarization 2.0 which is cryptocurrency is the Internet-based currency which transaction is peer to peer, decentralized and has no legal tender that has come to restore the lost confidence and convenience of the paper dollar or currencies. Convenience relates to the liquidity and the transactional network and confidence link to the fiscal and monetary policy. The time has come to see the world as one globe which requires a single economical and international currency which is cryptocurrency or dollarization 2.0. The cryptocurrency is in several forms and based on market capitalization Chan, Chu, Nadarajah and Osterrieder (2017) statistical study has notably mentioned Bitcoin, Litecoin, Dash, MaidSafecoin, Monero, Dogcoins, and Ripple.

Objective and Methodology Objective

The focus of this study is to:

- a. Determine the impact of cryptocurrency on banks and fiat currency.
- b. Promote regulation of all cryptocurrency activities.

Methodology

This study is a qualitative research, and the researchers adopted content analysis technique. The content analysis research design is used to make inferences from documents and observations

Vol. 8, No. 6, May 2018, E-ISSN: 2222-6990 © 2018 HRMARS

of texts (Kothari and Garg, 2014) on cryptocurrency websites and comparing them to the various write-ups on functions of banking and fiat currency.

Discussion of Finding

Fiat Currency versus Cryptocurrency

According to Chey (2013) fiat currency has both political and economic power. The worth of fiat money is a consequent of the relationship between supply and demand and not the worth of the material used to make money. It has an assigned value only because the government uses its power to enforce the value of a fiat currency. Many throughout the financial industry had thought bank regulators had removed the threat of recessions, but the mortgage crisis of 2007 and ensuing financial meltdown quickly tempered this belief. A currency tied to gold is more stable than fiat money due to the limited supply of gold. If the gold that was used was better than the fiat currency then, people will be willing to adopt the form of currency that they think will satisfy their intended need. Hence when the mortgage crisis of 2007 brought financial meltdown, cryptocurrency was ushered in to take care of the vacuum.

The introduction of cryptocurrency elimination of the third party legal tender is defusing these powers. Cryptocurrencies through the internet are going beyond boundaries. The functions of international currency are a unit of accounts in denominating international economic transactions and peg currencies', a medium of exchange in setting economic transactions and a store of value for investment assets and reserve currency (Rogoff, 2014). At the moment, the cryptocurrency is seen to perform these functions.

Cryptocurrency is a store of value and medium of exchange and a unit of accounts. Faggart (2015) has reported how the citizens of Cyprus moved their paper currency to cryptocurrency upon their government declaration to tap into individual accounts; the collapse of Greece economy also witnessed their citizen storing their funds in cryptocurrency. Also in China where even cryptocurrency bureau existed in exchange for fiat currency until recently closed down by the Chinese government. Physical merchants and online mall have started to accept the cryptocurrency for financial transactions (PWC, 2015). The distinction between fiat currency and cryptocurrency is whereas international currency has legal tender, cryptocurrency does not. Cryptocurrency is functioning now as a global sovereign currency and addresses the deficiencies of issuing fiat and gold-based currencies (Yermack, 2013). Thus Governments, educational institutes, high tech companies, corporations and millions of businesses utilize it to run their online presence.

Banks versus Cryptocurrency

Werner (2014) has asserted that banks have both primary and secondary functions. Cryptocurrency has been noted to perform the same primary functions of a bank. The function is to serve as an intermediary on fund accumulation and distribution. Cryptocurrency is also

Vol. 8, No. 6, May 2018, E-ISSN: 2222-6990 © 2018 HRMARS

providing the same middle role and more importantly excluding a clearinghouse supervision of each transaction.

As the internet becomes universal, depositors will find cryptocurrency convenient and confident to provide intermediation function. It will cause banks to only focus on their secondary functions for survival. Cryptocurrency impact on central banks and governments is the elimination of seigniorage as there is no government issuance of fiat currency. Seigniorage is the benefit a country derives from issuing international currency, and it is determined by the difference between the face value and the cost of production of the currency held by a foreigner (Chey, 2013).

A larger drive by central banks to dematerialize money has been ongoing since long before the advent of cryptocurrencies. It can be said that the technology is emboldening central bank attempts to issue digital money. According to Hileman and Rauchs (2017), 79% of cryptocurrency payment firms have established some relationship with banking institutions, but the difficulty in obtaining and maintaining this relationship is challenging due to competition.

Recommendation and Conclusion

Cryptocurrency has changed financial globalization which is the movement of financial activities among countries, institutions, and people. What is being called for now is putting regulation in place to guide and protect cryptocurrency developers and users on financial security, commercial contracts, trusts and estate laws and protections of consumers (Matsuura, 2016). Cryptocurrency requires both de jure and de facto financial globalization. De jure financial globalization will relate to restricting, regulating and controlling whereas de facto is to regulating cross-marketing, capital investment and arbitrage (Yeyati, Williams & 2014).

Innopay, et al. (2014) has noted that "some entrepreneurs are waiting for 'regulation' and acceptance by banks, banks are also waiting for 'regulation' and regulators are waiting for 'the market" p.9. The concern for regulation has become high in that, upon regulation cryptocurrency will obtain its legal tender. The challenges of cryptocurrency have to be its probability of permitting fraud, money laundering, aiding gambling, purchase of unwanted goods, and evasion of tax (Evans, 2015 and Yermack, 2013). These same problems exist in traditional banking and the international banking. Regulators have established the Basel Committee on Banks Supervision to recommend international regulations to address the market risk, capital risk, and operational risk. CFA Institute (2014) has reported that New York Department of financial service has been regulating participants in cryptocurrency transactions to keep records and customer details. Hileman and Rauchs (2017) study asserted that formal government licenses are obtained by 52% small cryptocurrency exchanges as compared to 35% of big exchanges. In conclusion, it is time for governments to step in with regulation for all cryptocurrency activities. In an empiral study by Seetharama, Saravanan, Patwa and Mehta (2017) at Asia Pacific region using structural equation model, noted that there was a good fit for regulating cryptocurrency as related to technology, economy and paper currency. Pflaum and Hateley (2014) study of virtual or digital currency problems for national and international intermediation supported regulation.

Vol. 8, No. 6, May 2018, E-ISSN: 2222-6990 © 2018 HRMARS

References

Borcuch, A., Pilat-Borcuch, M., & Swierczynska-Kaczor (2012). The influence of the internet on globalization process. *Journal of Economics and Business Research*, 18(1), 118-129.

CFA Institute (2014). Crypto-currencies intellectual curiosity or the future of finance? Retrieved from:

https://www.cfainstitute.org/ethics/Documents/Digital%20Currencies%20Policy%20Brief.pdf

Chan, S., Chu, J., Nadarajah, S., & Osterrieder, J. (2017). A statistical analysis of cryptocurrencies. *Journal of Risk and Financial Management*, 10, 12, 2-23; doi: 10.3390/jrfm10020012.

Chey, H. (2013). The concepts, consequences and determinants of currencies internationalization. GRIPS Discussion Paper, 13-03. National Graduate Institute of Policy Studies, Tokyo, Japan. Retrieved from http://www.grips.ac.jp/r-center/wp-content/uploads/13-03.pdf

Dourado, E. & Brito, J. (2014). Cryptocurrency. *The New Palgrave Dictionary of Economics Online*, 1-10. doi:10.1057/9780230226203.3924

Eichengreen, B. & Flandreau, M. (2012). The Federal Reserve, The bank of England, and the rise of the dollar as an international currency, 1914-1939. *Open Economies Review*, 23(1), 57-87. Retrieved from: https://www.bis.org/publ/work328.pdf

Edwards, S. & Magendzo, I. I. (2001). Dollarization, inflation and growth. Retrieved from: http://www.anderson.ucla.edu/faculty/sebastian.edwards/MATCH_DOLLAR4.pdf

Evans, C. (2015). Cryptocurrency has its time come? Retrieved from: https://www.capgemini.com/resources/cryptocurrency-has-its-time-come/

Faggart, E. (2015). What will happen to Bitcoin when the economy goes bust? Retrieved from: http://insidebitcoins.com/news/what-will-happen-to-bitcoin-when-the-economy-goes-bust/35243

Farell, R. (2015). An Analysis of the cryptocurrency industry. Retrieved from: https://repository.upenn.edu/cgi/viewcontent.cgi?article=1133&context=wharton_research_sc holars

Harwich, C. (2016). Cryptocurrency and problem of intermediation. *Independent Review, 20(4), 1-19;* doi.org/10.2139/ssrn.2523771

Heid, A. (n,d). Analysis of cryptocurrency marketplace. Retrieved from: https://bravenewcoin.com/assets/Whitepapers/HackMiami-Analysis-of-the-Cryptocurrency-Marketplace.pdf

Vol. 8, No. 6, May 2018, E-ISSN: 2222-6990 © 2018 HRMARS

Hileman, G. & Rauchs, M. (2017). Global cryptocurrency benchmarking study. University of Cambridge, Judge Business School. Retrieved from:

https://www.jbs.cam.ac.uk/fileadmin/user_upload/research/centres/alternative-finance/downloads/2017-global-cryptocurrency-benchmarking-study.pdf

Innopay, Boersma, J., Burgers, G., Hurjstee, J.V. & Rood, M. (2014). Cryptocurrencies exploring a revolutionary technology. Retrieved from: https://www.innopay.com/blog/cryptocurrency-exploring-a-revolutionary-technology/

Kothari, C.R. and Garg, G. (2014). Research Methodology: Methods and Techniques. (Third Edition). New Delhi: New Age Publishers.

Lagarde, C. (2017). Central banking and fintech – a brave new world? Bank of England Conference. Retrieved from: https://www.imf.org/en/News/Articles/2017/09/28/sp092917-central-banking-and-fintech-a-brave-new-world

Matsuura, J.H. (2016). Digital currency: an international legal and regulatory compliance guide. Sharjah: *Betham Science Publishers Ltd*.

Motsi-Omoijiade, I. D. (2017). Financial Intermediation in Cryptocurrency Markets – Regulation, Gaps and Bridges. In Handbook of Blockchain, Digital Finance, and Inclusion, 1, 207-223;doi.org/10.1016/B978-0-12-810441-5.00009-9.

Nakamoto, S. (2008). Bitcoin: a peer-to-peer electronic cash system. Retrieved from: https://bitcoin.org/bitcoin.pdf

Pflaum, I. & Hateley, E. (2014). A Bit of a problem: national and extraterritorial regulation of virtual currency in the age of financial disintermediation. *Georgetown Journal of International Law, 45,1169 -1215.*

PWC (2015). Money is no object: understanding the evolving cryptocurrency market. Retrieve from: https://bravenewcoin.com/assets/Industry-Reports-2015/pwc-cryptocurrency-evolution.pdf

Rogoff, K. S. (2014, December). Costs and Benefits to Phasing Out Paper Currency. In Volume 29 of NBER Macroeconomics Annual 2014, ed. Jonathan Parker and Michael Woodford. Chicago: University of Chicago Press. doi:10.3386/w20126

Seetharama, A., Saravanan, A.S., Patwa, N. & Mehta, J. (2017). Impact of bitcoin as a world currency. *Accounting and Finance Research*, 6(2), 230-246; doi:10.5430/afr.v6n2p230

Vol. 8, No. 6, May 2018, E-ISSN: 2222-6990 © 2018 HRMARS

Verick, S. & Islam, I. (2010, May). The great recession of 2008-2009 courses, consequences and policy responses. Discussion Paper No. 4934. Forschungsinstitut zur Zukunft der Arbeit Institute for the Study of Labor, Bonn, Germany. Retrieved From: http://ftp.iza.org/dp4934.pdf

Werner, R.A. (2014). Can banks individually create money out of nothing? The theories and empirical evidence. *International Review of Financial Analysis*, 36, 1-19; doi: org./10.1016/j.irfa.2014.07.015

Winkler, A., Mazzaferro, F., Nerlich, C. & Thimann, C. (2004). Official dollarization/euroisation motives, features, and policy implications of current cases. Occasional paper series No. 11. Retrieved from: https://www.ecb.europa.eu/pub/pdf/scpops/ecbocp11.pdf

Yermack, D. (2013, December). Is Bitcoin a real currency? NBER Working Paper No. 19747. National Bureau of Economic Research, Cambridge, USA. Retrieved from: http://www.nber.org/papers/w19747

Yeyati, E. L., Williams, T. (2014). Financial globalization in emerging economics: much ado about nothing? Latin America Initiative at Brookings. *Economia*, 14(2), 91-31.