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AN INSIGHT INTO BANK'S MONEY CREATION AND THE WAY FORWARD

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ABSTRACT

The discussions on money creation by conventional banks are well documented in all elementary economics textbooks. Money creation occurs in various ways as literatures recorded. Empirical study has also been conducted to record bank's money creation via fictitious deposits enabled by accounting treatment. The rise of Islamic banking which is riding on the same platform as conventional banks poses another challenge to the Islamicity of Islamic banking products in particular its consumer financing products. In this study the author revisits the discussion on money creation, including the latest understanding on how money is created in reality. Through documents analysis money creation process is examined and the author establishes that the process of money creation by banks has changed and has resulted in inflation and a form of legalised theft. The author proposes that further empirical studies be conducted at Islamic banks to ensure that such mechanism is avoided. At the end of the article, the author suggests a number of solutions.

Keywords: Credit creation, money creation, Islamic banks, accounting.

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1.0 INTRODUCTION

The discussion on bank's money creation has been reopened with the shocking revelation by the Bank of England in their March 2014 Quarterly Bulletin which states:

> *"Whenever a bank makes a loan, it simultaneously creates a matching deposit in the borrower's bank account, thereby creating new money."*

The above admission by the Bank of England, one of the most authoritative sources on banking, has renewed the controversy around money or credit creation by banking industry. In the same bulletin the authors exert that banks' universally accepted role as intermediaries is a misconception. In reality banks do not lend out depositors' money in the form of loans as understood and believed by many. In other words, what the Bank of England argues that banks do not act as intermediaries as taught in majority of economics textbooks and understood by many. This has significant brunt on the operation model of banking industry which is moulded on banking financial intermediation theory (Werner, 2014).

The author would like to highlight the Bank's discovery on the misconception of how banks' deposits are created. Bank of England argues that every time a commercial bank approves a loan, the bank concurrently creates a matching deposit in the borrower's bank account and by that creating new money out of thin air. This process of money creation contradicts with the explanation documented in some economic textbooks. In other words, how bank creates money in practical is not the same as how it is described in the textbooks.

Bank's ability to create money has also been blamed for series of financial crisis. In November 2012, Adair Turner, the chairman of the UK's Financial Services Authority, member of the Bank of England's Financial Policy Committee, spoke on the fundamental cause of the financial crisis in his speech to the South African Reserve Bank:

> *"The financial crisis of 2007/08 occurred because we failed to constrain the private financial system's creation of private credit and money."*

The statement by one of the most respected and influential industry player shocks many and provides sufficient evident for the issue of credit and money creation to be examined. It is an honest admission by Sir Adair Turner that it is a fundamental matter.

The above are just some examples of discussion on money creation. The researcher will deliberate further on more literatures. Such compelling evidence has motivated the author to further investigate the issue with the objective to gain a valuable insight and eventually offer suggestions so that such mechanism is avoided.

2.0 LITERATURES ON MONEY CREATION

Discourse on bank's money creation is mixed with some quarters supporting it and the other opposing it. Some authors assert that to ensure the smooth operation of economy, banks need to create money. For example, Taylor (2009a), cited by O'Connell (2007), sees the Federal Reserve program of quantitative easing as indicating that the projected fiscal deficits will be financed by money creation. Yiming Hu, Siqi Li, Thomas W. Lin and Shilei Xie, (2011), study on "Large creditors and corporate governance: the case of Chinese banks" revealed the state-owned enterprises (SOEs), in particular, have long been supported financially by the government with cheap credit through the state banking system and money creation (Brandt and Zhu, 1995). Ünalmış (2015), also assume that primary budget deficit is financed by domestic and foreign borrowing and money creation.

On the contrary, in addition to the authors mentioned in the opening for the article, other authors have also criticised the authority granted to banking industry to create money. Bagus and Howden (2013) and Smirna's (2015) found a link between financial crisis and bank's money creation. Bagus et al. (2013) and Smirna (2015) link fractional reserve banking (FRB) system with the crisis and Werner (2014) established that FRB system results in bank's money creation. Bagus et al. (2013) asserted that the foundation of the modern banking system – the holding of fractional reserves against deposits – is also problematic from economic, legal and ethical angles. Smirna (2015), citing Mises (1980), in referring to past financial crises, convinced that fractional reserve banking which is inherently unstable tends to be revealed with the occurrence of each crisis. Banks that lend out money contracted on demand from clients, or banks that issue more money substitutes than reserves available, put themselves in a position of impossibility to redeem part of their obligations.

Banks' money creation has also caught the attention of a British law maker who has raised the matter during a parliamentary debate. In the debate Meacher (2014), argued that the money creation mechanism has been abused by the banking industry. He explained the banking industry decides who uses that wealth and for what purpose and they have used their power of credit creation hugely to favour property and consumption lending over business investment because the returns are higher and more secure. Thus, the banks maximise their own interests but not the national interest.

In the introduction, the researcher has presented a statement from the industry i.e. Bank of England. Below are some remarks by well-known figures from the banking industry in verbatim.

"The key function of banks is money creation, not intermediation."

Michael Kumhof, Deputy Division Chief,

International Monetary Fund

When banks extend loans to their customer, they create money by crediting their customers' accounts."

Sir Mervyn King, the Governor of the Bank of England from 2003-2013

"The banks do create money. They have been doing it for a long time, but they didn't realise it, and they did not admit it. Very few did. You will find it in all sorts of documents, financial textbooks, etc. But in the intervening years, and we must be perfectly frank about these things, there has been a development of thought, until today I doubt very much whether you would get many prominent bankers to attempt to deny that banks create it."

H W White, Chairman of the Associated Banks of New Zealand,
New Zealand Monetary Commission, 1955.

The above statements by individuals, whose credentials are unarguable, left important hallmarks to many. In addition to the above disclosure, several authors have recorded literatures on money creation by banking industry. They include Crick (1927), Laidler (1998), Werner (2005), Mouatt (2008), Meera and Larbani (2009), Tlemsani and Suwaidi (2016), Oberholster (2010), Turner (2013), Standard and Poor's (2013), Werner (2014a, 2014b), Jakab and Kumhof (2015), Öncü (2015) and Arfah et al. (2015).

Crick (1927), as quoted by Werner (2015), argued that banking system as a whole can create credit and money. However, in doing so, without denying the fact that banking system does create credit and money, he assured that the process is under control due to its diffusing nature hence has less direct economic impact. Hawtrey (1929), quoted Laidler (1998), supported Crick (1927)'s analysis that the process did not lead to an adverse impact but further established that the process is a necessity as government expenditures would be insufficient to combat unemployment, unless financed by money creation. Viewed from economic perspective Mouatt (2008) pointed that the post-Keynesians have emphasized that money creation is credit-driven by consumers and producers. His analysis concluded that the concept of deposits creation and destruction by the private banking infrastructure is an integral element of these schools of thought. This includes the idea that money is "created out of nothing" with little or no government regulation. Tlemsani and Suwaidi (2016) warned in debt based lending, money creation may lead to oversupply of money as there is no direct linkage between additional production and additional money supply. Oberholster (2010), referring to money creation by Central Bank, asserted that the money created is based unfunded monetary credit.

In brief banks do create money but the process of money creation remains muddled and need further elaboration. Before the researcher deliberates on money creation process, it is vital that the understanding of modern money is clarified. In the following passage, the author will demonstrate various form of modern money.

3.0 MONEY, CURRENCY, DEPOSIT, BANK CREDIT, LOAN AND DEBT

Many of us refer money as the physical printed notes and coins which are used to settle our daily transactions. But the term money, to the economy and banking industry, has wider interpretation. In the discussion of money creation, it is important to understand the meaning of money, currency, deposit, bank credit, loan and debt. This is because the terms bank credit and currency have been grouped together and used interchangeably as money. As a result, the true essence of bank credit becomes bewildered (Arfah and Borges, 2015). The failure to comprehend this issue results in blurred understanding of the matter.

The Bank of England (Arfah et al., 2015; Investopedia, 2016) clarified that money can be in the form of currency, bank deposits and central bank reserves and highlighted that most money circulated in the economy are in the form of bank deposits. Miller and Van Hoose (2001) refer currency as coins and paper money. Currency may also be in the form of cryptocurrencies, bitcoin, dogecoin and other online currencies (Investopedia, 2016).

Malaysia's Financial Services Act 2013 (FSA 2013) defined "deposit":

> "A sum of *money* accepted or paid on terms under which it will be repaid in full, with or without interest or any other consideration in money or money's worth, either on demand or at a time or in circumstances agreed by or on behalf of the person making the payment and the person accepting it, but excludes money"

In brief, from the above definition both currency and bank deposit are also referred to as money. Such practice has clouded the true nature of money of which one important element is having an intrinsic value. Even when the issue of money creation is discussed, money creation is understood as the creation of physical notes and coins. In this discussion, money creation refers to the creation of currency, bank credits and bank deposits.

4.0 VARIOUS WAYS OF MONEY CREATION PROCESS

Literatures that the author reviews indicate various forms of money creation. They are:

- Money creation by central banks
- Money creation by commercial banking industry
- Money creation by individual banks via fictitious deposit

Understanding the above money creation process is important to ensure that viable solution can be proposed. The above is discussed below under separate paragraphs.

4.1 Money Creation by Central Banks

As the bank for government central bank is authorised to create money (Oberholster, 2010; Bank of England, 2014). The power to create money is a tool for central banks as a temporary monetary stimulation or as a permanent monetary stimulation. Central banks will create money as a way to control the country's interest rates (Oberholster, 2010). Money creation by central banks is illustrated in the diagram below (Oberholster,2010):

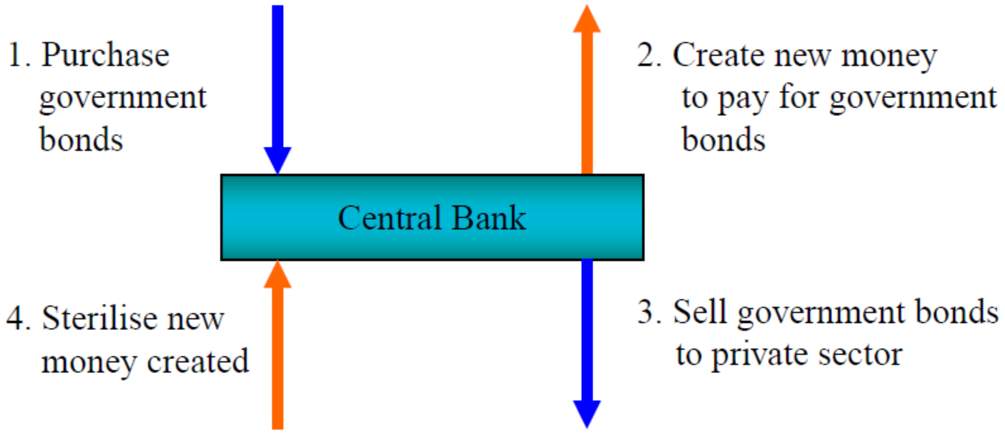

Figure 1: Money creation by central banks.

Source: Oberholster (2010).

Step 1: Central banks buy government bonds;

Step 2: Since Central bank does not have money to pay for the bonds, the Central Bank creates new money to pay for the bond;

Step 3: The Central bank then sells the government bonds to the private sector.

Step 4: The Central Bank receives actual payment for the government bonds and uses the money to eliminate the money created under (Step 2).

This way of money creation is also known as quantitative easing (QE). It is a method of how Central bank injects money directly into the economy to boost the economy (Bank of England, 2014).

4.2 Money Creation by Commercial Banking Industry

Majority of economic textbooks explain money creation in this manner (Bank of England, 2014). Melvin and Boyes (2011), admitted that banks create money by lending money. As banks' core business is lending and by lending banks create money, there is no issue whether or not banks do not choose to create money. They also confirm that banks lend out a portion of the deposits to earn interest. A fraction of the deposits is kept as reserve to meet withdrawal requests. Banks' money creation is discussed with the explanation on the required reserves which are imposed by the central bank (Federal Reserve). Melvin and Boyes (2011) explain money creation process starts with a total deposit of $1,000,000 at First National Bank. With required reserves is 10%, the bank must keep $100,000 (10% x $1,000,000). They show the balance sheet of First National Bank as follows:

Table 1: First National Bank

Assets		Liabilities	
Cash	$100,000	Liabilities	$1,000,000
Loans	900,000		
Total	**$1,000,000**	**Total**	**$1,000,000**

Source: Melvin and Boyes (2011).

Assuming that the bank receives a new deposit of $100,000, the balance sheet of the bank will depict as follows:

Table 2: First National Bank Balance after $100,000 Deposit

First National Bank

Assets		Liabilities	
Cash	$200,000	Liabilities	$1,100,000
Loans	900,000		
Total	**$1,100,000**	**Total**	**$1,100,000**

Source: Melvin and Boyes (2011).

The bank's required reserves are now $110,000 (10% x $1,100,000) and subsequently the amount that the bank can lend out is $90,000 ($200,000 - $110,000).

Melvin et al. (2011) also discuss the impact of bank's lending to the country's money supply. Supposing that the bank lends out $90,000 to Mr. A who deposited the money into borrower's First National Bank, Melvin et al. (2011) exert that First National Bank's lending of $90,000 has increased the country's money supply by the same amount.

In brief other economic textbooks such as Vengedasalam and Madhavan (2013), Parkin (2008), Borges (2016) agreed with the above explanation and conclude the following formula:

$$\text{Cash Ratio} = \frac{\text{Cash Reserve x 100\%}}{\text{Initial Deposit}}$$

$$\text{Total Credit Creation} = \frac{1}{\text{Cash ratio}} \text{ x Initial loan}$$

Using the above formula an initial deposit of $ 10,000 allows banks as a whole to create money as below:

Total Credit/Money Creation = $ 10,000 x 1/0.01 = $ 1,000,000

The above explanation on money creation occurs under the fractional reserve banking system. Warner (2014), argued that the above money creation process cannot take place without unique accounting treatment approved for the banking industry. He also demonstrated that individual banks are allowed to create money whenever they approve loan applications as discussed below.

4.3 Money Creation by Individual Commercial Banks via Fictitious Deposit

Werner (2005), pointed that bank credit creation as 'creative accounting'. He argues that commercial banks do not lend out customers' deposits. Using their positions as the settlement system for all transactions in the economy, commercial banks simply enter the figures equalling the amount of loan approved and this is made legal with the accounting treatment that allow commercial banks to do so.

Realising the vital role of accounting standards on money creation process by commercial banking sector, Werner conducted a series of research into the issue and in the process, he traced the accountant's role in money creation which is also highlighted by Withers (1909), the editor of the Economist from 1916 to 1921, who referred money held by banks as book-keeping credits:

> "Most of the money that is stored by the community in the banks consists of book-keeping credits lent to it by its bankers."

In his analysis on bank's accounting role, Werner (2014), asserted that the implementation of banking services relies heavily on accounting and offered Joseph Schumpeter (1917/18)'s insight that banking is primarily accounting, and that banks are the 'bookkeeping centre' of the economy and act as its 'social accountants' (1934, p. 124). He also quoted Stiglitz and Weiss (1989) who agreed with Schumpeter that banks are operating 'society's accounting system'. Hence he deduced that this ability of banks is likely derived from the operational, that is, accounting conventions and regulations of banking. Ironically this accounting conventions are accorded to banking sector only and non-banking sector are not accorded with such accounting standards thus empowering banking sector the sole authority to create money.

Further readings on the works of Werner (2014) provides a simple understanding of how banks create money out of thin air by the magic of accounting entries on loan disbursement. He illustrated that when bank approves a loan application, the balance sheet of the banks looks like Table 3.

Table 3: The balance sheet of the banks (Werner, 2014)

BANK			
ASSET			LIABILITIES
Loan	+ 1000	Account Payable	+ 1000
	+ 1000		+ 1000

As shown in the above, when a bank approves a loan application, before the fund is disbursed to the lender, the bank's balance will record an increase in loan by the amount approved (in the above + 1000 for simplistic reason) on the asset side (loan is considered as asset to the bank) and its double entry will show an increase of the same amount (+ 1000) on the liability side recorded as 'Account Payable'.

Table 4: Creating fictitious deposit (Werner, 2014)

BANK			
ASSET			**LIABILITIES**
Loan	**+ 1000**	**Account Payable**	**0**
		Client Deposit	**+ 1000**
	+ 1000		**+ 1000**

Having disbursing the fund to the borrower, logically there should be a reduction in the bank's cash or reserve since the money has been given to the borrower. Amazingly, that does not happen. What the bank do is simply reclassifying 'Account Payable' into 'Client Deposit' with the same amount (+ 1000) as shown in Table 4 hence creating fictitious deposit (Werner, 2014).

Note that the term used to describe the process is "money creation from thin air". Etymologically, the term "creation" refers to the act of bringing something into existence from non-existence i.e. exactly the process undertaken by banks. Similarly, the term "fictitious" who means imaginary aptly describe the phenomena.

5.0 IMPACT OF MONEY CREATION

In the earlier paragraph the author has mentioned that bank's money creation has resulted in a significant increase of money supply in the economy (Melvin et al., 2011). At the point banks are disbursing 'money' to borrowers; they need to match the 'fund' to be disbursed to the borrower. This is done by creating fictitious deposit instead of lending the bank's own reserve. These fictitious deposits are counted as money supply in the economy leading to the debasement of the value of real money circulating in the economy which is owned by the mass. As a result, the value of printed money in circulation is diminishing. Such modus operandi grants banking industry the authority to take away the purchasing power from those who hold physical cash to the banking industry (Meera et al., 2009).

In short, this scenario is called inflation i.e. too much money chasing few goods (Positive Money, 2015; Leithner, 2011; Al-Haddad and Eldiwany, 2008; El Diwany, 2007; Tomlinson, 2003; Sudeley, 1999; Rowbotham, 1998). To make the matter worst, the people with hard earned cash money are unaware that their purchasing power is stolen every time banks disburse loan. Their ability to own an asset has been forcefully taken away. This can be construed as legalized institutional theft and it is a form of injustice (Naqvi, 2015; Meera et al., 2009).

6.0 THE WAY FORWARD

In the earlier paragraphs, the author has investigated on diverse forms of money creation as narrated in numerous literatures from numerous sources including textbooks, journals and industry experts. The finding pointing towards individual commercial banks do create money every time loans are approved and central banks can create money if necessary. The findings are from studies conducted only on conventional banks.

Considering the damaging impact of bank's money creation, the researcher suggests a number of ways out as below.

- **100% reserve (Full reserve) banking**

  Money creation mechanism is employed under the Fractional Reserve Banking model whereby banks are required by law to keep a fraction of its deposits and can only lend out the balance of the deposits. 100% reserve banking or Full Reserve Banking separates deposits from debt obligations hence a bank can no longer create money in the form of demand deposits (Askari and Krichene, 2016). This banking model is implementable as it has been practiced by the Bank of Amsterdam (1609), the Bank of Hamburg (1619), the Postal System, and other 100 percent depository institutions that restricted their business to purely safe depository and transfer functions.

- **Accounting treatment – based on substance**

  Money creation mechanism that allows bank to create money is the accounting treatment accorded to banks whereby fictitious deposits are recognised by the accounting body. The only way for this mechanism be ceased is by urging the accounting body to establish accounting standards that do not recognise such fake transaction. This can be done if the accounting standard for such transaction is based on substance instead of its legal form. This was suggested by Arfah and Borges (2015) in their article published Malaysia Institute of Accountants.

7.0 CONCLUSION

Money creation by banking industry is a significant feature of modern banking system. Having said that, such mechanism must be stopped as the impact is enormous to the society. The rise of Islamic banking riding on the same platform of conventional banking post gigantic challenges to the Islamic banking fraternity. Empirical studies must be conducted at Islamic banks with the objective to establish whether or not Islamic banks create money in the same way conventional banks do.

REFERENCES

Arfah, S. and Borges, W. G. (2015). Accounting Treatment of Bank Credit Creation: An Impersonation of Reality. *Accountants Today*. Part 1. p. 56-62.

Askari, H. and Krichene, N. (2016). 100 Percent Reserve Banking and the Path to a Single-Country Gold Standard. *The Quarterly Journal of Austrian Economics.* Vol. 19. No. 1. p. 29-64

Bank of England, (2014). Money creation in the modern economy. *Quarterly Bulletin*. Q1.

Bagus, P. and Howden, D. (2013). Some Ethical Dilemmas of Modern Banking. *Business Ethics a European Review*. 22(3). p. 235-45.

Borges, W. G. (2016). *Economics*. Kuala Lumpur. SJ Learning, p.226-229.

Financial Services Act 2013. Malaysia

Laidler, D. (1998). More on Hawtrey, Harvard and Chicago. *Journal of Economic Studies.* Vol. 25 Issue 1 p. 4 – 16.

Meacher M. (2014). UK Parliament Daily Hansard – Debate. Column 442.

Meera, A.K. M. and Labarni, M. (2009). Ownership effects of fractional reserve banking: An Islamic perspective. *Humanomics.* 25(2). p. 101-116.

Melvin, M. and Boyes, W. (2011). *Principles of Economics*. China. Southern-Western, Cengage Learning. p. 279-283.

Miller, R. L. and Van Hoose, D. (2001). *Money, Banking & Financial Markets.* South-Western College Publishing. p. 24.

Mouatt, S. (2008). Evaluating Stephen Zarlenga's treatment of historical monetary thought. *International Journal of Social Economics.* Vol. 35 Issue 11 p. 846 – 856.

Oberholster, S. J. (2010). War on savings: modern monetary management in crisis. *Journal of Financial Regulation and Compliance.* Vol. 18 Issue 3. p. 201 – 223.

O'Connell, J. (2010). The 2007 crisis and countercyclical policy. *Studies in Economics and Finance.* Vol. 27 No. 2, 2010 p. 148-160.

Parkin, M. (2008). *Economics.* Pearson International Edition, p.587-591.

Smirna, T. G. (2015). From commodity standard to deposit standard: the near completion of a secular cycle in monetary globalization. *Journal of International Studies.* Vol. 8, No 1, 2015, p. 107-113.

Smolo, E. and Hassan, M. K. (2011). The potentials of mushārakah mutanāqisah for Islamic housing finance. *International Journal of Islamic and Middle Eastern Finance and Management.* Vol. 4. Issue 3. p. 237-258.

Tlemsani, I. and Suwaidi A. H. (2016). Comparative Analysis of Islamic and Conventional Banks in the UAE During the Financial Crisis. *Asian Economic and Financial Review.* 6(6). p. 298-309.

Ünalmış, I. (2015). Debt Sustainability Analysis for Emerging and Developing Markets: An Application on Transition Countries. *In Neo-Transitional Economics*. Published online. p. 279-297.

Vengedasalam, D. and Madhavan, K. (2013). *Principles of Economics*. Selangor. Oxford University Press, p. 332-334.

Werner, R. A. (2005). *New Paradigm in Macroeconomics*. Palgrave Macmilan. Basingstoke. p.

Werner, R.A. (2014). Can banks individually create money out of nothing? — The theories and the empirical evidence. *International Review of Financial Analysis*. 36, p. 1-20.

Yiming H., Siqi L., Lin, T. W., Xie, S. (2011). Large creditors and corporate governance: the case of Chinese banks. *Review of Accounting and Finance.* Vol. 10. Issue 4. p. 332 – 367.