

EFFECTS OF INCREASED MONEY SUPPLY ON THE ECONOMIC STABILITY OF SOUTHEAST ASIAN COUNTRIES POST-BRETTON WOODS SYSTEM

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Abstrak: The aim of this research is to investigate the consequences of increased money circulation on the economic stability of Southeast Asian countries post-Bretton Woods system. Quantitative data collection was obtained from the World Development Indicator (WDI) reports from 1973 to 2018. Five ASEAN countries were selected using a purposive sampling technique. The collected data was then analyzed using descriptive, correlation and regression analyses using the Minitab 16 software. The analyzed data showed that an oversupply of money had caused a detrimental effect on the economic well-being of the five countries through inflation and recession. The study also found that a country's monetary policy had direct consequences on real Gross Domestic Product (GDP), price stability and overall economic wellbeing of a given country. The study recommends that money supply should be managed prudently so as to curtail inflation, especially in terms of credit creation by private banks, because it will trigger an unfavourable effect on economic stability and the overall wellbeing of individual households in the country.

Keywords: Interest rate manipulation, fractional reserve, credit creation, real GDP

Introduction

Countries share the same goal of developing policies that provide a stable environment for citizens, businesses, security and economic progress. A well-articulated international monetary policy that is focused on improving the nation's economy and standard of living may contribute to stability and prosperity. It is important to highlight that a well-designed and structured policy may significantly improve the quality of life among citizens and build robustness in the nation's economic activities. However, an unsound policy is detrimental and will cause hardship to rise. Therefore, sustaining a stable economy and improving people's living condition is paramount to the government's decision-making process.

Consequently, it is necessary for the government to carefully analyze all proposed policies and monitor their implementation from time to time. Fiscal and monetary policies are the most important since they are the government's "primary tools" to encourage economic growth

and raising the people's living standard. These policies are evaluated on a regular basis to keep up with public expectations and changes in the world economic trend. It is assumed that having comprehensive policies will stimulate real-economic activities. Fundamentally, It is important for national policymakers to concentrate on reasonable activities that will trigger better living conditions for their countrymen, and investments in real-economic sectors that have the capacity to improve the wellbeing of the country.

Economic pointers have changed since the collapse of the Bretton Woods system in August 15, 1971, when the United States government terminated the convertibility of the US dollar to gold. After the system's collapse, the monetary policies of many nations have been based on fiat money, and this has led to creation of credits that are not backed by real assets. This shift has caused an uncontrolled increased of money in circulation, which is compounded by private money creation using the fractional reserve

system. The combination of the two monetary policies have given rise to the current financial system, which is characterized by inconsistent policymaking that results in overwhelming increase in money that are not aligned with economic growth.

The overabundance of money in circulation has consequently led to economic instability. Economists like Warner (2014) and Liew (2019) have argued that under the Bretton Woods system, money supply was reasonably regulated in many nations as its issuance was strictly guided by the availability of real assets. But the system was not able to withstand the pressure and demand from an increasing world population, and substantial growth in government spending could not be met with asset-backed currency due to limited supply. As stated by Werner (2014), the oversupply of money in today's economies is primarily caused by the creation of credits by commercial banks, implying that a larger proportion of the money in circulation as captured in a Bank of England report in 2016. The bank's report stated that almost 95 per cent of money in circulation between major users of country currency are credits created by private banks, while the other five per cent are government fiat money issued by the central bank of countries, which are multiplied through the money multiplier process by commercial banks. The private banks create new "money" in the form of numbers (bank deposits) that appeared in bank accounts when they provide loans.

Studies on monetary and transaction systems have received much attention. Most of these studies focused on the influence of certain microeconomic variables like inflation, interest rates, exchange rates, taxes and foreign direct investment on the nations' economic growth and development. Whereas little attention is given to the expansionary monetary system, especially in terms of credit creation in the fractional reserve system, its operations and the economic implications of such a system. The focus of this study is the expansionary monetary system of nations in southeast Asia,

which includes credit creation and its effects on economic activities and stability in the digital era. The paper is structured into five sections, which are the foregoing introduction, literature review, methodology, results and discussion, and conclusion and recommendations.

Literature Review

The relevant literature to explain the concepts of economic stability, money supply, causes of oversupply of money and the study related theory, which the findings will be relied upon.

Oversupply of Money and Economic Stability

This explains the extent to which major microeconomic variables of a given economy are concentrated with minimal fluctuation. Economic stability represents the wellbeing of a nation in terms of growth, price stability, living standard and sustainable development. Researchers in recent years have extensively focused on economic stability since it is the ultimate aim of every nation. A stable economy is said to be the measure of strength and competitiveness of a country (Eze & Ogiji, 2016).

Money supply is the main apparatus of economic growth as captured in the monetary theory, which stipulates that when money supply grows, consumers will demand more, companies will produce more, and new job possibilities will emerge (Kimberly, 2018). The proponents of this idea argued that monetary policy has a long-term impact on an economy's price level and it will also result to short-term impact on employment and production (Ahuja, 2011). Money supply, according to Umeora (2010), is the lifeline of all economic activities and thus, has powerful effects on the life of any nation in the sense that an increase in supply would stimulate real investments and consumption, subsequently leading to stability.

Inam and Ime (2017) are of the opinion that monetary policies and economic growth have marginally positive interaction in a coordinated

economy. And based on this premise, Aslam (2016) concluded that a huge money supply has brought substantial beneficial impact on the economy of Sri Lanka. The conclusion that those liberal monetary policies will exert a major influence on real economic activities is based on the notion that as the country's money supply grows, the real economy will follow suit since central banks controlled all the instruments (Omodero, 2019). Dingela and Khobai (2017) found that money supply has an established positive long- and short-run relationships with economic growth.

Consequently, Gnawali, (2019) concluded that money supply is positively and significantly correlated with economic well-being of households and the economy of Nepal at large. Likewise, Hussain and Haque (2017) investigated the empirical link between money supply and per capita growth in the Bangladeshi economy, where they concluded that the supply has considerable influence on the pace of economic well-being. Using the Autoregressive Distribution Lag (ARDL) model, Chaitipa *et al.* (2015) studied the consequences of money supply on economic growth for Authorized Economic Operators (AEO) and discovered that the amount of money available is linked to economic growth. Mohammad *et al.* (2009) also used the Johanson cointegration model to study the relationship between money supply, government spending, production and prices in Pakistan, and they discovered that broad money (m2) has favorable effect on the country's economic activity.

Coincidentally, Galadima and Ngada, (2017) also found that money supply and interest rates have positively and significantly contributed to the growth of the Nigerian economy, but the real exchange rate had negative impact. Chude and Chude (2016) discovered that money supply and economic growth in Nigeria had positive and substantial links. And on the same vein, Ogunmujiwa and Ekone (2010), who investigated the relationship between monetary supply and economic growth, found that supply was positively connected to

growth when its effects on GDP in choosing between contractionary and expansionary supply was negligible. Adusei (2013) used the "Fully Modified Ordinary Least Squares" method to examine money supply and economic stability in Ghana from 1971 to 2010, and revealed that supply had negatively affected the country's economic expansion and stability.

Omodero (2019), in a comparative study between Ghana and Nigeria, found that broad money (M3) has positive but insignificant influence on Ghana's economic growth as measured by RGDP. Whereas the study on the influence of money supply and inflation on the economic growth by Gatawa *et al.* (2017) revealed that an escalation in money supply and high interest rates may have a negative consequence on economic growth of countries. This was supported by Ihsan and Anjum (2013), whose conclusion was that money supply (m2) could have a significant effect on the GDP of Pakistan, where oversupply would adversely affect stability. Finally, Ehigiamusoe (2013) used VECM to examine the association between money supply and economic expansion in Nigeria from 1980 to 2012. He concluded that the association between the money supply and the actual economy was insignificant.

Causes of Increased Money Supply

Many factors are responsible for the persistent increase of money supply in most countries, which includes but not limited to fiat money, fractional reserve banking, credit creation and interest rate manipulation. These concepts are discussed in the following subsections.

Fiat Money

Under this system, the central bank of a country creates money which are not backed by any real assets, but rather a redeemable promise of value that serves only as a guarantee by the government. Such "paper promises" may be used for exchange of goods and services, and this has been practised as early as the Yuan Dynasty in China (1271-1368). This process allows the

authorities to generate new money by taking into consideration the long-run effect on households and the economy at large. Government-created fiat money has been argued to be among the key factors that contribute to the high cost of living worldwide, especially in the United States, after the collapse of the Bretton Woods System (Curé, 2018). The United States was faced with a sharp rise in the cost of goods and services (hyperinflation) as the dollar's value dropped to the point when a wheelbarrow full of cash was needed to purchase a loaf of bread.

Fractional Reserve system

The present monetary system, often known as the fractional reserve monetary system, allows commercial/private banks to create new money from customers' deposits through issuing out loans using the money multiplier method and maintaining a minimum reserve requirement. The Bank of England estimated that over 95 per cent of the money in circulation in most economies is a product of private credit creation (lending and relending of customers' deposit), which emanates from the only five per cent central bank issued fiat money. Under this system, money production will rise over time with both better and worsening dimensions.

Through the standard accounting procedure of asset and liability, new money may be generated under the fractional reserve system by giving out loans, which are numbers kept as bank deposits and appear as bank accounts. When a bank provides a loan to a family or a group, money is not delivered to the borrower in cash, but the bank credits a deposit equal to the desired and agreed amount into the borrower's account (Ravn, 2015). This procedure results in the creation of "new money" equal to the loan's amount requested by the borrower. It is worth noting that the outlined process of money production runs against common belief that banks may only lend money when they have available cash. On the contrary, the aforementioned money production process actually violates the basic notion that banks can only lend out pre-existing money, while their

deposits are just a record of how much they owe their clients. Client deposits are a liability of the banks, and are not supposed to be assets that can be given out as loans (McLeay *et al.*, 2014).

Credit Creation

Central banks may legally generate money and distribute them to commercial banks through a variety of methods, such as through the issuance of government securities, bonds and stock exchanges with the commercial banks. This is achieved by holding part of the central bank money (deposit) in individual accounts of the commercial banks, while the remaining balance will be loaned out to other customers or businesses that are in need of funds (Palma, 2018). The above explanation provides an understanding that money is firstly generated by the central government in a form of promissory notes, and then multiplied by commercial banks using money multiplier methods while maintaining a minimum reserve requirement. The deposits, together with the money multiplied, will be loaned out to new customers as maintained by conventional economic theory.

Economists have opined that central banks generate money exogenously because they set the limit on production through reserve requirements and coordinate it through the money multiplier, which defines the maximum quantity of money that can be created in an economy (Brunnermeier & Niepelt, 2019). Then, the money multiplier becomes a factor by which a given quantity of money may be multiplied to its maximum extent ($RR = 1/mm$). The case of Malaysia is presented to better illustrate its fractional reserve application. Let's assume that Bank Negara (the country's central bank) imposes a 10 per cent reserve requirement on commercial banks; this means the reserve will result in a money multiplier of nine times the initial deposit held by the commercial banks. Proportionally, when a customer deposits RM1,000, it may create as far as "RM9,000" for the bank (Stoop, 2010).

The commercial banks' over-generation of money has been identified as a core cause of the

Great Depression of the 1930s, the 1997 Asian Financial Crisis, and the 2008 Global Financial Crisis. Those financial crises occurred because most newly produced money was channeled into property and security markets, rather than to real sectors of the economy (Turner, 2015). It was also argued by experts that “the financial crisis of 2007/08 occurred because of the failure to restrict private banks from producing new credits and money” (Turner, 2012).

Interest Rate Manipulation

The central bank takes various actions to regulate money supply that are routinely intended to impact the speed and direction of a country’s overall economic activity. The action also aims at achieving a high level of aggregate production and job security, as well as the ability to manage the pace in which general prices of goods and services rise or decrease. Borrowing and spending are important factors in price fluctuations, and interest rate fluctuations are among key strategies adopted by policymakers to control lending/borrowing (Sornette & Woodard 2010).

Interest rate is the price of money as argued by conventional economics as such rate may act as a forecasting tool for economic cycles in a particular country. A contractionary policy is implemented by raising the lending rate to discourage borrowing and achieve stability, especially in an open-market economy. There is a divergent view that interest rates do not promote economic development, but rather follows the economic activity (Warner, 2014) as it is believed that if time series data on interest rates and economic stability are presented on a graph, it may be clear that low interest rates do not create economic expansion, but rather describes a cycle that reflects the economic activity. Interest rates have resulted in a significant rise in private sector borrowing, which is primarily reinvested in real-estate assets (Riley, 2018).

Interest rate manipulation for economic stimulation has failed to achieve its goal in a majority of situations, particularly in Japan’s

Lost Decade, where it dropped to zero, but no significant shift was experience on the growth side. Instead, Japan’s low interest rate policy cultivated a carry trade, which resulted in unboosted demand, exacerbated deflation and closure of businesses. This was obvious during the economic crisis of 2008, when the US Federal Reserve implemented an expansive monetary policy of maintaining interest rates low “beyond discrete constraints”. This strategy had led to unrestricted borrowing and a widespread growth of money supply, which was mostly used for speculative purposes (McDonald & Stokes, 2013; Schwartz, 2009). The Japan real estate and stock market bubble of 1980, the Japanese “Lost Decade” of 1992, the Internet (dotcom) crash of 2002, the US stock market bubble of 2003 and real-estate/leverage bubble of 2009 are the most notable price bubbles, in which interest rates played a crucial part in aggravating them.

Theoretical Backing

The underpinning theory which this study was anchored on is the quantity theory of money as it was considered fit in providing an explanation of the relationship between study variables. The theory is assumed to support the findings of the study as it will show a proper linkage among the concepts and the real happenings.

The theory of money has been proven as the critical theory that has been used by various studies on monetary policy and related areas. The theory was promulgated by Henry Thornton in 16th century and sustained by the number of authors in the 19th and 20th centuries, like Friedman (1959), Allais (1966), Lucas (1980), Friedman (1989), Minsky (1992), Blaug *et al.* (1995); Graziani (1996), Fisher (2006) and Koti and Bixho (2016), who used the model to describe the relationship between money and other microeconomic variables. It has positioned that whenever there is a need to combat recession, an expansionary policy will be used by reducing the interest rate to stimulate borrowing.

The theory provides that there is a perfect link between the amount of money in an economy and real-economic activity. Money is seen as a valuable commodity of exchange as such an escalation in its quantity may reduce the marginal value of the currency's purchasing power. This implies that any upsurge in money supply may result in a rise in commodity prices (inflation), which acts as a payback for the money's marginal value drop. The theory is arithmetically presented in well-known Fisher's Equation of Exchange, which is stated in Equation 1 (E1).

$$MV = PT \quad (E1)$$

where: M = money supply, V = velocity of circulation, P = average price level, and T = volume of transactions from goods and services.

This theory clearly shows that an unregulated money supply will lead to economic confusion, which in turn leads to instability, rising cost of living, redundancy, and other societal and economic problems. This study adapts the theory in explaining the sampled countries expansionary monetary system, economic stability and real economic activities. According to proponents of the theory escalation, money in circulation leads to an upsurge in household cost of living, which can be harmful to the country's overall economic well-being.

Materials and Methods

The study utilizes a quantitative method of data collection as required study data was generated or collected from the available data of reputable institutions. This method was appropriate considering the study variable of money supply and GDP, which were readily quantified,

measured and analyzed (Collis & Hussey, 2014). Since the issue under consideration was a global scenario that cut across all economies, with the peculiarities of differences from one country to the other, the study only covered a specific portion of the population. The sample comprised five Southeast Asian countries, namely Indonesia, Malaysia, Philippines, Singapore and Thailand, which were selected using purposive sampling (data availability during the research period). The data were collected from the World Bank's World Development Indicator (WDI) for the post-Bretton Woods system period of 1973 to 2018. The data were analyzed using descriptive statistics, correlation and pooled regression, with the aid of the Minitab 16 statistical software. The study variables were economic stability (dependent) measured by real GDP and the post-Bretton Woods increased money supply (independent) measured by broad money (M3), which was modeled as:

$$RGDP_{it} = \beta_0 + \beta_1 MOS_{it} + e_{it}$$

Where RGDP = Real Gross Domestic Product, MOS = increased Money Supply, β = parameters to be estimated, e = error term, and it = country and time variant.

Results and Discussion

This section covers the analyses of the collected with the aim of ascertaining the influence of the excess supply of money experienced under the current fiat and fractional reserve system. The generated data from the World Bank database was analyzed using simple regression and it was supported by the preliminary descriptive details and correlation test to establish the dispersion and association between major variables.

Table 1: Study results

Variables	Descriptive statistics				Correlation		Regression		
	Mean	Std Dev.	Min.	Max	Coeff.	P	Coeff.	P	Adj R2
RGDP	1.244	1.442	1592	6.223	0.774		28026	0.008	
MOS	1.563	1.925	2721	1.042	1.000	0.000	-1.0328	0.000	0.5855

Source: Minitab 16 output (2021)

The table presents the descriptive analysis that shows the suitability and dispersion of the collected data. The results show the descriptive values were moderate as indicated by the mean value of the variables. Likewise, there was reasonable dispersion of the value from the mean as indicated by the standard deviation output of 1.442 and 1.925 in relation to the mean value of 1.244 and 1.563 for both real GDP (economic stability and increased money supply). The results in Table 1 also showed the relationship that existed between two major variables of the study as presented under correlation output. The result indicated that money supply (post-Bretton Woods) had a positive and significant association with real economic growth (economic stability) as shown by the coefficient value of 0.774. This implied that the variables moved in the same direction as a shift push in one variable would lead to a related shift in another variable.

The regression output from the table shows that the selected independent variable had the capacity of explaining over 58 per cent of the variation in the dependent variable, and the remaining 42 per cent might be explained by the error term and other variables not captured in the model. This signified that the model was fit and the variables were well selected and combined. The regression results also established that the post-Bretton Woods scenario had increased money supply in the sampled countries, which negatively influenced their real GDP (economic stability) significantly as shown by the regression coefficient of -1.0328 ($P = 0.000$). This implies that whenever there is increase in money supply the economic stability will be affected negatively one step-forward increase in money supply will lead to an equivalent of 1.032 step-down decrease in economic stability of the countries under study.

The study result aligned with the monetarist theory and liquidity preference hypothesis that money supply should be handled and managed consciously and ensuring that they were utilized for stipulated economic-oriented

motives. Otherwise, it could be detrimental for the economy. The results also agreed with the observations by Adusei (2013), Ihsan and Anjum (2013), Ehigiamusoe (2013) and Gatawa *et al.* (2017), who concluded that money supply could influence economic expansion and stability negatively. Contradictorily, the result disagreed with the conclusion and findings of Inam and Ime (2017), Aslam (2016), Omodero (2019), and Dingela and Khobai (2017), who found that oversupply of money and economic growth had marginally positive connections. Sornette and Woodard (2010) concluded that money supply, if properly managed, could foster economic growth and stability of a given economy. Therefore, there was a desperate need to curtail unjustified oversupply of money by providing a policy that regulated the pace at which money should be supplied, and the supplied money should be properly channeled to real economic activities that fostered growth and stability.

Conclusion and Recommendations

The study result indicated that oversupply of money was detrimental to economic stability of Southeast Asian countries and, if not properly managed, could trigger a recession that reduces the standard of living. It has been found that oversupply of money had been the major contributor to rising prices of goods and services (inflation), raising the cost of living and shrinking the growth of many nations. In line with the findings and conclusion, this study recommends that money supply should be handled consciously so as to curtail excess money in circulation, which was caused by the multiplier process.

The study was limited by data availability, which could have shown more comprehensive results. Therefore, future studies should focus on all 10 countries in the region, as well as the comparison of money supply and economic stability between pre- and post-Bretton Woods system.

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