THE IMPACT OF GLOBAL LIQUIDITY ON THE ECONOMY OF VIETNAM

By
Pham Xuan Lam¹
and
Chu Khanh Lan²

1. Introduction

Global liquidity has been an ongoing concern for policy makers, and a debatable concept within the international monetary system among researchers. The concept of global liquidity is perceived as vague but it is a fundamental driver of capital flows, asset prices and inflation. The term “global liquidity” has been used in various ways, which will be further elaborated in detail in this paper. Briefly, it has been used to “show the stance of monetary policy in major currency areas.” (Domanski, 2011). Policymakers and academics have come to the same consensus that global liquidity is more of a threat to financial stability rather that the positive effects it can have on an economy. Global liquidity as a whole and its drivers are of significant importance to global market conditions, both during the initial phase of the build-up of vulnerabilities, and after financial damage has been realized. This was explained by the Ad hoc Committee on Global Financial System as follows: (i) global integration creates an impact on each individual country’s economic condition, causing changes in capital flows, credit dynamics, financial assets and property prices; (ii) the mismatches in currency maturities among major economies could also lead to the build-up of exposure to financial risks; (iii) shortages of global liquidity directly affects economic growth; and, (iv) policies that are designed to deal with a certain global liquidity level could also impact capital flow patterns and entire financial markets.

This paper focuses on the impact of global liquidity on the economy of Vietnam and its banking system. Firstly, it summarizes some literatures on the development and impact of global liquidity on the economy. Secondly, the paper reviews the State Bank of Vietnam’s conduct of monetary policy which focuses on a growth target rather than a price stability target. The main findings are: firstly, although global liquidity generates increases in output, it ultimately leads to higher inflation and domestic currency appreciation. The failure to sterilize high foreign cash inflows encourages the banking system to give credit, leading to a very high risk

¹. Researcher, Banking Strategy Institute, State Bank of Vietnam.
². Deputy Director, Research and Consultancy Department, Banking Academy, State Bank of Vietnam.
balance sheet for both the banking system and households. Should there be an abrupt reversal, global liquidity can cause currency devaluation, deterioration in the balance sheet and macroeconomic instability.

2. Literature Review

A fair share of literature look at global liquidity as total money aggregates, connecting narrow money and broad money. Sousa and Zaghini (2004) conducted a research on global liquidity for the Euro sector and found that it is the main driver behind the different price fluctuations of the Euro area. Coming to a similar conclusion, Ruffer and Stracca (2006) recognized changes in the price level of the Euro area and Japan as resulting from the positive shock to global excess liquidity. Furthermore, global liquidity exerts, to a certain extent, certain impacts on asset and commodity prices.

Darius and Radde (2010) proxied global liquidity as money reserves along with foreign exchange reserves. They used a VAR-approach and found that global liquidity shocks had a sluggish but persistent impact on global house and commodity prices. However, there is a lesser impact on equity prices. Meanwhile, Thomas Muhleisen and Pant (2010) came up with a model which captured the strong effect of global liquidity on oil prices but did not find evidence for a speculative motive.

Belke and Gros (2010) managed to prove that key drivers of asset prices in a country is strongly dependent on global liquidity conditions. Global liquidity effects will first be captured through inflation in asset prices followed by inflation in consumer goods at a later stage. They also posit that it is difficult for central banks to keep a stable financial stance. Coordination is required to exit from an expansionary monetary policy stance and to mop up excessive liquidity.

Psalida and Sun (2011) found strong positive links between the G-4 liquidity expansion and asset prices (e.g., equities) in economies that were receiving the funds. A strong positive linkage was also found between global liquidity and inflows of equity portfolio and the accumulation of official reserves. It was shown in the paper that there are increased risks in the liquidity-receiving economies once there is an excess in equity returns, credit growth and global liquidity.

The majority of the literature on global liquidity assesses its global transmissions. Chudik and Fratzscher (2012) used an infinite-dimensional VAR model, initially introduced by Chudik and Pesaran (2011), to conclude that the transmission of liquidity shocks was highly heterogeneous across countries, asset classes and over time. The Global Financial Crisis (GFC) of 2007-2008 had a much larger effect on countries compared to the sovereign-debt crisis of 2010-2011. Countries also experienced different impacts with emerging market economies.
exhibiting a twice-as-large sensitivity to shocks compared to advanced economies – both in terms of asset prices and capital flows. They also experienced a geographical flight-to-safety phenomenon during the GFC but to a lesser extent since 2009, as markets reacted differently to the liquidity shocks during the two crises.

He and McCauley (2013) looked at the monetary policy transmission of major economies on selected countries, namely, China, Hong Kong and Korea. They analyzed five different transmission channels that overlap one other to some extent, including three price channels and two quantity channels. With the integration of the global bond markets, it was found that there was a shift of large-scale central bank bond purchases from major markets to lower bond yields in the local currency markets. The authors also showed that there exist certain “blow-back” effects for major economies should monetary accommodation carry exposure to risks.

Some literature also looked at the adverse spillovers on emerging markets and the reversal effect of capital. Rey (2013) showed that there is a global financial cycle, caused mainly by monetary policy setting of the U.S. – this cycle includes capital flows, asset prices and credit growth. Eichengreen and Gupta (2014) observed that there were sharp reversals of capital flows from countries that experienced strong currency appreciation and rapid capital inflow pressures.

3. Global Liquidity Impacts on the Vietnamese Banking System and Economy

3.1 Global liquidity

The GFC of 2008/2009 resulted in severe recessions in advanced economies. As a result, major central banks applied Quantitative Easing (QE) policies as the primary tool to revitalize their affected financial channels as well as to revive domestic demand.

For example, these major central banks, namely, U.S. Federal Reserve (Fed), the Bank of Japan (BOJ), the Bank of England (BOE) and the European Central Bank (ECB) have all implemented QE, at varying degrees but for similar reasons. The Fed conducted a series of asset purchases and increased its holdings of securities from March 2009 to April 2013. The value of assets reached US$ 2.2 trillion.

The BOJ had always been a forerunner since the 2000s in implementing unconventional monetary policies. During the period from 2010 through 2014, its assets portfolio increased by a remarkable 35%. “Abenomics” has continued with its easing policies and expanded the balance sheet even further with what is called the Qualitative and Quantitative Monetary Easing (QQME) consolidating a monetary
base of about 60 to 70 trillion Yen. The BOE along with the ECB, applied vast QE programs roughly during the same period as the Fed. During the period from March 2009 till the end of 2012, total assets of BOE increased by 2.5 folds. The ECB conducted programs before 2015 with the aim of injecting liquidity into the market to ease the situation for banks that were facing massive deleveraging and to stabilize the banking sector. From January 2015 to September 2016, the ECB bought a total of 60 billion Euros in assets monthly.

All these QE programs had a huge impact on international markets, including those of the Association of Southeast Asian Nations (ASEAN) economies of which Vietnam is part of. The QE has resulted in an enormous amount of capital floating in the market. The overall liquidity generated during the period of 2009 to 2013 from the aforementioned 3 major central banks amounted to roughly US$ 3.95 trillion. As investors are always look at opportunities for higher yields, the ASEAN economies became targets with their annual average GDP growth of approximately 4.7%. This led to large capital inflows into these countries.

Being provided with more funds and capital inflows helped these economies to deepen and broaden their financial markets. Moreover, they also act as a counter effect should asset prices rise and destabilize the market. Such an effect would occur should a reversal in capital flows occur (Balakrishan et al., 2012).

3.2 Impacts on Vietnam and Policy Changes

In the context of Vietnam where the domestic economy is undergoing extensive global integration, this has led to an increase in the pace of trading and capital inflows, which in turn has complicated the process of designing and monitoring appropriate monetary policies. Flexible monetary policies have been conducted via the adaptation of several monetary policy tools as follows:

From early 2007 to June 2008, with the aim of reducing the excess liquidity caused by strong foreign capital inflows, The State Bank of Vietnam (SBV) constantly adjusted the interest rates. From end 2008 to early 2009, with the reduction in inflationary pressure, SBV decreased interest rates in order to foster economic development.

From 2009 to the first quarter of 2010, the central bank implemented the base interest rate mechanism for which financial institutions would set the lending and deposit rates within 150% of the base rate. In 2011, SBV increased rates to tighten monetary policy for dampening inflation.

In 2012, when inflation started to ease and stabilize, interests were once again reduced to a level which was appropriate for the targeted inflation.
Reserve requirement, namely, the required reserve ratio, was also used as a tool, and was adjusted flexibly in line with the objectives of monetary policies and economic development at each stage. In 2007, to neutralize the excess liquidity flowing in the banking system due to strong inflows of foreign currencies as well as to tighten policies to curb inflation, SBV decided to increase the required reserve for financial institutions from the middle of 2007 to early 2008, and adjusted the deposit reserve requirement rate.

The exchange rate was also adjusted significantly in the attempt to closely reflect demand and supply. For the period before 2011, the exchange rate had always been under pressure to increase. The exchange market was in turmoil, resulting in SBV adjusting the central rate to increase by 9.3% on February 2011, while also narrowing the trade band from 3% to 1%. Since then, the SBV has continued to intervene to maintain a stable exchange rate. In 2012 and 2013, the central bank targeted the exchange rate to increase by no more than 2-3% a year in order to control the expectations of the devaluation of the Vietnamese Dong, thereby fostering a stable economic environment for investors and businesses. In fact, the exchange rate was only adjusted by 1% on 28 March 2013. The pressure to stabilize the exchange rate for the Vietnamese Dong became more evident when the Chinese government decided to modify the exchange rate of the RMB and the U.S. Fed increased interest rates. SBV had to devaluate the Dong three times within the year of 2015 (January, May and August) by 1% each time. It also had to expand its band from ±1% to ±3% on the 19 August 2015.


4.1 Methodology and Data

To examine the impact of global liquidity on Vietnam’s economy and the response of monetary policy, this research employs the VAR (vector autoregressive model) model including both external and domestic variables. The reduced form of a VAR simply involves the regression of several variables on its own lags.

\[ y_t = \alpha + \sum_{i=1}^{p} A_i y_{t-i} + \varepsilon_t \]  \hspace{1cm} (1)

where: \( y_t \) is a 6×1 vector of external and domestic variables \( y_t = (\text{liq}_t, \text{gdp}_t, \text{cpi}_t, \text{exc}_t, \text{ms}_t, \text{res}_t) \). Liq is the US dollar, Euro and Japanese Yen credit to non-residents (non-bank sector), gdp is real gross domestic product, cpi the consumer price index, exc the nominal exchange rate, ms money supply, and res is bank reserves. \( A_i \) are 6×6 autoregressive coefficient matrices, \( \varepsilon_t \) is an 6×1 vector of serially and mutually exclusive innovations. All the variables are at log-levels.
The liq variable represents the availability of liquidity from the three largest advanced economies to non-resident recipients, including Vietnam. The gdp variable is the measure of economic activity while the cpi variable represents price level fluctuations. The exc variable measures the VND/USD exchange rate. Given the fact that the Central Bank of Vietnam usually manages the rate at a specified-target level, the exchange rate, GDP growth rate and the inflation rate are considered targets of monetary policy. Money supply is money plus quasi-money (including currency outside deposit money banks, demand deposits, time and saving deposits). The res variable is the reserve of deposit money banks (reserve money minus currency outside other depository corporations), which reflects the foreign exchange intervention of the central bank in response to foreign capital flows.

The global liquidity variable is ordered first as a largely exogenous variable. Given that the real sector reacts sluggishly to financial variables, the real gross domestic product and price level are ranked before exchange rate and monetary variables. Since the exchange rate is kept quite stable, the exchange rate variable is ordered before money supply and bank reserves.

The sample period is from 2004m01 to 2015m09. The data on global liquidity is extracted from the Bank for International Settlements (BIS) global liquidity indicator data, and only the US dollar, Euro, and Japanese yen credit to non-residents (non-bank sector) is used. For domestic variables, the consumer price index, broad money supply, bank reserves are taken from International Financial Statistics (IFS) of the International Monetary Fund. The gross domestic product data is collected from the Vietnam’s General Statistics Office. The global liquidity and gross domestic variables are interpolated from quarterly to monthly data. All variables are seasonally adjusted and expressed in logarithm. A lag order of three month is chosen.

4.2 Empirical Results

Figure 1 shows the impact of a global liquidity shock on the economy of Vietnam. Higher liquidity availability increases both real GDP and the price level. The response of real GDP to a global liquidity shock is statistically significant at the 10% level for 9 months. After that, the appreciation of the Vietnam Dong in response to higher capital inflows constrains the dynamics of export industries and encourages the public to spend more on imported goods, limiting the positive impact of foreign cash inflows. Similarly, a global liquidity shock causes a significant increase in the consumer price index because of higher money supply (the central bank buys US dollar to increase foreign reserves), credit (higher bank reserves encourages increased bank lending) and import (due to higher income and stronger domestic currency).
Figure 2 shows the response of the exchange rate to a one standard deviation shock to global liquidity. The domestic currency appreciates gradually as more foreign currency is poured into the country and reaches the highest impact after 15 months. In response to higher foreign inflows, bank reserves increase significantly (Figure 3). The impact is magnified by the foreign exchange intervention of the

3. Round and dash dot lines represent one and two standard error bands.
central bank. The US dollar inflow increases foreign reserves and without (or not equivalent) offsetting intervention, the reserves of commercial banks would increase dramatically. This results in increased commercial bank lending in high risk areas of consumer, real estate and securities debts.

In response to higher output and price level, the central bank tends to tighten monetary policy by decreasing money supply (Figure 4). The response is not significant at 5% and 10% respectively, reflecting the fact that in some periods, the central bank focuses on the growth target rather than the price stability target. This is supported by the response of money supply to output and price level shock. While money supply is contracted by monetary policy tightening in response to inflation rate shock, the money supply is increased to continue supporting economic growth.

**Figure 4**

Response of Money Supply to a One Standard Deviation Shock to Global Liquidity

![Figure 4](image)

When the output was higher than potential output in the period of 2006 – 2007 and 2009 – 2010, Vietnam’s economy suffered very high inflation in the subsequent years, the year 2008 and 2011 respectively (Figures 5a and 5b). This is clear evidence of a monetary policy that favor the economic growth target rather than price stability target.
Two robustness checks for the above analysis were also conducted. The first check comprised choosing different variables representing global liquidity. Instead of using total U.S. dollar, Euro, and Japanese yen credit to non-resident to represent the global liquidity indicator, two other variables were selected. The first is the U.S. dollar, Euro, and Japanese yen credit to both residents and non-residents. The second variable is the VIX – CBOE Volatility Index. In the second check, a different sample period was selected, i.e., when the credit from the three areas to other countries collapsed, from 2008m04 to 2015m09. None of robustness checks generate significantly different results from the aforementioned analysis.

5. Conclusion and Recommendations

The qualitative and quantitative analysis of this paper indicates that global liquidity has a significant impact on the economy of Vietnam and its banking system. On the one hand, while global liquidity causes output to increase; it also leads to higher inflation and domestic currency appreciation. Should the central bank fail to sterilize the high foreign cash inflows, bank reserves would increase dramatically and encourage the banking system to increase lending. This practice leads to a highly risky balance sheet for households, enterprises and the banking system. When the foreign cash flow reverses abruptly, it causes the domestic currency to devalue and the quality of balance sheet to deteriorate. For these reasons, SBV have had to implement several measures to stabilize the banking system and the economy such as the tight control of money supply, interest rate, bank credit, exchange rate and increased bank capital.
From the analysis, it should be emphasized that, firstly, price stability must be the top priority objective of monetary policy. Although the Law on State Bank of Vietnam enacted in 2010 states this objective clearly, during some periods, multi-objective monetary policy was implemented. Under the request of the government to achieve the predetermined macro-economic targets, the Central Bank had to pursue many conflicting objectives such as economic growth, inflation control, currency stabilization and some social-economic goals. In view of this, the Central Bank needs to specify the price stability target to accomplish the pre-specified economic growth rate. If price stability is the priority objective and in the event of excessive global liquidity pouring into the domestic economy, the monetary authority has to tighten monetary policy to withstand potentially negative impacts.

Secondly, it is very important to enhance the resilience of the banking system through capital related measures. Higher capital ratios help the banks to enhance the loss absorbency capacity. Recently, the Central Bank urged ten of the biggest commercial banks in Vietnam to apply international bank management standards in accordance with Basel II. These banks will complete the pilot by 2018 and Basel II will subsequently be applied for the remaining banks. Given the fact that Vietnamese commercial banks tend to increase lending in an environment of excess liquidity due to high economic growth expectation and loose monetary policy, the countercyclical buffer would be very effective in regulating the credit growth rate. However, it is quite difficult for Vietnamese commercial banks at present, to increase their capital adequacy ratio given weaknesses such as low profitability and ongoing restructuring efforts.

Thirdly, the Central Bank should focus on liquidity management of commercial banks. The periods of unstable macroeconomic condition (2008 and 2011) witnessed high cash outflows as the net foreign assets of commercial banks changed from positive to negative within only one quarter. A stricter liquidity coverage ratio should be applied as it requires commercial banks to have sufficiently high quality and liquid assets to pay for both projected and unexpected cash outflows over a period. The Central Bank can set a higher rate for foreign liabilities when calculating the coverage ratio so that foreign loans and deposits would become less attractive for the banks. Another liquidity related measure is the net stable funding ratio that is designed to prevent excessive maturity transformation by requiring a minimum amount of stable funding source, taking into account the liquidity profile of the assets and off-balance sheet commitments.

Finally, a more flexible exchange rate regime is advocated for Vietnam. Raising the domestic interest rate is not sufficiently effective when the ultra-easy monetary policy of advanced countries is reversed. Allowing the domestic currency to depreciate can help Vietnam to preserve a low level of foreign exchange reserves. Moreover, employing higher interest rate to avert capital outflows can worsen
domestic conditions. Since the end of 2016, the Central Bank has switched from a nearly fixed exchange rate regime to a more flexible one, for which the daily reference rate is based on a weighted average of the Vietnamese Dong against eight major foreign currencies.
References


