Impacts of monetary policy on asset markets: The case of Vietnam

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Abstract. Monetary policy, which is implemented by central banks by influencing money supply, usually has important impacts on market interest rates, exchange rates, asset prices and the public's expectations, thereby affects the macro economy. In this paper, impacts of the Vietnamese central bank's monetary policy (i. e. the State Bank of Vietnam or SBV) on asset markets will be studied. The paper includes two main parts: (i) Fundamentals of asset prices in monetary transmission mechanism clarifying different effects that might be caused by central banks' monetary policy on asset markets; and (ii) Empirical impacts of SBV's monetary policy on asset markets including stock market, gold market and real estate market in Vietnam. The paper concludes that these markets are influenced by many factors, and SBV's monetary policy might not be the key factor determining their volatilities.
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Keywords: monetary policy, asset prices, stock market effects, real estate market effects, exchang rate effects.

Влияние монетарной политики на рынки активов: пример Вьетнама

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Аннотация. Монетарная политика, применяемая центральным банком, через регулирование предложения денег обычно имеет сильное влияние на рыночные процентные ставки, обменные курсы валют, цены акций и ожидания инвесторов, затрагивая, таким образом, всю экономику. В этой статье исследуется монетарная политика Центрального банка Вьетнама (Центральный банк Вьетнама — *SBV*) на рынок активов. Статья состоит из двух основных частей: (1) основы движения цен активов как различные последствия монетарной политики *SBV* на рынке активов; (2) эмпирические свидетельства влияния политики *SBV* Вьетнама на рынок активов, включая рынок капитала, рынок золота и рынок недвижимости во Вьетнаме. Сделаны выводы о том, что данные рынки подвергаются влиянию многих факторов и что политика *SBV* не всегда является основной причиной нестабильности этих рынков.

Ключевые слова: монетарная политика, цены акций, рынок капитала, рынок недвижимости, обменные курсы валют.

FUNDAMENTALS OF ASSET PRICES IN MONETARY TRANSMISSION MECHANISM

Monetary policy is a macroeconomic policy in which Central Bank will use their instruments in hands to influence interest rate or money supply with the aim of controlling inflation and promoting economic growth. This adjustment, which is conducted through a transmission mechanism, affects macroeconomic variables such as inflation or output. One of the channels of monetary transmission is through asset prices in the market. Excluding the impact on bond prices through the interest rate channel, according to Mishkin (2013), there are three other asset price channels which consist of stock market, real estate market and exchange rate effects.

Stock market effects

When Central Bank decides to adjust interest rate or money supply, stock prices will be affected in four ways.

Investment effects

Based on Tobin's q-theory (Tobin, 1969), Tobin's *q* is defined as the market value of firm divided by the replacement cost of capital. When Central bank implements expansionary monetary policy, there is a flow of fund pouring into stock market, leading to an increase in stock prices. As a result, the market value of firms raises relatively to the replacement cost of captial, and increases Tobin's *q* ratio. Enterprises tend to expand their business by increasing investment spending, thereby raising aggregate demand and economy's output.

Firm balance-sheet effects

The second effect of monetary policy on stock prices is through the balance sheets of firms. Loose monetary policy from Central bank makes stock prices increase and so does net value of firms. This helps to reduce adverse selection and moral hazard problem and then lead to an increase in lending. It comes from the fact that because of the presence of asymmetric information, banks are reluctant to lend money to firms. The lower net worth of firms, the higher level of risk banks have to face and conversely, the higher net value, the easier access bank loans for firms. The amount of funds from banks help businesses to increase investment and aggregate spending also.

Household wealth effects

An increase in stock prices not only leads to the rise in net value of firms but also appreciates value of households wealth, particularly for those who hold common stocks. Therefore, expansionary monetary policy will help to increase consumption.

Household liquidity effects

The effect of this transmission channel is conducted through household balance sheets, especially impacted consumer durable and housing expenditures. Mishkin (2013) argued that, consumer durable and housing are considered illiquid assets. Thererfore, under financial distress circumstances, households will find it difficult to sell these assets to get cash. Even if they accept to bear a loss, they still cannot obtain the full value of these assets. Meanwhile, they can easily sell financial assets because these assets have higher liquidity. That is the reason why households prefer to hold more financial assets and less consumer durable assets in their portfolio. The households, however, often estimate that the likelihood of financial distress will be lower when the value of financial assets increase. Thus, they have more secure financial position, then they are willing to spend money on consumer durable assets. Finally, if Central bank implements expansionary monetay policy, financial assets such as stock prices will increase, expectation on likelihood of financial distress will reduce, expenditure on durable consumer and housing assets will rise, and as a result, aggregate demand will expand.

Real estate effects

The second asset price which is influenced by monetary policy is real estate price. This market can affect aggregate demand and output through three channels.

Housing expenditure effects

Expansionary monetary policy will reduce market interest rates, thereby causing the cost of housing to reduce and the house prices to go up. As house prices increase relatively to the construction cost, the real estate companies will put more fund on housing projects, then increase housing expenditure and output.

Household wealth effects

Another impact of expansionary monetary policy is that it increases the value of households' wealth and makes them become richer. As a result, they will spend more.

Bank balance sheet effects

This impact is shown through the role of banking system in providing fund to the economy. In a bank's porfolio, a large proportion is mortgage loans–/+loans used to buy a house which will then be used as a collateral. When house prices rise because of easing monetary policy, bank loans losses will reduce and bank's capital will rise. An increase in capital will enable banks to expand lending, therefore firms will have more fund for investment and the economy will grow.

Exchange rate effects

Net exports effect

Loose monetary policy leads to a reduction in domestic interest rates, which will then depreciate domestic currency. A decrease in domestic currency helps to increase export as domestic goods become cheaper relatively to foreign goods. Eventually, net export increases and so does output.

Balance sheets effect

This transmission mechanism will express its effect through the impact on the balance sheets of firms, especially those which have foreign debts. Depreciation of domestic currency due to easing monetary policy will increase the value of foreign debt in local currency, net worth of firms therefore will disminish. Firms therefore will have difficulty to access bank loans, which leads to the decrease in investment and aggregate spending.

EMPIRICAL IMPACTS OF SBV'S MONETARY POLICY ON ASSET MARKETS

Stock market

Vietnam stock market is considered as a young market when it has just operated for 16 years with the establishment of Hochiminh Stock Exchange in April 2000. This is also the breaking point for Stock market since the first dealing session was executed at that time. Five years later, Hanoi Stock Exchange was established. The year 2007 was marked as an important highlight when the Law on Security which regulates the operations of market as well as individuals and organizations was officially issued. In that year, Vietnam's stock market also hit a record when the Vietnam Index (VN Index) reached to the peak of 1,170 points. The market, however, collapsed quickly thereafter and fell to the lowest value of 235.5 points in February 2009. As planned, by 2016, the derivatives market will be established and put into operation.

Before 2005, the stock market worked quietly with small volume and low value of transactions since this period is early stage, the number of investors and the listed securities are limited. The next period of time, 2005–2015 witnessed a significant change in operation of the market in terms of volume and value of transactions, the active participation of both domestic and for-

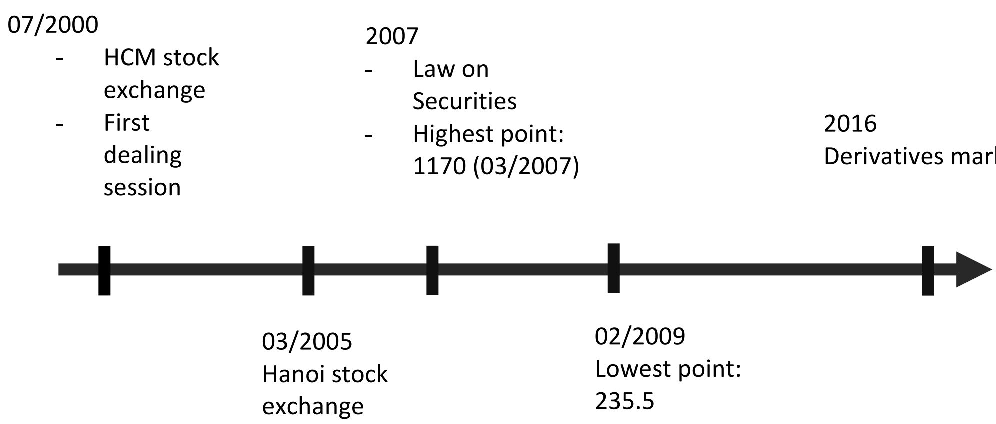

Figure 1. **A historical timeline of Vietnam stock market**

Figure 2. **The movement of VN Index during 2006–2015**

Source: VNDirect.

eign investors. Based on the change in VN Index in Figure 2, the development of Vietnam's stock market can be divided into three stages: booming, recession and recovery.

Booming period (2006–2007)

The period of 2006–2007 was considered as a booming stage of Vietnam's stock market. VN Index increased sharply from 300 points at the

Figure 3. **VN Index during 2006–2007**

Source: vndirect.com.vn.

beginning of 2006 to the peak of 1,170 points in 2007. There are three main reason can be explained for this strong development.

First, prospects for Vietnam's economic growth after participating into WTO. In 2007, Vietnam officially became the 150th member of the World Trade Organization and this is the turning point which marked the international integration of Vietnam's economy. This event has made Vietnam become one of most the attractive investment destination for investors all over the world. And as a result, a large amount of fund has been poured into newly established stock market.

Second, strong herd instinct is typical feature of Vietnamese investors. Herd instinct is meant to be a mentality characterized by a lack of individual decision-making or thoughtfulness, causing people to think and behave in the same way as the majority of those around them. Basically, a large number of Vietnamese investors make investment decisions based on the behavior of the majority rather than the analysis of companies's performance. Therefore, many of them invest money massively into stock market and make it grow rapidly.

Third, expansionary monetary policy from State Bank of Vietnam. This is expressed through high growth rate of money supply. Figure 4 illustrates that money supply has increased strongly from 30% in 2006 to 46% in 2007. This, however, is not the main reason explained for the sudden growth of stock market because even SBV still maintained money supply growth rate at a high level (over 25% p. a) for the next period, the market still declined sharply.

Recession period (2008–03/2009)

Unfortunately, the sharp development of Vietnam's stock market did not take long since the next period of 2008–03/2009 witnessed the stock bubble burst. The stock market dropped dramatically from more than 1,000 points to 235 points in February 2009 (Figure 5). The stock crisis came from several reasons as following:

Firstly, the massive flow of funds poured into stock market in the previous stage, made stock prices to overestimate than their true value. This meant that securities price would fall to the true value when flow of funds was diminishing.

Secondly, the global financial crisis in 2008 affected strongly expectations and sentiment of foreign investors and this, in return, influenced domestic investors. As concerning about the negative impacts of financial crisis on financial market, they had sold a large quantity of securities, made prices to fall sharply.

Thirdly, State Bank of Vietnam implemented contractionary monetary policy to reduce the inflationary pressure in the economy.

Fourly, some self problem of stock market had been shown in terms of new establishment, not working under the market rules: speculation, manipulation, too much margin lending, etc.

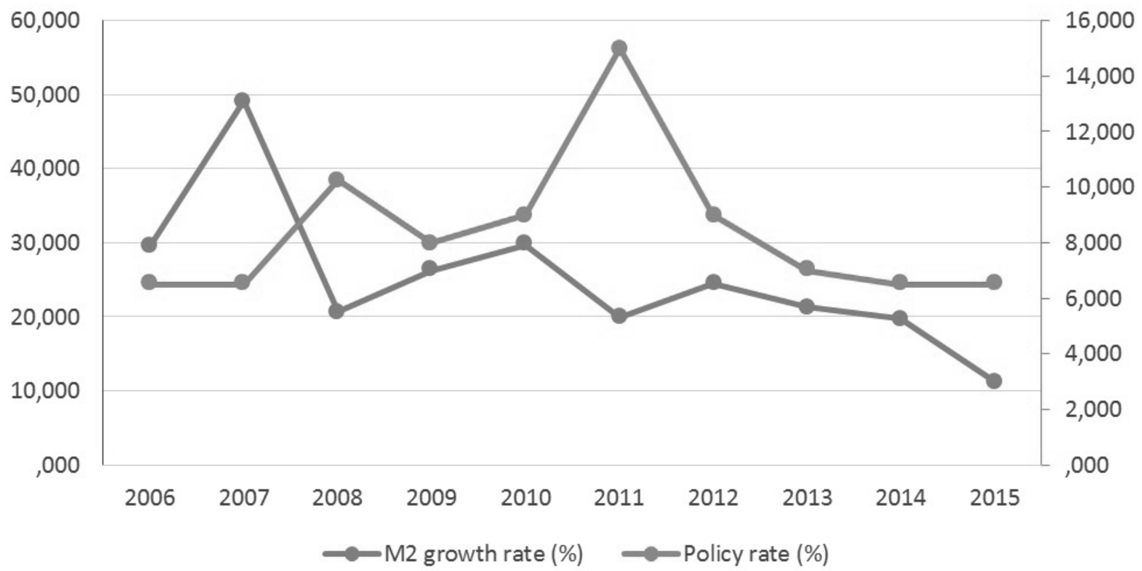

Figure 4. **Policy rate and money supply growth rate in Vietnam during 2006–2015**

Source: IMF.

Figure 5. **VN Index during 2008–03/2009**

Source: vndirect.com.vn.

Recovery period (04/2009–2015)

This period witnessed the recovery of the stock market, VN Index bounced back to 500 points and fluctuated around this level. It is hard for the market to achieve higher level because of some challenges in macroeconomic conditions

Figure 6. **VN Index during 04/2009–2015**

Source: vndirect.com.vn.

such as low economic growth, high rate of public debt and non perfoming loans in banking system… Another issue which will impact the market comes from Central bank's policy. In 2014, SBV has issued a new Circular which reduce limits for securities lending in banking system from 20% to 5% of charter captial. The aim of this policy is to guide the flow of capital into the manufacturing industries instead of into the financial market.

Thus, it can be concluded that Vietnam's stock market is influenced by many factors, but the Central bank's monetary policy is not the key factor determining the volatility of market. This is proved through study of Nguyen Phuc Canh et al (2014). By employing SVAR model to analyze the effectiveness of asset price channel through stock price in Vietnam during 2000–2012, they concluded that the change in policy rate does not has effects on stock prices but money supply does. Ha Thanh Viet (2015) also agreed that stock price is driven by many other factors rather than the influence of monetary policy from SBV.

Gold market

A timeline of SBVs interventions

Although the Vietnam's domestic gold market was subject to the Government and Central bank regulations during the early 2000s, such as the licensing requirements for gold fabrication and gold imports and exports, the market was relatively free for the Vietnamese population to buy and sell gold and even gold deposit taking by banks, in which they would provide interest on the deposited gold, became popular.

In the early 2008, a number of gold trading floors were launched by Vietnamese commercial banks, such as Viet A Bank, Southern Bank, Asia Commercial Bank, etc. These trading floors allowed retail clients to speculate on the domestic gold price, often with the use of bank loans, and thus offered customers a high degree of leverage and encouraged risk-taking. Obviously, both Vietnamese banks and retail investors had their own incentives to engage in these trading floors. For commercial banks, they entered this business area after SBV implemented a contractionary monetary policy in order to control inflation, which tightened lending criteria on the banks' traditional lending activities. On the other hand, retail investors, also known as speculators, were willing to participate in gold trading floor operations which provided their affinity to gold, and created another potential investment opportunity when the Vietnam stock market experienced a deep recession during 2008.

However, in 2010, the Vietnamese government issued a directive order to close all gold trading floors in an attempt to reduce risky trading operations, which was the first moves in a new round of the Government's anti-gold regulations lasted from 2010 to 2014. On the other hand, SBV also required all bank loans that had been used for speculators to trade gold had to be repaid. This repayment policy and the deadline to close the floors by 30 March 2010 actually caused a plummet in trading volumes on all floors in early January 2010, and led to some operators closing their gold trading operations far ahead of the Government's official deadline.

In April 2011, SBV issued Circular 11/2011/TT-NHNN which prohibited credit institutions from engaging in gold lending and deposit taking in gold with any individuals or institutions, and thus contributed to target gold price speculation in the Vietnam gold market. In May 2011, Saigon Jewelry Company (SJC) was appointed as the sole entity authorized to produce gold bars in Vietnam, which was expected to help the State control and intervene more effectively in the domestic gold market. Furthermore, the SJC branded gold bars were allowed to be channeled through other producers such as Sacombank Jewelry, Agribank Jewelry, Bao Tin Minh Chau and Phu Nhuan Jewelry.

In April 2012, the Vietnamese government issued Decree No. 24/2012/ND-CP covering gold trading management. This Decree specifically banned gold bars as a means of payment, took control of gold bar production into the hands of the State, and implemented a government monopoly on gold import and exports. It also directed that gold bar trading could only be carried out by licensed entities, and SBV could hold gold bullion as part of its official reserves.

In January 2013, trading licensing rules came into effect with only 22 banks and 16 non-bank companies licensed to act as authorized bullion traders. From that time on, it became illegal for all other gold traders in Vietnam to trade in gold, and SJC brand became the only gold bar brand accepted in the Vietnam gold market. Moreover, gold auctions were also organized by SBV to regulate the supply of gold to the domestic market, in an attempt to smooth the domestic gold price and stabilize the market.

SBV's impacts on gold market

It is obvious that the legal ownership of gold by entities and individuals in Vietnam are acknowledged and protected in accordance with laws. Therefore, organizations and individuals engaged in the business of gold must comply with the Government's regulations and other relevant provisions. The State bank of Vietnam, on behalf of the Government, manages gold trading for the aim of developing a stable and sustainable domestic gold market. Furthermore, the SBV have the rights and obligations to conduct the inspection and supervision of the production of gold jewelry; gold bullion and jewelry trading; the export and import of raw gold and other gold trading. Despite some mixed opinions, it cannot be denied that these interventions have brought positive results to the gold market in Vietnam.

First, *the legal framework and management system have been gradually improved*. This could be seen through numerous policies of SBV including the prohibition of gold lending and deposit taking in gold, thereby reducing gold speculation and preventing credit risk. SBV also prohibited credit institutions from providing loans for the purpose of trading gold bars, and made requirements for their gold reserves (less than 2% of bank capital and more than zero) in order to stabilize the domestic gold market. Some examples of these policies include Circular 22/2010/TT-NHNN, Circular 12/2012/TT-NHNN and especially Decree 24/2012/ND-CP, etc.

Second, *gold supply and demand have been stabilized, while budget revenues have increased through gold auctions*. In 2013 only, SBV held more than 70 gold auctions, through which provided around 70 tons of gold to the market. This was considered to be an effective solution in balancing domestic gold supply and demand, thereby contributed to stabilize the gold market. Furthermore, the amount of money collected from auction operations was used to increase Vietnam's foreign reserves and regulate money supply according to the central bank's objectives. Profits from these activities also supported the state budget and economic development, especially in the context of a developing country with the state budget deficit in a number of years like Vietnam.

Third, *the problem of "goldization" has been repelled, contributing to stabilize Vietnam's money*

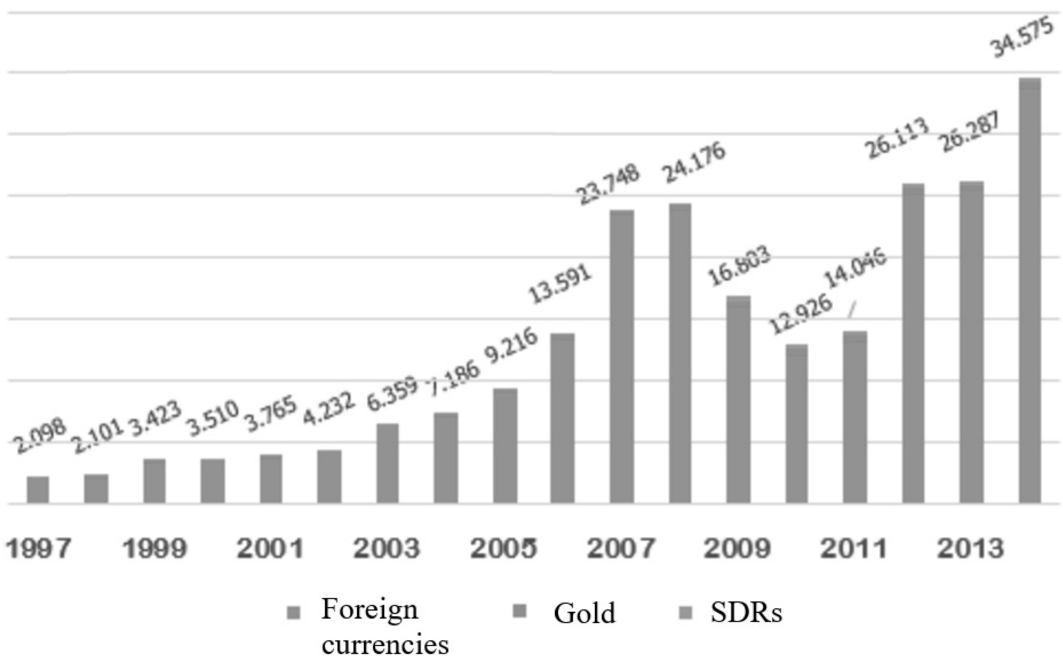

Figure 7. **Vietnam's foreign reserves from 1997 to 2014**

Unit: Million USD.
Source: ADB, 2015.

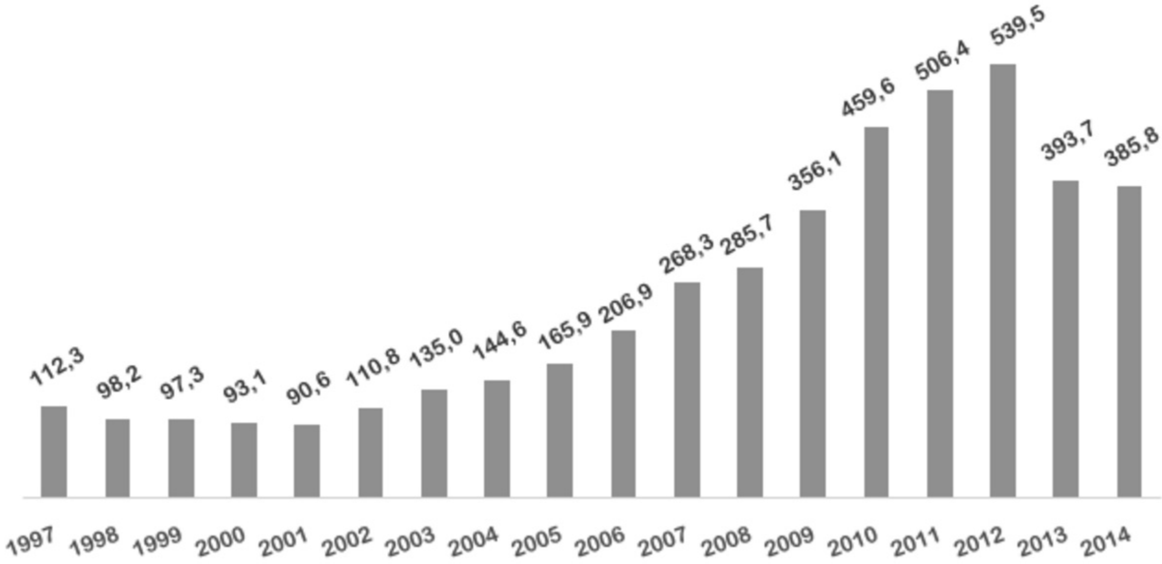

Figure 8. **Vietnam's gold reserves from 1997 to 2014**

Unit: Million USD.
Source: ADB, 2015.

market and macro economy. The imbalance between domestic gold supply and demand has significantly narrowed, thereby stabilized domestic gold price and effectively eroded investors' incentives in gold speculating. Moreover, with the prohibition of gold lending and deposit taking in gold, credit risk for commercial banks, gold speculation and goldization problems have been reduced. As the result, negative effects of global gold price fluctuations on exchange rate, inflation and the macro economy of Vietnam have been considerably prevented.

Fourth, *the Vietnam's gold market has been basically rearranged with a gradually established discipline system*. Accordingly, instead of a complex trading network with more than 12,000 transaction points across the country, there are around 2,500 transaction points and

Figure 9. **Gold price from January 2011 to November 2015**

Source: The State bank of Vietnam, 2015.

38 credit institutions with gold trading licenses. Although the number of these trading points sharply decreased, the domestic gold market has not experienced any inadequacies or disturbance. Furthermore, these entities are required to publicly announce selling and purchasing gold bullion prices; to comply with regulatory provisions on accounting system, invoice establishment and usage; as well as to be inspected regularly by SBV. On the other hand, the central bank's strict control over gold bullion producing activities could also prevent the problem of gold smuggling.

Fifth, *SBV has been successful in preventing market chaos.* By controlling gold supply and narrowing the spread between global and domestic gold prices, SBV has succeeded in creating psychological stability for almost market participants, who used to be manipulated by temporary gold price fluctuations. Recently, despite changes in global gold price, the domestic gold market has been relatively stable, speculators could hardly find opportunities to create virtual waves or manipulate the market to make profits.

Real estate market

The history of Vietnam real estate market

The history of Vietnam real estate market is divided into seven main phases, including:

Before 1990: In this period, Vietnam's economy was underdeveloped, the urbanization process was slow, as well as individuals and organizations' demand for real estates was trivial. Therefore, the Vietnam real estate market was considered to be almost non-existent with some implicit and non-marketable transactions only.

The first fever (1993–1994): In the two years 1993 and 1994, Vietnam real estate market experienced the first fever in the segment of Land and Land-use rights. This was due to the significantly increasing demand for housing and producing land, especially in urban areas, in the lack of an officially legal framework.

The first freeze (1995–1999): In order to stabilize the real estate market and prevent speculation, Vietnamese government announced Decree 18/1995/ND-CP and 87/1994/ND-CP on land rents, which required land users to pay fees for renting land and transferring land-use rights. These interventions forced speculators, who used financial leverage to enter the market, to sell off their properties with the purpose of repaying bank loans. Due to this discharging wave, real estate supply suddenly increased and well exceeded demand, making the market plummet. Furthermore, the Asian economic crisis negatively affected foreign investments in Vietnam's housing sector, contributing to the market recession.

The second fever (2001–2002): After a long quiet period, in 2000, housing prices began to fluctuate, then continuously increased and reached a peak in the second quarter of 2001. The main reason related to the government's policy allowing Oversea Vietnamese to buy houses and announcing new prices for land, which brought huge prospects to the real estate market and encouraged investments to flow into this area.

The second freeze (2002–2006): From late 2002 to 2006, the real estate market operated quietly with little transaction volume. It was reported that successful real estate transactions fell by 28%, 56%, and 78% in 2003, 2004, and 2005 respectively. This was due to the Vietnamese government's administrative measures including Land Law 2003 and Decree 181/2004/ND-CP which strongly reduced incentives for speculation in land. However, because the majority of investments came from the private sector rather than public sector, these measures effectively stopped the second fever without pushing the real estate market to plummet as much as it did in the period of 1995–1999.

The third fever (2007–2008): Unlike the previous fevers, this period experienced a huge investment flow into the segment of luxury apartments and villas. Two main reasons included: (i) Significant FDI inflows created impressive growth for the Vietnam's economy in 2003–2007; and (ii) The booming period of Vietnam's stock market (2006-2007) brought investors huge profits which partly flowed into the high-end real estate segment and contributed to a strong fever in this area.

The third freeze (2008–2012): In the context of an inflationary economy and a serious bubble in the real estate market, SBV drastically tightened monetary policy to control credits to the economy, especially non-production credits. Right after these measures came into effect, the real estate market was strongly affected, leading to significant declines in transaction volume and real estate prices. The issuance of Decree 69/2010/ND-CP and Decree 71/2010/ND-CP guiding the implementation of the amended Land Law 2009, the application of land-use tax, and especially the announcement of Resolution 11/2011/NQ-CP were considered as key reasons of this freezing period. Particularly, in 2011, the limit for credit growth was set at 20%, while outstanding credit growth for non-production sector must not exceed 16%, which made the real estate market gloomier. The next year, 2012, experienced fierce competition between real estate businesses for surviving, and the closure of many companies lacking financial capacity.

From 2012 until now, more open regulations announced including amended Land Law and Construction Law 2013, and especially some stimulus packages for housing sector (e. g. the 30 trillion VND package) were expected to promote the recovery of this area.

SBV's impacts on real estate market

SBV is responsible for the financial stability and soundness of the housing finance sector with lending standards, prudential regulations and management of interest rates. Furthermore, SBV engages commercial banks and non-bank financial institutions (e. g. microfinance institutions) in housing sector lending and supports development and manages housing finance subsidy programs. SBV also develops measures to encourage commercial banks to scale and diversify housing finance products and provides oversight toward the national credit information aggregator, the Credit Information Center. Therefore, differing from gold market with direct interventions and managements, SBV usually affects real estate market, particularly housing sector credit, through its monetary policy.

In fact, monetary policy directly impacts total credit to the economy in general, and credit to real estate market in particular, thereby promotes or hinders the development of the real estate market. In the context of low inflation and stable economic development, the central bank might implement expansionary monetary policy to promote economic growth. By contrast, under the condition of inflationary and instable economy, tightening monetary policy might be needed.

In the period from 2005 to 2007, the Vietnamese macro economy was stable and money

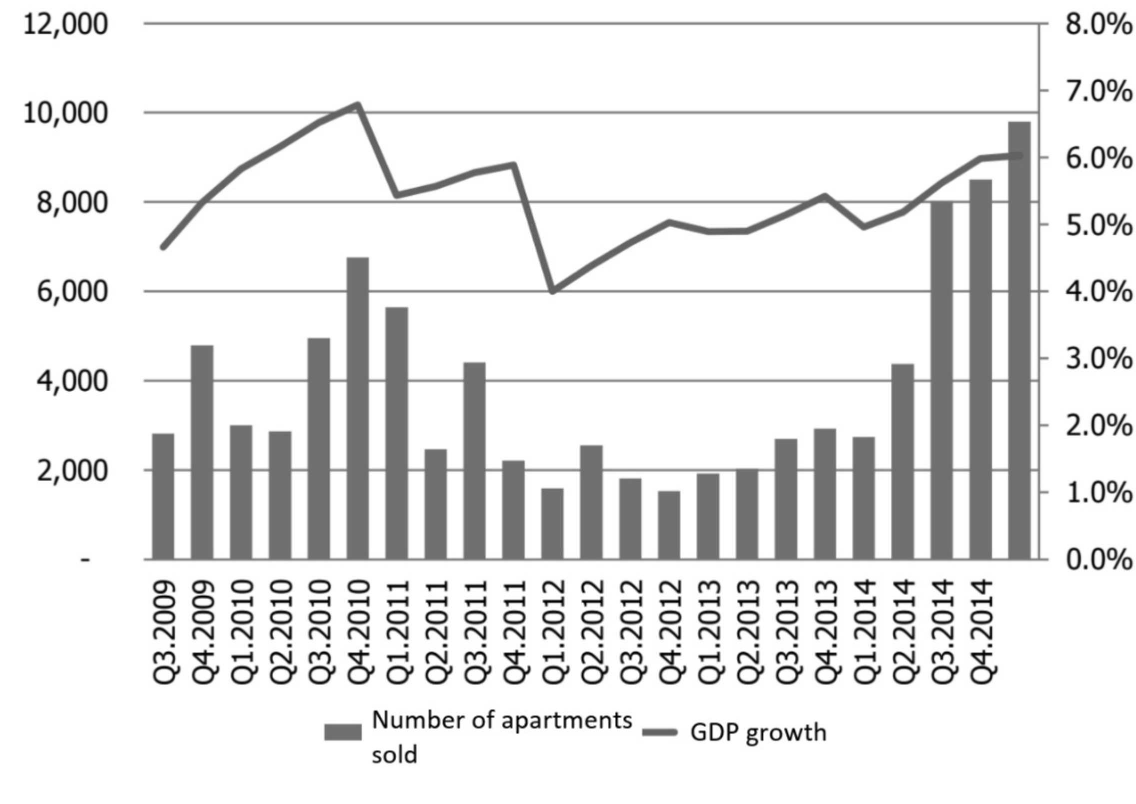

Figure 10. **Number of apartments sold and GDP growth in Vietnam**

Source: Savills, MBS, 2015.

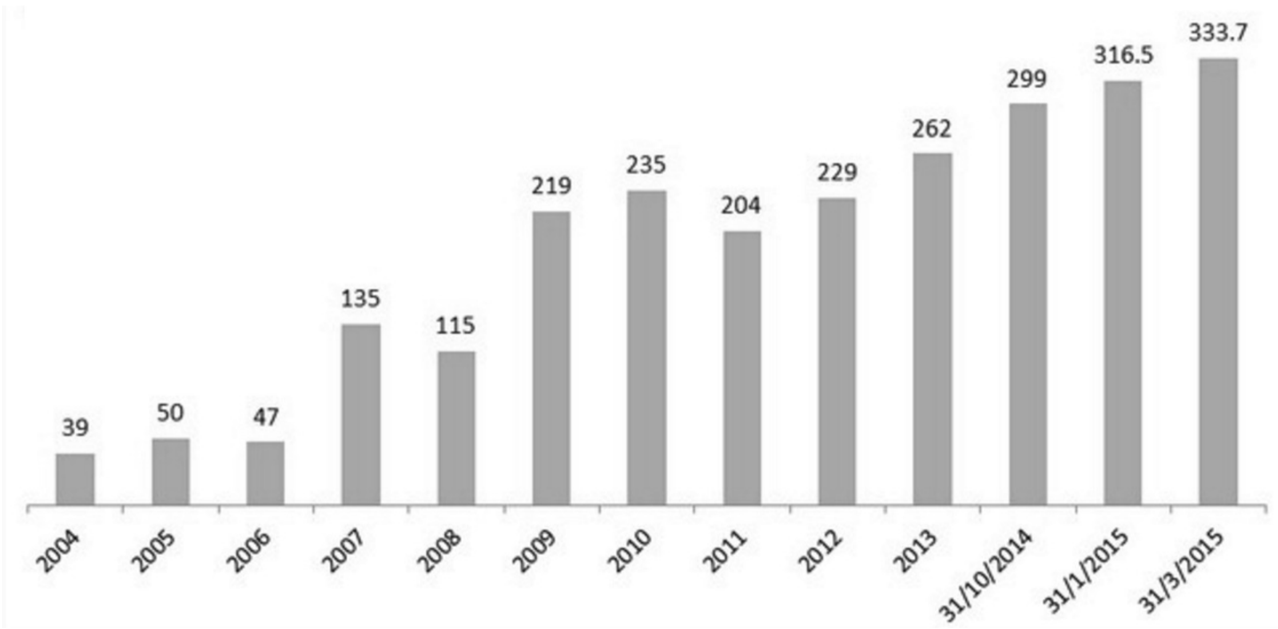

Figure 11. **Outstanding real estate credits from 2004 to March 2015**

Source: BSC, 2015.

supply (M2) grew at a high speed, which promoted the expansion of credits to the economy in general, as well as credits to the real estate market in particular. On the other hand, the rapid economic growth during several years played an important role in increasing asset values, especially real estates, leading to the explosion of this market in 2007. However, from late 2008 to 2012, in the context of an inflationary and uncertain macro economy, SBV intensely tightened monetary policy to control inflation and credit growth. Particularly, money supply experienced a downward trend in 2008, while credit growth in the real estate sector remained at relatively high levels before slowing down in 2009 and reaching a low in 2012. As a result, the real estate market experienced the third freeze during this period. Therefore, it could be concluded that the relationship between M2 growth, real estate credit growth and real estate prices are generally positive. Changes in M2 growth rate has a direct impact on the growth rate of real estate credits, with a lag of about one year, thereby affecting the development of the real estate market.

According to Ha, D. et al. (2013), the relationship between credit growth in the real estate sector and real estate prices has a two-way interaction. On one hand, continuously rising real estate prices might create the expectation that they will continue to increase in the future, leading to speculative activities and growing demands for loans. On the other hand, the growth of real estate credits has a strong effect on the development of real estate market and real estate prices as well. However, the interaction of each parameter occurs at different time and different degree. Based on historical data, the authors found that real estate prices often fluctuate sooner and have a stronger impact on real estate credit growth than the other way around. For example, in 2007, when the average real estate prices increased by more than 35%, real estate credits rose by 18% only. In the following year, real estate credit growth surged and peaked at 36.78% while real estate prices slightly increased by 15.47% and the market was entering a downturn period.

From 2012, thanks to stimulus packages for the real estate sector and the decline of lending interest rates, this market has experienced a slow but stable recovery. According to Savills (2016), the Q4/2015 residential indexes in Hanoi and Ho Chi Minh City were 108.2 and 90.2 respectively, slightly higher than previous periods. The overall absorption rate in Hanoi was 40%, decreasing 5 ppts quarter-on-quarter but increasing less than 2 ppts year-on-year, while the rate in Ho Chi Minh City was 21%, up 4 ppts quarter-on-quarter but down 1 ppt year-on-year. Generally, the absorption rates in both cities show positive signs

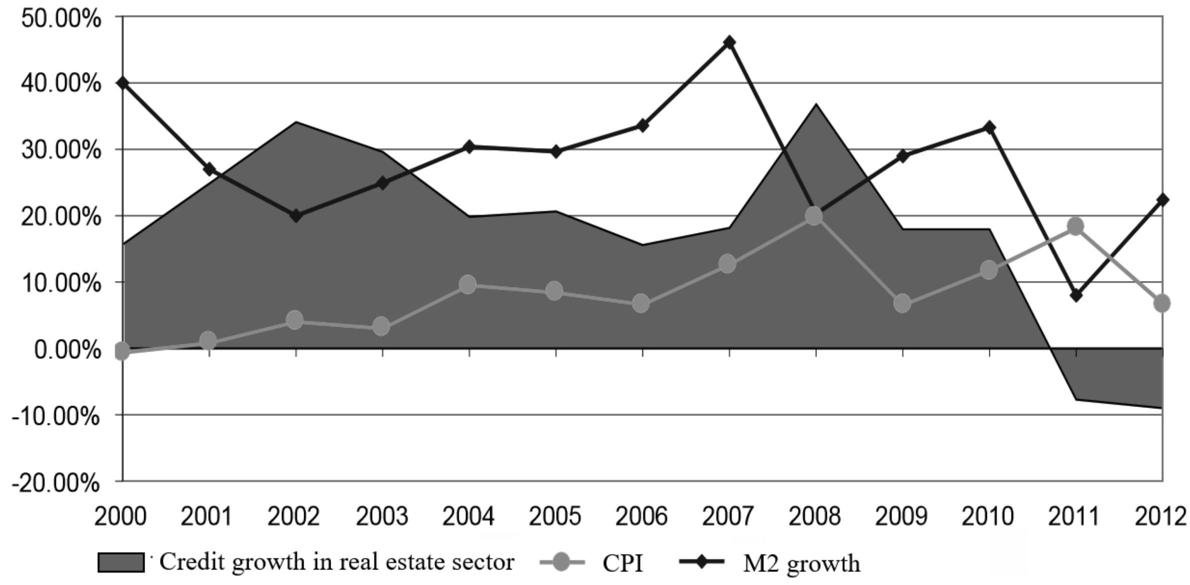

Figure 12. **Money supply, Consumer Price Index and Credit growth in real estate sector**

Source: Ha, D., Ngoc, L., 2013.

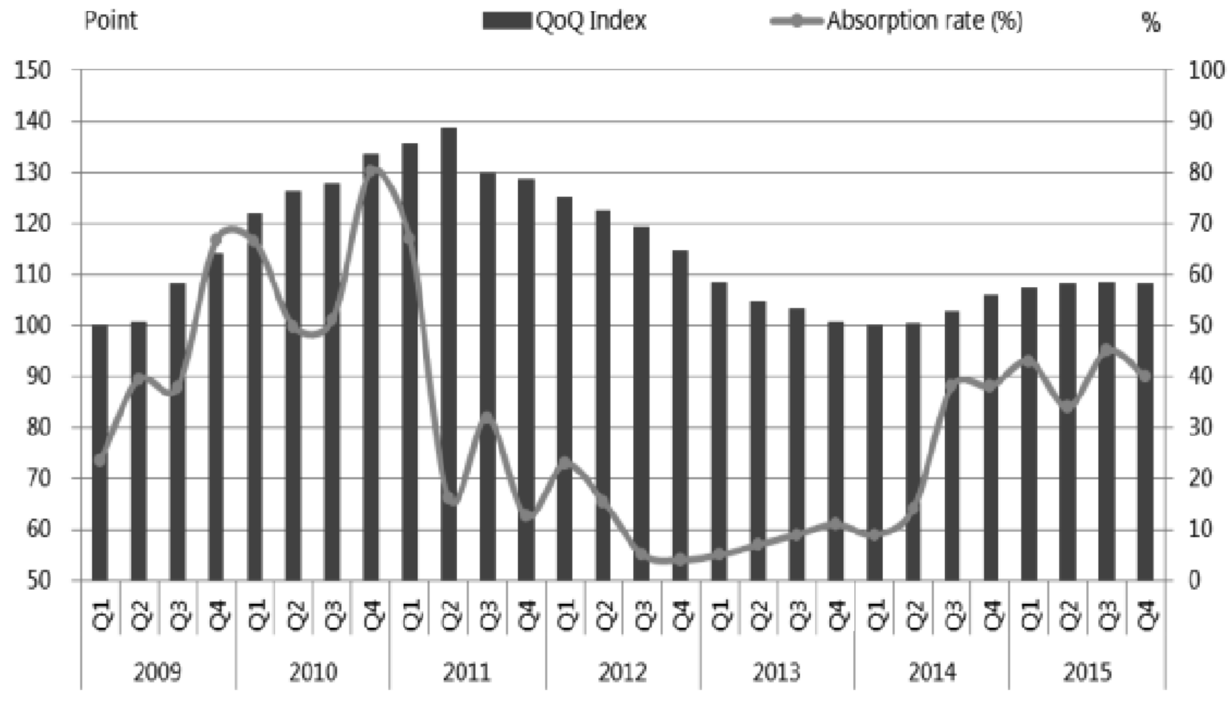

Figure 13. **Residential price index in Hanoi — Q4/2015**

Source: Savills Research & Consultancy, 2016.

of a gradual recovery in the real estate market. A number of factors including better financial support, construction commitment from developers and diversified products targeting various buyer groups, has resulted in better sales and price movements. However, the potential of a rise in interest rates may pressure prices, especially for active projects.

CONCLUSION

SBV's monetary policy has a strong impact on Vietnam's asset markets including stock market, gold market and real estate market. When money supply rises, the increasing inflow of capitals into these markets might significantly affect asset prices, especially stocks and real estates. However, in gold market where SBV takes

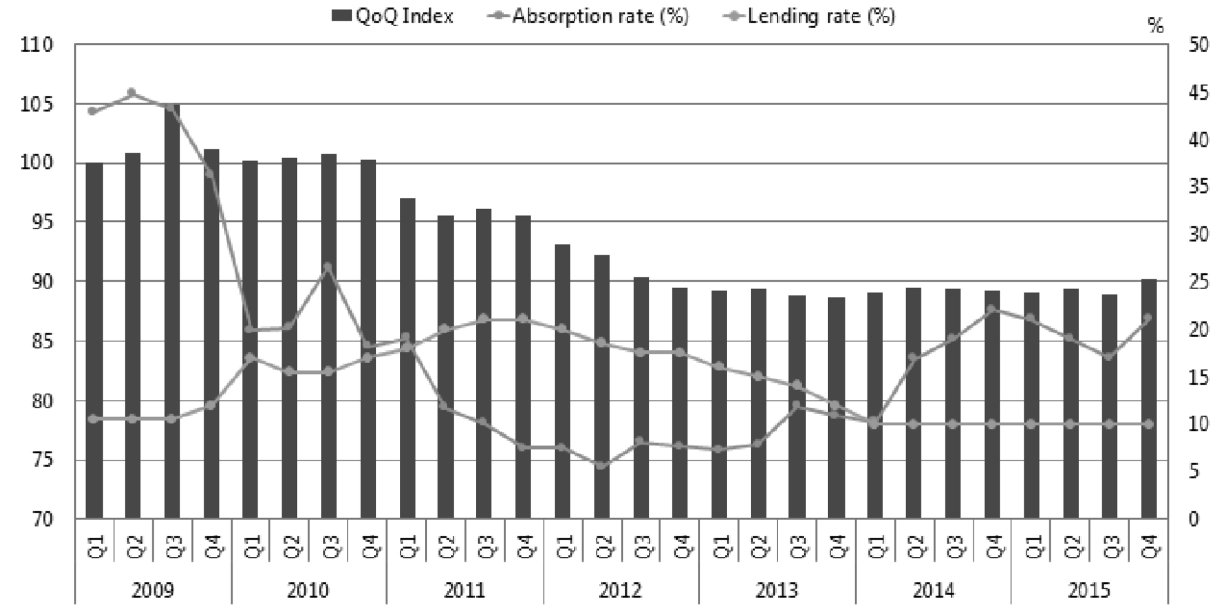

Figure 14. **Residential price index in Ho Chi Minh City — Q4/2015**

Note: Base Index in Q1 2009 = 100.
Source: Savills Research & Consultancy, 2016.

control of gold bar production and regulate gold supply, changes in gold prices might not exactly reflect SBV's monetary policy. To summarize, by studying the three asset markets in Vietnam, it could be concluded that they are influenced by many factors, and the Central bank's monetary policy might not be the key factor determining the volatility of these markets.

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