

# The US financial crisis: causes and lessons

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**ABSTRACT:** In the last 10 years, after becoming the official member of WTO in 2007, Vietnam has made commitments to the comply with the US-Vietnam Bilateral Trade Agreement and other international economic agreements. Vietnam has also become a member of the AEC and entered into important free trade agreements, notably the Trans Pacific Partnership. The financial integration of Vietnam in the global economy has been increasing rapidly. However, Vietnam also witnesses the unexpected economic fluctuations domestically and internationally. The global financial crisis, especially the US financial crisis, exerts a major impact on Vietnam's economy and its banking system. Accordingly, the real estate market, stock market and banking system in Vietnam have fluctuated remarkably. This article discusses the causes of the US financial crisis and analyses the US government's solutions. The causes of the US financial crisis are distributed to lax lending standards, failures in regulations of derivatives financial instruments, and lack of state control of banking systems. In this respect, recommendations are made for Vietnam's case.

**KEYWORDS:** housing loans, derivatives financial instruments, financial crisis.

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## 1. Introduction

The financial crisis 2007-2008 in the United States is considered as the biggest international economic issue within recent 10 years. It started from the housing subprime mortgage crisis, along with numerous derivative instruments, causing the global economic crisis. In the US, there were waves of selling, spreading across stock markets around the world. In October 2008 alone, more than \$10 trillion investment in securities was evaporated, while a range of global stock markets closed temporarily to stop trading. Oil prices plummeted from a record \$147 per barrel from 11 July 2008, to \$44-46-50 per barrel until the end of November 2008, the lowest one in four years (Pham Minh Chinh & Vuong Quan Hoang, 2009).

The crisis was rooted in the US housing bubble (which occurred in 2005-2006) with high-risk subprime mortgages and interest-bearing mortgages. Before that, with the combination of the highly rising housing price and easy credit conditions, many people borrowed money from investment banks to speculate in real estates with the hope of gaining money from the differences between transactions.

The global economic crisis has had a great impact on Vietnam when Vietnam is implementing the financial market opening schedule under the WTO commitments and other international commitments. The stock market, real estate market, gold market and foreign currency markets have fluctuated significantly. Commercial banks in Vietnam have been also strongly affected by international factors and the fluctuations of the mentioned markets. The non performance debt rate used to be 17.2%. The banking sectors have been restructuring since 2012 (Nguyen Thi Kim Thanh, 2016).

## 2. Theoretical background and methodology

There are different views of the financial market and its structures. According to Gitman & Joehnk (1990), a financial market is a mechanism that links financing providers to those who need funds by signing contracts through intermediaries such as stock exchanges. Sachs & Larrains (1993) define a financial market is a field of circulation of financial assets. The European Central Bank defines the financial market structure according to the financial instruments, so that there are debt market, equity market, foreign exchange market, material market, and derivatives market (ECB, 2005). Noticeably, there is a view to divide financial markets into 2 types: bank-based and market-based one (Demirguc-Kunt & Levine, 1999). Financial markets contain money market, stock market, foreign exchange market

and commodity market. The real estate markets and the financial markets, as well as their market segments, have a close relationship.

The financial crises can be considered in two aspects: particular cyclical crises and particular crises. A cyclical financial crisis is a part of an economic crisis and manifests itself when the economic cycle reaches its foundations. In this case, the financial crisis is comprehended as a sharp decline in financial assets resulting in the mass bankruptcy of market players (Rudy, 2003). A particular financial crisis is characterized by a turbulence in the functioning of the financial markets that manifests itself in the depreciation of the domestic currency, the depletion of foreign exchange reserves, the failure of financial institutions, the insolvency of nonfinancial entities and public default (Rudy, 2003). We define the world financial crisis of 2007-2008 as a particular crisis.

In this paper, we use dialectical materialist methodology with the view that all the results have its causes. The research uses quantitative methods such as synthesis, analysis, inductive, deductive.

### **3. The causes of the financial crisis in the US**

#### **3.1. Subprime housing loans**

Subprime loans are loans in which banks lend money not based on traditional principles - real income of borrowers, but, specifically, banks lend money to black people, immigrants, and green card holders to buy houses based on expected increases in housing prices, rather than based on a stable income from salaries and wages.

US Investment banks used securitization to turn housing loans to different securities, including mortgage-backed securities (MBS), collateralized debt obligation (CDO) and credit default swap (CDS).

When the economy declined and housing borrowers failed to pay for their housing loans, credit risks were transferred to securities which have real estate credit portfolios as collaterals. As the crisis intensified, property sales became more and more popular, causing real estate prices to fall down. This means that the collateral value of bonds decreases and the credit risks increase.

The turmoil of the crisis occurred in that way and the stock price fell sharply. Although investment banks did not hold whole risks, they directly or indirectly maintained a number of stock portfolios related to real estate. As a result, a series of investment banks reported their business losses.

### 3.2. Housing bubble

There are 3 elements to create a housing bubble. They are as follow:

Firstly, in the US, most house buyers must borrow money from the banks and pay the bank interest and principle for a long period of time. Hence, there is a strong connection between interest rate and the status of real estate market. When the interest rate is low and the credit condition is easy, people tend to buy more houses, pushing housing prices to increase. When the interest rate is high, the housing market is frozen, there are more sellers than buyers, which pushed housing prices to decrease. Since 2001, in order to keep the economy out of stagnation, the Federal Reserve repeatedly lowered interest rates. This caused banks to lower interest rate for housing loans (although interest rates for housing loans are much higher than the base rate of the Fed, but its level always depends on the base rate). In the mid 2000, the base rate was above 6% per year, but it was continuously reduced and reached 1% per year by the mid 2003 (Nguyen Dac Hung, 2012).

Secondly, related to housing owning policy, at that time the US government encouraged and facilitated poor and black people to borrow money to buy houses from financial institutions under easy credit conditions. Most of these loans were implemented by 2 companies, Fannie Mae and Freddie Mac which were created by government. These 2 companies helped to inject capital into the real estate market by buying back commercial bank loans, turning them into mortgage-backed securities (MBS), and selling them again for Wall Street investors, especially giant investment banks such as Bear Stearns and Merrill Lynch (SEC, 2012).

Thirdly, as mentioned above, since there was a transformation of loans into investment tools, the credit market which served the real estate market was no longer the only playground for commercial banks or real estate mortgage lenders. It has become a new playground for other investors who were able to mobilize capital from all places, including foreign capital. The establishment, sale and insurance of MBS was so complex that it made them out of the normal control of the government. Because of the lack of control, investors became more greedy and riskier. As most of the loans could be resold and turned into MBS, commercial banks became riskier in lending, despite the borrowers' ability to repay.

Therefore, real estate market became very active, many people with low income or no good credit history could still afford to buy a house. In order to borrow money, these people usually pay higher and adjustable interest rates over time (for example, if the deal is borrowed with the interest rate of 6% per year

and adjusted after 3 years, the new interest rate will be set right after 3 years). This group belongs to the subprime rate category. In spite of the subprime borrowers' ability to repay their loans, the number of loans extended to this group have increased rapidly. The loan amount rose from \$ 160 billion in 2001 to \$ 540 billion in 2004 and \$ 1,300 billion in 2007 (Trinh Thi Hoa Mai, 2009). Fannie Mae was more aggressive in the acquisition of risky loans due to facing more competition from other companies, such as Lehman Brothers. In addition, demands for MBS acquisition were still high because until before 2006, the real estate market had not shown any signs of a bubble burst. Moreover, investors were also reassured that they could still buy other insurance and investment tools. This led insurance companies to become more aggressive in selling CDS to the market, despite their ability to secure.

Due to easy credit conditions, demands for houses were very high, leading the increase in housing prices. The averages housing price rose by 54% within 4 years from 2001 (when Fed reduced base rate) to 2005. This also led to the speculation and expectation that housing price continuously increases. As the result, many people were willing to buy a house at high prices regardless of its real value and their ability to repay later because they could resell their house to repay their loans with a profit. Therefore, a housing bubble has formed.

### 3.3. Use of financial derivatives

#### • *Establishment and purchase of MBS*

Financial derivatives are diverse and complicated. Fannie Mae or Lehman Brothers bought mortgage loans from commercial banks, converted them into different types and then issued MBS to resell to investors. For example, Fannie Mae purchased 1,000 mortgage loans with the same characteristics at the original of \$ 200,000 per loan. As a result, the total value of these loans was \$ 200 million. Then it converted them into 100,000 MBS with the price of \$ 2,000 per MBS. After buying MBS, investors received the loans' principal and interest transferred monthly by borrowers (through an intermediary company) for a certain period of time.

After the loan's duration, investors were expected to receive more than \$20,000 (including the principle and annual interest). The riskier MSB is, the higher profit investors can get. As there is a difference in the risk of MBS type, insurance and risk assessment companies like AIG also joined in selling insurances for MBS investors. These insurances called a credit-default swap (CDS) guaranteed to MBS investors that if borrowers fail to pay back their debt

and the MBS depreciates, investors will be compensated. This has created more players joining into the game.

- *Credit default swap*

Credit default swap (CDS) was created in 1997, by Blythe Sally Jess Masters, an economist and JP Morgan's commodity trading eagle. It accounted for about 50% of the transactions of the International derivative market. Before the subprime mortgage crisis in 2008, CDS was very popular in the United States. The US citizens invested in CDS derivative,s but were not aware of their risks. They only knew that CDS was insured by AIG, so that there was no default. After the collapse of AIG, the fragmented CDS network was damaged and then CDS was considered as the most risky instrument among derivative types.

For example, you invest \$10 billion in HAG bonds. The Housing market is frozen, you are afraid that HAG defaults. What will you do? The simplest way is to sell those bonds. Another way is hedging those bonds by purchasing CDS. Then AIG agrees to sell default insurance of HAG with the rate of 1/100, which means that no default, you lost fee, while you earn insurance premium.

Basically, CDS is like a gamble. For example, there are 2 gambles A and B who bet on the performance of horses at a racecourse. A bets that horse V will die or be injured within the next 3 years. B accepts to bet A with the rate of 1 to 1000. A bets \$5 per week on the horse V being injured or died or not being able to race. If yes, B will pay A \$5000. If not, A will pay again \$5 next week. It is supposed that there is a person not familiar with racehorses but the gamble B. Last year, B accepted to bet with the rate of 1 to 1000 but this year B only accepts the rate of 1 to 100, which means A has to pay \$50 per month to receive \$5000 if the horse is injured or died. Hence, the betting rate rises from 0,1% to 1%. If each 0.01% point is a basic point, betting rate increases from 10 basic points to 100 basic points. The basic point reflects the odds of betting on the health of the horse. Just knowing the betting rate with B, but the horse, that person will indirectly know the horse's health condition. It yesterday, the horse was sick, certainly today, B would accept the betting rate of 1 to 100 (100 basic points), rather than 1 to 1000 (10 basic points). The basic point price rises. If tomorrow the horse gets better, B will accept the betting rate of 1 to 1000 (10 basic points), the basic point price declines. Therefore, the more CDS price goes down, the better health condition of the betting assets and the lower the probability of a default.

Returning to the example of HAG, people who buy bonds and CDS are called protection buyers. AIG receives premium and pays premium if HAG actually

defaults. AIG is called protection seller. If HAG defaults, buyers lose \$10 billion, but thanks to hedging by CDS, buyers receive AIG's compensation to limit the losses (Huy Nam, 2015).

In order to hedge risks of loans and maintain capital adequacy ratios, investment banks and other banks were usually the bigger buyers of CDS market. Banks accounted for 40% of CDS purchases all over the world in 2010. Then it came to security companies, hedge funds (whose purchase proportion was 15%), enterprises and governments (which bought CDS to hedge their corporate bond portfolio). On the seller side, big life and non-life insurance companies like AIG played an essential role in CDS market because they are very CDS sellers. They were the ones who created CDS, calculated the insurance rate of each kind of bonds and fixed it out how and where to invest with the return. Players' strategy and products in CDS market were diverse. For example, an insurance company could buy bonds of 3 good companies and 2 bad ones, securitize them and sell CDS. If one of these five companies was insolvent, one customer would receive \$100 and unfortunately, two others of them were insolvent, those customers would receive \$200.

The US economy encourages the consumption, so many people can borrow money to buy cars and houses. When the economy is stable, business is favorable, borrowers can repay the debt, no one defaults. Therefore, insurance companies like AIG promote the securitization of subprime loans. With one dollar of real estate assets of HAG, for example, there are 31 people pay \$1 to buy its default insurance. If HAG does well, AIG only earns premiums. But if HAG is insolvent with the odds of 1 to 100, AIG must pay  $100 * 31 = 3,100$  USD for \$1 of HAG assets. And for one billion USD of HAG assets, AIG will not be able to pay, forcing them to sell off assets and bonds to pay indemnities.

### **3.4. Short sale on the financial market**

When speculators forecasted that bonds of corporations involved in subprime lending would plummet, they massively borrowed these bonds and massively sold out them on the stock market, creating a downward pressure on the prices. Once the price fell to a certain level, the speculators will buy the same amount of bonds and return them to the lender plus a small fee, so they will enjoy the difference.

Even some speculators applied the naked short sale method, which means they did not borrow securities anymore but order a "strike down" sale for taking advantage of the three-day gap of a purchase to deliver stock.

### **3.5. A lack of suitable supervision mechanism for banks and financial markets**

With a rich base of financial resources by selling debt portfolios to investment banks, companies easily lent their customers money. Based on different debt portfolios, these investment banks issued bonds to borrow more money. Debt portfolios were divided into low-risk, high-risk one... depending on the rating. Investors could choose any kind of bonds based on their risk appetite. There was a type of bonds that did not have ratings, but did have high profit as well as high risks.

As such, the risk of lending has shifted from a lender is financial company to an investment bank. Investors in the world have poured money into buying these securities, so they have provided huge amounts of capital for the hotly growing US real estate market.

### **3.6. Trust crisis in financial market and banking sector**

According to Joseph Stiglitz's theory, a crisis starts with the collapse of trust. Banks posed a puzzle to each other about their level of lending as well as their assets. Complex transactions were created to eliminate risks and hide the slippage of the real value of the bank's assets. This was a game that when people started to feel the "taste" of loss and look at the financial system, losses would occur. The market went down and all "players" were lost. The financial market revolved around the principle of "reliability" and it has been eroded. Lehman's demise was a sign of low trustworthiness and its resonance will continue.

The key problem at that time was a spread of credit scarcity. It became more serious when investors started selling off venture capital investments in order to preserve capital. This led to a decline in market sentiment and the popularity of herd mentality and behavior, forcing the government to intervene broadly and deeply in order to restore public confidence.

To sum up, the main reasons of the US financial crisis that led to the international financial crisis are followed:

Firstly, as Fed implemented a loose monetary policy for many years, low-interest rates made the expansion of subprime lending. Banks extended lending included loans for low-income people who did not meet credit requirements.

Secondly, the financial market in general and the credit market in specific in the US and Europe became more liberal, but unhealthy, allowing the spread of speculative investment activities and the free openness of new derivative financial instruments with a lack of prudential supervision.

Thirdly, investors' confidence was weakened by the solvency of banks. The



decline of the US, European and the world economy has led to the global bond sell-off, the lending restriction of numerous banks. This spread out over the world, making the crisis more serious.

With the concern of inflation, the Fed began increasing the base rate of the USD, leading the real estate market to slow down in early 2006.

From mid-2003 to mid-2006, the base rate of Fed grew from 1% to 5.25% per year (Trinh Thi Hoa Mai, 2009), pushing banks to raise housing lending rates. High lending rate caused a decrease in housing loans. Housing price started declining because supply exceeded demand. Those who bought houses at a high price before they realized that their house's market price was lower than their debt. In addition, in many cases, subprime lending borrowers began being unable to repay because of the new high, adjusted interest rates. They could not sell their houses as the house price was smaller than their debt. Consequently, borrowers were forced to give up their houses to the banks.

The more borrowers were unable to repay their debt monthly, the more MBS's price decreased. As mentioned before, many Wall-street investors bought MBS. A decline of MBS price made their asset value fall down. In addition, MBS insurance companies such as AIG got into troubles as they had to guarantee more and more bad loans. Moreover, banks or mortgage lending companies that still retained most of their loans (instead of selling them to Fannie Mae for example) witnessed their capital flows exhausted when the percentage of the insolvency of subprime borrowers increased.

In short, with many interrelationships between borrowers and many direct and indirect lenders, the downside of the real estate market had a direct impact on the financial markets in general. The extent of the spread and the seriousness of the problem was that the acquisition of derivative financial instruments (MBS and CDS) attracted many domestic and foreign investors into the game while the law of the playground was still missing or unclear.

## **4. Lessons of the implementation of rescue measures to the financial markets of the US**

### **4.1. The US's measures**

With the collapse of the real estate market and the instability of the financial market, the US government had to intervene to prevent the economic crisis on a large scale. Steadily, the government rescued 4 giant companies that directly involved in the real estate – financial crisis. Firstly, in order to keep

Bear Stearns from being bankrupted due to the over-investment in bad MBS, the Fed guaranteed \$30 billion debt of Bear Stearns, enabling JP Morgan Chase to acquire Bear Stearns. Secondly, the US Treasury Department announced an emergency package of as much as \$200 billion to help Fannie Mae and Freddie Mac (2 biggest companies invested in the real estate) keep working in order to stabilize the market. Thirdly, in order to prevent the crisis on a large scale, the Fed then rescued AIG (the biggest private insurance company in the world) by lending AIG \$85 billion to help AIG not be bankrupted. As mentioned above, as AIG sold too many CDS to MBS investors, when the real estate market was insolvent, AIG had to pay for insurance contracts. Since AIG operated globally (it sold a range of insurances for more than 100 countries), if it went bankrupt, it had influenced widely. Therefore, rescuing AIG seems to be compulsory to stop the spread of the crisis.

The mentioned three rescues showed that the US government influenced strongly and deeply. However, because of the complex and overlap (multi relationship) of the causes of the crisis, it was really difficult to recover the confidence of the markets. In addition, as the US government did not rescue the giant investment bank – Lehman Brothers (bankrupted in mid-September 2008), investors were afraid that their companies would also have the same result. The continuing loss of confidence was demonstrated by the decrease in the stock market index when investors sold out their bonds to get money out of the market to invest in other areas, such as T-bill.

Facing with the high financial market turmoil and its negative impact on the economy, the US government had to announce Emergency Economic Stabilization Act on 03 October 2008. This act allowed the Treasury to spend up to \$700 billion to purchase distressed shares and assets of financial companies and supply cash directly to banks in order to recover the market confidence and prevent the crisis spreading (Nguyen Dac Hung, 2012).

#### **4.2. Lessons of implementing measures to rescue financial markets in the world**

To rescue the financial markets, prevent negative influence of the financial crisis, governments around the world used a comprehensive range of measures.

*Firstly, current regulations were revised to protect the rights of depositors, prevent the risk of mass withdrawals from financial intermediaries.*

Some governments decided to raise the level of deposit insurance of banks and financial institutions. Governments were committed to ensuring the safety

and full payment of individuals' savings at banks and financial institutions. The Australian Government was committed to ensuring the safety of all deposits at banks and credit institutions within three years. They claimed that deposit insurance's indemnity and its periods were unlimited. The US government increased the deposit insurance limit from \$ 100,000 to \$ 250,000. The New Zealand Government did the same. Similarly, Hong Kong also removed the deposit insurance limit of \$ 100,000. The Japanese government also declared unlimited deposit insurance within two years (Nguyen Dac Hung, 2012).

*Secondly, use of strong financial resources to support liquidity, directly rescuing banks and financial institutions.*

Governments around the world spent tens of billions dollars or even hundreds of billions of dollars to pump into the banking system, financial companies through lending operations to ensure the urgent and immediate liquidity; as well as nationalizing, buying bad debts and dominant shares and taking controls of banks and financial institutions.

Countries that spent the most based on the ratio of the value of stimulus package on GDP were China (21%), the United States (11.6%) and Germany (5.5%). The lowest ones were Russia, the United Kingdom (2.2%), France (1.9%) and Brazil (0.4%) (Nguyen Ngoc Thach & Ly Hoang Anh, 2014, p.69).

*Thirdly, loosening monetary policy, cutting interest rates and reducing reserve requirement ratios.*

From the end of September to November 2008, central banks simultaneously cut base rates to increase the liquidity of banks and financial organizations and decrease market interest rates. Within more than one month, there were central banks which cut its base rate for 3 times or significantly cut its base rate to one-third or one fourth normal one (Nguyen Duc Hoan, 2008).

*Fourth, implementing solutions to stimulate economic growth and support enterprises*

In addition, to cut the base rate and reduce reserve ratio to support the liquidity of banks, some countries also took money to stimulate economic growth.

*Fifth, restructuring domestic banking and financial systems*

Governments encouraged and facilitated financial institutions and banks to buy out collapsed or merged banks. The commercial banks and financial institutions tightened their lending activities. Regulations on financial supervision were reviewed and revised by the governments, ministries of Finance and the central banks in order to enhance the effectiveness of supervision.

*Sixth, banks had to restructure their own management systems, especially the*

*prudential systems, as well as restructuring credit and investment portfolios.*

Banks reduced the number of staff, saved the cost and strengthened internal regulations. Some banks and financial institutions also resold some inefficient parts of their businesses, concentrated in profitable areas and restructured their financial capacity.

*Seventh, central banks paid and prepaid interest on required reserves of commercial banks in order to reduce costs for banks.*

*Eighthly, the governments of major economies in the world were aware that international financial markets were directly linked to each other, therefore it is necessary to coordinate with each other.*

## **5. Lessons to Vietnam**

### **5.1. Crisis and Vietnam**

*Firstly*, the global financial crisis 2008-2009 clearly was rooted from housing credit. Broadly speaking, the financial-monetary crisis in Asia in 1997-1998 also mainly derived from real estate credit. Similarly, the crisis of the Japanese banking system in the 1990s was also rooted from the real estate market. High non-performing loan ratios of commercial banks in China in 2000 was caused by the real estate market.

Vietnam real estate market development in 2007-2011 was the main reason of bad debts and difficulties in Vietnam banking system. Many banks were resold or merged. Some banks which had a very high real estate debt ratio and took many mistakes in the implementation of housing credit were bought by the State Bank of Vietnam with the price of 0 VND. Other commercial banks were not acquired or merged, but had to restructure because of housing credit.

*Secondly*, over the past two years, the housing market in Hanoi and Ho Chi Minh City; the market of villas, beach resorts in Da Nang, Nha Trang, Phu Quoc... have been developing strongly because of the high investment from remittances, foreign investment, citizens' financial resources and banks' credit. According to the National Financial Supervisory Commission, by the end of August 2016, credit on real estate investment and purchase grew only 5.3% from the end of 2015, accounting for 8.5% of total credit (8.9% by the end of 2015). Meanwhile, consumer credit rose 28.7% from the end of 2015, accounting for 11.3% of total credit (9.7% in 2015). Consumer credit, focused mainly on housing repairs and purchases (49.9%), furniture purchases (26%) and vehicle purchases (10.7%). By the end of August 2016, total credit reached 4.560 trillion

VND (National Financial Supervisory Commission, 2016). Real estate credit was 383 trillion VND and total real estate and housing credit was 1.027 trillion VND, accounting for 22.52 percent of total outstanding loans for commercial banks. This rate was quite high and certainly not the correct number. That is the reported number. It is very hard to count exactly how many consumer loans, other purpose loans were invested in real estate.

*Thirdly*, commercial banks accepted the majority of housing loans using collateral formed in the future, such as apartments, villas bought. In terms of repayment resources, most commercial banks and clients expected an increase in housing prices or housing rental prices, but less based on borrowers' real income. There was a large percentage of demand for housing loans to invest. Investors waited for a rise in market prices to sell them and get the difference or rent them. With the current development of the real estate market and in the future and the current supply and demand relationship, it is difficult to expect the housing price to increase and it is difficult for the rental prices to meet the demands for debt repayment.

Meanwhile, it does not account the market downturn, a decrease in housing and rental prices, less renters, unable to sell houses, an increase in market interest rates. Borrowers could not repay their debts, so commercial banks must recover the borrowers' houses.

*Fourth*, in principle, commercial banks only lend 70% of the price of apartments or villas, buyers have to pay 30%. However, the investor supports the buyers for the 30% and part of that 30% is the origin that the commercial banks lend investors. Banks let home buyers use other assets as collaterals to pay the investors and the investor to use those monies to repay banks, pay contractors; and the contractors repay the banks... Hence, there are a lot of credit risks.

## 5.2. Recommendation

Vietnam is continuing to integrate broadly into the international economic community in general and the international financial market in particular. It is necessary to understand the causes of the global financial crisis, the nature of new financial instruments, non-traditional policy operating views, measures to prevent systemic risks and transactional risks for banks and clients. We have the following recommendations:

*Firstly*, the SBV issued Circular No. 06/2016/TT-NHNN amending and supplementing some articles of Circular 36/2014/TT-NHNN on limits, safety ratios in the operation of credit institutions, branches of foreign banks, with an

appropriate roadmap. It is a timely and necessary measure to strictly control credit on real estate investment. However, it is essential to increase the quality and the efficiency of banking supervision in order to ensure that housing credit is always within safe limits.

*Secondly*, the commercial banks themselves have to raise awareness of real estate credit risks in order to set up their own safety measures, and specific credit safety limits; as well as strengthening internal controls, especially the use of customer loans.

*Thirdly*, it is necessary to enhance research activities, understand and raise the awareness of financial instruments, new financial policy management measures for the staff of banks, including the SBV and its departments. Commercial banks should take advantage of the relationship with correspondent banks and strategic partners to provide training courses on risk-mitigation tools, new derivative instruments and complex financial services in the international financial market.

*Fourth*, it is necessary to raise public awareness of the role of government and the central bank in the use of non-traditional measures to cope with the extraordinary movements of the financial market, as well as the financial system. For example, three one member limited commercial banks - Oceanbank, GPBank and Construction Bank used to be joint-stock commercial banks. As they were at deep losses, they were bought by the government for 0 VND and were being assigned to Vietcombank, Vietinbank management. However, in the period of the new acquisition, there were many different views on this issue.

*Fifthly*, banks joining the international financial markets should actively study and analyze the investment tools, investment markets, partners... to avoid risks. On the contrast, in the process of building new partnerships in the Vietnam financial market, banks should be vigilance and multifaceted understanding.

*Sixth*, government, Ministry of Finance and SBV should flexibly use the policy measures for the financial market and the financial system in case of handling urgent and irregular issues.

*Seventh*, the Ministry of Finance, the State Securities Commission, and the National Financial Supervisory Commission should enhance the transparency in the Vietnamese stock market, ensuring its stable development.

*Eighthly*, the SBV needs more flexibility in operating monetary policy instruments, especially requirement reserve instruments, refinancing loans, open market operations... in order to handle problems of the banking system as well as the monetary market in the implementation of macroeconomic

objectives. It is associated with perfecting legal documents on controlling credit in high-risk areas such as real estate and securities. At the same time, the SBV needs further studies, surveys and analysis of the nature of the credit lines among real estate clients, including investors, buyers, construction contractors and other contractors in order to give necessary risk management measures.

*Ninety*, the Government, the Ministry of Construction, the Ministry of Finance and local authorities need to take more specific measures to ensure the healthy and sustainable development of the real estate market.

In summary, the economic globalization, financial markets, real estate markets, banking, financial and monetary activities are closely intertwined in the context that many new and complex financial instruments and products have been introduced and used. Therefore, in the process of international integration and implementation of international commitments, Vietnam should understand their characteristics and impacts to prevent risks to the economy. At the same time, there should be measures to ensure the healthy and sustainable development of the real estate market.

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