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Monetary Policy in Vietnam: The Case of a Transition Country

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I. Introduction

A major objective of the Vietnamese authorities till 2010 is it to strengthen the integration of the Vietnamese economy in the world economy. An important milestone has been the Vietnamese – USA Bilateral Trade Agreement. A next milestone will be Vietnamese's membership in the WTO, which is under preparation and expected for 2006. As part of this process of internationalisation Vietnam also opens its financial sector to foreign financial institutions. Currently, foreign banks started already to provide banking services in Vietnam.

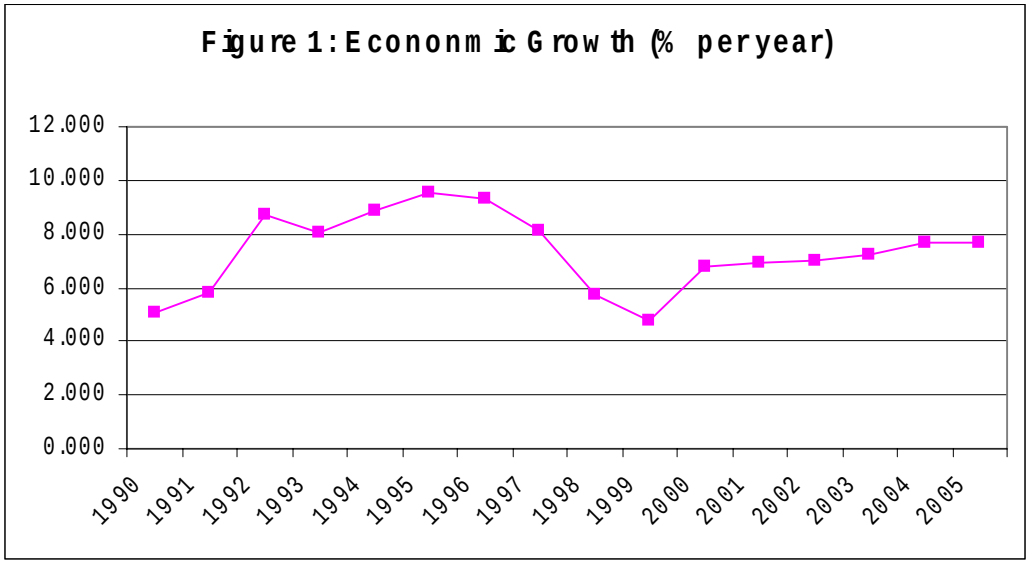
The internationalisation will pose major challenges for financial sector polices underlining the importance of further progress with financial sector reforms and reforms of monetary policy. This paper will present the current status of the reform of monetary policy in the context of economic and financial sector developments in Vietnam and identify key reform issues with respect to monetary policy.

Section 1 will give a brief overview of principal economic and financial developments to situate monetary policy in the context of economic developments in Vietnam. Section 2 describes the monetary policy framework currently in use in Vietnam and Section 3 presents empirical results on the determinants of inflation and the role of monetary factors.

II. Background: Macroeconomic Developments

1. Economic growth and inflation

The Vietnamese economy has shown a strong economic performance since the early nineties. Annual average growth per year was 7.4 percent for the period since the early nineties, and in recent years Vietnam has had one of the highest growth rate in East Asia. During the current five year plan, 2001-2005, the annual average growth hs been 7.3 percent, slightly below the annual average target of 7.5 percent in the Socio-Economic Development Plan for 2001-2005.



Source: IFS

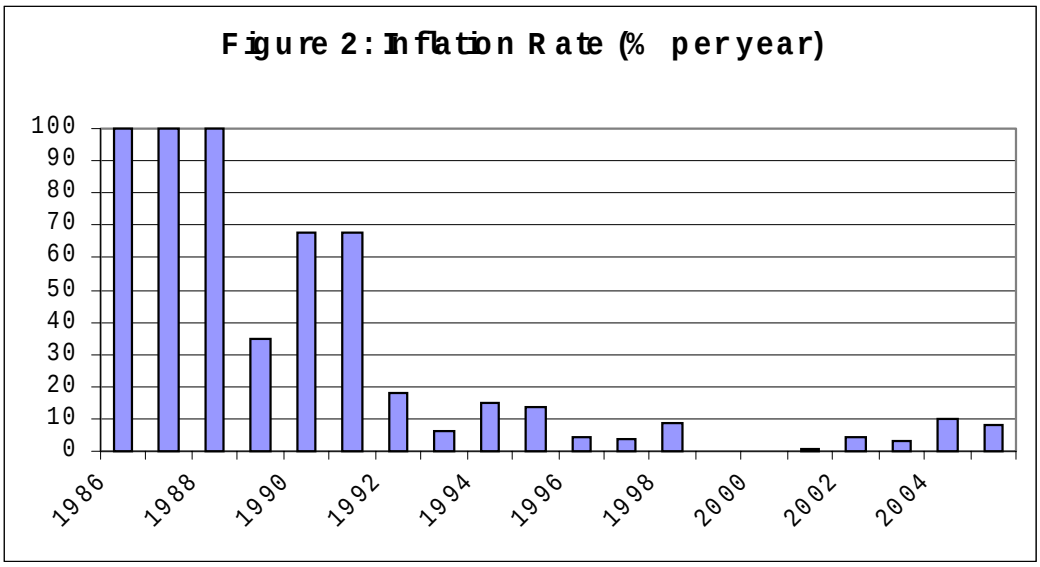
Equally impressive was the strong reduction of poverty in Vietnam. The percentage of the population living below poverty line has been reduced from well above 50 percent to below 30 percent in the period 1993 to 2002. As recently as 1993, 58 percent of the population lived in poverty, compared to 37 percent in 1998 and 29 percent in 2002. This implies that almost a third of the total population was lifted out of poverty in less than ten years.[1] Still, Vietnam continues to be a low-income country with a per capita income of US $ 552 in 2004.

According to the new five-year Socio-Economic Development Plan for 2006-2010[2], which is planned to be approved by Vietnamese Government in May 2006, an important goal is that Vietnam should reach the status of a middle income country in 2010. To reach this goal the Government stated as annual economic growth target the range of 7.5 to 8.0 percent for the next five years.

Figure 2 shows the evolution of the inflation rate since 1986 and the distinct different patterns of inflation in Vietnam before and after 1995. Vietnam experienced

[1] World Bank (2004)
[2] The Five-Year Socio-Economic Development Plan 2006-2010, Draft, September 2005.

hyperinflation in the second half of the eighties and early nineties. In the years 1986 to 1988 the annual inflation rate was above 300 percent. This period was followed by a reduction of the inflation rate to below 20 percent in 1992 and close to 10 percent in 1995. During this period Vietnam undertook a major stabilisation effort in which restrictive monetary policy and fiscal policy played a key role.[3]

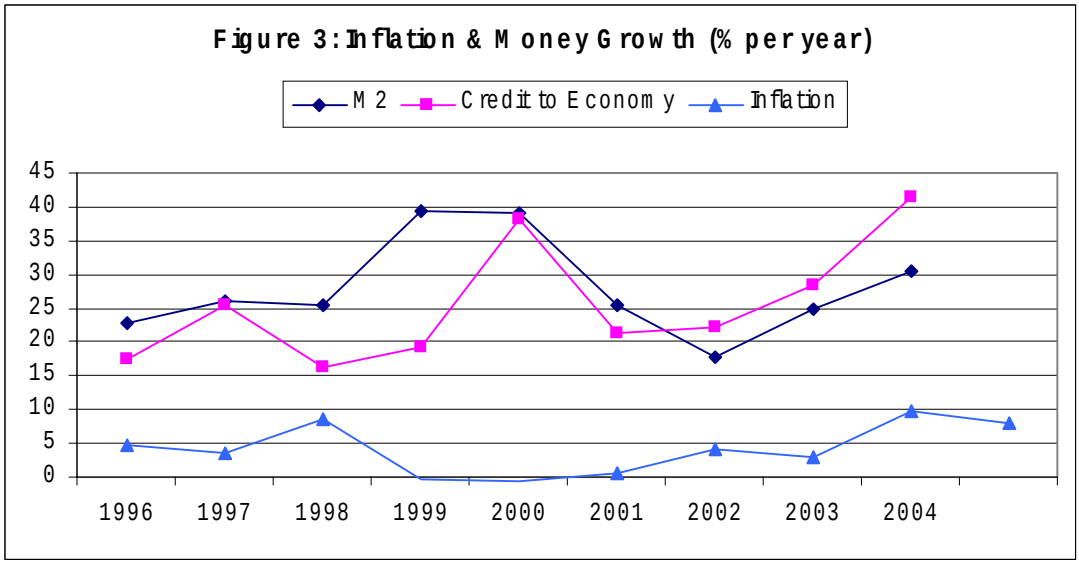


Source: Hung (1999), IFS and own calculations; the inflation rate for 2005 is an estimate.

The period after 1995 was characterised by modest inflation and even slight deflation in the years 1999 and 2000. In more recent years inflation has picked up again with annual inflation rates of 9 percent in 2004 and an estimated inflation rate of about 8 percent in 2005.

A striking characteristic of the period since 1996 is the seemingly lack of a relationship between the inflation rate and growth of money and credit to the economy as shown in Figure 3. While the average annual money growth during this period was 31 percent the average inflation rate was 3.7 percent. Vietnam's experience of high money growth and single digit inflation is not unusual for a transition country, as Al-Mashat (2004) shows, although money growth has been higher in Vietnam than in comparable transition countries. An explanation for the disconnection between money growth and inflation rate appears to be a rapid rate of monetisation in Vietnam as reflected in a strong decline in velocity.

[3] Camen & Genberg (2005)



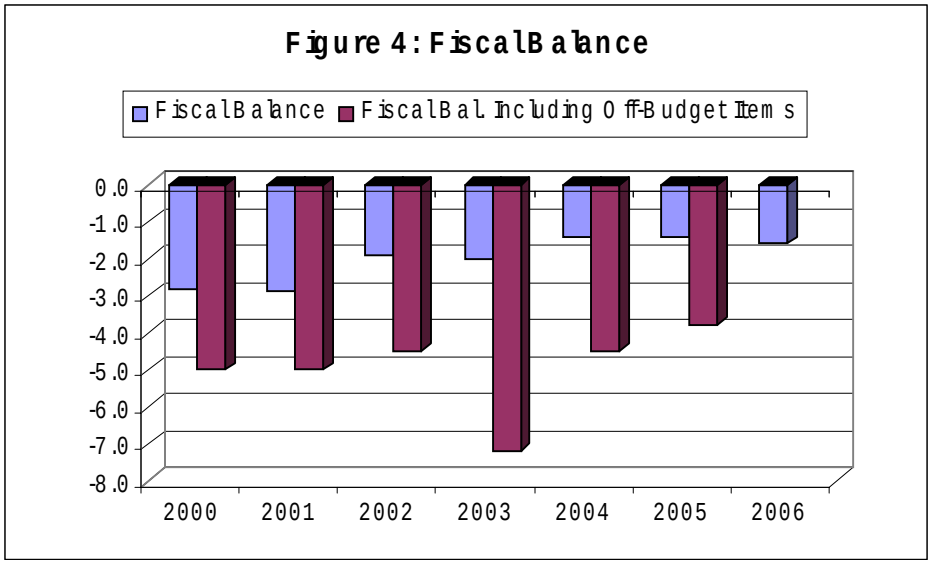
Source: IFS

While money supply and inflation appear to be disconnected for most of the period shown in Figure 3 both series appear to be somewhat more correlated in recent years. The role of monetary factors in explaining the recent rise in prices in Vietnam is questioned and authorities appear to favour the hypothesis that the increases in the inflation rate especially in 2004 have been induced by supply shocks such as avian flu outbreaks, and bad weather. These shocks primarily affected food prices and international commodity prices. For example, in the first nine months of 2004 staple food prices increased by 12 percent and for other food prices even by 17 percent compared to an overall inflation of 8.9 percent and non-food inflation of only 2 percent. In a later section an attempt will be made to identify the principal factors that explain the inflation rate in Vietnam.

2. Fiscal Balance

Restrictive fiscal policy and monetary policy have played an important role in bringing the hyperinflation down in the eighties and early nineties.[4] Since this period the fiscal deficit has been largely contained and since 2000 the fiscal deficit has been about 3 percent or below 3 percent of GDP. The overall balance including off-budget expenditures, however, has been substantial in several years since 2000 as can be seen from Figure 4. Off-budget expenditures are for infrastructure investments that are primarily financed through government bond issues.

[4] Camen & Genberg (2005)



Source: IMF (2005); World Bank (2005); values for 2005 and 2006 are estimates

3. Financial Sector Reform and Financial Structure

Since the late 80s the Vietnamese authorities have implemented comprehensive financial sector reforms whose principal components were the transition from a monobank system to a two-tier system banking system, the establishment of Joint-Stock Banks, JSB, the restructuring of State-Owned Commercial Banks, SOCBs, liberalisation of interest rates and the development of financial markets.[5] Reforms, which started in the first half of the nineties, have since then been implemented gradually. As a result of the reforms the Vietnamese financial system has deepened as indicated by the increased monetisation. The ratio of M2 to GDP being about 25 percent in the mid-nineties increased to above 70 percent today.

Legal reforms have led to the creation of a two-tier banking system with the State Bank of Vietnam being the central bank, four large SOCBs, one smaller SOCB, and 36 JSB and an extensive system of People's Credit Funds. The equitization of SOCBs has been announced and very recently the decision has been taken to start with the equitization of the largest commercial bank in Vietnam, Vietcombank, in 2006 and the Mekong Housing Bank, the smaller SOCB. According to this decision 10 percent of the capital of the Vietcombank will be sold each year starting in 2006 till 51 percent of the capital is privatised in 2010. All SOCBs are planned to be equitized by2010.

The SOCBs continue to dominate the banking sector with a share of 73 percent of total credits in 2004. The credit market as other parts of the financial system continues to be segmented. JSBs and other small banks lend primarily to the private sector. In 2004, JSBs having a share of total credit of 27 percent lent only 4% of total credits to state-owned enterprises but 23 percent to the non-state-owned sector. In 2004 the four largest state-owned banks lent to state-owned enterprises 32 percent of total credits

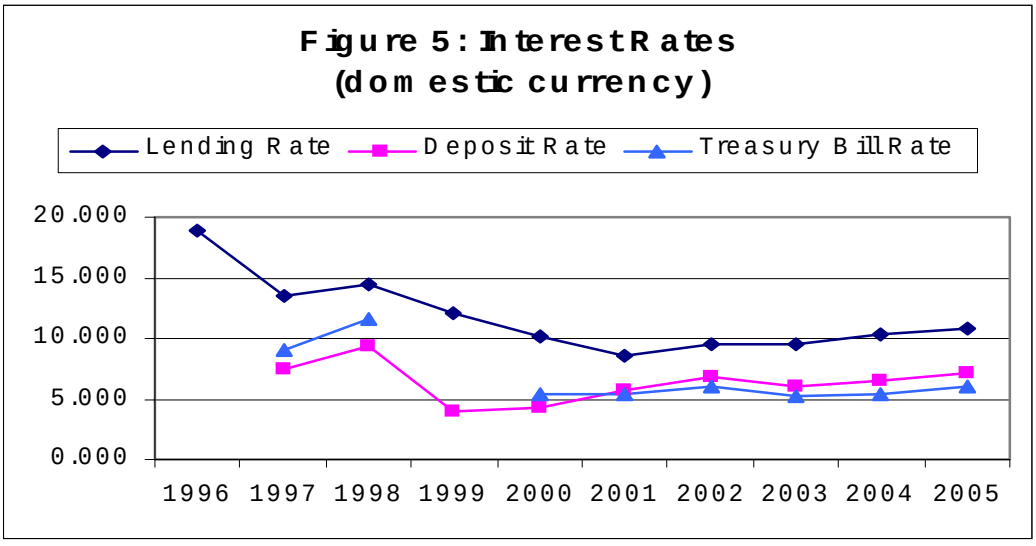
[5] For an overview of the financial sector reforms and specially banking sector developments see World Bank (1995); World Bank (2002) and Kovsted, Rand and Tarp (2005)

and 41 percent to non state-owned enterprises.[6] The share of total credits extended to state enterprises decreased to 36 percent in 2004 from 48 percent in 1999 indicating a gradual increase of the role of the non-state sector in Vietnam.

Although non-performing loans have partly been moved to ACMs of SOCBs they remain a principal issue for the Vietnamese banking sector. It has been difficult to assess the actual size of non-performing loans as international standards have until recently not been applied for the classification of loans. Since April 2005 banks are required to apply international standards for the classification and reporting on loans.

Dollarisation is present in Vietnam but currently at a moderate scale. The share of foreign currency deposits has decreased from 41 percent in 2000 to 30 percent in 2004. With an interest differential of currently 4 to 5 percent in favour of dong deposits and stable exchange rates people tend to keep their money in domestic currency denominated deposits. The share of foreign currency loans instead increased slightly from 21 percent in 2000 to 24 percent in 2004. More recently, a strong increase in foreign currency borrowing of enterprises has been reported, which may result in a currency mismatch of enterprises and increase the risk of financial sector instability in the case of a depreciation of the dong.

Interest rates have been gradually liberalised since the mid-nineties. Previously SBV exclusively relied on direct controls such as bank-by-bank credit ceilings and interest rates controls. Mayor steps towards market-determined interest rates were taken with the lifting of ceilings on lending rates since 2001. First, ceilings on interest rate for foreign currency loans were lifted in mid-2001 followed by the lifting of ceilings on lending rates for loans in domestic currency in mid-2002. Since 2002 commercial banks in Vietnam can legally set lending rates according to market conditions. The lifting of the ceiling on lending rates for domestic currency loans, however, did not lead to a noticeable increase in lending rates in Vietnam as can be seen in Figure 5. Interest rates started to increase slightly in 2004 in reaction to rising inflation rates and increasing dollar rates and more recently in 2005 to increasing demand for loans.



Source: IFS; the interest rate for 2005 are the interest rates of May 2005.

[6] IMF (2004)

The lack of a response of interest rates to the lifting of ceilings on lending rates can partly be explained by the fact that at the time interest rates were liberalised three-quarters of total loans were provided by SOCBs, which have a history of providing loans on a non-commercial basis. Actual credit rules explicitly allowed SOCBs to provide credit to state-owned enterprises without collateral and without taking credit risks into account.

Also, the SBV together with the Ministry of Finance continues to use more administrative methods to influence interest rate movements. For example, SBV continues to announce a base rate, which was used in the past for setting interest rate ceilings and which is now considered as a reference rate for banks to set lending rates[7]. Also, ceilings for some interest rates such as interest rates for dollar deposits for corporate clients appear to continue to exist.[8] In addition, agreements on the level of deposits exist between large SOCBs and between Joint-Stock Banks to avoid competition through changing deposit rates. Very recently these agreements have become under pressure due to the increasing need for banks to mobilise deposits. Finally, while caps on the interest rates on government securities have been discontinued, the Ministry of Finance continues to issue guidelines or reference rates that appear to have been strictly enforced.

Other important steps of the reform process have been the start of T-bill auctions in the mid-nineties, the introduction of open market operations in 2000, and the gradual introduction of indirect monetary policy instruments.

Money markets, and financial markets in general continue to be thin and segmented. Investors in government securities up till now have held securities till maturity and secondary markets in these securities are illiquid with a limited range of maturities. The Vietnamese bond market including government as well as corporate bonds accounted in June 2005 for 3.8 percent of last years GDP. In comparison the ratio for South Korea is 26 percent and for Thailand 13.5 percent of GDP. Interest by investors in auctions of government securities has been declining over the last months largely because interest rates were not adjusted to changing market conditions. The Ministry of Finance planned to issue VN dong 38 trillion in 2005 while only VN dong 10 trillion were sold in the first eight months of 2005.

While substantial progress has been made towards the development of a market-based financial system the Vietnamese financial system will need to undergo deep structural transformation. Main reform areas include the reform of the banking system with the equitization of the SOCBs and the development of financial markets.

The structure of the Vietnamese financial system and the financial sector reform process have a number of implications and give rise to a number of challenges for monetary policy:

- The structural transformation of the Vietnamese financial system makes it difficult to identify stable relationships between principal macroeconomic variables with

[7] See also section III.3

[8] According to reports in the Vietnamese press a SBV directive in March 2005 raised the ceiling on rates on dollar deposits

the implication that monetary policy needs to be conducted in the presence of important uncertainties.

- The thinness of money markets and the lack of financial instruments limit the scope of open market operations.

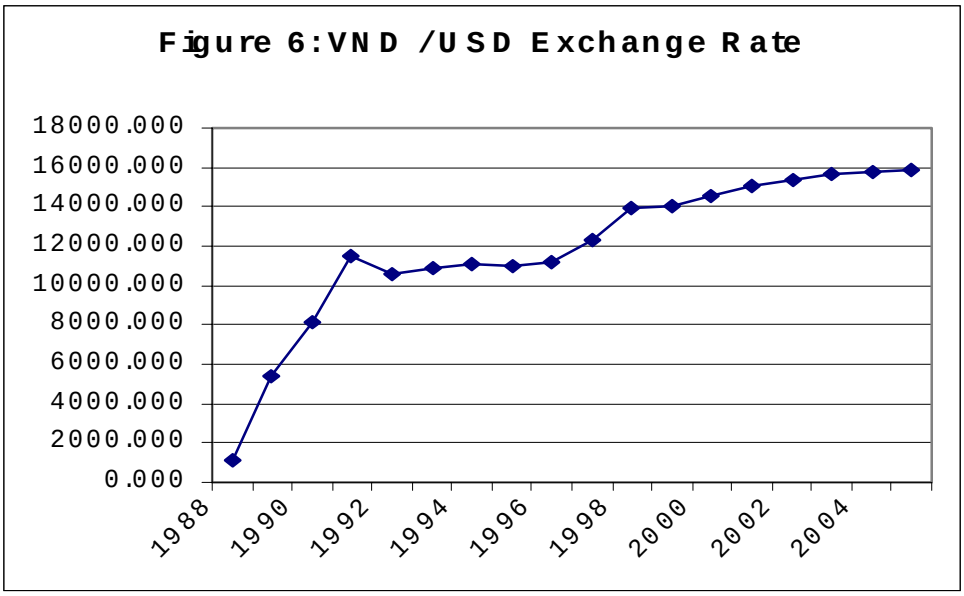
- In addition to the exchange rate exchange rate bank lending is likely to be one of the principal channels of the monetary transmission process, although balance sheet problems of banks and enterprises are likely to limit its effectiveness. [9]

- Underdeveloped financial markets are likely to limit the effectiveness of the monetary transmission through interest rates.

- Indications exist for a segmentation of the credit market with SOCBs that tend to apply more non-commercial practices and JSB that apply more commercial practices.

3. Foreign exchange rate policy and capital control

Figure 5 shows the evolution of the VND / USD rate since the late eighties. Principal features of the evolution are the strong depreciation of the dong till 1991, which was part of the stabilisation effort in the late eighties and early nineties, and a depreciation of the dong in 1997 and 1998 of about 20 percent. Since this depreciation the dong has followed a path of relatively gradual depreciation of around two percent per year. In the years 2004 and in 2005 up till now the depreciation of the dong has been under one percent. In fact early 2005 the Governor of the SBV announced that the depreciation of the dong will be limited to one percent. Until October the dong has depreciated by .7 percent.



Source: IFS

[9] Exchange rates are another important transmission channel (see section IV).

While Vietnam officially has a managed floating exchange rate system[10] currently the exchange rate system functions like a fixed exchange rate system.[11] The Vietnamese exchange rate has been pegged de facto since mid-2004 when the SBV Governor announced that the depreciation of the dong would be limited to 1 percent in 2004 and the dong actually depreciated by close to one percent in 2004.

Vietnam has not yet accepted the obligations under IMF Article VIII but it is in process of removing remaining restrictions. Actually, a revised Government's decree was issued on October 18 permitting residents to transfer foreign currencies abroad for payments purposes without prior permission of the SBV.

Capital controls continue to be in force in Vietnam and the only sizeable inflows apart from official transfers are foreign direct investments and remittances of Vietnamese living abroad.[12] Short and medium-term capital inflows have so far been successfully restricted.

[10] In early 1999 the SBV moved to a type of crawling peg exchange rate system, which the IMF classifies as a 'de facto managed floating regime (managed floating with no pre-announced path for exchange rate)'. In this system the official rate is the interbank rate of the previous day. Since the interbank rate can fluctuate around the official rate within a range of +/- 0.25 percent (since July 2002; the band was +/- 0.1 percent between February 1999 and July 2002) the interbank rate can gradually change the official exchange rate. While fluctuations of +/- 0.25 percent are in principle permitted, the actual daily fluctuations have in general been much smaller staying in a range of 0.1 percent around the interbank exchange rate of the previous day.

[11] International Monetary Fund (2004a) 'A conventional fixed peg does not require a commitment to keep the parity irrevocably. The exchange rate may fluctuate within narrow margins of less than +/- 1 percent around a central rate - or the maximum value and minimum value of the exchange rate may remain within a narrow margin of 2 percent – for at least three months.'

[12] Hauskrecht and Lee (2005) give an overview of recent developments.

III. Monetary Policy Framework

1. Legal Framework

The State Bank of Vietnam, the SBV, is governed by the 'Law on the State Bank of Vietnam', SBV Law, of December 1997. According to the SBV Law, the SBV is a body of the Vietnamese government (Art.1) and the governor of the State Bank of Vietnam is member of the government (Art. 11).

The SBV Law makes explicitly a distinction between the functions of the SBV and functions related to the national monetary policy, which is 'a component of economic-financial policies of the State' (Art.2). Decisions regarding monetary policy and its supervision are principal functions of the National Assembly and the Government.

The Government has the specific function to prepare a plan for monetary policy including a projection of the annual inflation rate and to submit it to the National Assembly (Art. 3(3)) which then needs to approve the plan (Art, 3 (1)). Part of the role of the National Assembly is it to set annual targets for the inflation rate in line with the state budget and economic growth objectives. The government is also closely involved in the implementation of monetary policy (Art. 3 (3)). It has the function to organise the implementation of monetary policy including the determination of the growth of base money. The National Assembly supervises the implementation of monetary policy and the government is required to report periodically the progress with the implementation to a Standing Committee of the National Assembly.

The functions of the SBV include the preparation of the plan for monetary policy (Art. 5) and the implementing of monetary policy, as designed by the government. Other than its role in the implementation of monetary policy SBV has functions that are stated in Article 1 (2) as follows 'The State Bank shall conduct the state's management over monetary and banking activities, is the issuing bank, the bank of credit institutions and the bank providing monetary services for the government.' Independently of these functions of the SBV the State reserves the right to undertake the unified management of all banking activities.

Based on this reading of the SBV Law monetary policy is largely the responsibility of the National Assembly and the Government, and the SBV is an integrated part of Vietnamese Government. The National Assembly together with the government sets the monetary policy objectives and the stance of monetary policy. Legally, the National Assembly plays an important role in the monetary decision process. Apart from setting policy objectives it supervises the implementation of monetary policy. This strong position of the National Assembly can possibly be explained by the experience of the hyperinflation in eighties and early nineties and the determination to avoid similar events from happening. The strong involvement of the Government in the implementation of monetary policy, at least legally, suggests that the instrument independence of the SBV is limited.[13]

[13] Kovsted, Rand and Tarp (2005) note that most analysts consider that the SBV Law of 1997 reduced the level of autonomy of the SBV compared to the level of autonomy that existed before the new law.

For comparison, transition economies in Central and Eastern Europe have introduced instrument independence mostly in the early nineties. With the exception of Poland, where the central bank has to design monetary policy together with the Parliament, central banks in the Czech Republic, Hungary, Slovakia, and Slovenia have the exclusive responsibility to design monetary policy. With respect to choice of exchange rate regime central banks in the Czech Republic, Slovakia and Slovenia are formally responsible for it and in Hungary and Poland the choice of the exchange rare regime is made jointly by the central bank and the government.[14]

The goals of monetary policy, which is a component of the economic-financial policies of the State, include the goal to stabilise the value of the currency, the control of the inflation rate, to facilitate the socio-economic development, to ensure national defence, security and to improve the living standards of the people (Art. 2). The specific annual goal for the inflation rate is set by the National Assembly and the Government in line with other principal objectives of economic policy.

Regarding the goals of the SBV the SBV Law states that 'the operations of the State Bank shall aim at the stabilisation of the value of the currency, contribute to securing the safety of banking activities and the system of credit institutions, facilitate the socio-economic development in a manner consistent with the socialist orientation' (Art. 1(3)). The goal 'stabilisation of the value of the currency' is interpreted here as stabilisation of the *exchange rate* as the stabilisation of the currency is mentioned as separate goal together with the control of the inflation rate in Article 2 as goals of monetary policy.

The goals of monetary policy in the SBV Law are very broadly defined without that a primary objective is clearly defined. The multiplicity of goals without established hierarchy raises the risk of conflicting objectives. While in the SBV Law a hierarchy of goals is not established recent economic developments in Vietnam suggest that economic growth has been the de facto primary goal of the Government. For 2005 the Vietnamese Government set a target for economic growth of 8.5 percent and a target for the inflation rate of 6.5 percent. Projection prepared in October indicated that the inflation rate for 2005 will be in the area of 8 percent and economic growth slightly below the target of 8.5 percent. Although it was known for several months that the inflation target for 2005 would not be attained open market operation continued to inject liquidity. According to reports in the press the SBV considers it more likely that current inflation in Vietnam is the result of supply shocks and restrictive monetary policy will constrain economic growth as interest rates will rise but will not help to reduce the inflation rate.

In statements officials of the SBV have identified some of the limitations of the current SBV Law and the possibility of amendments of the SBV Law are envisaged in the next five-year plan, which covers the period 2006 to 2010. The SBV has recognised its lack of independence as a serious limitation for the conduct and implementation of monetary policy and the recent draft of the Five-Year Socio-Economic Development Plan 2006-2010 stipulates as objective to 'improve responsibilities and powers of the State Bank in planning and realizing monetary policies'. Other important topics that should be reviewed as part of the amendment of

[14] Radzyner and Riesiger (1997)

the SBV Law are the lack of a hierarchy of goals and a clarification of the responsibilities of SBV with respect to monetary policy.

2. Monetary Policy Strategy

There does not exist, to my knowledge, documents of the SBV that outline the monetary policy strategy followed by the SBV and that are available to the public. Some basic indications on monetary policy strategy can be found in the Annual Reports of the SBV and in the Directives of the Governor. Directives of the Governor contain in general more technical information on the implementation of monetary policy and specifically the instruments used. Annual Reports, Directives of the Governor, and statements by the SBV are the principal publications of the SBV. The SBV has also a web site in Vietnamese and a web site in English is under construction. This account of the monetary policy strategy of the SBV is therefore largely based on the actual monetary and exchange rate policy of the SBV.

Two principal components of the monetary policy strategy of the SBV can be identified: annual target for the depreciation of the dong and targets for total liquidity (M2) and credit to the economy.

The SBV has announced exchange rate targets in 2004 and 2005 suggesting that the SBV uses the exchange rate as a nominal anchor. In both years the target was that the depreciation of the dong with respect to the US dollar will stay below 1 percent.[15] The target was achieved in 2004 and is likely to be achieved in 2005. For the time being targets are formulated as annual targets and the SBV does not appear to have made commitments to continue with the peg in the future. In fact, the SBV stresses in its Annual Report 2004 the flexibility of its exchange rate policy.

It addition to the exchange rate targets the SBV announces annual targets for total liquidity and credit to the economy, which are based on the macroeconomic and monetary objectives as defined by the Government. The latter target is of importance as it is monitored by the IMF during the Art. IV consultations. The credit target was set to 25 percent in 2004 and 2005. Actual credit growth turned out to be 42 percent in 2004 and estimates for 2005 suggest that the credit target for this year will also be overshot. The fact that SBV has not achieved the target may suggest that the SBV only gives a low weight to the credit target, which is consistent with the view that the ultimate target for the Government has been the target for economic growth.

There exist indications that the SBV has also used implicit targets for interest rates applied by commercial banks at least in 2005. In the Annual Report 2004 SBV states the objective of interest rate stability, and in 2005 the SBV injected liquidity through open market operations to stabilise interest rates to avoid a negative effect of raising interest rates on economic growth. These measures were based on the SBVs view that restrictive monetary policy will not be effective in reducing inflation. Taken together this suggests that the SBV tries to conduct monetary policy rather independently

[15] Most of the transition countries in Central and Eastern Europe adopted fixed exchange rates during the initial stabilisation period and then several started to use inflation targeting; Krzak and Schubert (1997); Jonas and Mishkin (2005).

although it has set targets for the exchange rate. No indications were found that the SBV uses the division between ultimate, intermediate and operational targets.

As is well-known countries can only pursue two of the following three options: fixed exchange rates, domestic monetary autonomy, and capital mobility.[16] Since capital account restrictions are still in place in Vietnam authorities are likely to have some scope for independent monetary policy even with a fixed exchange rate. Due to the dollarization the scope for independent monetary policy is, however, likely to be limited. In recent years the SBV has intervened in the foreign exchange market to achieve the exchange rate target. In several years the interventions were substantial leading to increases in net foreign assets that were larger than the change in the monetary base suggesting that the SBV partially sterilised the liquidity effect of foreign market interventions,.[17]

Pegging the exchange rate has a number of advantages as well as disadvantages two of which appear of specific relevance for Vietnam.[18] In a country with a pegged exchange rate economic agents tend to neglect exchange risks since it does not appear to be relevant in the short-term. In a dollarised economy such as Vietnam this has the effect that economic agents more easily borrow in foreign currency although there income is in domestic currency, which may lead to a structural currency mismatch. Such a currency mismatch, as the experiences in Latin America have shown, can lead to major financial instabilities in the case of a devaluation of the domestic currency. The risk of financial stability in such a situation is likely to be considerable in Vietnam since modern risk management is not yet established in many banks, and effective bank supervision is only in the process of being introduced.

Recent developments suggest that the expectations of a stable exchange rate have contributed to a strong increase in borrowing in foreign currency in Vietnam. In 2004, lending in foreign currency increased by 60 percent compared to 38 percent of loans in domestic currency. While lower interest rates on foreign currency loans explain part of the increase in foreign currency lending the SBV's policy of pegging the exchange rate has most likely also contributed to the increase.

The economy has a greater ability to adjust to external shocks and to avoid costly adjustment processes with a flexible rather than a fixed exchange rate. This buffer function of a flexible exchange rate would be an important advantage for Vietnam that as small open economy is exposed to external shocks and increasing external competition.

One option for SBV would be to use inflation targeting instead of pegging the exchange rate. A number of transition countries in Central and Eastern Europe have in

[16] Shambaugh (2003) presents evidence that a trade-off exist between choosing to peg the exchange rate and the ability to conduct monetary policy autonomously. Ping and Xiaopu (2003) give a brief account of the conflicts that have arisen between exchange rate and monetary policy in the case of China.
[17] Hauskrecht and Le (2005).
[18] Frankel (2005) presents a number of arguments, which support an increase in exchange rate flexibility in the case of China.

the late nineties shifted from exchange rate targeting to inflation targeting. The experience of these countries is currently reviewed.[19]

As part of the macroeconomic objectives the Vietnamese Government with the approval of the National Assembly sets currently annual inflation targets. In January 2005, this inflation target was announced by the Governor for 2005. Camen and Genberg (2005) analyse whether inflation targeting would currently be a feasible option for Vietnam, and conclude that conditions are currently not in place for the introduction of strict inflation targeting. Steps towards inflation targeting would include announcement of and institutional commitments to a medium-term inflation target, a better understanding of the inflation process as well as procedures to forecast the inflation rate, and an increased flexibility of the exchange rate.

3. Monetary Policy Instruments

As part of the financial sector reforms, the SBV has started with the introduction of indirect monetary policy tools in the mid-nineties. Today, main indirect instruments have been introduced and are used increasingly. The SBV uses apart from reserve requirements refinancing and discount lending facilities, open market operations, and foreign exchange interventions.[20] In addition, the SBV continues to use more administrative measures to influence interest rates and the Government use administrative instruments to control prices.

The SBV has been using required reserves in various forms since the 1990ies and changes of reserve requirements of deposits have been considered an important instrument of monetary policy in the past. Currently, reserve requirements are differentiated according to the maturity of deposits, the sectoral focus of banks, and whether it is a domestic or foreign currency deposit. Reserve requirements for deposits of less than a year are higher than the one for deposits of more than a year, and they are lower for banks that are active in the agricultural sector and for People's Credit Funds. SBV pays interest, currently 1.2 percent, only on required reserves.

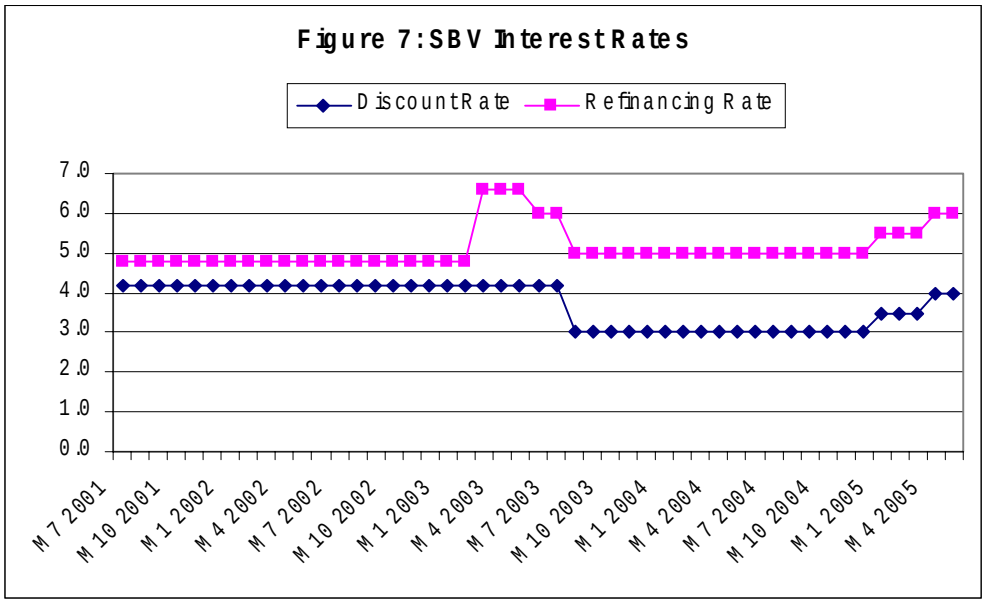
The last time reserve requirements were used was in June 2004 when they were increased to tighten monetary policy. Reserve requirements on dong deposits of less than a year were increased from 2 to 5 percent and on foreign currency deposits from 4 to 8 percent. Reserve requirements on dong and foreign currency deposits for a period of one to two years were increased from 1 to 2 percent. Different rates were applied for agricultural banks as well as the People's Credit Funds. The effect of this change of reserve requirements on the inflation rate was not as expected by SBV and more recently there has been a move to use more actively discount and refinancing rates.

The SBV has two lending facilities, the refinancing and discount facility. The former is a collateralised lending facility and the latter gives commercial banks access to funds subject to quotas. Discount operations can take the form of a outright purchase

[19] Jonas and Mishkin (2005)

[20] The monetary policy instruments that are at the disposal of the SBV are listed and described in Article 16 and the following articles of the State Bank Law. Technical aspects of the monetary instruments are specified in the Directives of the Governor.

of securities or a repurchase agreement. The maximum maturity of the repurchase agreement is 91 days. The refinancing rate is the upper interest rate and the discount rate the lower rate for lending from the SBV. Both rates define the band in which the rate for open market operations moves.



Source: IFS, press reports

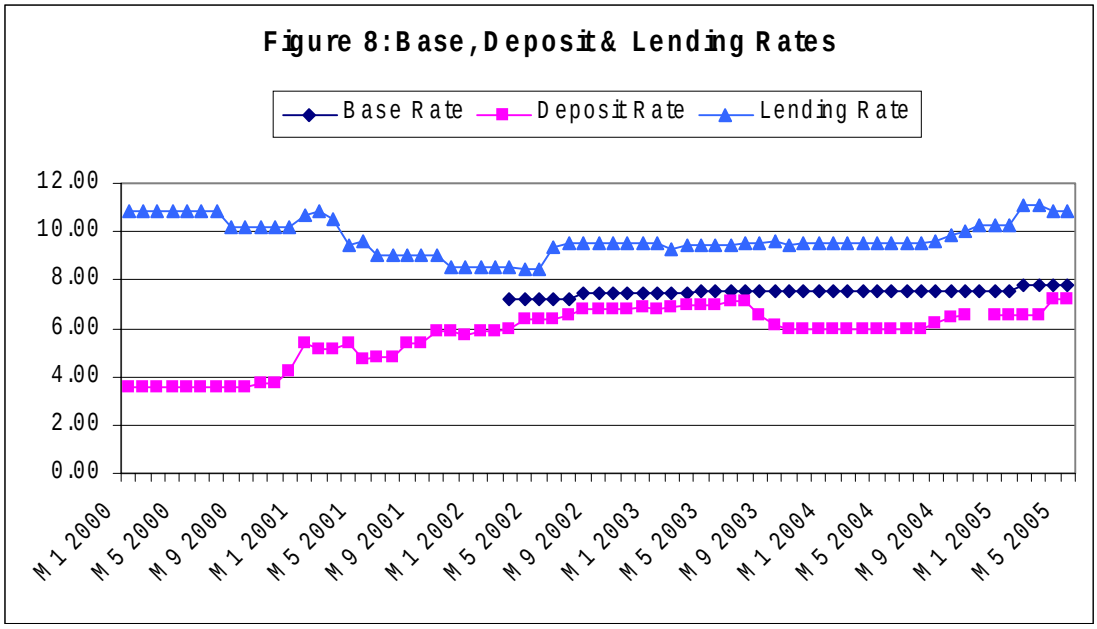
Recently, the SBV has actively used both the refinance and discount rates in the process of tightening monetary policy. In January and March 2005, they were increased together by 1 percentage point so that starting April 1, 2005, the refinance and the discount rates are 6 percent and 4 percent per annum, respectively.

Open market operations, which started in July 2000, had to be developed from scratch. Over the years open market operations have gained in importance and have by now become the single most important monetary instrument for controlling liquidity. Of total liquidity injected by the SBV open market purchases provided close to 80 percent in 2003 compared to about 39 percent in 2002. Open market operations take the form of outright sales and purchases of securities or of repurchase agreements. The purchase or sale of securities may take place in the form of auctions by volume or auction for interest rate. Securities eligible for open market transactions are primarily government securities, State Bank bills, or securities that have been selected by the SBV. Initially only short-term securities could be used for open market transactions but since the amendment of the SBV Law in 2003 securities with a maturity of more than one year are eligible for use. Currently, auctions take place three times a week and in 2004 SBV launched a web-based auction system.

The SBV also employs interventions in the foreign exchange market through purchases and sales of foreign currency or foreign exchange swaps. These interventions have been substantial at times as was shown above. The main purpose of foreign exchange interventions has been to achieve the foreign exchange target set by the SBV.

The basic system of lending facilities as well as the open market operations used by the SBV is comparable to monetary policy instruments used for example in transition economies in Central Europe and many other central banks. While the SBV now actively uses indirect monetary policy, their use continues to be constrained by the lack of securities, the thinness and segmentation of financial markets.

Apart from indirect monetary policy instruments the SBV continues to use measures to influence the deposit and lending rates more directly.[21] The SBV, for example, continues to announce a base interest rate as reference rate for interest rates of banks. Initially the base rate was used to specific ceilings for lending rates. The purpose of the base interest rate has been to provide a 'basis for the determination by credit institutions of the lending interest rate in Vietnam Dong'. The gap between the base rate and lending rate has however widened since mid-2004 indicating that the base interest rate may loose its function as a reference rate. Still, market participants appear to take increases in the base rate as signal to increase lending rates used by the commercial banks. SBV also continues to set a ceiling on interest rates that banks pay on dollar deposits of corporate clients.



Source: IFS; SBV Annual Reports

While indirect monetary policy has been introduced there appears to exist a strong belief in the Government and the State Bank of Vietnam that indirect monetary policy instruments are not sufficient to control inflation in Vietnam and that other measures than indirect monetary policy need to be used. This belief is based on the assumption that the inflation rate is primarily driven by supply shocks. The Governor of the SBV has been quoted saying that currency has only a small impact on the consumer price index compared to other factors such as bad weather, bird flu, or the sharply increasing prices of imported materials. In accordance with this view the Government

[21] See also Sections II.3

tries to control prices also administratively. For example, the Government has instructed main industries in April 2005 to take measure to control prices. Also, important prices entering the CPI such as oil prices continue to be administered. Other policy measures used to influence directly prices include fiscal and tax measures. For example, recently tariffs on petroleum and steel products were cut to counteract increases in world market prices.

IV. Determinants of inflation: results from variance decomposition

As was argued above the SBV appears to base its monetary policy on the assumption that inflation in Vietnam is not a monetary phenomenon but largely the result of supply shocks. The findings presented in this section indicate that credit to the economy, in addition to commodity prices and the exchange rate, plays an important role in the determination of the inflation rate

A vector autoregression (VAR) model is used in this section to undertake an exploratory analysis of the role of external variables, such as US money supply and commodity prices, and domestic factors in the determination of the inflation rate in Vietnam. It will also address the question whether monetary aggregates, credit to the economy and domestic interest rates play a role in the determination of inflation in addition to the VND / USD exchange rate.

A basic VAR system that has been estimated including as principal domestic variables the VN Dong –US dollar exchange, the consumer price index (CPI), and either the money supply (M2), total credit to the economy (CTE) or lending rates (LR), commodity price indices (petrol price and rice price) and as foreign variables the US money supply (M3US)[22]. All variables are in log levels except the interest rates. Given the lack of long time series for Vietnam Bayesian priors were used for estimating the system.[23] The VAR system has been estimated with monthly data for the period 1996:2 and 2005:4 and selected sub-period to check for the stability of the findings. Each equation includes 13 lags of each variable.

A principal finding of the variance decomposition is that credit to the economy is a key variable in explaining the CPI after 24 months (Table 1). CPI itself accounts for about a quarter of the variation of the CPI in two of three sample periods exceeding the part of the forecast error variance that is accounted for by the commodity price indices or the exchange rate. Credit to the economy is the most important variable explaining CPI at the 24 months horizon in the sample period 1996:2 to 2005:4 and the most important variable together with US money supply in the sample period 1996:2 to 2004:4. This result however is not robust across all sample periods. When

[22] Peiris (2003) and Camen & Genberg (2005) have estimated VAR system for Vietnam. Fung (2002) has estimated structural VARs for a number of Asian countries. Industrial production was also included in some systems that were estimated. Since Industrial production did consistently not contribute to the explanation of other variables in the system it was not included in the system presented here.

[23] The Bayesian approach makes it possible to estimate a VAR system with a limited number of observations by using prior information regarding the mean and standard coefficient of the lags included in the VAR system. The basic assumption used is that variables follow an autoregressive process of the order of one and accordingly lags of higher order than one are assumed to be zero. If empirical evidence exists that this is not the case the data can override this assumption.

the system is estimated over the period 1996:2 to 2003:4 credit to the economy explains only a small portion of the forecast error variance of inflation in Vietnam.

The system of equations was also estimated with total liquidity (Table 2) and a lending rate (Table 3) instead of credit to check the part of inflation that can be attributed to these variables. Basically, these variables explain only a very small part of the inflation rate. In none of the systems that were estimated for different sample periods, total liquidity or the lending rate accounted for more than 5 percent of inflation in Vietnam.[24]

One system was estimated, which included both credit to the economy and the lending rate (Table 4). While credit to the economy explains 18 percent of the forecast error variance of the inflation rate the lending rate does not contribute to the explanation of the inflation rate. Taken together these results are consistent with the view that bank lending is an important channel in the monetary transmission mechanism in Vietnam.

Other important findings are that the indices for petrol and rice prices together with the VND /USD exchange rate are also important for explaining variations in the CPI. This finding supports the view that commodity prices as well as the exchange rate have been important determinants of the inflation rate in Vietnam. Petrol and rice prices explain 21 percent and 11 percent respectively after 12 months and the exchange rate 19 percent of the forecast variance of the inflation rate (Table 1). The rice price index is the variable that explains with 16 percent the largest part of the CPI within the first six months.[25] While the part of the CPI that is explained by these variables varies across the time period for which the VAR systems were estimated the qualitative results are robust with respect to changes of the sample period.

Finally, the US money supply as measure of international liquidity conditions plays also an important role in explaining the CPI in two of the three sample periods in the system which includes the domestic credit variable (Table 1). US money supply explains 18 percent after 24 months in the system estimated over the period 1996:2 to 2005:4 and even 25 percent after 24 months in the system estimated over the period 1996:2 to 2004:4. In period 1996:2 to 2003:4, however, US money supply makes only a negligible contribution to explaining CPI. This is also true for the system with the lending rate (Table 3) and for system with domestic money when estimated over the period 1996:2 to 2005:4 (Table 2).[26]

While this analysis of the variance decomposition has provided some interesting findings regarding the role of credit in the determination of the inflation rate it can only be considered as an exploratory analysis. More detailed analysis of the monetary

[24] The strong negative contemporaneous correlation that exists between forecast errors of the CPI and CTE equation is the price puzzle that has been reported in similar research applying the VAR approach. Fung (2002).

[25] Due to high contemporaneous correlation between CPI and rice prices, and the exchange rate the order of variables in the system matters for the results regarding the rice price and the exchange rate. Ordering the rice price and the exchange rate before CPI implies that changes in the rice price and the exchange rate cause contemporaneously CPI.

[26] The role of external factors for the macroeconomic evolution in Vietnam was studied using a block-triangular vector autoregression system in Camen & Genberg (2005). External factors including US federal funds rate, US CPI inflation, and US real GDP growth, and CPI inflation in China were found important in explaining the inflation rate in Vietnam.

transmission process would be highly desirable and specifically of the role of the financial structure for the monetary transmission mechanism. Then, for studying the monetary transmission mechanism with the help of the VAR methodology the use of a structural VAR system would need to be applied.[27]

[27] See for example Bernanke and Mihov (1997)

Table 1: Decomposition of the Forecast Error Variance of CPI: System with CTE (in percent)							
	Forecast Steps (in months)	M3US	Petrol Price	Rice Price	VND/USD	CTE	CPI
1996:2-2005:4	12	6.1	21.4	10.9	19.0	12.0	30.7
	24	17.7	15.6	7.7	14.0	24.4	20.5
1996:2-2004:4	12	6.4	20.9	11.3	19.6	11.8	30.0
	24	25.7	11.3	7.2	12.5	25.7	17.6
1996:2-2003:4	12	1.7	37.8	15.1	15.0	3.6	26.8
	24	2.4	44.7	12.3	14.4	6.6	19.5

Source: own calculation

Variables: M3US – US M3 seasonally adjusted; Petrol Price – UK Brent; Rice Price – rice price, Bangkok; VND / VUS – VN dong – US dollar exchange rate; CTE – credit to the economy; LR – lending rate; CPI – consumer price index.

Table 2: Decomposition of the Forecast Error Variance of CPI: System with M2 (in percent)							
	Forecast Steps (in months)	M3US	Petrol Price	Rice Price	VND/USD	M2	CPI
1996:2-2005:4	12	0.3	15.9	43.8	7.4	3.8	28.8
	24	0.7	15.4	57.7	3.9	4.3	18.0
1996:2-2004:4	12	3.5	24.5	28.5	11.3	1.2	31.0
	24	13.5	28.8	28.5	7.6	0.8	20.8
1996:2-2003:4	12	23.0	20.2	12.1	10.5	5.3	28.9
	24	38.3	26.4	8.0	6.1	5.2	16.1

Source: own calculation

Table 3: Decomposition of the Forecast Error Variance of CPI: System with LR (in percent)

	Forecast Steps (in months)	M3US	Petrol Price	Rice Price	VND/USD	LR	CPI
1997:2-2005:4	12	4.4	9.6	44.8	2.5	2.5	36.2
	24	8.9	12.0	52.6	2.7	2.5	21.2
1997:2-2004:4	12	1.7	21.9	30.8	6.4	4.5	34.7
	24	6.9	27.5	34.1	4.6	3.7	23.3

Source: own calculation

Table 4: Decomposition of the Forecast Error Variance of CPI: Systems with either CTE or CTE & LR (in percent)

	Forecast Steps (in months)	M3US	PICOM	VND/USD	LR	CTE	CPI
1996:2-2005:4	12	13.2	15.3	13.9		11.7	45.9
	24	28.0	9.3	12.5		19.7	30.4
1997:2-2005:4	12	16.8	14.6	8.5	1.3	9.0	49.8
	24	35.9	8.1	5.5	0.7	17.8	32.0

Source: own calculation

V. Conclusions

As this review has shown, Vietnamese authorities have made impressive progress with the implementation of financial sector reforms and the introduction of indirect monetary policy instruments over the last ten years. But, especially in view of the internationalisation of the Vietnamese financial sector further financial sector reforms and reforms of monetary policy are needed, and Vietnamese authorities have recognised the importance of continuing with the reform process.

Important components of the financial sector reforms would be the equitisation of the SOCBs and the further development of financial markets. These reforms will relieve important constraints of the financial system for monetary policy and an important condition for progress with the implementation of indirect monetary instruments. Especially, they will likely help to strengthen the interest rate and bank credit channels of the monetary transmission mechanism.

With respect to monetary policy the following principal reform steps would need to be considered:

- Transition of responsibilities for conducting monetary policy to SBV.

- Establishment of a hierarchy of goals of monetary policy and of price stability as the primary objective.

- Clarification of the monetary policy strategy and increased flexibility of the exchange rate. The choice of a new intermediate target, instead of targeting the exchange rate should be based on a comprehensive analysis including the recent experiences of transition countries with inflation targeting. As was pointed out the feasibility of the use of inflation targeting will importantly depend on the implementation of a number of reform steps.

For the review of the monetary strategy a good knowledge of the monetary transmission process and the role of the financial structure as well as of the determinants of inflation would be essential. Therefore, emphasis should be given to systematic empirical research on these topics, including research on the role of the financial structure in the monetary policy transmission. As was shown by Hamada and Noguchi (2005) for the case of Japan misguided economic perceptions can have serious consequences for economic performance of a country if they influences economic policy making.

Reference List

1. Al-Mashat, R. (2004) Vietnam's experiences with rapid money growth and low inflation , 'Vietnam. Selected issues '. Washington, D.C. International Monetary Fund.

2. Bernanke, B.S. and Mihov, I. (1997) 'What does the Bundesbank target?', *European Economic Review* 41 (6).

3. Camen, U. and Genberg, H. (2005) 'An inflation targeting regime for Vietnam? ', *VERCON First Annual Research Conference* , Hanoi.

4. Frankel, J.A. (2005) , 'On the Renminbi: the choice between adjustment under a fixed exchange rate and adjustment under a flexible rate ', *NBER Working Paper No. W11274*. Cambridge, Mass. National Bureau of Economic Research.

5. Fung, B.S.C. (2002) , 'A VAR analysis of the effects of monetary policy in East Asia ', *BIS Working Papers No. 119*. Basel: Bank for International Settlement.

6. Hamada, K. and Noguchi, A. (2005) , 'The role of preconceived ideas in macroeocnomic policy: Japan's experiences in the two deflationioary periods ', *Yale University Economic Growth Center Discussion Paper 908*: Yale University, Economic Growth Center.

7. Hauskrecht, A. and Le, N. (2005) 'Capital account liberalisation for a small open economy - The case of Vietnam ', *VERCON First Annual Research Conference* , Hanoi.

8. International Monetary Fund (2004a) , 'Classification of exchange rate arrangements and monetary policy frameworks '.

9. International Monetary Fund (2004) , 'Vietnam. Staff report for the 2004 article IV consultation '.

10. Jonas, J. and Mishkin, F.S. (2005) 'Inflation targeting in transition countries: experiences and prospects ', in: Bernanke, B.S. and Woodford, M., eds., *The inflation-targeting debate* , Studies in Business Cycle No. 32: University of Chicago Press .

11. Kovsted, J., Rand, J. and Tarp, F. (2005) *From monobank to commercial banking. Financial sector reforms in Vietnam.* NIAS Press .

12. Krzak, M. and Schubert, A. (1997) 'The present state of monetary governance in central and eastern Europe', in: Oesterische Nationalbank , *Focus on transition,* Vol. 1. Vienna: Oesterische Nationalbank .

13. Ministry of Planning and Investment (2005) *The Five-Year Socio-Economic Development Plan 2006-2010, Draft* . Hanoi.

14. Peiris, S.J. (2003) Inflationary dynamics in Vietnam , 'Vietnam. Selected issues '. Washington, D.C. International Monetary Fund.

15. Ping, X. and Xiaopu, Z. (2003) 'The coordination between monetary policy and exchange rate policy in an open economy in transition: A case study on China from 1994 to 2000', Journal of Asian Economics 14.

16. Radzyner, O. and Riesinger, S. (1997) 'Central bank independence in transation: Legislation and reality in transition', in: Oesterreichische Nationalbank, *Focus on transition*, Vol. 1. Vienna : Oesterische Nationalbank .

17. Shambaugh, J.C. (2004) 'The effects of fixed exchange rates on monetary policy ', *Quarterly Journal of Economics* 119 .

18. World Bank (1995) , 'Viet Nam. Financial sector review. An agenda for financial sector development '.

19. World Bank (2002) , 'Viet Nam - Banking sector study'.

20. World Bank (2004) , 'Viet Nam. Poverty '.

21. World Bank (2005) , 'East Asia Update'.