

Monetary policy in Vietnam: the case of a transition country

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1. Introduction

A major objective of the Vietnamese authorities in the coming five years is it to strengthen the integration of the Vietnamese economy into the world economy. An important milestone has been the Vietnam-US Bilateral Trade Agreement, BTA. A subsequent milestone will be Vietnamese membership in the WTO, which is under preparation and expected for 2006. As part of this process of internationalisation, Vietnam is also opening its financial sector to foreign financial institutions. Currently, foreign banks have already started to provide banking services in Vietnam.

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 2 will give a brief overview of principal economic and financial developments to situate monetary policy in the context of economic developments in Vietnam. Section 3 describes the monetary policy framework currently in use in Vietnam, and Section 4 presents empirical results on the determinants of inflation and the role of monetary factors.

2. Background: macroeconomic developments

2.1 Economic growth and inflation

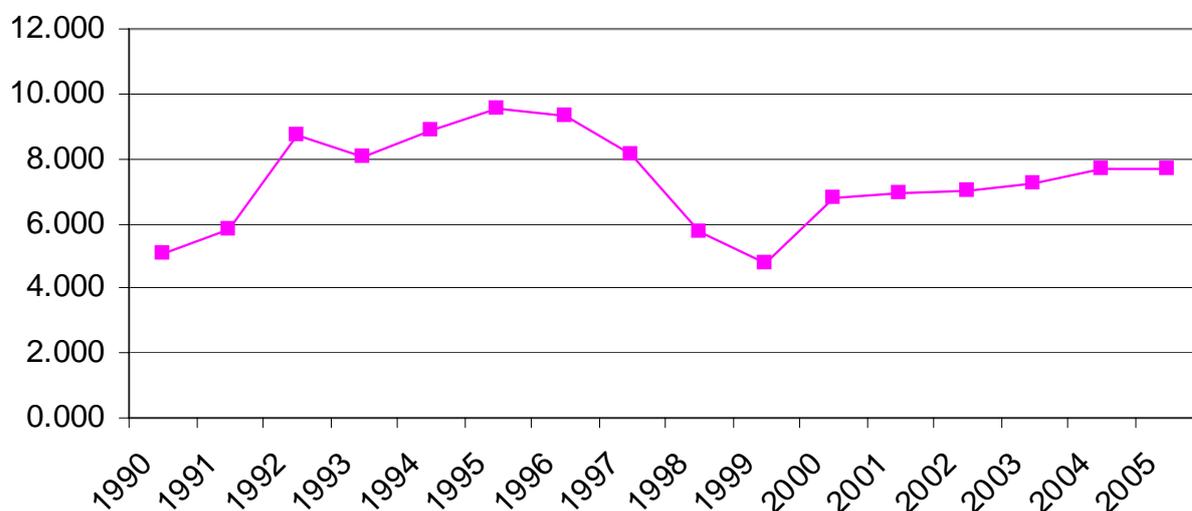
The Vietnamese economy has shown strong economic performance since the early 1990s (Figure 1). Annual average growth per year was 7.4% for the period since the early 1990s, and in recent years Vietnam had one of the highest growth rates in East Asia. During the 2001-2005 five-year plan, the annual average growth of 7.4% was only slightly below the 7.5% annual average target in the Socio-Economic Development Plan for 2001-05.

Equally impressive was the strong reduction of poverty in Vietnam. The percentage of the population living below the poverty line has been reduced from well above 50% to below 30% in the period 1993-2002. As recently as 1993, 58% of the population lived in poverty, compared to 37% in 1998 and 29% in 2002. This implies that almost a third of the total

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population was lifted out of poverty in less than 10 years.² Still, Vietnam continues to be a low-income country with a per capita income of USD 552 in 2004.

Figure 1
Economic growth
 % per year



Source: IFS.

According to the new five-year Socio-Economic Development Plan for 2006-2010,³ which was approved by Vietnamese government in May 2005, an important goal is that Vietnam should reach the status of a middle-income country by 2010. To reach this goal, the government set as an annual economic growth target the range of 7.5 to 8.0% 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 hyperinflation in the second half of the 1980s and early 1990s. In the years 1986 to 1988, the annual inflation rate was above 300%. This period was followed by a reduction of the inflation rate to below 20% in 1992 and close to 10% in 1995. During this period, Vietnam undertook a major stabilisation effort in which restrictive monetary policy and fiscal policy played a key role.⁴

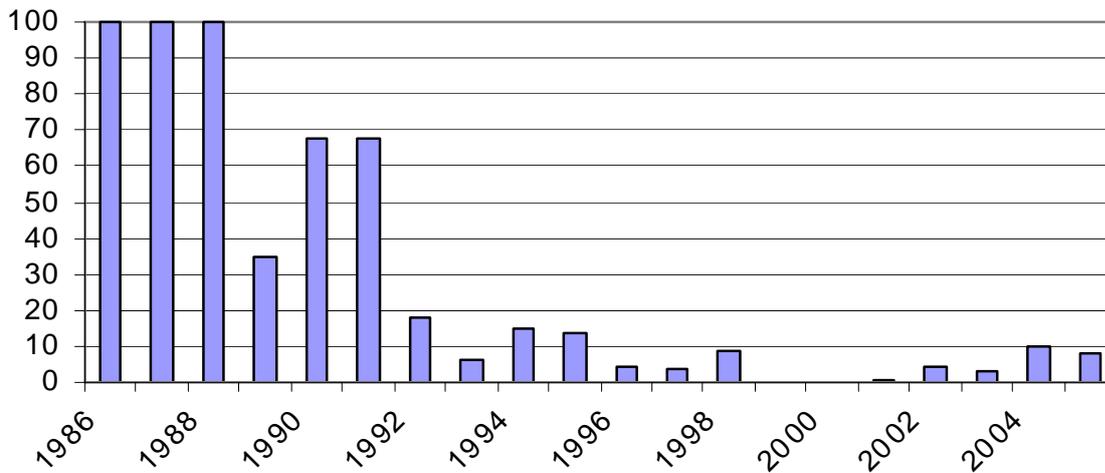
The period after 1995 was characterised by modest inflation and even slight deflation in the years 1999 and 2000. In more recent years, inflation has picked up again, with annual inflation rates of 9.5% in 2004 and 8.4% in 2005.

² World Bank (2004).

³ The Five-Year Socio-Economic Development Plan 2006-2010, Draft, September 2005.

⁴ Camen and Genberg (2005).

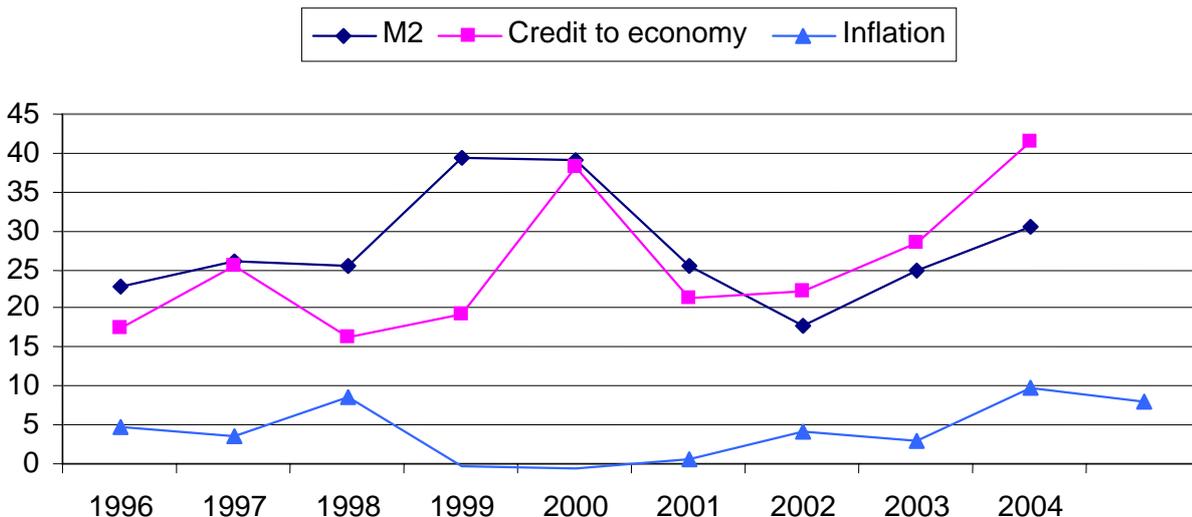
Figure 2
Inflation rate
 % per year



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

A striking characteristic of the period since 1996 is the seeming 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% the average inflation rate was 3.7%. 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 disconnect between money growth and inflation rate appears to be a rapid rate of monetisation in Vietnam as reflected in a strong decline in velocity.

Figure 3
Inflation and money growth
 % per year



Source: IFS.

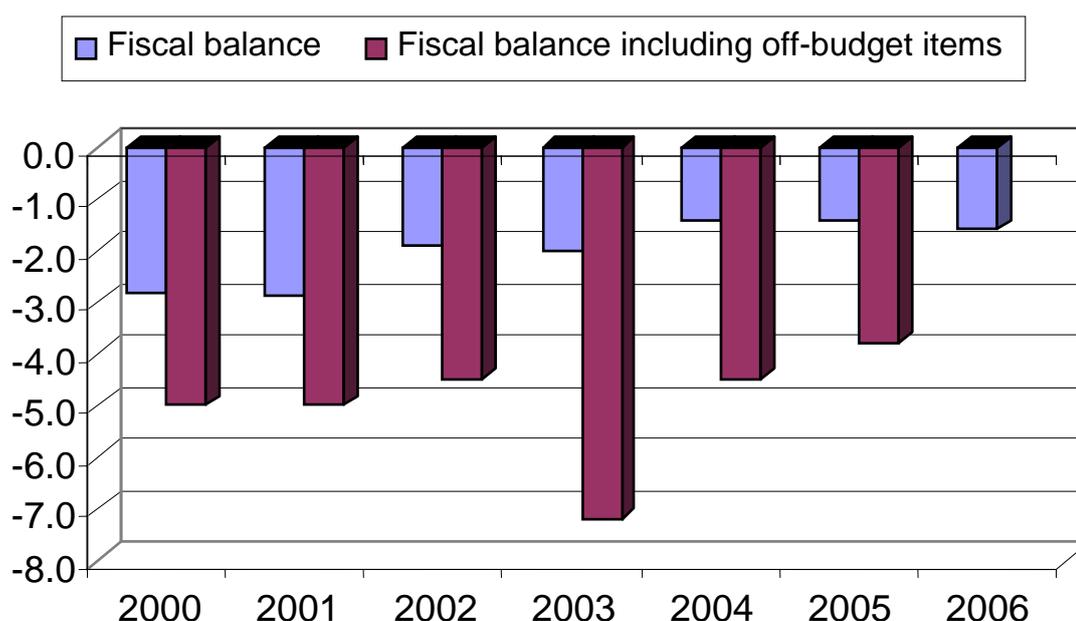
While money supply and inflation appear to be disconnected for most of the period shown in Figure 3, both series appear to be somewhat more correlated in recent years. The role of monetary factors in explaining the recent rise in prices in Vietnam is questioned and

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 12.5% and other food prices by 16.8%, compared to an overall inflation of 8.6% and non-food inflation of only 3.7%. In a later section, an attempt will be made to identify the principal factors that explain the inflation rate in Vietnam.

2.2 Fiscal balance

Restrictive fiscal policy and monetary policy have played an important role in bringing hyperinflation down in the 1980s and early 1990s.⁵ Since this period, the fiscal deficit has been largely contained, and since 2000 the fiscal deficit has been about 3% of GDP and sometimes even below. 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.

Figure 4
Fiscal balance



Sources: IMF (2006a); World Bank (2005); values for 2005 and 2006 are estimates.

2.3 Financial sector reform and financial structure

Since the late 1980s, the Vietnamese authorities have implemented comprehensive financial sector reforms whose principal components were the transition from a monobank system to a

⁵ Camen and Genberg (2005).

two-tier banking system, the establishment of joint stock banks (JSB) the restructuring of state-owned commercial banks (SOCBs), the liberalisation of interest rates and the development of financial markets.⁶ Reforms, which started in the first half of the 1990s, 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, about 25% in the mid-1990s, has increased to above 70% 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, 36 JSBs and an extensive system of People's Credit Funds. The equitisation of SOCBs has been announced, and very recently the decision was taken to start with the equitisation of the largest commercial bank in Vietnam, Vietcombank, in 2006 and the Mekong Housing Bank, the smaller SOCB. According to this decision, 10% of the capital of Vietcombank will be sold each year starting in 2006 until 49% of the capital is privatised in 2010. All SOCBs are planned to be equitised by 2010.

The SOCBs continue to dominate the banking sector with a share of 73% of total credits in 2004. The credit market and other parts of the financial system continue 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%, lent only 4% of total credits to state-owned enterprises but 23% to the non-state-owned sector. In 2004, the four largest state-owned banks accounted for 32% of total credits to state-owned enterprises and 41% to non-state-owned enterprises.⁷ The share of total credits extended to state enterprises decreased to 36% in 2004 from 48% 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 on a moderate scale. The share of foreign currency deposits has decreased from 41% in 2000 to 30% in 2004. With an interest differential of currently 4 to 5% 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% in 2000 to 24% in 2004. More recently, a marked 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-1990s. Previously, the SBV set deposit as well as lending rates and, since October 1992, ceilings for lending rates and floors for deposit rates. Major steps towards market-determined interest rates were taken with the lifting of floors for deposit rates with the exception of foreign currency deposits in 1996 and of ceilings on lending rates in August 2000. The ceilings for lending rates were replaced first by a basic interest rate, which was announced by the SBV every month and which commercial banks could only exceed within a set margin. Interest rates for foreign currency loans were liberalised in July 2001 and lending rates for loans in domestic currency in June 2002. Since 2002, commercial banks in Vietnam have been able to legally set lending rates as well as deposit rates according to market conditions.

⁶ For an overview of the financial sector reforms and specially banking sector developments see World Bank (1995), World Bank (2002), Klump and Gottwald (2003) and Kovsted, Rand and Tarp (2005).

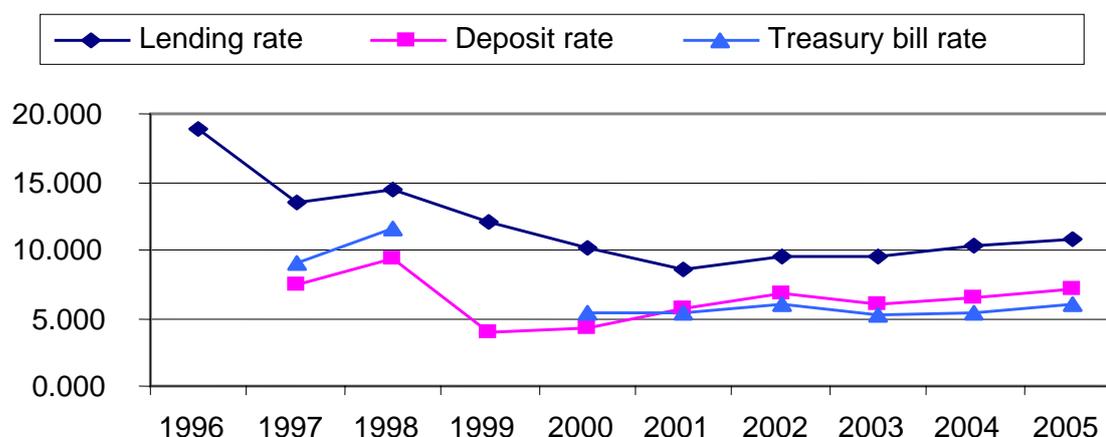
⁷ IMF (2005).

The liberalisation of 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, increasing dollar rates and, more recently in 2005, as a result of tightening monetary policy and increasing demand for loans. But the increases in interest rates have been relatively limited. The lack of a response of interest rates to the liberalisation of lending rates can partly be explained by the fact that at the time when interest rates were liberalised, three quarters of total loans were provided by SOCBs, which have a history of providing loans without taking credit risks fully into account.

Figure 5

Interest rates

Domestic currency



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

Also, the SBV together with the Ministry of Finance continues to try to influence interest rate movements by other means than indirect monetary policy. For example, the 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.⁸ Also, it appears that ceilings for some interest rates such as interest rates for dollar deposits for corporate clients continue to exist.⁹ 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 come 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 in the reform process have been the start of T-bill auctions in the mid-1990s, the introduction of open market operations in 2000, and the gradual introduction of indirect monetary policy instruments.

⁸ See also Section 3.3

⁹ According to reports in the Vietnamese press, a SBV directive in March 2005 raised the ceiling on rates on dollar deposits.

Money markets and financial markets in general continue to be thin and segmented. Investors in government securities up until now have held securities until maturity and secondary markets in these securities are illiquid, with a limited range of maturities. In June 2005, the Vietnamese bond market – including government as well as corporate bonds – accounted for 3.8% of the previous year's GDP. In comparison, the ratio for South Korea is 26% and for Thailand 13.5% of GDP. Interest by investors in auctions of government securities has been declining over the last few months because adjustments in interest rates did not sufficiently reflect changing market conditions, especially increasing demand for capital by the private sector and increasing inflation rates. The Ministry of Finance planned to issue VND 38 trillion in 2005 while only VND 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 further deep structural transformation. Main reform areas include the reform of the banking system with the equitisation of the SOCBs and the development of financial markets.

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

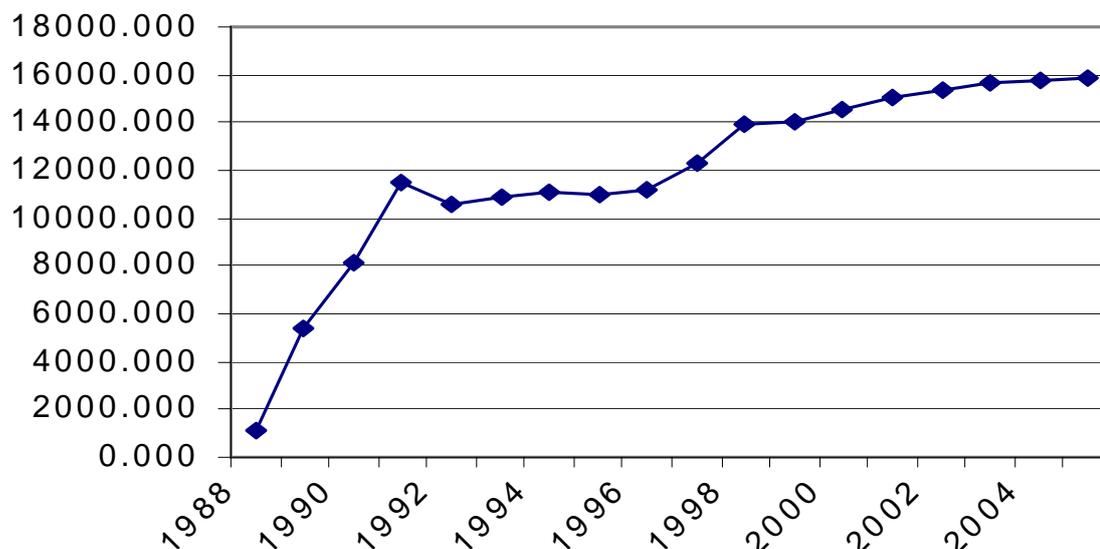
- The structural transformation of the Vietnamese financial system makes it difficult to identify stable relationships between principal macroeconomic variables, with the implication that monetary policy needs to be conducted in the presence of important uncertainties.
- The thinness of money markets and the lack of financial instruments limit the scope of open market operations.
- 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.¹⁰
- 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 tending to apply more non-commercial practices while JSBs apply more commercial practices.

2.4 Foreign exchange rate policy and capital control

Figure 6 shows the evolution of the VND/USD rate since the late 1980s. Principal features of the evolution are the strong depreciation of the dong until 1991, which was part of the stabilisation effort in the late 1980s and early 1990s, and a depreciation of the dong in 1997 and 1998 of about 20%. Since this depreciation, the dong has followed a path of relatively gradual depreciation of around 2% per year. In 2004 and in 2005 so far, the depreciation of the dong has been under 1%. In fact, in early 2005 the Governor of the SBV announced that the depreciation of the dong would be limited to 1% during the year. As of October, the dong had depreciated by 0.7%.

¹⁰ Exchange rates have been another important transmission channel (see Section 4).

Figure 6
VND/USD exchange rate



Source: IFS.

While Vietnam officially has a managed floating exchange rate system,¹¹ currently the exchange rate system functions like a fixed exchange rate system.¹² 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% in 2004, and the dong actually depreciated by close to 1% that year.

Regarding the exchange rate policy, the question arises whether Vietnamese authorities tried to stabilise only the VND/USD exchange rate or the effective exchange, thus allowing some exchange rate fluctuations with respect to the US dollar. This question was analysed by regressing daily changes in VND/USD rate on daily changes in the JPY/USD and the EUR/USD exchange rate. The daily change in the RMB/USD was included in regression for estimation periods starting after 21 July 2005. The regressions, which were estimated for various sample periods, showed insignificant coefficients indicating that movements in the VND/USD exchange rate were not systematically related to other dollar exchange rates and Vietnamese authorities did not stabilise the effective exchange rate.

Vietnam has accepted the obligations under IMF Article VIII, with effect from 18 October 2005. Thereby, Vietnamese authorities accepted not to impose restrictions on the making of payments and transfers for current international transactions, and not to engage in any

¹¹ 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)”. The SBV announces daily an official rate that is the weighted average of the exchange rates quoted in the interbank market the previous day. Since the interbank rate can fluctuate around the official rate within a range of +/- 0.25% (since July 2002; the band was + 0.1% between February 1999 and July 2002), the interbank rate can gradually change the official exchange rate. While fluctuations of +/- 0.25% are in principle permitted, the actual daily fluctuations have in general been much smaller, staying in a range of 0.1% around the interbank exchange rates of the previous day.

¹² Effective 1 January 2005, the International Monetary Fund has reclassified the exchange rate regime of Vietnam to the category of conventional pegged arrangement, from the category of managed floating with no predetermined path for the exchange rate (IMF (2006b)).

discriminatory currency arrangements or multiple currency practice, except with IMF approval.

Capital controls continue to be in force in Vietnam, and the only sizeable inflows apart from official transfers are foreign direct investments and remittances from Vietnamese living abroad.¹³ Short- and medium-term capital inflows have been successfully restricted.

3. Monetary policy framework

3.1 Legal framework

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

The SBV Law explicitly makes 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” (Article 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 (Article 3(3)), which then needs to approve the plan (Article 3 (1)). Part of the role of the National Assembly is 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 (Article 3 (3)). It has the function to organise the implementation of monetary policy and to determine the amount of liquidity to be injected in the economy. The National Assembly supervises the implementation of monetary policy, and the government is required to periodically report on the progress on the implementation to a standing committee of the National Assembly.

The functions of the SBV include the preparation of the plan for monetary policy (Article 5) and the implementation of monetary policy, as designed by the government. In addition to that role, the 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, 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 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 can possibly be explained by the experience of hyperinflation in the 1980s and early 1990s and the resulting determination to avoid similar events. 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.¹⁴

¹³ Hauskrecht and Lee (2005) give an overview of recent developments.

¹⁴ 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 had existed before.

For comparison, transition economies in central and eastern Europe introduced instrument independence mostly in the early 1990s. 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. In the Czech Republic, Slovakia and Slovenia, the central bank is formally responsible for the choice of exchange rate regime, while in Hungary and Poland the choice is made jointly by the central bank and the government.¹⁵

The goals of monetary policy, which is a component of the economic-financial policies of the state, include stabilising the value of the currency, controlling the inflation rate, facilitating socio-economic development, ensuring national defence, security and improving the living standards of the people (Article 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” (Article 1(3)). “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 a separate goal, together with 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 and a primary objective is not clearly identified. 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, the actual economic policy in Vietnam suggests that economic growth has been the *de facto* primary goal of the government. The Vietnamese government set for 2005 a target for economic growth of 8.5% and a target inflation rate of 6.5%. Projections prepared in October indicated that the inflation rate for 2005 would be in the area of 8% and economic growth slightly below the target of 8.5%. Although it was known for several months that the inflation target for 2005 would not be attained, open market operations continued to inject liquidity. According to reports in newspapers, the SBV considers it more likely that current inflation in Vietnam is the result of supply shocks. Restrictive monetary policy is seen to constrain economic growth as interest rates would rise without effectively reducing inflation.

In statements, officials of the SBV have identified some of the limitations of the current SBV Law and the possibility of amendments to it 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 that an objective is 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 the SBV Law are the lack of a hierarchy of goals and a clarification of the responsibilities of the SBV with respect to monetary policy.

3.2 Monetary policy strategy

The monetary policy strategy in Vietnam is derived from the five-year plan on Social and Economic Development Strategy, formulated by the Conference of the Communist Party, which takes place once every five years. The government is then responsible for formulating an action plan for implementing the five-year plan. The SBV, as part of the government, is in

¹⁵ Radzyner and Riesinger (1997).

charge of formulating the action plan for the banking sector. In this action plan, targets are set for the injection of liquidity into the economy, M2, deposits and credits and other financial sector-related measures that will be implemented as part of the government's action plan.

Information on the actual monetary policy can be found in the Annual Reports of the SBV and in the Directives of the Governor. The 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 Bank has also a website in Vietnamese, and one in English is under construction. The following account of the monetary policy strategy of the SBV is largely based on its actual monetary and exchange rate policy.

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

In 2004 and 2005, the Governor of the SBV announced exchange rate targets 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 would stay below 1%.¹⁶ 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 2004 Annual Report the flexibility of its exchange rate policy.

In addition to 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 in its action plan. The latter target is of importance as it is monitored by the IMF during Article IV consultations. The credit target was set to 25% in 2004 and 2005. Actual credit growth turned out to be 42% in 2004, and estimates for 2005 suggest that the credit target for this year will also be overshoot. 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 its 2004 Annual Report, the SBV stated the objective of interest rate stability, and in 2005 the SBV injected liquidity through open market operations to stabilise interest rates in order to avoid a negative effect of raising interest rates on economic growth. These measures were based on the SBV's 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 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.¹⁷ 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 dollarisation, the scope for independent monetary policy is, however, likely to be limited. In recent years the

¹⁶ Most of the transition countries in central and eastern Europe adopted fixed exchange rates during the initial stabilisation period, and several countries moved to more flexible exchange rates when they started to use inflation targeting; Krzak and Schubert (1997); Jonas and Mishkin (2005).

¹⁷ Shambaugh (2004) presents evidence that a trade-off exists 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.

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.¹⁸

Pegging the exchange rate has a number of advantages as well as disadvantages, two of which appear of specific relevance for Vietnam.¹⁹ In a country with a pegged exchange rate, economic agents tend to neglect exchange risks, since they do 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 their income is in domestic currency, which may lead to a structural currency mismatch. Such a currency mismatch, as 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 in Vietnam 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%, compared to 38% 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 flexible exchange rates would be an important advantage for Vietnam, which 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 in the late 1990s shifted from exchange rate targeting to inflation targeting. The experience of these countries is currently reviewed.²⁰

The Vietnamese government with the approval of the National Assembly currently sets 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 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.

3.3 Monetary policy instruments

The SBV began introducing indirect monetary policy tools in the mid-1990s as part of the financial sector reforms. Today, a number of indirect instruments have been introduced and are increasingly used. Apart from reserve requirements, refinancing and discount lending

¹⁸ Hauskrecht and Le (2005).

¹⁹ Frankel (2005) presents a number of arguments, which support an increase in exchange rate flexibility in the case of China.

²⁰ Jonas and Mishkin (2005).

facilities, the SBV uses open market operations and foreign exchange interventions.²¹ In addition, the SBV continues to use reference rates to influence interest rates, and the government uses administrative instruments to control prices.

The SBV has been using required reserves in various forms since the 1990s, and changes of reserve requirements for deposits have been considered as 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 those for deposits of more than a year, and lower for banks that are active in the agricultural sector and for People's Credit Funds. The SBV currently pays interest of 1.2% on required reserves in dong and 0% on excess reserves, and does not pay interest on required reserves in US dollars but pays 1% on excess reserves in US dollars.

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

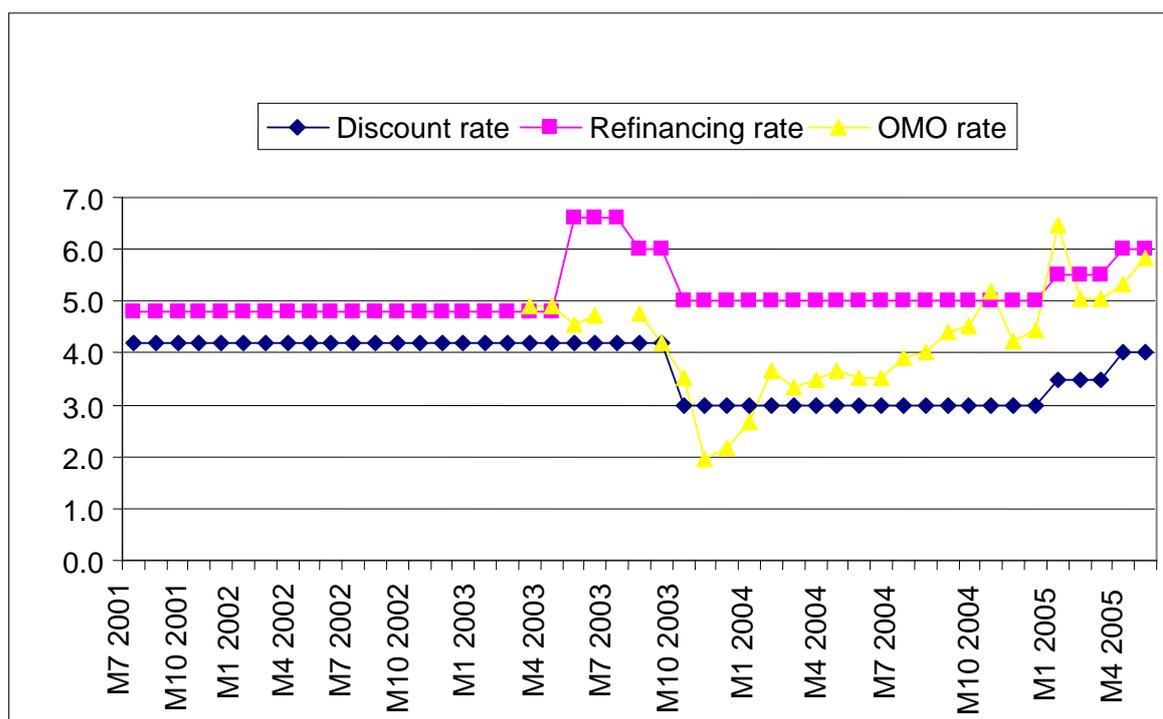
The SBV has two lending facilities, a refinancing and a discount facility. Both are collateralised and the latter gives commercial banks access to funds subject to quotas. Discount operations can take the form of an outright purchase of securities or a repurchase agreement. The maximum maturity of the 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. Together they define the band within which the rate for open market operations moves (Figure 7). At times the OMO rate moves out of the band, as in January 2005 when it reached 6.5%.

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 one percentage point so that starting 1 April 2005 the refinance and discount rates are 6% and 4% per annum, respectively.

Open market operations, which started in July 2000, had to be developed from scratch. Over the years they have gained in importance and have by now become the single most important monetary instrument for controlling liquidity. Of the total liquidity injected by the SBV, open market purchases provided close to 80% in 2003, compared to about 39% in 2002. Open market operations take the form of outright sales and purchases of securities or 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 the SBV launched a web-based auction system.

²¹ 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.

Figure 7
SBV interest rates



Sources: IFS; press reports.

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.

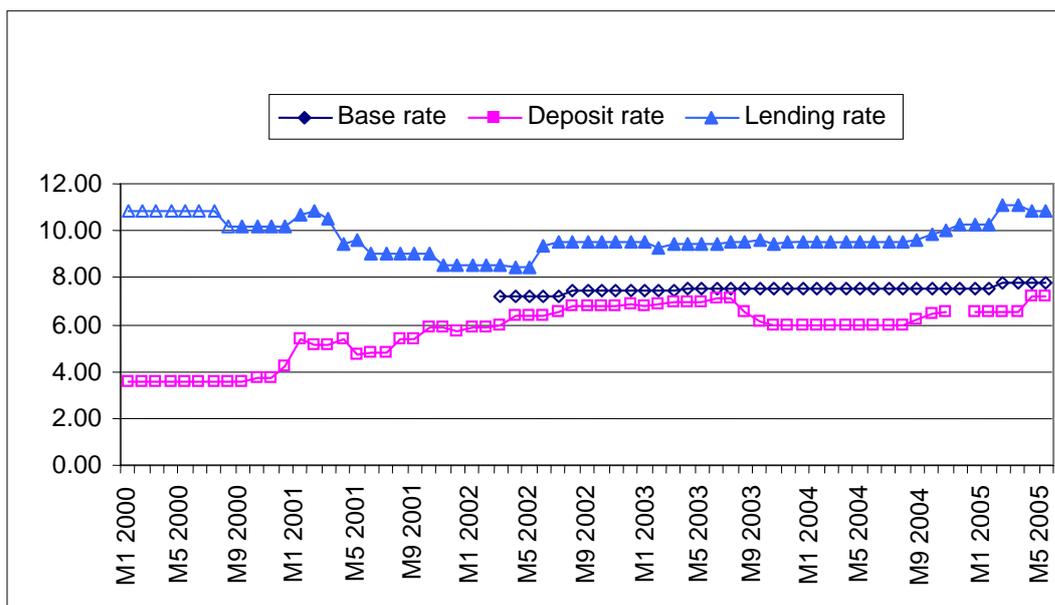
The basic system of lending facilities as well as the open market operations used by the SBV is comparable to monetary policy instruments used, for example, in transition economies in central Europe and many other central banks. While the SBV now actively uses indirect monetary policy, their use continues to be constrained by the lack of securities and 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.²² For example, the SBV continues to announce a base interest rate as the reference rate for interest rates of banks. Initially the base rate was used to specify 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 and the lending rate has, however, widened since mid-2004, indicating that the base interest rate may lose its function as a reference rate (Figure 8). Still, market participants appear to take increases in the base rate as a signal to increase lending rates used by commercial banks.

²² See also Sections 1.3.

Figure 8

Base, deposit and lending rates



Sources: IFS; SBV Annual Reports.

The SBV also continues to set a ceiling on interest rates that banks pay on dollar deposits of corporate clients.

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

4. 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 apart from commodity prices and the exchange rate plays an important role in the determination of the inflation rate

A vector autoregression (VAR) model is used 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 also addresses 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.

The basic VAR system includes as principal domestic variables the VND/USD exchange rate, 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).²³ All variables are in log levels except the interest rates. Given the lack of long time series for Vietnam, Bayesian priors are used for estimating the system.²⁴ The VAR system is estimated with monthly data for the periods February 1996 and April 2005 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). Credit 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 the CPI at the 24-month horizon in the sample period February 1996 to April 2005 and the most important variable together with US money supply in the sample period February 1996 to April 2004. This result, however, is not robust across all sample periods. When the system is estimated over the period February 1996 to April 2003, credit to the economy explains only a small portion of the forecast error variance of inflation in Vietnam.

The system of equations is also estimated with total liquidity (Table 2) and a lending rate (Table 3) instead of credit to check whether part of inflation 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 did total liquidity or the lending rate account for more than 5% of inflation in Vietnam.²⁵

One system included both credit to the economy and the lending rate (Table 4). While credit to the economy explains 18% 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% and 11%, respectively after 12 months, and the exchange rate 19% of the forecast variance of the inflation rate (Table 1). The rice price index is the variable that, with 16%, explains the largest part of the CPI within the first six months.²⁶ While the part of the CPI that is explained by

²³ Peiris (2003) and Camen and Genberg (2005) estimated the VAR system for Vietnam. Fung (2002) 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.

²⁴ 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 system. The basic assumption used is that variables follow an autoregressive process of the order of one, and accordingly lags of a higher order than one are assumed to be zero. If empirical evidence indicates that this is not the case, the data can override this assumption.

²⁵ 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. See Fung (2002).

²⁶ 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 contemporaneously cause CPI.

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 a measure of international liquidity conditions also plays 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% after 24 months in the system estimated over the period 1996:2 to 2005:4, and even 25% after 24 months in the system estimated over the period 1996:2 to 2004:4. In the 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 the system with domestic money when estimated over the period 1996:2 to 2005:4 (Table 2).²⁷

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 an exploratory analysis. More detailed analysis of the monetary transmission process would be highly desirable, 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.²⁸

Table 1
**Decomposition of the forecast error
variance of CPI: system with CTE**
In per cent

	Forecast steps (in months)	M3US	Petrol price	Rice price	VND/USD	CTE	CPI
Feb 1996- Apr 2005	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
Feb 1996- Apr 2004	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
Feb 1996- Apr 2003	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 calculations.

Variables: M3US = US M3, seasonally adjusted; petrol price = UK Brent; rice price = rice price, Bangkok; VND/USD = VN dong-US dollar exchange rate; CTE = credit to the economy; LR = lending rate; CPI = consumer price index.

²⁷ The role of external factors in the macroeconomic evolution in Vietnam was studied using a block-triangular vector autoregression system in Camen and Genberg (2005). External factors, including the US federal funds rate, US CPI inflation, US real GDP growth and CPI inflation in China, were found to be important in explaining the inflation rate in Vietnam.

²⁸ See, for example, Bernanke and Mihov (1997).

Table 2

**Decomposition of the forecast error
variance of CPI: system with M2**

In per cent

	Forecast steps (in months)	M3US	Petrol price	Rice price	VND/USD	M2	CPI
Feb 1996- Apr 2005	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
Feb 1996- Apr 2004	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
Feb 1996- Apr 2003	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 calculations.

Table 3

**Decomposition of the forecast error
variance of CPI: system with LR**

In per cent

	Forecast steps (in months)	M3US	Petrol price	Rice price	VND/USD	LR	CPI
Feb 1997- Apr 2005	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
Feb 1997- Apr 2004	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 calculations.

Table 4

**Decomposition of the forecast error variance of
CPI: systems with either CTE or CTE and LR**

In per cent

	Forecast steps (in months)	M3US	PICOM	VND/USD	LR	CTE	CPI
Feb 1996- Apr 2005	12	13.2	15.3	13.9		11.7	45.9
	24	28.0	9.3	12.5		19.7	30.4
Feb 1997- Apr 2005	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 calculations.

5. Conclusions

As this review has shown, Vietnamese authorities have made impressive progress in the implementation of financial sector reforms and the introduction of indirect monetary policy instruments over the last 10 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 on the financial system for monetary policy and constitute an important condition for progress with the implementation of indirect monetary instruments. In particular, they will probably 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 monetary policy goals 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. The feasibility of the use of inflation targeting will largely 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 the role of the financial structure in monetary policy transmission. As was shown by Hamada and Noguchi (2005) for the case of Japan, misguided economic perceptions can have serious consequences for the economic performance of a country if they influence economic policymaking.

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