Evaluations of the Exchange Rate Arrangement in Vietnam

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Abstract

This paper evaluates the effect of the fixed exchange rate arrangement on Vietnam's trade performance and inflation problem during 1992-1997 and 1999-2007. The paper shows that while the fixed exchange rate regime helped to stabilize the Vietnamese economy during 1992-1997; it contributed to the high inflation during 2004-2007 when the economy faced with increasing foreign capital inflows. Mindful of the infant status of the financial market and the trade structure of Vietnam, the paper argues that exchange rate should have been allowed to appreciate during 1999-2007 in order to preserve financial stability. In addition, Vietnam should be prepared to shift towards a more flexible exchange rate arrangement in the future if it continues the current economic development trend.

Key words: Vietnam, exchange rate arrangement, inflation, monetary policy, trade structure.

1. Introduction

According to the Law on State Bank [1997, 2003], the monetary policy in Vietnam was targeted at "stabilizing currency value, controlling inflation, contributing to socio-economic development, and improving people's living standard". Since controlling inflation was mentioned as a separate target, the target of "stabilizing currency value" can be understood as keeping the exchange rate fixed. In practice, from 1992 to 2007, except for the period of Asian financial crisis which occurred during 1997-1998, the Vietnamese Dong (VND) was kept quite stable against the U.S. dollar. In this paper, we try to investigate the controlling mechanism to maintain the fixed exchange rate regime. In addition, we evaluate the effects of the fixed exchange rate on the trade balance and the inflation problem of Vietnam during 1992-1997 and 1999-2007.

As will be discussed in the paper, given the infant financial system and the trade structure, controlling inflation should be the priority target of the exchange rate policy in Vietnam.

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During 1992-1997, the fixed exchange rate regime proved successful in curbing inflation and promoting economic growth. However, as economic conditions changed during 1999-2007, the maintenance of the fixed exchange rate regime seemed no longer appropriate, leading to inflation and lower economic growth rate.

So far only a few studies have overviewed and evaluated the exchange rate arrangement in Vietnam (Nguyen [2001], Ohno [2003], Nguyen et al [2006], Mai [2007]). Those studies provided a detailed examination of the reforms conducted in the exchange rate management of the central bank, so-called the state bank of Vietnam (SBV) and pointed out some recommendations for the future exchange rate arrangement. However, since the economic fundamentals (e.g, the trade structure) and the effect of the exchange rate arrangement on those economic fundamentals were not thoroughly analyzed, it seems hard to determine if the recommendations for the exchange rate policy in the previous studies are suitable for the economic conditions of Vietnam.

Following this introduction, the paper consists of four more sections. In section 2, we describe the exchange rate arrangement during 1992-1997 and 1999-2007. In section 3, we examine the balance of payments status and the accommodating monetary policy to maintain the fixed exchange rate mechanism. In section 4, we analyze the effect of the fixed exchange rate on inflation during 1992-1997 and 1999-2007. In section 5, we examine the trade structure and point out the likely effect of the exchange rate on trade performance. Section 6 concludes the paper with the evaluation of the fixed exchange rate mechanism and the recommendations for future exchange rate arrangement.

2. The exchange rate management mechanism in Vietnam during 1992-1997 and 1999-2007

From 1992 to 1997

After a long period of maintaining the multi-exchange rate system during 1975-1989 and a short period of devaluation due to the collapse of the Council for Mutual Economic Cooperation bloc and of the Soviet Union in 1989-1991, the fixed exchange rate regime was maintained during 1992-1997.

Though not explicitly stated, the exchange rate was kept fixed during 1992-1997 to help control inflation in the Vietnamese economy. From 1984 to 1988, the Vietnamese economy experienced enormous fluctuation caused by hyperinflation (three-digit figures). Although inflation fell to two-digit figures in 1989-1991, it still reached the annual average level of 69.7 percent. As a result, in the 5-year socio-economic development plan for the period of 1991-1995, the National Congress emphasized the goal of "controlling inflation and stabilizing the financial market[1)]". Mindful of the infant state of the economy in general and the monetary instruments in particular, keeping exchange rate stability as an anchor for controlling inflation seemed to be the implicit target of the SBV.

With the two-tier banking system and a legal foundation for the operation of the SBV, the

Table 1: Exchange rate bands for transactions between commercial banks and their clients

Time period	Exchange rate band
From Jul 94 to Oct 94	Spot Rate Max=Official Rate+0.1% Spot Rate Min=Official Rate
From Nov 94 to Nov 96	Spot Rate=Official Rate±0.5%
From Dec 96 to Feb 97	Spot Rate=Official Rate±1%
From Mar 97 to Oct 97	Spot Rate=Official Rate±5%
From Nov 97 to Aug 98	Spot Rate Max=Official Rate±10%
From Sept 98 to Feb 99	Spot Rate Max=Official Rate±7%
From Mar 99 to Jul 02	Spot Rate=Interbank average exchange rate±0.1%
From Aug 02 to Dec 2006	Spot Rate=Interbank average exchange rate±0.25%
From Dec 06 to Dec 07	Spot rate=Interbank average exchange rate±0.5%

Source: State Bank of Vietnam [2007]

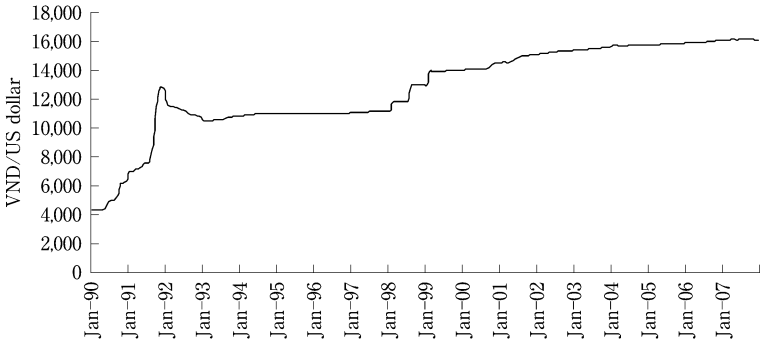
SBV could specialize in managing and maintaining the fixed exchange rate[2]. After a pilot period of operating two foreign exchange trading centers in Hanoi and Hochiminh city, the SBV officially established the Interbank market in 1994. Participants in the Interbank market were the SBV and authorized commercial banks. The Interbank market was different from the previous two foreign currency trading centers in that it did not allow the participation of export—import companies. However, like the previous system, the Interbank exchange rate was allowed to fluctuate within 5 percent of the previous day's average (Nguyen [2001]). In addition, the exchange rate determined in the Interbank market was just a reference for the SBV in setting the official exchange rate. The exchange rates applied in transactions between commercial banks and their clients had to be within a trading band around the official exchange rate. During 1994-1997, the band was widened considerably, though gradually, from 0.1 percent in July 1994 to 5 percent in October 1997 (see Table 1).

From 1999 to 2007

In the period of 1999-2007, the main target of the Vietnamese government was to "maintain sustainable economic growth at high rate", according to the 5-year plan for socio-economic development during 2001-2005. Meanwhile, the revised Law on State Bank [2003] did not change the targets of the monetary policy as stated in the previous version in 1997. That is, keeping exchange rate stable, and controlling inflation remained targets of the monetary policy during 1999-2007.

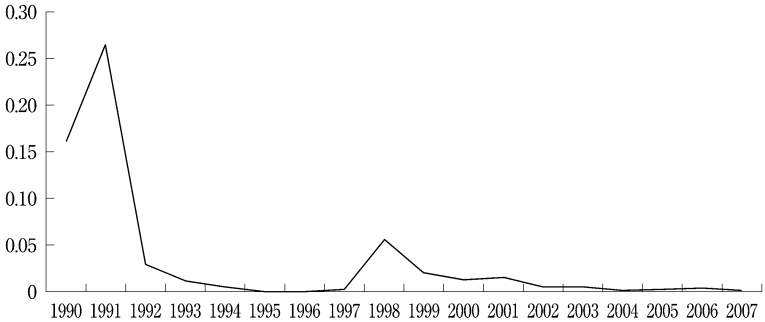
It can be understood that the maintenance of the fixed exchange rate aimed at preserving the stability of the economy, which would facilitate international trade and investment, and therefore, promoting economic growth. Indeed, inflation control should be the priority target of exchange rate policy, taking into account the importance of economic stability for foreign investment; and for maintaining the real economic growth in Vietnam. In addition, as discussed in section 5, with the current trade structure, it is unlikely that exchange rate policy can

Figure 1: Average official exchange rate (before February 1999) and average Interbank exchange rate (after February 1999).



Source: State Bank of Vietnam [2007]

Figure 2: The coefficient of variation in Vietnam's nominal exchange rate



Source: State Bank of Vietnam [2007]

have considerable impacts on economic growth through its effects on export competitiveness.

Targeting at the economic stability goal, the *de facto* (actual) exchange rate remained fixed, albeit some changes in the *de jure* (stated) exchange rate arrangement conducted by the SBV.

Like some Asian countries after the financial crisis, the SBV announced the change in the *de jure* exchange rate arrangement, from fixed to managed floating. From February 1999, with Decision 64 QD/NHNN7, the SBV directly used the Interbank average exchange rate as the official exchange rate. Instead of determining the official exchange rate, the SBV announced the Interbank average exchange rate and the fluctuation band was stipulated around the Interbank average exchange rate (see Table 1). The *de jure* new regulation seemed to make the exchange rate management more market-oriented.

Nevertheless, the *de facto* exchange rate management was yet to be more flexible. First, the Interbank average exchange rate was not totally determined by supply and demand. Instead, the Interbank exchange rates realized in a day must be within 0.25 percent of the Interbank average exchange rate of the previous day (Nguyen [2001]). The SBV reserved the right to intervene into the Interbank market by buying or selling foreign exchanges. As a result, the nominal exchange rate barely fluctuated during 1999-2007 (see Figure 1). Second,

as can be observed in Table 1, the fluctuation band around the Interbank average exchange rate was very small, so even the exchange rate applied for transactions between commercial banks and their clients was tightly controlled.

To check the exchange rate flexibility quantitatively, following the method of Taguchi [2007], we calculate the coefficient of variation in the monthly nominal exchange rate of Vietnam during 1990-2007[3]. As Figure 2 indicates, the exchange rate flexibility in fact decreased after 1999[4].

3. The balance of payments and the accommodating monetary policy under the fixed exchange rate mechanism

From 1992 to 1997

The fixed exchange rate arrangement during 1992-1997 could be maintained thanks to the increasing foreign capital inflows to Vietnam which relatively offset the trade deficit; and an accommodating monetary policy.

First, the fixed exchange rate could be kept thanks to the nearly balanced status of the overall balance. Table 2 indicated that the trade deficit during 1992-1997 was somehow filled by the so-called "first wave" of foreign investment. As the government's policy towards foreign direct investment (FDI) was open and supportive, the Law on foreign investment (LFI) was revised in 1990, 1992 and 1996 to create more favorable environment for foreign investment. For example, before 1992, foreign investors could join a partnership only with the state-owned enterprises (SOEs) in Vietnam. The revised LFI in 1992 then allowed foreign investors to establish joint-ventures with private companies (Khai Nguyen [2003]). As more favorable conditions were provided, the FDI registered capital was on an increasing trend during 1992-1996 (see Figure 3). The size of investment project also increased and peaked in 1996 with the average investment capital of US$ 27.3 million per project.

Meanwhile, export performances were marginal during 1992-1997 due to the monopoly of the SOEs in foreign trade area. In fact, various regulations were applied to hinder the participation of other economic sectors into foreign trade activities. For example, enterprises were required to get a license if they wanted to engage in export-import activities. However, in order to get an export-import license, they needed to have a foreign trade contract, a shipment license, and have to meet the requirements on minimum working capital and on the so-called 'skills' in trade. The required minimum working capital of US$ 200,000, which could hardly be met by non-SOEs; and the vague qualitative requirement of having "skills" in trade, discouraged the participation of not only non-SOEs but also small SOEs in foreign trade activities. As a result, the number of enterprises involved in foreign trade was just about two-fifth of the total number of SOEs in 1998 (Institute of Economics [2001]).

The entry barriers into foreign trade activities contributed to the worsening trade deficit. From Table 2, it can be observed that the trade deficit increased by 50 times during 1991-1996. However, the trade deficit was nearly offset by the capital account balance and the

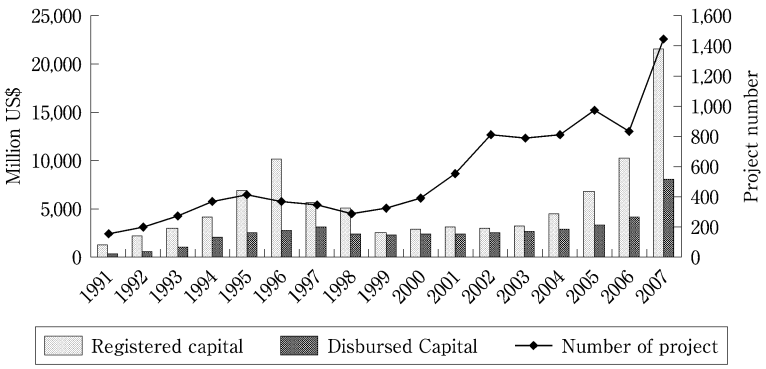
Table 2: Vietnam's Balance of payments during 1992-1998

(Unit: million US$)

	1992	1993	1994	1995	1996	1997	1998
Current account balance	**−8**	**−767**	**−1,166**	**−2,132**	**−2,395**	**−1,581**	**−1,003**
Trade balance	**−60**	**−547**	**−1,190**	**−2,345**	**−3,150**	**−1,300**	**−981**
Exports	2,475	2,985	4,054	5,198	7,330	9,269	9,365
Imports	2,535	3,532	5,244	7,543	10,480	10,569	10,346
Non-factor sevices (net)	311	76	19	159	−61	−623	−539
Investment income (net)	−382	−560	−297	−236	−384	−543	−605
Transfers (net)	123	264	302	290	1,200	885	1,122
Private	59	70	170	140	1,050	710	950
Official	64	194	132	150	150	175	172
Capital account balance	**271**	**−180**	**897**	**2,184**	**2,064**	**2,423**	**1,740**
FDI	260	300	1,048	1,780	1,803	2,587	1,745
Medium and long term loans	52	−597	−275	93	37	356	228
Short term loans	−41	117	124	311	224	−520	−233
Errors and omissions	**−197**	**−109**	**−409**	**125**	**334**	**−614**	**−419**
Overall balance	**66**	**−1,056**	**−678**	**177**	**3**	**228**	**318**

Source: State Bank of Vietnam[2000]

Figure 3: FDI registered capital and implemented capital into Vietnam



Source: General Statistics Office of Vietnam [2006]

overall balance even registered minor surpluses in 1992 and during 1995-1997.

On the other hand, the fixed exchange rate target was achieved by accommodating monetary policy, which relied on administrative measures to control money supply. The main monetary instruments used by the SBV were interest rate frame (i.e., the regulation of the minimum (floor) deposit interest rate and the maximum (ceiling) lending interest rate) and the credit limit (i.e., the control on the amount of loans that could be made by each commercial bank).

During 1992-1997, the SBV stipulated the interest rate frame applied in every commercial

bank. In addition, credit limit was used by the SBV during 1994-1998 to directly control the amount of loans made by commercial banks. At first, the credit limit was applied to only four state-owned commercial banks, which accounted for 90 percent of total credit supplied to the economy. The credit limit was then applied to joint-stock commercial banks and some branches of foreign banks as well.

The use of credit limit and interest rate frame showed that the SBV attempted to maintain the fixed exchange rate. For example, during 1993-1994, while the deficit overall balance created a pressure for the depreciation of VND, the devaluation pressure was accommodated by a tight monetary policy. The credit limit contributed to reduce the credit supply growth rate from 52 percent in 1993 to 27.5 percent in 1994 (SBV [2000]). On the other hand, from 1995 to 1996, the surplus overall balance was accommodated by a loose monetary policy, when the allowed credit growth rate increased from 21 percent in 1995 to 25 percent in 1996[5]. Moreover, the ceiling lending interest rate was reduced from 21 percent in 1995 to 12 percent in 1997 (SBV [1995-1997]).

From 1999 to 2007

Unlike the 1992-1997 period, the balance of payments status during 1999-2007 imposed an appreciation pressure on the exchange rate. Hence, the SBV had to use foreign exchange intervention to maintain the fixed exchange rate arrangement.

While the Vietnamese economy was gradually open to the world economy in the 1992-1997 period, during 1999-2007, the integration process accelerated. As a result of Vietnam's joining the Association of South East Asian Nations (ASEAN) in 1995 and the Asia Pacific Economic Cooperation forum (APEC) in 1998, the economic cooperation between Vietnam and regional countries continued to grow. In addition, in July 2000, Vietnam signed a Bilateral Trade Agreement with the United States of America and in January 2007, Vietnam became a member of the World Trade Organization (WTO).

Meanwhile, the Vietnamese government continued to improve the investment environment in Vietnam. The LFI was revised in 2000 and 2005 to create more favorable conditions for foreign investment. In particular, the LFI was replaced by the Common Investment Law in 2005 which provided a fair investment environment between foreign investors and domestic ones. On the other hand, the Uniform Enterprise Law was enacted in 2005 to replace two separate laws regulating the SOEs and the non-state sector.

As a result of the integration process and more favorable investment environment, foreign capital increasingly flowed into Vietnam. FDI increased by 8.4 times during 2000-2007 (see Table 3). Besides FDI, foreign capital in the form of indirect investment (investment into the Vietnamese stock market), Official Development Assistance (ODA), and overseas remittances were on an increasing trend. Table 3 shows that the portfolio investment increased from nearly US$ 0.9 billion in 2005 to US$ 6.2 billion in 2007. ODA loan (which belongs to the medium and long-term loan item in the Balance of payments) rose from around US$ 1.0 billion in 2001 to US$ 1.4 billion in 2006. In addition, overseas remittances, in the form of private transfer, soared from around US$ 1.05 billion in 1999 to US$ 5 billion in 2007.

Table 3: Vietnam's balance of payments during 1999-2007

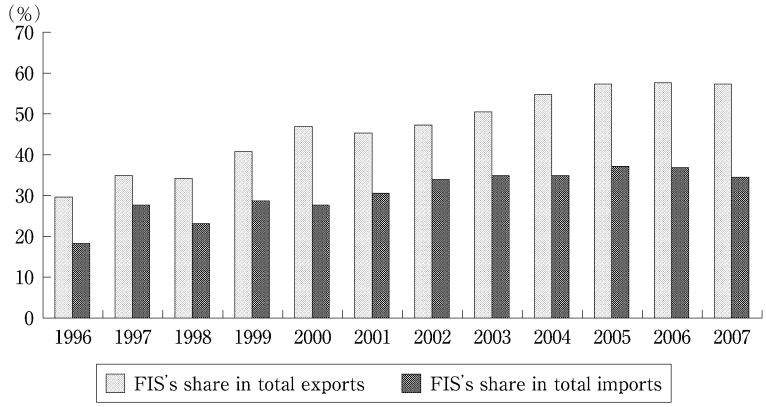
(Unit: million US dollars)

	1999	2000	2001	2002	2003	2004	2005	2006	2007
Current account balance	**163**	**642**	**670**	**−676**	**−1,935**	**−1,565**	**−497**	**−164**	**−6,992**
Trade balance	−96	378	627	−1,054	−2,582	−2,287	−2,439	−2,776	−10,360
Non-factor services (net)	−597	−615	−572	−749	−778	−871	−219	−8	−894
Investment income (net)	−325	−597	−635	−794	−814	−891	−1,219	−1,429	−2,168
Transfers (net)	1,181	1,476	1,250	1,921	2,239	2,485	3,380	4,049	6,430
Private	1,050	1,340	1,100	1,767	2,100	2,310	3,150	3,800	5,000
Official	131	136	150	154	139	175	230	249	1,430
Capital account balance	**1,368**	**−772**	**−307**	**1,071**	**4,086**	**2,447**	**2,628**	**4,486**	**n. a**
FDI inflows	1,484	800	900	2,023	1,894	1,878	1,954	2,400	6,700
FDI loan repayments	n. a	601	819	414	590	536	524	643	n. a
Medium, long-term loans (net)	2	729	623	458	974	1,396	1,360	1,139	n. a
Portfolio investment liability	n. a	n. a	n. a	n. a	n. a	n. a	865	1,313	6,243
Short-term capital	−118	−1,700	−1,011	−996	1,808	−291	−1,027	277	n. a
Errors and omissions	**−1,108**	**246**	**−169**	**69**	—	—	—	—	**−342.3**
Overall balance	**423**	**115**	**194**	**464**	**2,151**	**883**	**2,131**	**4,322**	**10,205.6**

Source: IMF country report[2003, 2007], IFS online database, Vo et al [2000]

On the other hand, the export-promotion policy was rigorously implemented. Thanks to Decree 57/1998/ND-CP which eliminated the monopoly of SOEs in foreign trade area and extended the export-import rights to all economic sectors, the number of enterprises participating in foreign trade activities increased by more than four times, from 2,400 in 1998 to 10,000 (including 4,500 SOEs and 5,500 non-SOEs) in the year 2000 (Institute of Economics [2001]). With the export-import rights, non-SOE local producers could directly deal with foreign importers and developed greater knowledge of market requirements without having to rely on intermediaries (IMF [2000]). In addition, given that the foreign-invested sector (FIS) played the dominant role in Vietnam's exports, policies on promoting the export performance of the foreign-invested enterprises (FIEs) were also in place. For example, the FIEs' foreign trade activities which used to be under the management of the Ministry of Trade, was transferred to the provincial authorities and the management boards of industrial zones and export-processing zones since 1999, with the goal of reducing the time for checking and approval. Also, the FIEs have no longer been required to get approval for their export plan since 1999, and for their import plan of parts and equipments since 2000 (Vietnam's Journal of Commerce [2002]). As a result of the export-promotion policy, during 2001-2006, the FIS increasingly participated in the key export-oriented industries in Vietnam (Nguyen and Hirata [2009]). The share of the FIS's exports in total exports was also on an increasing trend. From 27 percent in 1995, the FIS's contribution to total exports reached 57.2 percent in 2007

Figure 4: Share of the foreign-invested sector in total exports and total imports



Source: General Statistics Office of Vietnam [2007]

Table 4: SBV's foreign exchange reserves

(Unit: million US dollars)

Year	2001	2002	2003	2004	2005	2006	Jun-2007
Official reserves	3,601	3,692	5,620	6,314	9,597	11,483	20,026

Source: IMF country report [2007]

(see Figure 4). Furthermore, while the domestic sector's trade balance was still in deficit, the FIS's trade balance was surplus during 1997-2007, and during 2003-2007, the trade surplus widened (Ministry of Planning and Investment of Vietnam [2007]).

Thanks to the export-promotion policies, exports during 2003-2006 recorded an annual growth rate of 24.3 percent, higher than the annual growth rate of imports, which was 22.8 percent (GSO [2006]). As a result, the trade balance, though in deficit, seemed to stabilize during 2003-2006 (see Table 3). The stable trade deficit, combined with rising foreign capital inflows, resulted in an increasing surplus in the overall balance. As indicated in Table 3, the surplus in 2006 was 10.2 times compared with 1999.

In 2007, exports grew by 21.9 percent, while imports increased by 39.8 percent compared to 2006[6]. As a result, the trade deficit soared to more than US$ 10 billion, which was 4.1 times the annual average deficit during 2003-2006. However, in 2007, the inflows of FDI and portfolio investment also recorded their highest levels of US$ 6.7 billion and US$ 6.2 billion, respectively. As can be seen from Table 3, FDI inflow in 2007 was 3.3 times the average level during 2003-2006, while portfolio investment was equivalent to 5.7 times the average level during 2005-2006. The huge increase in the foreign capital inflows in 2007 resulted in an overall surplus which was 2.4 times the figure in 2006.

Under the pressure of appreciating VND caused by increasing surplus overall balance, the SBV extensively intervened (by purchasing the U.S. dollar) in the foreign exchange market. Table 4 shows that the foreign exchange reserves increased by 5.6 times from 2001 to Jun 2007.

In addition, a loose monetary policy was conducted during 1999-2003. Required reserve

ratio was reduced from 7 percent in 1999 to 3 percent in 2001, and to 2 percent in 2003. Meanwhile, the basic interest rate, which replaced the interest rate frame and played the guiding role for market interest rates, was reduced from 9 percent in 2000 to 7.8 percent in 2001, and then to 7.5 percent in 2003 (SBV [2000-2003][7]). During 2004-2007, required reserve ratio was raised from 5 percent to 10 percent, and basic interest rate rose to 8.25 percent. However, as discussed in section 4, high inflation still outbroke during 2004-2007.

4. Exchange rate arrangement and inflation

It has been widely argued that the fixed exchange rate maintained during 1992-1997 achieved the goal of controlling inflation in the Vietnamese economy (see, for example, Vo et al [2000], Nguyen [2001], and Nguyen et al [2006]). From 67.4 percent in 1991, the inflation rate fell to 3.6 percent in 1997 (General Statistics Office of Vietnam [2007]). In addition, the stable economic condition facilitated high economic growth rates. During 1992-1997, the annual average growth rate of Gross Domestic Product (GDP) climbed to 8.75 percent (General Statistics Office of Vietnam [2007]).

During 1999-2007, however, the maintenance of the fixed exchange rate did not achieve the low inflation rate target as implied in the Law of State Bank [2003], and failed to keep the high economic growth rate of the previous period. Inflation rate rose to an average of 9.5 percent, while GDP growth rate declined to 7.1 percent.

The high inflation during 2004-2007 could be partly attributed to the foreign exchange intervention. As mentioned in section 3, in order to maintain the *de facto* pegging to the U.S. dollar, the SBV extensively intervened in the foreign exchange market by purchasing U.S. dollar. While the SBV's foreign exchange reserves increased, monetary base (M0) also kept increasing, worsening the inflation problem in Vietnam (see Nguyen and Hirata [2008]).

The inflation problem during 2004-2007 would not have been so serious if the sterilization operation was effectively conducted. However, monetary policy operation in general, and the sterilization operation in particular, seemed to lack effectiveness due to the infant status of both the SBV and its monetary instruments.

First, the SBV did not have an independent position from the government. According to the Law on State Bank [1997, 2003], the SBV belonged to the government and did not have the exclusive power to conduct monetary policy. Instead, the SBV only played a role of a participating member in the establishment of the monetary policy. The government built the annual plan of national monetary policy in which it determined the target rate of inflation and decided on the amount of money supply added to circulation. Then, the plan was submitted for the evaluation and final decision of the National Congress. The Congress would make decisions on monetary policy in relation to the government's budget plan and the targeted economic growth rate.

Second, though the SBV conducted reforms towards replacing administrative monetary tools (such as the credit limit) by more conventional tools (such as the open market

operation-OMO); and gradually relaxing the rigid control of interest rates, the financial market was still in an infant stage of development. Here we examine the interest rate control and the OMO conduct to illustrate the infant status of the financial market.

Like the credit limit, the use of the interest rate frame proved to be ineffective since the frame was applied to all commercial banks and was not adjusted promptly to changes in the real economic practice. Hence, interest rate frame was abandoned in the year 2000 and replaced by the basic interest rate. Announced monthly by the SBV, the basic interest rate was the base for determining lending rates in commercial banks. Indeed, the lending rates of commercial banks had to be within a certain band around the basic interest rate. The determination of the basic interest rate, however, seemed to be an administrative procedure without a clear economic meaning. Although considered as a guiding rate for commercial banks, the basic interest rate was determined based on the lending rate for the best customers of 15 commercial banks (Le Thi Tuan Nghia [2004]). In addition, the band around the basic interest rate was also determined subjectively by the SBV. For example, during 2000-2002, the band was stipulated to be 0.3 percent per month for short-term lending and 0.5 percent per month for medium and long-term lending (SBV [2000]).

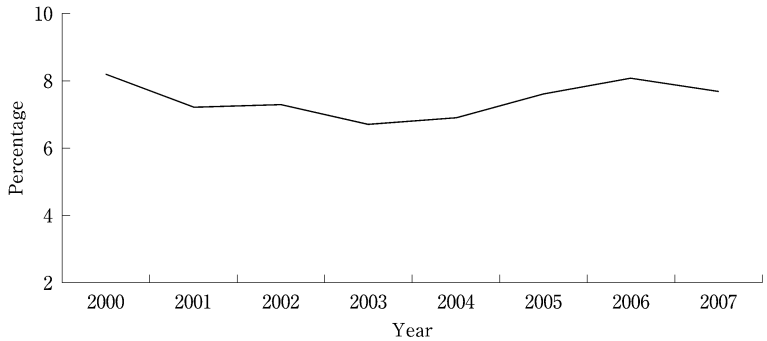
Between July 2002 and 2007, the requirement that commercial banks' lending rates be within some bands around the basic interest rate was removed; and the basic interest rate was then a reference rate for commercial banks in deciding their lending rates. However, in practice, the basic interest rates still played a guiding role for commercial banks, and the determination mechanism of the basic interest rate was unchanged.

The use of the basic interest rate was also due to the fact that the Vietnam Interbank Offer Rate (VNIBOR) did not play the guiding conventional role for market interest rates. Apart from the underdevelopment of the Interbank market, another reason for the limited role of VNIBOR was that it was subject to the administrative regulations of the SBV. For example, during March 2003-2007, it was regulated that VNIBOR lie within the refinancing rate (the ceiling rate) and the discount rate (the floor rate) (SBV [2007][8]). Since the refinancing rate and the discount rate were determined subjectively by the SBV, the stipulation that VNIBOR lie between the refinancing rate and the discount rate was solely an administrative regulation without considering the real economic situation. As can be seen in Figure 5, VNIBOR was quite stable during 2000-2007, despite enormous fluctuation in the Vietnamese economy.

On the other hand, OMO was introduced in the year 2000 but did not develop to be an effective tool in inflation control. Despite the increasing number of commercial banks, 90 percent of OMO trading sessions had less than four commercial banks participated, and in many sessions, only one commercial bank was present (Le Thi Tuan Nghia [2004]). Underlying reasons for the little interest of commercial banks in OMO transactions include the underdevelopment of the primary market for Treasury bills and irrational control on OMO interest rates (see also Nguyen and Hirata [2008]).

Taken together, while the fixed exchange rate helped to lower inflation during 1992-1997, it contributed to the high inflation during 1999-2007. More specifically, the infant status of

Figure 5: VNIBOR



Source: Vietnam Economic Times [2006]

the financial market made it hard to cope with inflation once the exchange rate continued to be under rigid peg. In other words, VND should have been allowed to appreciate during 1999-2007 to maintain economic stability.

5. Exchange rate arrangement and the trade performance

In this section, we analyze the trade structure to evaluate the extent of influence that the fixed exchange rate can have on the trade performance of Vietnam. This section shows that the trade structure was quite stagnant during 1992-1997 and 1999-2007. Specifically, imports remained important for the domestic production of Vietnam; while low value-added exports were dominant in the export structure. Therefore, an exchange rate that favors imports may benefit the economy; while an exchange rate that favors exports may have limited effects on export value.

During 1992-1997, imports were essential for the domestic production of Vietnam. For example, the share of machineries, equipment, fuel and non-fuel production materials in total imports increased from 82.2 percent in 1994 to 87 percent in 1997 (see Table 5). On the other hand, the export structure shows that Vietnamese exports consisted mainly of natural resources (such as crude oil and coal), agricultural products (such as rice, coffee and rubber), fisheries, and labor-intensive industrial products (such as garments and footwear). During 1994-1997, the share of the above-mentioned exports in total export value was around 70 percent (see Table 6). In other words, Vietnam's exports mainly consisted of low value-added products and it was unlikely that a more favorable exchange rate for export would lead to a considerable increase in the export value.

On the other hand, the trade structure during 1999-2007 did not see any remarkable improvement compared to the 1992-1997 period. Although the export performance, especially of the FIS, showed some improvement, the trade structure was almost the same. Therefore, the appreciation of VND may benefit domestic production and at the same time did not seriously harm the export sector. According to the IMF country report [2003, 2007], the annual aver-

Table 5: Major import structure of Vietnam

(Unit: Percentage)

	1994	1995	1996	1997
Total imports	100	100	100	100
Machinery and equipment	29.5	25.0	32.6	19.9
Fuels and non-fuel production materials	52.7	56.2	51.9	67.1
Consumer goods	17.8	16.1	11.2	8.9

Source: IMF country report [1999]

Table 6: Major export structure of Vietnam

(Unit: Percentage)

	1994	1995	1996	1997
Total exports	100	100	100	100
Crude oil	21.4	19.7	18.3	15.6
Rice	10.5	9.5	11.7	9.5
Coal	1.8	1.7	1.5	1.2
Rubber	3.3	3.1	2.2	2.1
Coffee	8.1	10.8	4.6	5.4
Marine products	13.6	8.3	8.9	8.5
Garments	11.7	8.3	15.7	14.8
Footwear	3.0	3.8	7.2	10.6

Source: IMF country report [1999]

age share of production inputs in total import value stood at 92.7 percent during 1999-2006. As indicated in Table 7, during 2001-2007, imports of machinery and electrical machinery accounted for 21.7 percent of total import value, followed by mineral products (13.6 percent), metals (12.5 percent), textiles (11.4 percent), and chemicals (10.1 percent). Since most imports are production inputs, the exchange rate arrangement favorable to imports during 1999-2007 would not only facilitate domestic production, but also calm down the inflation pressure caused by the oil price shock in 2004.

On the export side, besides crude oil and coal, products of labor-intensive industries, such as textile-garment, footwear, food, foodstuffs, and assembled electronics remained dominant exports (see Table 8). As main exports include natural resources and low value-added, labor-intensive products, it seems hard to increase export value remarkably even if the exchange rate is favorable. In addition, it should also be stressed that the competitiveness of exports is not determined solely by the exchange rate arrangement. For the Vietnamese economy, the export performance depends greatly on the FIS, as well as the government's industrialization strategy (see, for example, Pham [2003], Schaumburg-Muller [2003], Nguyen and Hirata [2009]).

In short, the trade structure has two implications for the exchange rate arrangement. First, it means that the exchange rate arrangement which favored imports might benefit the domes-

Table 7: Import structure of Vietnam during 2001-2007

(Unit: Percentage)

Products	2001	2002	2003	2004	2005	2006	2007
Animal and animal products	1.9	1.3	1.2	1.3	1.4	1.2	1.1
Vegetable products	2.3	2.6	2.4	2.2	2.2	2.1	2.4
Foodstuffs	2.4	2.5	2.8	2.6	2.9	2.9	2.9
Mineral products	12.9	12.0	11.6	13.3	15.4	15.6	14.5
Chemicals and allied industry	11.4	11.1	10.4	10.1	9.7	9.2	8.7
Plastics/Rubbers	5.6	5.8	5.8	6.6	7.0	7.5	6.9
Raw hides, Skins, Leather, & furs	1.5	2.0	2.1	2.2	2.1	1.8	1.6
Wood and wood products	3.4	3.4	3.6	3.8	3.7	3.7	3.3
Textiles	12.3	13.2	12.0	11.6	11.2	10.3	9.3
Footwear/Headgear	2.1	1.4	1.1	0.9	0.8	0.6	0.4
Stone/Glass	0.8	0.9	1.5	2.6	3.1	5.1	2.9
Metals	10.5	11.4	11.4	13.1	13.0	13.3	15
Machinery/Electrical	21.4	21.8	23.4	20.5	20.4	21.0	23.5
Transportation	8.2	6.6	7.9	6.5	4.5	2.7	4.7
Miscellaneous	2.3	2.7	2.4	2.3	2.4	2.7	2.5
Service	1.2	1.1	0.4	0.4	0.4	0.4	0.4

Source: The United Nations' World Trade Statistics [2009]

Table 8: Export structure of Vietnam during 2001-2007

(Unit: Percentage)

Products	2001	2002	2003	2004	2005	2006	2007
Animal, animal products	13.4	12.5	10.9	8.7	8.0	7.8	7.0
Vegetable products	11.6	10.7	10.2	10.1	10.4	9.7	10.8
Foodstuffs	2.5	2.6	2.3	2.3	2.2	2.3	2.2
Mineral products	23.4	21.6	21.0	24.1	26.2	24.8	21.2
Chemicals and allied industry	1.1	1.3	1.1	1.1	1.1	1.1	1.2
Plastics/Rubbers	2.3	2.9	3.4	3.6	4.2	5.2	5.2
Raw hides, Skins, Leather, furs	1.5	1.4	1.4	1.3	1.3	1.1	1.4
Wood and wood products	2.0	2.0	1.7	1.7	1.7	1.7	1.9
Textiles	14.5	18.0	19.2	18.1	16.4	16.4	17.7
Footwear/Headgear	11.1	11.8	11.8	10.7	9.8	9.5	8.7
Stone/Glass	1.5	1.6	1.5	1.6	1.5	1.6	1.8
Metals	1.2	1.5	1.6	1.9	2.1	2.2	2.6
Machinery/Electrical	7.5	6.4	7.5	8.2	8.4	9.3	10.1
Transportation	1.1	1.1	1.2	1.4	1.2	1.2	1.5
Miscellaneous	3.0	3.6	4.2	4.7	5.2	5.6	6.1
Service	2.4	1.0	0.8	0.4	0.4	0.4	0.7

Source: The United Nations' World Trade Statistics [2009]

tic production. Second, in case there was a conflict between economic goal (i.e., improving the trade balance) and financial goal (i.e., controlling inflation), priority should be given to the financial goal. Since the trade structure improvement depended on many other factors besides the exchange rate arrangement, while the financial market remained infant, the exchange rate policy should have been targeted towards maintaining financial stability.

6. Concluding remarks

In the context of a rather closed economy, the fixed exchange rate arrangement during 1992-1997 was successful in bringing down the inflation rate to one-digit figures and at the same time maintaining high economic growth rates. During 1999-2007, as the country faced higher exposure to the international capital flows, the maintenance of the rigid pegged regime seemed no longer appropriate. Inflation surged to two-digit figure in 2007, while economic growth rate was lower than the 1992-1997 period. Given the infant state of the financial market (which hindered effective sterilization), and the limited effect of exchange rate on export value, it would have been better to let VND appreciate under the pressure of foreign capital inflows.

The shift to more flexible exchange rate regime has occurred in many East Asian countries, especially after the sharp currency devaluation due to the 1997 financial crisis. According to the *de facto* classification of exchange rate regime by Reinhart and Rogoff [2002], Thailand adopted a managed floating exchange rate regime since January 1998 in which the value of the baht was determined by market forces and the Bank of Thailand would intervene in the market only when it was necessary to avoid excessive volatilities. Philippines and Singapore adopted the managed floating system from December 1997 and December 1998, respectively; while South Korea and Indonesia moved to freely floating exchange rate systems since July 1998 and April 1999, respectively. Malaysia was an exception as it turned to the fixed exchange rate system since September 1998.

Although Vietnam is still lagging far behind other economies in the region, the economic development path of Vietnam since its economic renovation policy was adopted in 1986 seems to follow that of most East Asian countries. The Vietnamese economy was open to foreign investors, especially regional investors, since 1987, and the foreign-invested sector has played an increasing role in export-oriented industries. Therefore, it seems reasonable to expect a more flexible exchange rate in Vietnam in the future, as Vietnam catches up with other regional countries.

On the other hand, some recent studies have pointed out that the benefits of more flexible exchange rate regimes increase as economies develop and become more integrated in global financial markets (see, for example, Rogoff et al [2003], Husain et al [2004]). For emerging market economies, moving towards more flexible regimes can help to mitigate the risk from currency crises that have characterized pegged exchange rate regimes. At the same time, countries should also be prepared for the shift to a more flexible exchange rate regime. As

indicated in Calvo and Mishkin [2003], Goldstein and Turner [2004], and Hakura [2004], sound monetary and financial policy frameworks; combined with strong financial sector supervision would facilitate the introduction of greater exchange rate flexibility by directly addressing the key vulnerabilities of the floating regime. From the discussion in section 4, at least three issues should be addressed to improve Vietnam's financial market.

First, the SBV should be independent from the government. The independent position would allow the SBV to actively and promptly conduct necessary monetary policy to stabilize or promote economic growth.

Second, administrative control on interest rates should be abandoned so that VNIBOR (instead of the basic interest rate) can play its conventional role of guiding market interest rates.

Third, the effectiveness of OMO should be improved by more rigorous reform in the financial system, including but not limited to the Interbank market and interest rate management mechanism.

Notes

1) Source : http : //vbqppl. moj. gov. vn/law/vi/1991-to-2000/1991/199112/199112260004

2) Decree 53/ND in 1988 ended the mono-bank system (which included only the SBV) and the Ordinance on State Bank in 1990 laid out the legal framework for the SBV and commercial banks. Since then, a two-tier banking system including the SBV and state-owned commercial banks were established.

3) The coefficient of variation (CV) is a normalized measure of dispersion of a probability distribution and is defined as the ratio of the standard deviation σ to the mean μ.

4) It should be noted from Figure 2 that the CV of the nominal exchange rate increased in 1998. The increase of CV, which showed more flexible exchange rate arrangement, was resulted from the Asian financial crisis in 1997. Due to the crisis, the FDI inflow to Vietnam fell by 32.5 percent in 1998. On the other hand, export grew by 1 percent in 1998, down from the annual average export growth rate of 30.4 percent during 1992-1997. In that context, the official exchange rate was devalued by 14 percent in 1998 (SBV [2000]). On the other hand, the trading band was widened to its highest level of 10 percent up to August 1998 (SBV [2007]).

5) However in 1995, due to the lack of supervision from the SBV, the credit limit was not strictly kept by commercial banks. In 1995, while the credit growth rate allowed by SBV was only 21 percent, the real credit growth rate climbed to 37.8 percent. The same problem existed in 1996 with the real growth rate of 29 percent, above the 25 percent limit of the SBV (SBV [2000]).

6) The sudden increase in the import growth rate in 2007 might be due to the expansion of production by both domestic and foreign producers as Vietnam became a member of the WTO. Considerable import value increase was observed in the main imports of Vietnam. In particular, compared to 2006, imports of machinery, electrical machinery, iron and steel, plastics and minerals rose by 51.8 percent, 64 percent, 77.7 percent, 33.6 percent and 30.4 percent, respectively. These major imports accounted for 60 percent of the increase in total import value in 2007 (The United Nations' World Trade Statistics [2009]).

7) The basic interest rate was introduced by the SBV as a new way of controlling the market interest rates. The basic interest rate was announced monthly by the SBV and the lending rates

of commercial banks had to be within a certain range around the basic interest rate.

8) Refinancing loans are collateralized loans that the SBV provides for commercial banks. Collaterals include SBV bills, government bonds, and other securities having the maximum of two years until the due date. Discount loans, on the other hand, are provided to commercial banks by rediscounting commercial drafts.

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