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The Banking System of Vietnam after the Accession to WTO: Transition and its Challenges

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Abstract/Résumé

Vietnam's banking system has been vastly restructured over the past two decades, and in view of entering the World Trade Organisation in January 2007, the authorities committed to further liberalisation. In this context, however, risks loom over the system's stability, arising both from the lack of appropriate regulatory capacities and from recent macroeconomic developments in Vietnam. Important capital inflows to match a growing current account deficit, an asset price bubble, a dollarised economy and the rise in inflation are studied in this paper.

Le secteur bancaire vietnamien a été largement restructuré au cours des deux dernières décennies, et les autorités se sont engagées à poursuivre la libéralisation du secteur pour rejoindre l'Organisation Mondiale du Commerce en janvier 2007. Dans ce contexte, le développement très rapide de la finance de marché ainsi que les évolutions récentes de l'économie vietnamienne font peser de nouveaux risques sur le système financier. Les flux entrants de capitaux étrangers (qui permettent de financer un déficit courant qui se creuse), la bulle du prix des actifs, la dollarisation et la montée de l'inflation sont étudiés dans cet article.

Introduction

While not necessarily concomitant, commercial and financial liberalisations have become more and more associated, and promoted together by advocates of better international integration. As a consequence, financial liberalisation in Vietnam has been pushed forward as a corollary to commercial integration. Whereas the previous decade witnessed the liberalisation of the sole domestic financial system, Vietnam committed itself to liberalising all accounts of its balance of payments after 2000. In view of assessing the consequences of the accession to WTO, it is therefore necessary to examine the stability of the banking sector after liberalisation. This paper aims at giving a perspective of the evolution of the financial system and of its macroeconomic framework.

As a matter of fact, banking reforms in Vietnam recently had to cope with a fast acceleration of credit, which hints at the challenges for the banking system. The market is evolving rapidly, both in size and in structure. In hindsight, these events might in fact be setting up the framework of a *financial cycle* (Minsky, 1964), potentially leading to structural financial mutations which would outpace public policy. Indeed, the fast structural transition of a banking sector calls for a thorough regulatory plan, consistent with both the development of a fast-growing economy and the progressive integration of the financial sector into globalised finance; moreover, it would imply not only defining the necessary, more constraining legislation, but also implementing them effectively.

The recent history of developing countries shows that the possibility of failed regulation must not be overlooked or neglected: the transition from *financial repression* (McKinnon and Shaw, 1973) has often taken the form of a dangerous set of events, resulting in financial crises in several emerging markets since 1980 (see for example Diaz-Alejandro, 1985). With the volatility[1] of international financial markets foregrounding idiosyncratic vulnerabilities, the whole *system* may come under pressure. To avoid that decisions going back on commercial liberalisation be taken as a consequence, information about the country's position in the financial cycle is of paramount importance.

In the aftermath of the Asian crisis, several explanations were provided to depict, *ex post*, the events that led to financial crises in developing countries (see Cartapanis, 2004, for a review of such explanations). Ben Gamra and Plihon (2007) have shown that financial liberalisation is associated with numerous banking crises. However, while much has been written to take stock of these scenarios, little has been done to identify countries likely to replicate these events. This paper draws much from various brokers' views of Vietnamese banks and from two data-gathering missions that the authors undertook in 2007 and 2008. Notwithstanding missing data, this analytical framework sheds light upon the main issues affecting this banking system in the coming years.

The remainder of this paper is structured as follows: Section 2 reflects upon the teachings of the history of liberalisation in Vietnam regarding the vulnerabilities of its financial system. Section 3 discusses the banking system balance sheet situation, and describes what can be safely stated about it. Section 4 repositions the banks into the financial system:

1. The authors put an end to this paper while the international crisis of 2008 was reaching its peak. In the last two months of 2008, international liquidity became very scarce and many high-profile actors on emerging markets had to delay emissions; the emerging market premium (EMBI) averaged at 750 bp during that time.

after a look at what theory tells us of such macroeconomic imbalances, we extend our analysis to three issues that the financial system has been facing. Firstly, we examine the consequences of over-financing in the Vietnamese current deficit. Secondly we determine how the dual-currency structure of the financial system might be impacted and thirdly, how the risks landscape has been modified by accelerating inflation. Section 5 summarises and concludes.

1. History

In the 1980s, the structure of the Vietnamese banking system relied upon a one-tier model typical of entirely administered banking systems in socialist economies. In such a model, the central bank is the sole bank in the country.[2] It controls the volume, the cost and the sector allocation of credit. The restructuring of this model was initiated as a component of the comprehensive reform program launched after the December 1986 Communist Party Congress: it was vastly reformed into a two-tier model, the central bank now dedicated to missions of regulation of the financial sector and second-tier banks (or commercial banks) in charge of sector allocation and credit volume decisions. As this two-tier system emerged, five State-owned commercial banks (SOCB), around forty-five joint-stock banks (JSB), partially owned by private investors, and many People's Credit Funds were created. Four of the five SOCBs largely dominate the market (Vietcombank, Incombank, VBID and the Bank for Agriculture and Rural Development [Agribank, also VBARD]). However, the importance of both the JSB and international bank subsidiaries is growing.

Since the beginning of the 2000s, the US bilateral trade agreement [USBTA] (2001) and Vietnam's accession to WTO (2007) have been opportunities for more reforms. Notably, under the framework of the USBTA, the Vietnamese authorities committed to liberalising the banking system before 2010. The scope of this commitment has been extended to all member countries with the accession to WTO, according to the most favoured nation rule. These reforms should grant foreign banks the right and opportunity to expand the scope of their activities in the Vietnamese banking sector, especially by giving them access to a greater share of the capital of Vietnamese banks.[3] The agenda has been formally set up by the Vietnamese authorities in a *road map*[4] for the 2006-2010 period: it anticipates a major reform of the State Bank of Vietnam (SBV) and of the banking sector regulation, allowing for the implementation of Basel I prudential indicators. It also includes a partial privatisation of the SOCB and further privatisation of other banks (under the current regulation, a foreign bank standing alone and a pool of banks are limited to owning respectively no more than 15 and 30% of a Vietnamese bank's capital).

With a view to improving banks' management standards and the quality of their portfolios, around 2000 the Vietnamese authorities began recapitalising the public bank balance sheets while also setting up defeasance structures, in order to reduce the share of non-performing loans (NPLs). The banks should now be progressively privatised in part, so as to benefit from the credibility and the financial strength of international banks and from their better management standards.

The emergence of a two-tier system was not the only illustration of the decline of financial repression in Vietnam. The growing share of private capital in the banking system, the liberalisation of interest rates and the will to develop financial markets are the three main driving forces of the movement towards elimination of financial repression. *Financial repression* refers to all means of control, direct or indirect, that the authorities may use to manage the financial system. These means of control are of different natures:

2. Even though the Vietnamese Bank for Investment and Development (VBID) and Vietcombank had been created as early as, respectively, 1958 and 1963, they were established as subsidiaries of the SBV, thus essentially preserving the one-tier system.
3. Since 2007, international banks are supposedly allowed to freely open 100% foreign-owned subsidiaries in Vietnam.
4. Signed by the Prime Minister on the 24th of May, 2006.

paramount role of public capital in the banking system, administered setting of interest rates (which usually translates into low or negative real interest rates), credit ceilings, and even sometimes high reserve requirements, which can in turn help finance the budget deficit. In all these aspects, the recent reforms in Vietnam show many similarities with those implemented in numerous emerging market countries during the 80s and the 90s. These countries loosened their policy to take into account the theoretical criticism that was made at that time on financial repression. Such criticism emphasised many areas of sub-optimality in a regime of financial repression: returns on deposits are low, or negative, little savings or reserves are effectively mobilised; investment is very limited (the intermediation function being imperfectly managed by banks); finally, since they are unable to charge for them correctly, banks are reluctant to take risks and to make potentially highly profitable investments (instead they persist in working with their historical clients). Conversely, McKinnon and Shaw's model tends to show that financial liberalisation leads to a greater mobilisation of savings and to a growth in credit, while allowing for a diversification of financed projects.

2. The Opacity of the Banking System

The Vietnamese financial system, thus inheriting from the financial repression era, is characterised by a very serious lack of transparency. As a consequence, a thorough diagnosis of its balance sheet situation is made impossible by the scarcity of available information, especially regarding the core systemic risk indicators: capitalisation, asset quality, provisioning, liquidity, currency mismatch and profitability. The level of uncertainty concerning capitalisation and asset quality, in particular, which are two indicators of the strain put on emerging markets' banking systems, limit the scope of a systemic risk diagnosis.

2.1 Uncertainty about Capitalisation

Available information does not enable us to assess precisely the capital-adequacy ratios of the banking sector. However there is a global consensus on the fact that Vietnamese banks are generally under-capitalised and the SBV itself has announced its intention to raise the regulatory capital requirements.

In 2004, IMF staff conducted a study to determine the capital needs of the consolidated banking sector. The study concluded that these needs amount to between 15 and 25% of GDP (Aitken, 2004). In the meantime, the recapitalisation of SOCBs by the State, in view of their privatisation, and the growing share of foreign capital in JSV probably improved the sector's capitalisation. However, it may still be insufficient against the fast growth in credit and the volatility inherent to emerging markets.

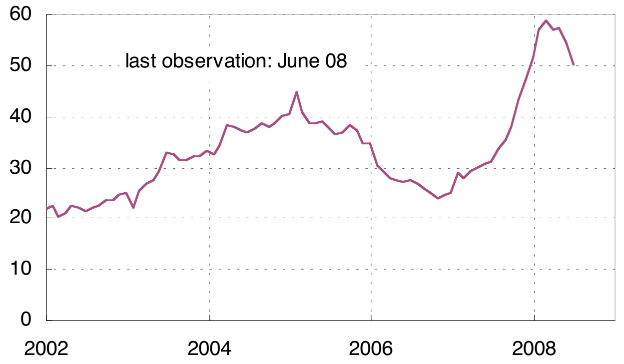
Thus, according to 2006 Fitch estimations (Tan and Tebbutt, 2006), the capital-adequacy ratio averages 5%, very low compared to other Asian emerging markets (14.6% in Thailand, 13.2% in Malaysia, 21.3% in Indonesia, IMF, 2008). In particular, as a consequence of administered credit and financial repression in the previous era, SOCBs have been chronically undercapitalised since the 1990s. The Vietnamese State has found itself compelled to successive recapitalisations. This consolidated situation of SOCBs, which represent 75% of all banking assets in Vietnam, might in fact cover contrasting situations. To date, Vietcombank has already begun its privatisation, and along with Mekong Housing Bank might be appropriately capitalised.

2.2 Uncertainty Concerning Asset-Quality and Provisions

The management of credit (especially the lending policy) hindered the proper development of a culture of risk in financial companies and in SOCBs. As a consequence, NPLs tend to be heavily concentrated in SOCBs, according to the SBV. However, this phenomenon might be diminishing at the consolidated sector level. On the one hand, JSBs are gaining importance in the banking sector structure, and are characterised by business habits much closer to international standards than those of the State banks. On the other hand, since 2004, policy lending activities have progressively been transferred to specialised financial institutions (the Development Assistance Fund, DAF and the Vietnam Bank for Social Policies, VBSP).

At any rate, the culture of risk is still very fragile in Vietnam,[5] while credit is steadily growing[6] (Figure 1). This context explains why it is very difficult to have a clear picture of the quality of the credit portfolio and of provisions, which in turn prevents us from undertaking a thorough analysis of the quality of banking assets. According to local accounting standards, NPLs stood at 3% of total credits at the end of 2007; according to international accounting standards (IFRS), they were 6% of credits (Bauer and Tebutt, 2008, quoting the SBV). Such growth in domestic credit often allows for the dilution of bad credits: while improving the ratios, this cannot in itself be interpreted as a sign of better risk management.

Figure 1. Credit growth, in %, VND, yoy



Source: Authors' calculations based on IMF IFS.

5. Basel I recommendations regarding banking supervision should not be addressed before 2010, according to the *road map*. Basel II recommendations should be addressed onwards, but no deadline has been provided.
6. While the bulk of new credits during the 2004-05 period was delivered by SOCBs (around 65% of new credits according to calculations based upon IMF estimates), this tendency reversed in 2006-07, and private banks are now the main drivers of credit growth. There is however little evidence supporting the idea that private banks manage their credit granting more properly than SOCBs: as an example, the emergence of industry-backed credit institutions does not bode well for credit granting practices.

3. The Banking System and the Financial Cycle

3.1 The Sequencing of the Asian Crisis and its Lessons

Several models of financial strains have been elaborated since the end of the 90s to depict, *ex post*, the events that have led to financial crises in developing countries (Cartapanis, 2004). These models try to link the dynamics of international capital movements and the evolution of domestic financial structures, focusing on the microeconomic scale. These catastrophic sequences of events, as such, do not usually depend on the evolution of macroeconomic fundamentals (at least, their reliance on macroeconomic determinants is much more limited than in the debt crises models that were published in the 80s). Empirically, these models have been validated in the cases of emerging markets that experience both strong economic growth and progressive integration in the world of globalised finance. Therefore, they seem particularly relevant to assessing the risks currently faced by the Vietnamese banking system.

The surge of macro-financial risks, in this family of models, stems from the acceleration of capital inflows in domestic financial systems characterised by major prudential and informational deficiencies. In a first stage, foreign capital inflows provide support for economic growth, but they also trigger the appearance of balance sheet mismatches. It is especially the case when access to foreign funds is made too easy, and foreign-currency indebtedness is intermediated into local-currency credits: interest rates on foreign-currency-denominated debt being much lower than interest rates on local-currency-denominated credits, banks can make large margins. During that first period, economic growth results in financial imbalances, which markets imperfectly perceive as a consequence of a general feeling of "euphoria" (Mishkin, 1998). In a second stage, conversely, "neurasthenia" dominates: foreign investors and banks, growing suspicious, tend to markedly shorten the maturity of their credits. This adds a maturity mismatch (long-term assets financed by short-term liabilities – and getting shorter) to a currency mismatch on balance sheets (local-currency assets financed by foreign-currency liabilities). The growing strain on the financial system liquidity leads to short-term external over-indebtedness, as measured by the short-term external debt-to-foreign reserves holdings ratio. This range of models puts banking system liquidity at the heart of the sequence of events that leads to a crisis.

Then, either an exogenous shock or the endogenous exhaustion of the financial cycle triggers the crisis:

i. Exogenous shock models highlight the decisive role played by expectations (Artus, 2000). In a situation where balance sheets are heavily strained, even a minor event can abruptly lead international investors to a major change in expectations on external financing sustainability. Such a shock may then accelerate the crisis: local banks are from this moment on unable to renew their expiring foreign-currency debts. Given the magnitude of their financial commitments, this translates into net capital outflows. Foreign-currency liquidity shortage sparks off a depreciation of the local currency. Combined with the currency mismatch, the depreciation is the reason behind bank insolvencies. Local-currency-denominated assets cannot provide for the necessary yields to reimburse the foreign-currency-denominated liabilities at a highly depreciated exchange rate. Insolvency is all the more brutal since the crisis extends to the real sector. Growing NPL ratios associated with a worsening quality of bank assets are the consequence of the real estate and financial market plunges.

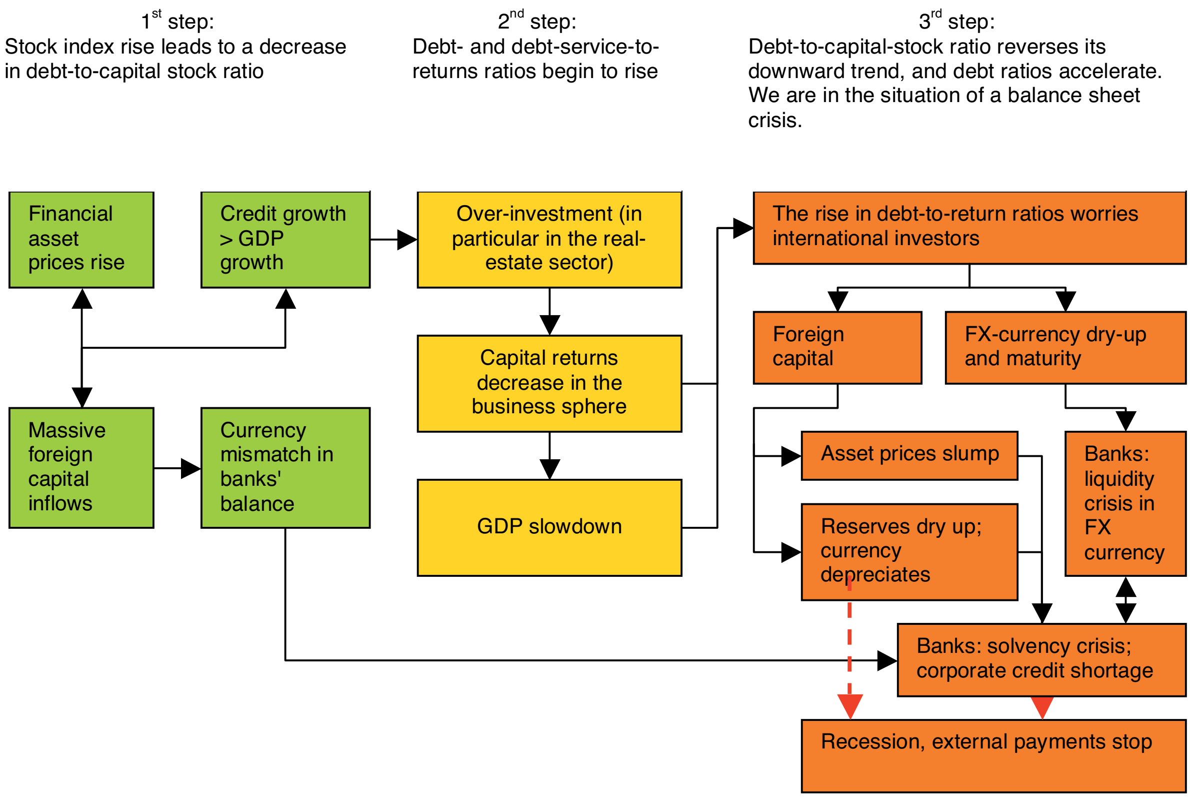
ii. Endogenous exhaustion models are based upon Minsky's financial cycle theory (Minsky, 1964). They offer a thorough description of the financial tensions that may build upon a dynamic emerging-market economy attractive to international investors (Aglietta, 2008). Long-term GDP growth attracts foreign capital flows, and they in turn stimulate stock market growth. The private sector financing conditions are eased both on the markets (capital increases and bond issuances) and with banks (the growth of their capital stock market value being used as collateral). However, the growth in companies' market value may result in de-linking the financial and business spheres: while the debt-on-capital-stock ratio decreases, the debt-on-returns ratio can actually increase. When credit growth is the consequence of a loosening credit constraint linked to massive capital inflows, and when it translates into growth in the volume of investment, the return on capital is progressively lowered, as its marginal capital productivity decreases with the level of capital. Empirically, three steps can be identified:

- euphoria marks the first step: stock rates and credit grow faster than GDP, but the latter nevertheless stays buoyant. This euphoria of the markets does not help to assess risks properly, even though this period of growth is usually the time when risk is growing and strain is building;

- over-investment is revealed in the second step, especially in some specific sectors (real estate, construction). GDP growth slows down. The banks' asset quality deteriorates (NPL ratios increase). At the same time, domestic and especially foreign investors' mistrust grows, and foreign-currency liquidity strains begin to appear. The cyclical slowdown strengthens the credit constraint;

- net capital outflows follow a generalisation of mistrust in the third and last step of the process. Market indices go down, and the exchange rate falls rapidly. During this step, the upward dynamic of the financial cycle breaks against the credit constraint inherent to the real economy, a phenomenon previously hidden by over-liquidity. The debt-

Third-generation crisis model: endogenous exhaustion of the financial cycle as a trigger to the crisis



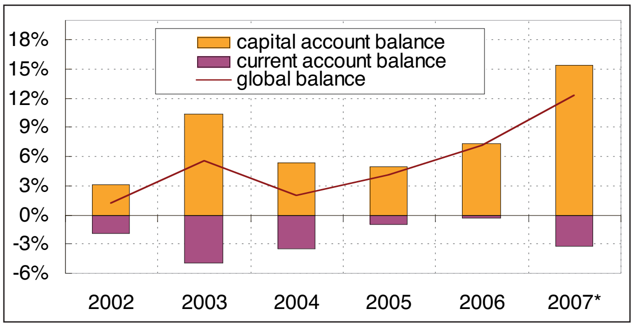
to-return ratio continues on its upward trend and the debt-to-capital-stock ratio is heavily burdened by the stock market fall. Liquidity strains provoke solvency issues which, in turn, add to the liquidity dry-up in the form of "self-reinforcing loops". The economy is then in a situation of financial crisis.

In either case (exogenous shock or endogenous exhaustion), capital inflows suddenly stop. The banking sector lacks liquidity, and is soon faced with serious insolvency problems. Known as "twin crises", these problems do not have their roots in classical fundamental imbalances; however they do have major impacts in terms of economic imbalances (exchange rate plunge, rise in inflation, public debt explosion, GDP growth slowdown or even recession). Several of these imbalances have the potential to durably undermine the efficiency of macroeconomic policy: budgetary execution is made fragile by the explosion in public debt associated with the cost of banks' recapitalisation and currency depreciation; monetary policy has to be kept very restrictive in order to resettle external balances and to stop inflation. Potential growth levels may be negatively affected by this type of crisis, as happened in Indonesia after 1998.

3.2 Capital Inflows, Credit Cycle and Asset Prices in Vietnam

For a number of years, this country's financial system has been recording high levels of growth in capital inflows, as high economic growth and WTO membership considerably reinforced Vietnam's attractiveness for international investors. As an illustration, in spite of a growing trade deficit (Figure 2), it appears that the economy generated net foreign currency amounting to more than USD10 Bn in 2007, which represented more than 15% of GDP (Figure 3).

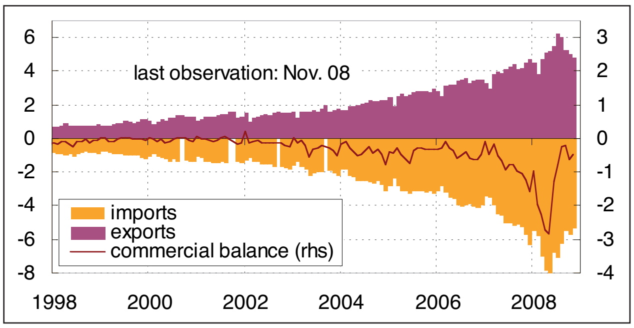
Figure 3. Decomposition of the global balance (% of GDP)



Source: IMF, 2007, article IV
**: 2007 is a December 2007 estimation*

These capital inflows fuelled the very strong credit growth that we have observed since the beginning of the decade. Credit grew from slightly under 30% in 1999 to over 100% of GDP in 2007 (Figure 4). Those inflows also go hand-in-hand with a very strong rise in both the Ho Chi Minh City stock index (also called Vietnam index, VNI, Figure 5) – +280% between the beginning of 2006 and March 2007 – and its volatility. However, in the wake of the global financial turmoil, the VNI declined as strongly as it grew a year before: this highlights the increasing sensitivity of Vietnamese asset prices to the international financial cycle.

Figure 2. Decomposition of the trade balance (USD Bn)

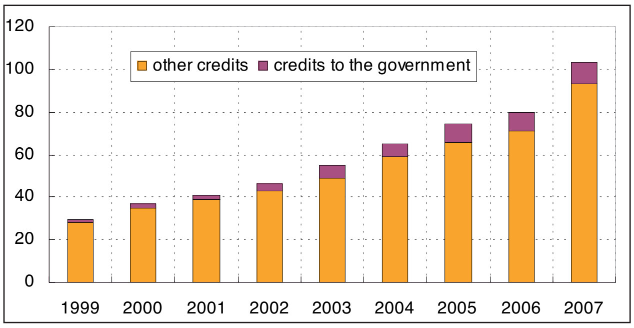


Source: GSO

The financing activities of Vietnamese banks were a strong catalyst of the rapid VNI growth in 2006. The monetary authorities' response consisted in an attempt at regulating this unsustainable financial cycle. In January 2007, banks were told to stop financing investment funds, and had to increase the provisioning of the credits delivered with this purpose from 100 to 150%. Since June 2007, they have had to limit the credits delivered to funds to 3% of their total portfolio, and to report monthly their exposure to these types of funds to the SBV. At this stage, this exposure seems heavily concentrated in the balance sheets of small JSBs, of which it constitutes a considerable proportion. On the contrary, SOCBs seem to have stayed far below the 3% ceiling, according to information gathered at the SBV.[7]

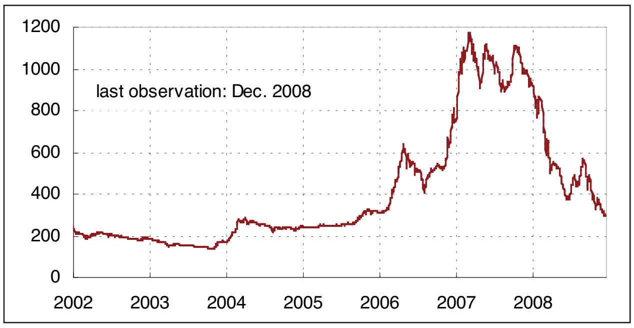
The acceleration of the Vietnamese asset prices between 2006 and mid-2007 proves that it is necessary to supervise

Figure 4. Decomposition of credit (in % of GDP)



Source: authors' calculations based on IMF International Financial Statistics

Figure 5. VNI



Source: Ho Chi Minh City Sec. Trading Centre

such a young market, especially since it is very exposed to risks arising from high growth in liquidities. The State Securities Commission is trying to enforce greater transparency of joint-stock companies, in a context where initial public offerings have accelerated in the past three years (with a peak in the number of IPOs in December 2006, marking the end of a number of fiscal advantages linked to being listed on the HCMC Stock Exchange).

The financial system's deepening (measured by the increasing credit-to-GDP ratio) is a positive evolution, as it is linked to the development of banking intermediation activities: it means that the economy's financing capacity is growing. However, the quality of the regulatory institutions, so hard to assess, is paramount among the factors of the credit growth sustainability. It is not impossible, theoretically at least, that in fact capital inflows feed a financial system still fragile in terms of supervision, of risk-management and of debtors' transparency.

As a consequence, even though credit growth allows for an acceleration of economic growth and for the dilution of NPLs in the short term, the resource allocation may prove inefficient, to the point where banks and corporate balance sheet vulnerabilities (high debt levers and currency mismatches) may actually increase.

3.3 The Risks Associated with the Dual-Currency Financial Structure were under Control at least until the Beginning of 2008

In a systemic risk perspective, the determinants and consequences of the Vietnamese dollarisation cannot be overlooked. As a result of the high rate of dollarisation of deposits (even though it is decreasing, from 40% of total deposits in 2000 down to 25% in 2007), an important proportion of banking intermediation is done in dollars: 22% of total credits were denominated in dollars in March 2007 (IMF, 2007, article IV). This is the outcome of a two-phased recent history:

- while the United States loosened its monetary policy between 2000 and 2004, the Vietnamese government/ authorities tightened their own: the spread between the interest rate in dong and dollars increased from 240 to 710 bp (Table 1). As a consequence, the proportion of dollar-denominated credits increased;

- conversely, the dollarisation rate decreased between 2004 and 2007, as a result of the US monetary tightening.

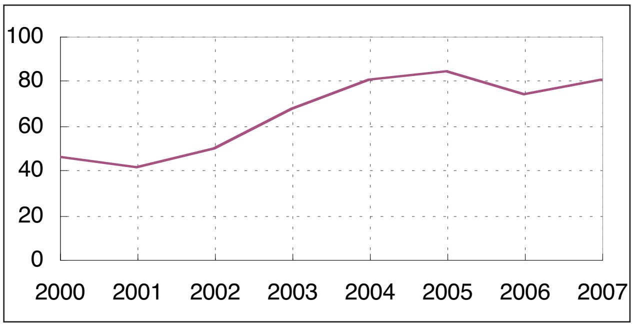
7. As a consequence, there is still space for further growth in speculation-oriented credits, even though State control of SOCB makes it unlikely that they will increase their activity in this direction. However, this is reinforced by the recent granting of nine new bank licenses. The specified regulation does not appear designed to address this issue with the required decisiveness.

Table 5. Interest rate and spread on dong and dollar-denominated credits (%)

	2000	2001	2002	2003	2004	2005	2006	2007
Short-term, dong	9.8	8.8	9.9	10	10.7	12	11.8	11.8
Medium-term, dong	10.4	9.9	10.8	10.7	11.7	13.6	13.7	13.7
Short-term, dollar	7	4.6	4.3	3.1	3.6	5.5	5.5	5.7
Short-term spread between dong- and dollar-denominated credits (bp)	280	420	560	690	710	650	630	610

Source: Authors' calculations based on IMF 2007 article IV.

Figure 6. Banks' dollar-denominated liabilities coverage by dollar-denominated assets (%)



Source: Authors' calculations, based on IMF, 2007, article IV (data for 2007 as of March)

The banks can limit their currency mismatch by issuing dollar-denominated credits. In doing so, they limit their exposure to foreign-exchange risk. Accordingly, the rate of coverage of banks' dollar-denominated liabilities with dollar-yielding assets has been increasing for the past few years: from 40% in 2001 it reached around 80% at the beginning of 2007 (Figure 6). As compared to 2001, when the currency mismatch of the Vietnamese banking system reached as much as 11% of GDP, the situation has clearly improved: standing at 4% of GDP as of March 2007 (latest available data), the figure shows that the Vietnamese banking system is now close to having balanced its foreign currency-denominated assets and liabilities. In that view, the situation of Vietnamese banks is very different from that of Asian banks before the 1997 exchange crisis.

Even though the banking sector has managed to improve the balance of its foreign currencies, all risks associated with the dual financial structure have not disappeared:

- the crawling peg[8] may have been perceived by borrowers as an implicit coverage of exchange risk by the monetary authorities (as was the case in pre-1997 Southeast Asia). This may induce a distorted vision of the actual foreign exchange risk within the non-tradable goods sector. Its activities do not generate any foreign currency revenues that may match dollar-denominated liabilities. While banks reduce their currency mismatch through the delivery of currency credits, this comes only at the expense of an increase in their credit risk: their counterparties are the ones who bear the exchange risk when they finance non-currency-generating activities with foreign-currency-denominated credits;

- it is not uncommon that, in the situation of a dual-currency financial system, a maturity mismatch appears between foreign-currency-denominated assets and liabilities: deposits remain very short-term whereas some credits may be delivered with a 12- to 15-year maturity (World Bank, 2002). This translates very probably, in the case of Vietnam, into a foreign currency liquidity risk (however, available data does not allow for an assessment of the extent of this risk).

Yet, the capacity of a partially dollarised country's Central Bank to regulate the foreign currency liquidity risk is very limited – that is, its margin as a lender of last resort is very narrow for ensuring the liquidity of the banking system. This is not specific to Vietnam; rather, it is a common rule among dollarised countries. Only through relations with the rest of the world can an economy generate dollars. The Central Bank may not be able to stabilise the financial system if

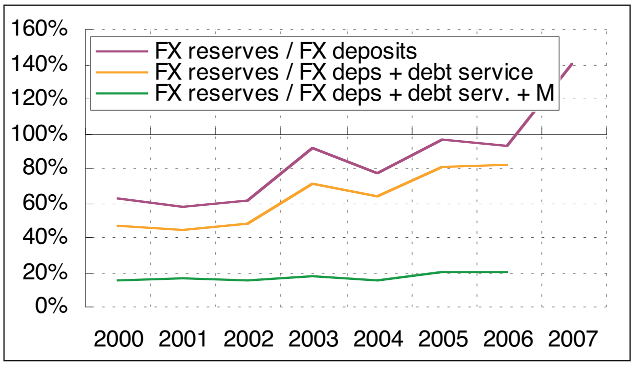
8. The exchange stance of the SBV (Figure 10) is a peg to the USD, which is depreciated on a 1% per year basis; however, in recent months, the peg has been somewhat erratic, displaying what may be interpreted as a conflict between an export promotion policy (in favour of the crawling peg) and the acknowledgement that capital inflows have been building appreciation pressures over the past two years, which now translate into inflation. Since March 2008, however, the authorities have been somehow accelerating the VND depreciation. In any case, they seem to be willing to keep the dong under tight control.

tensions strain the dollar-denominated liabilities of banks operating under its supervision. This risk would materialise should savers massively withdraw their dollar-denominated deposits from banks. Adjustment can then only take the form of a significant depreciation of the local currency, all the more violent when the maturity mismatch is great.

Two ratios provide a measure of this risk, which follows from the SBV's limited control of the monetary policy due to the partial dollarisation: they measure the foreign-currency liquidity owned by the SBV[9] as a proportion of the foreign-currency needs of the country. In the case of Vietnam, this exercise leads to the following results:

- The SBV reserves-to-bank-deposits ratio increased significantly between 2000 and 2007, to reach 140% according to IMF staff estimates (Figure 7). This ratio is quite high when compared with dollarised economies in a pre-crisis situation (as an example, this ratio was 34% in Argentina before the twin crisis, according to IMF, 2000, article IV). The very steep acceleration in 2007 resulted from the previously-mentioned very strong over-financing of the Vietnamese economy (Figure 2);
- However, to get a more comprehensive view of the foreign-currency needs of a country, one has to take into account not only foreign-currency deposits as a liability, but also the external debt servicing and the value of imports. In this respect, the foreign-currency potential needs coverage by the SBV has not significantly improved over the 2000-06 period. The growth in financial strains since the beginning of 2008 has very probably led these ratios to deteriorate.

Figure 7. SBV foreign reserves liquidity ratios (%)



Source: Authors' calculations based on IMF, 2007, article IV (2007 is an estimation)

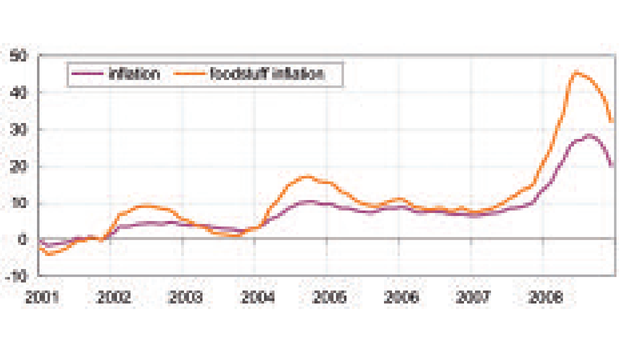
3.4 The Consequences of High Inflation in 2008

2008 and, to a lesser extent, 2007 were marked by an important change in the economic environment in Vietnam: inflation rose markedly, from 8% in May 2007 to 25% in May 2008 (Figure 8). It adversely affects the quality of credits only indirectly, but it may decisively hamper the SBV's capacity to stabilise the financial sector when dollar-denominated assets become more attractive. The decrease in inflation figures in the second half of 2008 would indicate a decline in imported commodities prices rather than the success of monetary and foreign-exchange policies, as the drivers of the whole episode take their roots in the international commodities markets.[10] Taking stock of this, the SBV decided to substantially lower its policy rate[11] by 400 bp during autumn 2008, before inflation could be considered tamed.

Even supposing that the inflationary episode is now declining, an in-depth review of the consequences of high inflation does not seem superfluous within a study of the Vietnamese financial stability. World commodities prices have grown more volatile in the past few years, and if indeed this episode has external roots, inflation can hardly be considered a thing of the past. On the contrary, it is a likely scenario that inflation will return someday and once again put the financial stability at risk.

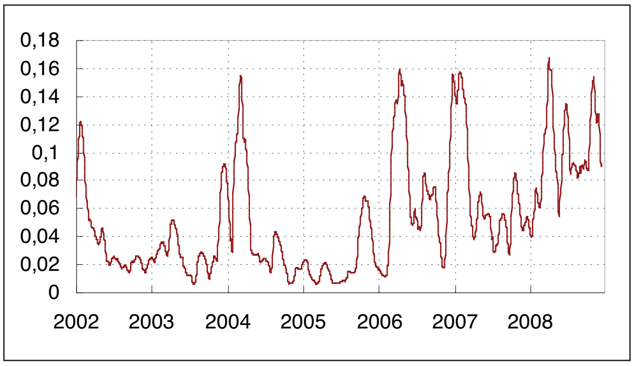
9. The SBV does not publish (at least at the time of this paper's publication) foreign-exchange reserves. Raw estimations from banks' research departments mention a figure slightly over USD20 Bn at the end of 2007. However, the recent external sector strains should have noticeably depleted them.
10. Inflation seems tied to imported rising prices (of oil and food products). As an illustration, the consumer price figures are strongly correlated with food prices (Figure 8) and depend highly upon imported agricultural commodities, which were affected by supply shocks all around the world in 2007.
11. The prime rate is used by the SBV as a decisive policy instrument: banks are not allowed to deliver credits based upon interest rates higher than the prime rate plus six percentage points.

Figure 8. Inflation (CPI growth, yoy and CPPI=100)[12]



Source: Authors' calculations, based on GSO data.

Figure 9. 2-month volatility[13] on the VNI



Source: Authors' calculations, based on HOSTC data.

3.4.1 New sources of credit-risk

The increasing volume of credit to the private sector, which mechanically translates into an increase in debt service, may eventually develop into credit risk. In the case of Vietnam, data on the distribution of credit between different types of debtors and different types of credits does not exist, but:

- rising house prices may lead households in fast-growing urban areas to increase their indebtedness (measured by their debt-to-net-income ratio), as a result of both speculative schemes and some wealth effect. If house prices then go down (which seems to be the case for Vietnam, according to Fitch, 2008), real estate investors might face solvency issues;

- speculation-oriented credits have also been an important factor contributing to the rise in household debt, while it also explained part of the VNI dynamism. Since 2007, the stock index has grown more fluctuant (Figure 9) and, eventually, it collapsed at the beginning of 2008 (Figure 5). This has led to a deterioration of the quality of these assets in banks' portfolios. While it has been stated before that the current regulation does not seem to decisively tackle the risk associated with speculation, this collapse may strongly encourage actors in the market to mitigate such activities at the moment;

- credit conditions considerably affect the evolution of debt leverage in the corporate sector. Capital inflows may be intermediated either as debt or as equity, which have an opposite effect on debt leverage ratios. However, available data does not discriminate capital inflows in the form of debt or of equity. Additionally, the dual-currency structure of credit would imply that both currencies be studied in view of assessing the corporate sector indebtedness. As a consequence, unfortunately, little can be said of the latter.

It is not possible to get a more precise view of private agents' indebtedness. However, even though interest rates have varied widely, since real interest rates have stayed negative (inflation figures being higher than the interest rates on existing debt), the private sector's capacity to face its debt-servicing problems should not be put under too much strain. Credit risk does exist in Vietnam, but rather as a consequence of poor credit-granting practises than caused by an inflation-linked tightening monetary stance.

Since rising commodity and middle-product prices reduce the competitiveness of the economy, inflation does affect the tradable goods sector's profitability. Strong capital inflows may be the source of an inflationary process (unless the central bank offsets these inflows by accumulating foreign-

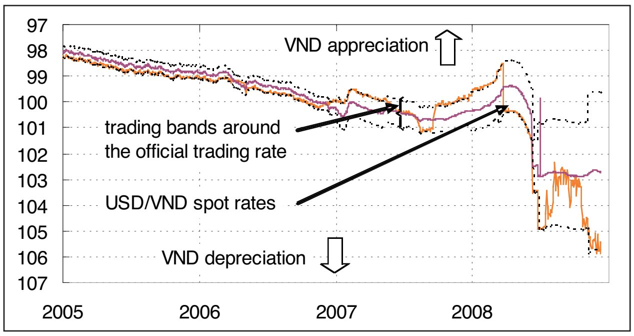
12. Two price indices are available in Vietnam. The historical one, more interesting in a long-term perspective since its data is available starting from January 1990, is built such that the index of the *corresponding period of the previous year* (CPPY) is set to 100. The other index reflects international standards of taking a period as a *basis* for all subsequent data. However, it has only existed since May 2006.
13. Defined as the ratio of the standard deviation of daily values to their average on the period.

exchange reserves and sterilising this accumulation). In Vietnam, local banks, especially SOCBs, are made to buy Treasury bills designed to sterilise the accumulation of reserves by the SBV. However, it is very unlikely that all inflows were fully captured and sterilised in 2007 and in the first half of 2008. As a consequence, while capital inflows are a clear sign of the initial attractiveness and the competitiveness of Vietnam in the view of international investors, they can be identified as a decisive cause of rising inflation. This attractiveness seems however to indicate that there are margins before inflation can decisively harm the productive sector.

3.4.2 The monetary policy and inflation in a dollarised banking system

The dual-currency monetary system might be durably affected by such inflationary imbalances. A spread between the USD and the VND, in real terms, might lead private actors to reallocate their portfolios towards dollar-denominated assets if inflation stays high, therefore mechanically reducing the level of control of the SBV over monetary policy. Meanwhile, the SBV has been confronted with two issues implying opposite policy options.

Figure 10. USD/VND exchange rate, official trading rate and trading bands (100 = Jan. 1st, 2007)

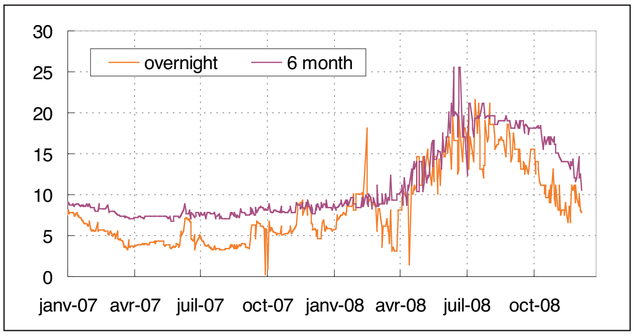


Source: Authors' calculations, based on Reuters

Until June 2007, the SBV had been favouring an export-oriented foreign-exchange policy, implementing an undervaluation of the VND. In June 2007, the SBV made the control of inflation the main objective of both monetary and foreign-exchange policies. One the one hand, it began trying to mop up liquidity in VND: it increased banks' reserve requirements (from 5% of short-term deposits to 10% in June 2007, and up to 11% in February 2008), forced the banking system to buy VND 1.3 Bn of SBV bonds in March 2008, and markedly increased interest rates (+550 bps on the 19th of May 2008).[14] On the other hand, it decided to let an appreciation of the VND occur in line with the market (Figure 10).

Monthly trade deficits reached unprecedented heights (Figure 2) as a consequence of strong FDI inflows. At the same time, the rise in interbank market rates illustrates the successful implementation of the liquidity mop-up (Figure 11), until export schemes began lacking the necessary liquidity in March 2008. No sign of slowing inflation had yet appeared. The spread on VND had also been rising as a consequence more of a "flight to quality" strategy of international investors[15] than for reasons linked to the Vietnamese situation, and foreign capital has continued flowing in: the liquidity mop-up was confined to the VND market, and, so far, had not spread to the USD market. But the renewal of expiring or short-term VND-denominated debts had indeed become more costly, which may have developed into a currency and a maturity mismatch in banks' balance sheets, and into difficulties in facing capitalisation and provisioning requirements.

Figure 11. Overnight and 6 month VNIBOR interbank rates



Source: Reuters.

14. Among other factors contributing to very strong movements in the SBV's policy rates are the limited effect of monetary policy due to dollarisation and the lack of experience of the MPC in the *fine-tuning* of monetary policy.
15. Which led the United States Treasury bills to appreciate and their return rates to decrease notably until reaching 0 at the time this paper is being concluded.

Therefore, in March 2008, even though inflation continued growing, the SBV acknowledged the need for local-currency liquidity (especially to allow exporters to convert their foreign currencies into VND). It reversed its foreign-exchange policy and began purchasing USD in order to loosen the VND-liquidity constraint. The overall surge in imports led to a sharp depreciation of the VND,[16] followed by further depreciation as the SBV modified its official trading rate. These contrasting developments highlight the difficulties met by the SBV in the management of both inflation and current account imbalances: in May 2008, it had to dissociate instruments of monetary and foreign-exchange policies. On the one hand the official USD/VND trading rate was depreciated, as a tool to support exports, and a tight control of public imports was successfully implemented, to avoid further aggravation of the trade deficit. On the other hand policy rates grew very rapidly in May and June 2008, as a tool against inflation.[17] This is a context in which a reversal of inward capital flows, by generalising the liquidity shortage to both currencies, could heavily affect the financial system's stability.

16. The SBV has been progressively relaxing the trading band around the official trading rate, from +/-0.25% until January 2007 to +/-3% at the end of 2008. As a consequence, a change in the monetary policy orientation may lead to a sharp movement of the VND-USD exchange rate around the official trading rate, but this movement will be limited in scope.

17. However, inflation being mainly driven by external factors, monetary tightening proved inefficient against inflation. The SBV reduced its policy rate in October and November, nearly as fast as it had previously raised it, by -400 bp in a month.

Conclusion

The opacity of the banking sector prevents us from precisely assessing its consolidated financial situation. However, available information suggests that even though it improved until recently, the financial structure of banks remains fragile in view of the looming risks associated with financial turmoil on international markets. Capital inflows and credit growth have been proven shaky grounds for a financial system in transition. Those risks grow as exchange policy is torn between a fight against inflation and an export-oriented policy. Meanwhile, currency and maturity mismatches, as well as growing NPL ratios, may appear in banks' balance sheets, and lead to the deterioration of the system's stability. While not as wide as in pre-1997 Asia, these mismatches are typical of the transition away from financial repression, often associated with banking crises. In the next few years, the SBV will have difficulties managing the transition towards a modern and efficient banking system and regulating the strains associated with the integration into deeply-shaken international financial markets.

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