

August 2006

Author:

Alex Joiner
Economist, International
+61 3 9273 6123
joinera@anz.com

Introduction

Vietnam's exchange rate regime is officially described as a managed floating regime and yet has some characteristics of a crawling peg, with a steady pace of depreciation against the US dollar. This note describes the development of the current exchange rate regime, then considers the implications it has for an economy moving from a centrally planned system to a market oriented one. In particular, this note examines the conduct of monetary policy, and the extent to which the current approach to managing the currency conflicts with the objective of containing inflation. We believe that, in the present environment of financial and economic liberalisation in Vietnam, the exchange rate will undergo only administrative and regulatory reform rather than any significant shift in the current regime. However, these changes may help the authorities in achieving their inflation objectives.

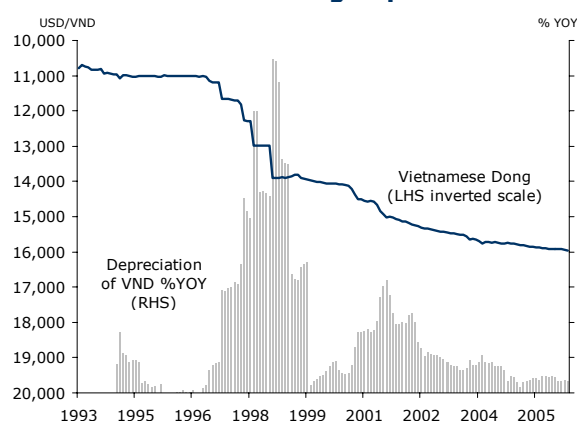
A brief history

Pre-1980 Before the 1980's, the exchange rate was essentially set by Government decree. A consequence of this system was the emergence of a black market for the currency. Rates of conversion to the US\$ in this market often differed significantly from the official rate set by the government.

1980's The *Đổi mới* economic reforms of the 1980's prompted a raft of devaluations with the aim of unifying the official, traded, non-traded and internal dong rates. Toward the end of the decade, Vietnam adopted a heavily managed exchange rate regime against the US\$ that was administered by the State Bank of Vietnam (SBV). In principle, the official rate was adjustable based on variables such as interest rates and inflation. However in practice, the official rate was set by the SBV with commercial banks able to set the rate for their own transactions within a $\pm 5\%$ band around this official rate.

1990's to current In the early 1990's, official exchange rates were set using auction-based rates in foreign exchange markets. However, the SBV was the dominant market maker. By late-1991, commercial banks were setting their own rates within a $\pm 0.5\%$ band of this official rate. By the mid-1990's the SBV set official rates based on interbank rates. This arrangement kept the dong relatively stable at around USD/VND 11,000 in the years preceding the Asian crisis.

Due to a deteriorating trade balance in late 1996, the SBV began several orchestrated depreciations of the currency against the US\$ by widening the trading band around the official rate. This facilitated a 4% depreciation of the dong over 18 months. Nonetheless, the currency became significantly overvalued relative to other currencies in the region that had depreciated significantly.

The slowing depreciation of the Vietnamese Dong

- Interbank trading band widened from $\pm 0.1\%$ to $\pm 0.25\%$ mid-2002.

- However the rate of depreciation has slowed, averaging over 3%p.a. from 2000-2003 to 1.5%p.a. in 2003-2004.

- In 2005, the depreciation rate fell further to 0.7%p.a. In 2006 to date the dong has depreciated by approximately 0.3%p.a.

Our Vision:

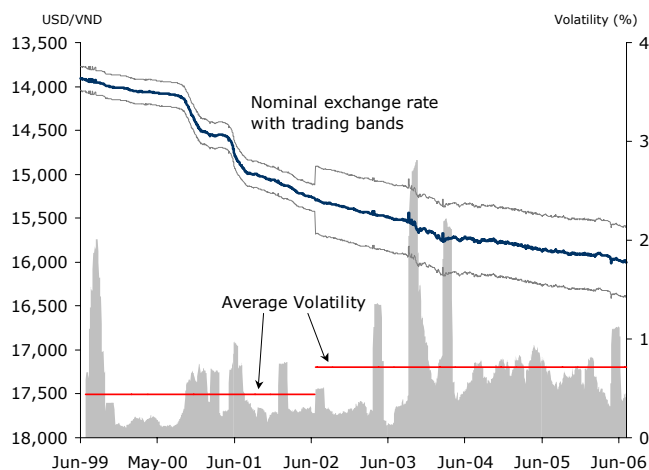
For Economics@ANZ to be the most respected, sought-after and commercially valued source of economics research and information on Australia, New Zealand, the Pacific and Asia.

This relative overvaluation again began to impact negatively on Vietnam’s trade competitiveness. In addition, a significant fall in capital inflows during the crisis put increased pressure on financing the current account deficit. Subsequently, the dong was again devalued via the exchange rate band being widened from $\pm 1\%$ to $\pm 5\%$ in early 1997, then to $\pm 10\%$ in late 1997 and finally a one-sided band of $+7\%$ in August 1998. These policies allowed the dong to depreciate considerably from around USD/VND11,000 in 1997 to USD/VND14,000 by early 1999.

In 1999, the SBV reintroduced a narrow band mechanism to contain exchange rate market volatility and eliminate rapid exchange rate movements. Within this framework, the official VND rate is set by the SBV through a process in which the official rate can move with the interbank market rate, but the interbank rate cannot deviate beyond a band set around the official rate. In practice, the SBV will quote the average exchange rate in the interbank market during the previous business day as the official rate. Banks can then trade at an exchange rate within a trading band on either side of this rate. However, a significant black market operates if the official rate seems over/under-valued. The gap between the black market rate and the official rates is usually around USD/VND20-30. This black market operates successfully, in part, due to the relatively high levels of dollarisation in the Vietnamese economy (estimated to be around 24% by the SBV).

Between early-1999 and mid-2002 this band stood at $\pm 0.1\%$ and has since widened to $\pm 0.25\%$, where it remains today. The widening of the trading band on both sides of the official rate in 2002 has allowed a marginal increase in the volatility in the nominal exchange rate.

Nominal exchange rates and trading bands



The SBV remains active in the local FX market with the objective of keeping USD/VND rate steady in the medium term. The interbank market being relatively thin and can be inactive due to the relatively small number of participants, which are predominantly state owned commercial banks. Consequently, the USD/VND rate in this market conveys very little

economic information. Despite the official arrangements, in practice there is no apparent correlation between the SBV’s announced official rate and the previous day’s average interbank rate. Furthermore, the SBV controls foreign currency markets insofar as only commercial banks that sold local currency to petroleum importers can apply to the SBV to purchase foreign currency, and they must prove that their foreign currency position is short more than 10% of their capital. Conversely, the SBV will always buy foreign currency from the market at, or close to, the ceiling rate (the upper range of the 0.25% currency band), making this is the resistance level in the FX market. Consequently, the USD/VND parallel market tends to trade at or beyond this ceiling rate. In this way, the SBV ensures that the dong will have a tendency to depreciate over the medium to long term. The SBV continues to maintain this consistent depreciation of the currency that has characterised movements of the dong for the past 6-7 years.

The regulations that govern the movement and use of foreign currency in Vietnam are contained in the Decree on Foreign Exchange Management. The decree provides the framework and rules for the opening and use of foreign currency accounts for residents and non-residents, purchasing and transferring foreign currency, and carrying foreign currency or VND bank notes into or out of Vietnam. A summary of the foreign exchange transactions possible in Vietnam is contained in Appendix A.

Monetary Policy Framework

Despite reforms proposed for the central bank to become more autonomous, the State Bank of Vietnam remains under government control. In practice, the SBV has little or no independence (for certain operations, including the management of foreign currency reserves, actions are subject to the approval of the Prime Minister). The central bank’s responsibilities are outlined by the Law of the State Bank, which states that the SBV’s core task is to maintain stability in the value of the exchange rate. Two additional key responsibilities are to ensure the safety and development of the banking system; and to facilitate socio-economic development consistent with Vietnam’s political ideologies. Central bank officials interpret these laws as a mandate to control inflation and encourage economic growth. This impetus for inflation management is seen to be quite strong, given Vietnam’s experience with a period of hyperinflation that preceded the economic reforms of the 1980’s. The government’s targets for GDP growth and inflation for 2006 are 8% and 7%, respectively. Vietnam’s economic and monetary policy objectives for the remainder of the decade, as outlined by the government and SBV, are detailed in the table overleaf.

Economic & Monetary Policy Objectives

	End 2005	Objectives 2006-2010
Economic Growth (annual%)	8.4%	7.5-8%
Inflation (annual%)	8.1% (ave)	Lower than GDP rate
M2 Money Supply (annual%)	29.0% (ave)	18-20%
M2:GDP Ratio by 2010	84-85	100-115
Average Credit growth (annual%)	35.6% (ave)	18-20%
Minimum FX exchange reserves	8-9 weeks of imports	12 weeks of imports

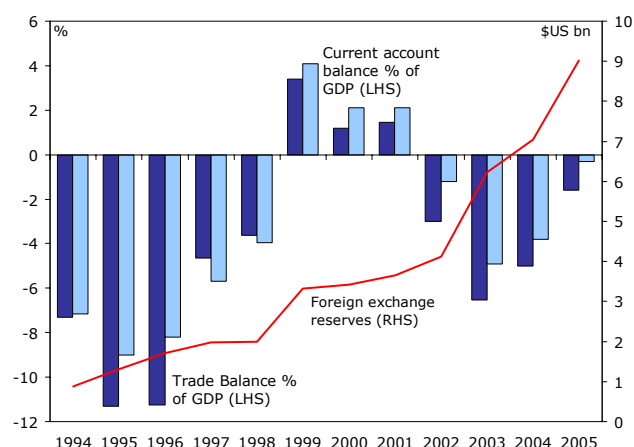
Source: IMF, Economic@ANZ, Vietnam General Statistics Office

FX implications for monetary policy

The exchange rate regime has significant implications for the conduct of monetary policy within this framework, specifically in the management of inflation. In order to manage the steadily depreciating path of the exchange rate, the SBV must be active in the foreign exchange market. However, in periods where capital inflows exceed outflows, as is currently the case, this intervention increases liquidity in the market, and therefore encourages inflation. It is reported that in the first quarter of 2006 alone the SBV injected trillions of dong into the market. Purchases of foreign currency increased by 230% over Q4 2005, and 150% over the same period last year. These purchases were equivalent to around 50% of the foreign exchange the SBV bought for the year 2005 as a whole. Such increased intervention by the SBV to maintain to current exchange rate regime does not appear to have been met on the other side with sales of central bank bills to soak up (sterilise) liquidity generated by these inflows. With Vietnam's trade and investment expected to expand strongly, and financial market liberalisation to continue, stabilising the exchange rate may become increasingly costly and serve to encourage imbalances in the economy.

Vietnam's accession into the WTO later this year may exacerbate this situation. The SBV has indicated that presently both the current and capital account are recording a combined surplus of around US\$700mn surplus. The expected increases in trade and capital inflows resulting from entry into the WTO will most likely put more upward pressure on the currency. If the depreciating trend of the currency is to be maintained, then the SBV will be obliged to intensify its intervention in the foreign exchange market, potentially adding to the liquidity/inflation problem.

Improvements in the current account



Source: IMF, World Bank, ADB, Economic@ANZ

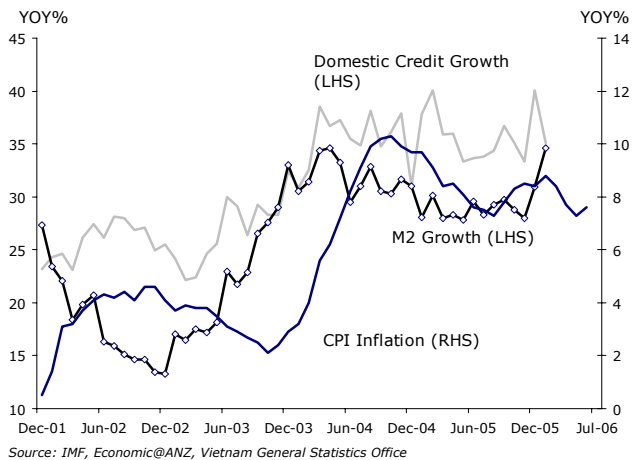
There is some debate around the claim that the capital and current accounts are in surplus. However, there is no doubt that these balances have improved significantly. The current account deficit narrowed to less than 1/2% of GDP in 2005. The trade deficit has been reduced significantly as export growth continues to strengthen. Also, improvements in payments systems have seen recorded inward remittances increase to an estimated US\$4bn.¹ On the capital account, FDI reached around US\$4bn and ODA reached around US\$1.8bn. In addition, Vietnam issued its first international bond in 2005, raising US\$750mn. These inflows have improved Vietnam's foreign exchange reserves considerably. According to the IMF, reserves have risen from around US\$4bn at year-end 2004 to around US\$9bn by December 2005. The SBV has stated that foreign exchange reserve holdings are currently at around 9 weeks of imports.

Historically, when managing the impact of capital flows on the exchange rate, the SBV has been assisted by the highly regulated capital account in which it operates. However, there is an implied imbalance in this capital account regulation. Capital inflows are encouraged, with relatively few restrictions, since, given the low savings rate, such inflows are relied upon for development and economic growth. Yet the outflow of capital and foreign exchange remains strictly controlled. With capital inflows rising strongly, there is potentially a significant inflationary impact as foreign exchange inflow is converted to domestic currency and liquidity increases. The inflationary impact of these capital inflows is exacerbated by two factors; the apparent lack of any systematic sterilisation by the SBV; and the consistent depreciation of the exchange rate that implies that increasing amounts of domestic currency are required to convert capital inflows. In the past, increases in liquidity in the domestic economy have been a precursor to accelerating inflation, as seen on the chart below (M2 and credit data to Dec 2005 only). It is

¹ The increase in remittances may also reflect people's greater acceptance and use of electronic payments systems that allow the accurate tracking of flows, rather than sending currency via unofficial channels.

expected that such capital inflows will continue to increase as Vietnam's economic growth attracts increased investment from overseas; and the pace of financial system liberalisation increases with Vietnam's accession to the WTO.

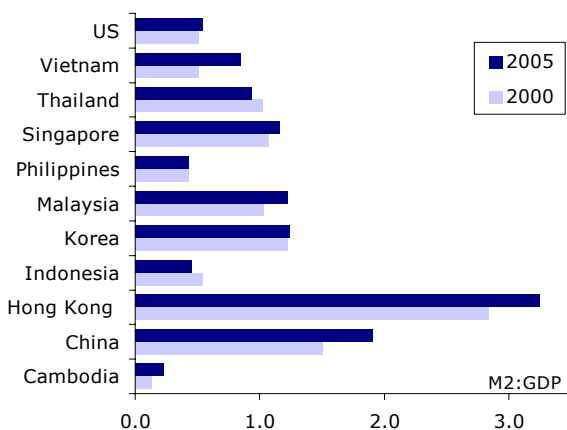
Inflation, Credit growth & M2 growth



It may be that, to a certain extent, high rates of M2 growth are necessary to support economic growth. However, the increase in Vietnam's M2 growth has far outweighed GDP (see chart). This suggests that extraneous liquidity growth may be a consequence of the SBV's exchange rate management and/or the incomplete sterilisation of capital inflows.

It is also interesting to note that in the current regional environment of robust growth and significant capital inflows across Asia, that the countries with less flexible currency regimes have had the greatest proportional increases in their M2:GDP ratios: Vietnam, China, Malaysia, Cambodia and Hong Kong.

Regional M2:GDP ratios

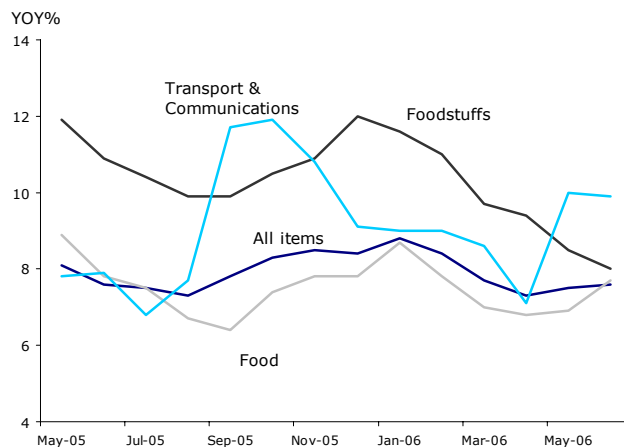


Macroeconomic Implications

SBV's policy of gradual nominal exchange rate depreciation is most likely targeted at economic imperatives that promote GDP growth. The regime seeks to enhance Vietnam's trade competitiveness, as well as attract much-needed FDI to promote growth and industrialisation. However, the persistent depreciation of the domestic currency may also serve to exacerbate imported inflation, as

the exchange rate cannot adjust to external prices. This was particularly true with recent oil price rises. First round pass-through effects from higher oil prices do not seem to have a major impact on inflation, due to the relatively low weight of in the headline index. However, when combined with significant second round impacts, especially flowing through to the food and housing and construction components, the inflationary impact on headline CPI is significant.

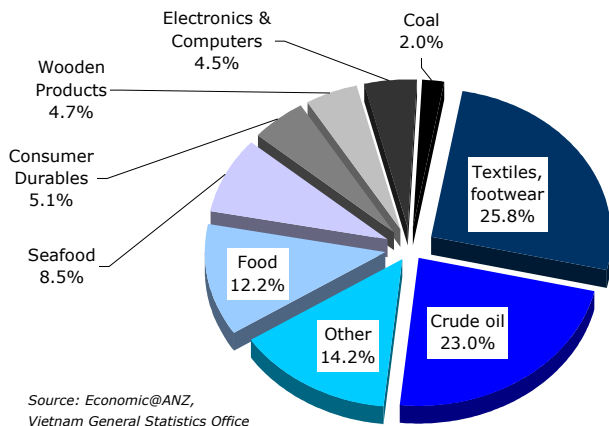
Consumer price inflation - components



World Bank data indicates significant increases in the prices of key commodity imports from 2003 to 2005, rising, on average, by over 20%. In the five months of 2006, these imports have increased in price in excess of 10% YOY. Although Vietnam exports oil, it imports all refined fuel products and consequently is only marginally a net exporter of energy. It would be expected that these price increases may negatively impact the manufacturing sector rather than consumers, and subsequently may have a negative impact on export competitiveness.

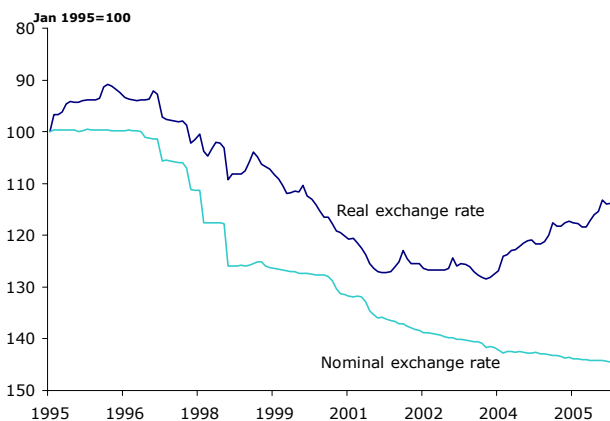
Similarly, Vietnam's export trade competitiveness could actually be eroded due to Vietnam's relatively high inflation environment in general. The chart (on following page) demonstrates this point with the real exchange rate (on a CPI basis) appreciating significantly versus the depreciation of nominal rate. This appreciation on a RER basis is being driven by both effects of high oil prices and increases in food prices, that when combined account for over 40% of Vietnam's exports. Despite this apparent loss of competitiveness, on a RER-basis, non-oil exports continue to expand. It seems that at least a proportion of this export growth is based on goods in which Vietnam gains an advantage in competitiveness due to price. There is discussion in Vietnam's export markets as to how this competitiveness is achieved and how instrumental the government is in controlling/setting prices. For example, the government is known to controls the price of rice exports. Debate regarding export pricing continues and Vietnam is currently subject to anti-dumping measures in the US and EU on seafood and footwear exports respectively.

Composition of Vietnamese Exports - 2005



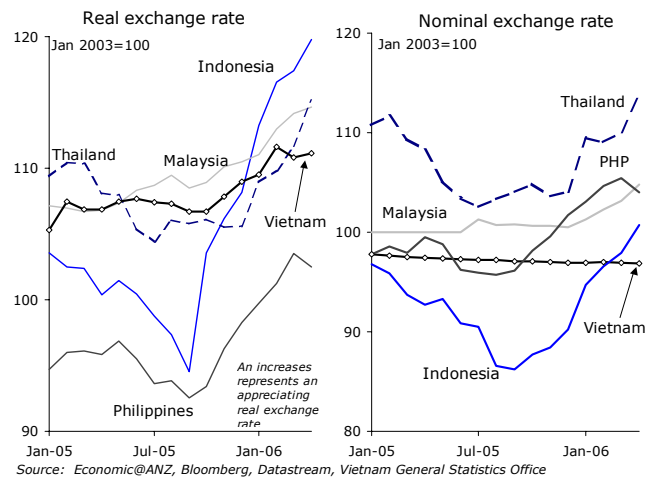
Consequently, gains in trade competitiveness against regional counterparts may also be lost. This argument is supported by most recent annual data (2004) on export prices that indicate significant increases in export prices that far outweigh the nominal depreciation of the dong. This suggests that, combined with high world commodity prices and current domestic upward wage pressures, high rates of inflation may continue to erode Vietnam's trade position. The deterioration of Vietnam's trade position due to inflation suggests that the SBV may be better served by targeting real exchange rates rather than the continual depreciation of the nominal rate. Such a system would address the key aims of the SBV's agenda in controlling inflation and maintaining a stable exchange rate.

Vietnam - Real versus nominal exchange rates



Vietnam's imminent accession to the WTO later this year should clarify where the economy and in particular, trade stands in terms of competitiveness in the region. This may give rise to the need for more exchange rate flexibility within the current system as trade barriers are reduced and access to Vietnam's markets is increased for foreign-based companies. It may also lead to a lower level of regulation on capital outflows, which may assist in equilibrating the capital account and reduce the pressure now being experienced.

ASEAN - Real versus nominal exchange rates



Going Forward

At the beginning of 2006, the SBV had stated that it expected the dong to depreciate by 1-2%. Since January 2006 it has depreciated by around 0.25%. Consequently, Economics@ANZ expects this pace to accelerate slightly throughout the remainder of the year to approach a depreciation of around 1% over 2006.

Vietnamese Dong Forecasts

	Jun-06	Dec-06	Jun-07	Dec-07	Jun-08
USD/VND	15,996	16,079	16,154	16,218	16,280
AUD/VND	11,874	11,577	11,308	11,028	11,233

Source: Economics@ANZ

Over the medium term, the Vietnamese government has set a GDP growth target of 8% per annum. In light of this growth target it is unlikely that inflation rates will fall significantly and consequently we would expect the currency to continue to have a depreciating bias. In addition, with the government's desire to continue to develop stronger trade and FDI inflows as the key drivers of current economic growth, it is likely that the SBV will keep exchange rate policy accommodative to these sectors.

With economic and financial policy liberalisation firmly ensconced in Vietnam's reform agenda, there is increasing international pressure, especially from the World Bank and IMF, to increase the flexibility of the exchange rate. Observers have discussed whether Vietnam would again widen the band in which the currency fluctuates, similar to China, in an effort to increase flexibility. However, it is doubtful whether such a step would assist Vietnam to achieve its macro economic objectives. Historically, significant widening of the band has been to facilitate a relatively rapid depreciation/devaluation of the nominal currency.² With both the current and

² Such a devaluation could lead to a flight to US dollars, increasing the already relatively high levels of dollarisation as people are encouraged to hold foreign currency as a store of value. Similarly, people may also switch savings from local to foreign currency prompting increases in interest rates that would be counter to the government's objective of stronger economic growth. The devaluation could also expose state-owned firms to increased

capital account in a combined surplus, and foreign exchange reserves rapidly increasing, the authorities believe the economy is well placed to withstand any external shocks that may arise. Further, they place great faith in the importance of currency stability to attract FDI.

Thus given that changes to the exchange rate regime appear unlikely, any adjustments required to reduce inflation expectations will need to be found elsewhere. The most obvious solution is to allow for greater capital outflows, so as to reduce the pressures created by inflows. Secondly, the SBV could step up its sterilisation efforts, although these are, as a rule, incomplete. Finally, domestic interest rates may have to rise if inflation accelerates further.

Going forward, the most likely path of increasing flexibility in currency movements will be along a more administrative path rather than to formerly change the current regime. Such a process may include the government increasing flexibility by relaxing documentation requirements inherent in foreign exchange transactions. Also the SBV could take measures to provide an environment in which more currency flexibility could be incorporated into the current regime, without significant adverse effects on the economy. Such measures may include lengthening the tenor of forward foreign exchange transactions, which are currently limited to 1 year, and allowing more exchange rate instruments available in the market.

exchange rate risk. Specifically, import companies that deal regularly in foreign exchange, as well as companies that maintain significant levels of foreign currency debt. Similarly, foreign companies could also be deterred from investing in Vietnam due to the increased exchange rate risk, subsequently leading to reductions in FDI inflows.

APPENDIX A – VIETNAM FINANCIAL MARKETS OPERATIONS

Supervisory and Regulatory Bodies

State Bank of Vietnam (SBV)

- Central bank
- Supervises monetary policy
- Sets base VND lending interest rates
- Manages exchange rates
- Regulates borrowing and lending & credit institutions

Ministry of Finance (MOF)

- Oversees SSC
- Oversees government bond issues
- Drafts & implements regulations on taxation and accounting

State Securities Commission (SSC)

- Capital market development and supervision
- Licensing of participants
- Regulates market

Ho Chi Minh Securities Trading Centre (HSTC)

- Listed equity stock of larger companies

Hanoi Securities Trading Centre (HaSTA)

- Fixed income and listed equity stock of smaller companies

Monetary Policy

- VND not freely convertible
- SBV prefers to manage VND volatility by slow adjustments within narrow range

Market Characteristics

Only SBV, Credit institutions (that are approved to transact FX) economic entities, other organisations and individuals are permitted to participate directly in FX market.

In September 2003, the SSC issued a Capital Market Roadmap to build sophisticated capital markets in Viet Nam. The development of the bond market is one of the key points in this agenda.

Foreign firms must set-up a joint-venture company with Vietnamese partners and apply for a license with the SSC in order to conduct securities trading activities in Viet Nam.

Instrument	Onshore	Offshore
Spot	<ul style="list-style-type: none"> • SBV announces daily official USD/VND Rate • Trading band set at +/- 0.25% vs setting rate • Sales of VND vs foreign ccy Must be supported by required documentation 	Very limited non-deliverable market
Outright Forward	<ul style="list-style-type: none"> • Sales of VND must be supported by authorised business purpose • Contracts only allowed between 3 & 365 days 	Very limited non-deliverable market

FX Swap	As per outright forward but: <ul style="list-style-type: none"> Individuals may not enter into FX Swap transactions 	None
Non-Deliverable Forward		Very limited market Fixing 8am
FX Options	<ul style="list-style-type: none"> Only small number of banks have licence to do VND options No deals have been written Strike price cannot exceed outright forward rate for same tenor Non bank counterparties are prohibited from selling options 	None
Money Market	Liquid short term interbank market (Overnight to 3 months)	Not available
Treasury Bills	<ul style="list-style-type: none"> Issued weekly by SBV Tenors up to one year 	
Government Bonds	<ul style="list-style-type: none"> Largest issuers of debt are National and Local Government debt securities Government Bonds are issued by State Treasury and the Development Assistance Fund (DAF) Market beginning to develop in bonds issued by state owned enterprises 	Purchase and sale of securities by foreign investors is limited and must be conducted via securities companies
Corporate Bonds	<ul style="list-style-type: none"> Corporate Bond market limited and approval must be gained from SSC Corporate bond market developing, encouraged by government. Secondary market limited but has grown significantly in the last 2 years 13 licensed secs companies permitted to trade and settle securities 	Purchase and sale of securities by foreign investors is limited and must be conducted via securities companies
Forward Rate Agreements	<ul style="list-style-type: none"> No VND FRAs 	No access
Interest Rate Swaps	Limited number of banks attempting to create VND IRS mkt	No access

Interest Rate Options	None written onshore	No access
Cross Currency Swaps	Limited number of banks attempting to create VND IRS mkt	No access
Others	Growing repo market	No access

Settlement & Repatriation

Foreign Exchange

- Foreign investors remit funds in foreign currency. Purchase and outward remittance of foreign currency requires supporting documents.

Govt Securities

- Through HSTC, foreign investors may buy or sell VND in relation to securities if taxes have been paid according to regulations
- Settlement occurs via HSTC and Development Bank of Vietnam
- Hanoi Securities Trading Centre opened in 2005

Equities

- Listed company securities – Foreign Investors must have securities cash account
- Non-listed companies – Foreign Investors must have capital contribution and share purchase account

ANZ Research

Economics@ANZ				
Saul Eslake Chief Economist +61 3 9273 6251 eslakes@anz.com	Fiona Allen Business Manager +61 3 9273 6224 allenf@anz.com			
Tony Pearson Head of Australian Economics +61 3 9273 5083 pearsont@anz.com	Julie Toth Senior Economist, Industry +61 3 9273 6252 tothj@anz.com	Mark Rodrigues Senior Economist, Australia +61 3 9273 6286 rodrigum@anz.com	Riki Polygenis Economist, Australia +61 3 9273 4060 polygenr@anz.com	Amber Rabinov Economist, Australia +61 3 9273 4853 rabinova@anz.com
Amy Auster Head of International Economics +61 3 9273 5417 austera@anz.com	Jasmine Robinson Senior Economist, International +61 3 9273 6289 robinsj7@anz.com	Alex Joiner Economist, International +61 3 9273 6123 joinera@anz.com		
Paul Braddick Head of Financial System Analysis +61 3 9273 5987 braddicp@anz.com	Ange Montalti Senior Economist, Financial System Analysis +61 3 9273 6288 montalta@anz.com			
Warren Hogan Head of Markets Research +61 2 9227 1562 hoganw1@anz.com	Cherelle Murphy Economist, Markets +61 3 9273 1995 murphc10@anz.com			
ANZ Investment Bank				
Warren Hogan Head of Markets Research +61 2 9227 1562 hoganw1@anz.com	Sally Auld Senior Interest Rate Strategist +61 2 9227 1809 aulds@anz.com	Tony Morriss Senior Currency Strategist +61 2 9226 6757 morria15@anz.com	Patricia Gacis Fixed Income Analyst +61 2 9227 1272 gacisp@anz.com	
Sarah Percy-Dove Head of Credit Research +61 2 9227 1142 percydos@anz.com	John Manning Senior Credit Analyst +61 2 9227 1493 manninj1@anz.com	Bradley Bugg Senior Credit Analyst +61 2 9227 1693 buggb@anz.com		
Research & Information Services				
Mary Yaxley Head of Research & Information Services +61 3 9273 6265 yaxley@anz.com	Marilla Chant Senior Information Officer +61 3 9273 6263 chantm@anz.com	Manesha Jayasuriya Information Officer +61 3 9273 4121 jayasurm@anz.com		
ANZ New Zealand				
Cameron Bagrie Chief Economist +64 4 802 2212 bagriec@anz.com	Khoon Goh Senior Economist +64 4 802 2357 Khoon.goh@nbz.co.nz	John Bolsover Economist +64 4 802 2287 bolsovej@anz.com		
Sean Comber Economist +64 4 802 2286 combers@anz.com	Steve Edwards Economist +64 4 802 2217 edwards1@anz.com	Kevin Wilson Rural Economist +64 4 802 2361 Kevin.Wilson@nbz.co.nz		

Important Notice

Australia and New Zealand Banking Group Limited is represented in:

AUSTRALIA by

Australia and New Zealand Banking Group Limited ABN 11005 357 522
10th Floor 100 Queen Street, Melbourne 3000, Australia
Telephone +61 3 9273 6224 Fax +61 3 9273 5711

UNITED KINGDOM by:

Australia and New Zealand Banking Group Limited
ABN 11 005 357 522
Minerva House, PO Box 7, Montague Close, London, SE1
9DH, United Kingdom
Telephone +44 20 7378 2121 Fax +44 20 7378 2378

UNITED STATES OF AMERICA by:

ANZ Securities, Inc. (Member of NASD and SIPC)
6th Floor 1177 Avenue of the Americas
New York, NY 10036, United States of America
Tel: +1 212 801 9160 Fax: +1 212 801 9163

NEW ZEALAND by:

ANZ National Bank Limited
Level 7, 1-9 Victoria Street, Wellington, New Zealand
Telephone +64 4 802 2000

In Australia and the UK, ANZ Investment Bank is a business name of Australia and New Zealand Banking Group Limited, ABN 11 005 357 522 ("ANZ Bank"), which holds an Australian Financial Services licence no. 234527 and is authorised in the UK by the Financial Services Authority ("FSA"). In New Zealand, ANZ Investment Bank is a business name of ANZ National Bank Limited WN / 035976 ("ANZ NZ").

This document is being distributed in the United States by ANZ Securities, Inc. ("ANZSI") (an affiliated company of ANZ Bank), which accepts responsibility for its content. Further information on any securities referred to herein may be obtained from ANZSI upon request. Any US person(s) receiving this document and wishing to effect transactions in any securities referred to herein should contact ANZSI, not its affiliates.

This document is being distributed in the United Kingdom by ANZ Bank for the information of its market counterparties and intermediate customers only. It is not intended for and must not be distributed to private customers. In the UK, ANZ Bank is regulated by the FSA. Nothing here excludes or restricts any duty or liability to a customer, which ANZ Bank may have under the UK Financial Services and Markets Act 2000 or under the regulatory system as defined in the Rules of the FSA. This document is issued on the basis that it is only for the information of the particular person to whom it is provided. This document may not be reproduced, distributed or published by any recipient for any purpose. This document does not take into account your personal needs and financial circumstances. Under no circumstances is this document to be used or considered as an offer to sell, or a solicitation of an offer to buy. In addition, from time to time ANZ Bank, ANZ NZ, ANZSI, their affiliated companies, or their respective associates and employees may have an interest in any financial products (as defined by the Australian Corporations Act 2001), securities or other investments, directly or indirectly the subject of this document (and may receive commissions or other remuneration in relation to the sale of such financial products, securities or other investments), or may perform services for, or solicit business from, any company the subject of this document. If you have been referred to ANZ Bank, ANZ NZ, ANZSI or their affiliated companies by any person, that person may receive a benefit in respect of any transactions effected on your behalf, details of which will be available upon request. The information herein has been obtained from, and any opinions herein are based upon, sources believed reliable.

The views expressed in this document accurately reflect the author's personal views, including those about any and all of the securities and issuers referred to herein. The author however makes no representation as to its accuracy or completeness and the information should not be relied upon as such. All opinions and estimates herein reflect the author's judgement on the date of this document and are subject to change without notice. No part of the author's compensation was, is or will directly or indirectly relate to specific recommendations or views expressed about any securities or issuers in this document. The author's compensation will, be based upon, among other factors, the overall profitability of ANZ, including profits from investment banking revenues.

ANZ Bank, ANZ NZ, ANZSI, their affiliated companies, their respective directors, officers, and employees disclaim any responsibility, and shall not be liable, for any loss, damage, claim, liability, proceedings, cost or expense ("Liability") arising directly or indirectly (and whether in tort (including negligence), contract, equity or otherwise) out of or in connection with the contents of and/or any omissions from this communication except where a Liability is made non-excludable by legislation. Where the recipient of this publication conducts a business, the provisions of the Consumer Guarantees Act 1993 (NZ) shall not apply.