INTERNATIONAL MONETARY FUND

Staff Country Reports

© 2006 International Monetary Fund

January 2006
IMF Country Report No. 06/20

Vietnam: Selected Issues

This Selected Issues paper for **Vietnam** was prepared by a staff team of the International Monetary Fund as background documentation for the periodic consultation with the member country. It is based on the information available at the time it was completed on **September 22, 2005.** The views expressed in this document are those of the staff team and do not necessarily reflect the views of the government of Vietnam or the Executive Board of the IMF.

The policy of publication of staff reports and other documents by the IMF allows for the deletion of market-sensitive information.

To assist the IMF in evaluating the publication policy, reader comments are invited and may be sent by e-mail to publicationpolicy@imf.org.

Copies of this report are available to the public from

International Monetary Fund ● Publication Services
700 19th Street, N.W. ● Washington, D.C. 20431
Telephone: (202) 623 7430 ● Telefax: (202) 623 7201
E-mail: publications@imf.org ● Internet: http://www.imf.org

Price: $15.00 a copy

International Monetary Fund
Washington, D.C.

©International Monetary Fund. Not for Redistribution

This page intentionally left blank

©International Monetary Fund. Not for Redistribution

INTERNATIONAL MONETARY FUND

VIETNAM

Selected Issues

Prepared by Carol Baker, Patrizia Tumbarello (both APD), and Khaled Sakr (PDR)

Approved by Asia and Pacific Department

September 22, 2005

Contents | Page

©International Monetary Fund. Not for Redistribution

Contents Page

Annexes

Tables

Figures

©International Monetary Fund. Not for Redistribution

I. THE DEVELOPMENT ASSISTANCE FUND: SHOULD WE BE CONCERNED?[1]

A. Introduction

1. Like many other developing countries, Vietnam has an institution charged with the management of development lending, the Development Assistance Fund (DAF). This chapter examines the role and operational characteristics of the DAF, outlines the risks it poses to fiscal management, and puts forth policy recommendations aimed at promoting more efficient allocation of Vietnam's public investment. While the DAF carries out various functions, the focus of this chapter is on the largest and riskiest activity, namely domestically-financed policy lending, known as "State Credit."

2. The chapter concludes that the current framework for policy lending in Vietnam, in conjunction with the active consideration of proposals to enhance the operational autonomy of policy-lending institutions, poses significant risks. More specifically, the current framework does not adequately address common governance issues related to state involvement in investment decisions, and is insufficient to ensure the quality of investment. While the risk of a large buildup of contingent liabilities may be tempered as long as the Ministry of Finance (MOF) maintains its control over the management of the DAF, the potential threat to fiscal sustainability could increase significantly in the future if the DAF and other local development funds were to be given greater autonomy or were transformed into development banks without first implementing necessary changes to strengthen their regulation and supervision.

3. Recommended policy actions include removing residual policy lending from commercial banks; improving prudential regulations and supervision of DAF and local development funds well before they are granted any significant autonomy; and increasing their transparency and accountability. While the establishment of an effective regulatory framework is likely to take time, prompt steps need to be taken in the meantime to account for all government-led lending operations in annual budget documents, and incorporate the associated liabilities in official public debt statistics, so as to enhance the government's ability to adequately assess the underlying fiscal position.

B. Background and the Main Functions of the DAF

4. The DAF is a State Financial Institution, wholly owned by the government, which was created in 1999 when policy lending through the state-owned commercial banks (SOCBs) was formally abolished. It is governed by the Law on Domestic Investment Encouragement, and is not subject to the banking law, despite taking corporate deposits. The DAF falls under, and reports to, the MOF, with the Prime Minister maintaining responsibility for approving and amending its charter, as well as issuing policies and providing operational guidance to be carried out by DAF. DAF operations are kept off-budget (except for the

[1] Prepared by Carol Baker (APD).

©International Monetary Fund. Not for Redistribution

interest subsidy), as the authorities consider its debt to be contingent liabilities akin to those of SOCBs.

5. The DAF has offices in 61 provinces and a headquarters in Hanoi, and it employs around 2,200 people, most with a financial or technical background. The central DAF carries out project appraisal for large investment projects (Groups A and B, Annex I) and institutional oversight of the local DAF branches. The local DAFs are charged with various functions, including carrying out loan appraisal and servicing functions for all types of lending; mobilizing corporate deposits in the local market; and managing trust funds for large investment projects. In addition, the DAF carries out loan appraisal and servicing, as well as financial management, on a fee-for-service basis, for 11 regions' own local development funds.[2] These funds are established by the Chairman of the local People's Council, are funded out of local government revenues, and cannot currently issue debt. However, local development funds are to be allowed to issue their own debt from 2007.

6. The DAF is charged with three main tasks: mobilize funds to finance economic development; provide financing (State Credit) for long-term investment projects contained on the list of sectors eligible for DAF lending (Annex II) and short-term export promotion support (since 2002); and provide loan guarantees and interest subsidies for domestic investment projects. The DAF also acts as the government's main agent in disbursing and collecting ODA on-lent funds, although about 20 percent of ODA reportedly continues to be channeled through SOCBs.

Operational aspects

7. The annual lending program to be carried out by DAF is decided by the Prime Minister based on the investment needs reported by line ministries. The lending program is indicative and can be altered throughout the year. It includes targets for both lending and funding, including the amount of new DAF bonds to be issued. The Management Board of the DAF meets every three months to decide the overall policy direction of the DAF, consider proposals by its general director, and review reports of the Supervisory Board. The Management Board is comprised of five members: a chairman, a vice-chairman, and three members from the MOF (vice-minister), Ministry of Planning and Investment (MPI, vice-minister) and State Bank of Vietnam (deputy governor).

8. In principle, the DAF plays two key roles in the policy lending process for domestically-financed loans: loan appraisal, and loan disbursement and servicing. Prior to appraisal by the DAF, most medium and large investment projects require multiple steps, signatures, and pre-authorizations. Once all prior authorizations have been received, enterprises submit their application and project viability analysis to the DAF. Two

[2] There are currently 13 non-DAF local investment funds. However, the Ho Chi Minh City and Dong Nai investment funds have their own staff and are not administered by the DAF.

©International Monetary Fund. Not for Redistribution

evaluations are carried out in the appraisal process: a project feasibility study (technical) and a financial viability study. The DAF provides a written request within 30 days to the competent authorities (line ministries or people's committees, depending on the nature of the project) asking for their views. On that basis, DAF makes the final lending decision, then draws up the contract, disburses the loan and carries out loan servicing functions. In practice, however, most lending decisions for Group A and B projects are based on political and socioeconomic considerations that are outside DAF's purview, and DAF in effect acts as a government agency for the disbursement and servicing of policy loans.

Size, funding and loan portfolio

9. The DAF is one of the largest financial institution in Vietnam, both in terms of chartered capital as well as outstanding loan portfolio (Table 1). Relative to the four largest SOCBs, it ranks second only to the agricultural bank, VBARD.

Table 1. Vietnam: Relative Size of Financial Institutions

	Chartered Capital		Outstanding Loans	
	2003	2004	2003	2004
	(In trillions of dong)			
SOCBs				
VBARD	5.45	6.14	87.08	123.47
VCB	2.42	4.03	30.00	46.49
BIDV	3.75	3.87	48.09	64.01
ICB	2.91	3.33	49.63	62.10
DAF[1]	4.98	4.98	64.81	76.93

Source: Data provided by the Vietnamese authorities.
[1]Include state lending, short-term export loans and ODA on-lending.

10. The DAF has three main sources of non-ODA funding in addition to direct transfers of capital from the state budget: domestic bond issuance (DAF bonds), borrowing from the social security fund, and borrowing from the Postal Savings Service Company (PSSC) (Table 2). Lesser sources include earmarked treasury bills, deposits mobilized by local DAF branches, and resources in the sinking fund.[3] While there is no glaring maturity mismatch between the sources of funding via DAF bonds and the DAF's lending portfolio, this is not the case for postal savings deposits. The PSSC mobilizes retail savings (mostly sight

[3] The sinking fund comprises ODA on-lent funds which are repaid to either SOCBs or the DAF prior to the time the MOF is required to amortize the original ODA loan. These funds are available to be on-lent again, at a maturity which does not exceed the remaining maturity of the original loan. The sinking fund also collects loan guarantee fees for the government. The interest differential earned by the fund is used for loan-loss provisioning.

©International Monetary Fund. Not for Redistribution

deposits) through local post offices, which are then loaned to the DAF with a maturity of 1 to 5 years.

Table 2. DAF: Sources of Capital
(In billions of dong)

	2000	2001	2002	2003	2004
Chartered capital	2,693	4,098	4,981	4,981	4,981
Mobilized capital	8,610	11,814	19,076	32,949	39,829
of which:					
DAF bonds	0	0	1,584	7,367	13,368
Post savings	1,580	2,640	3,755	4,595	5,535
Social Security Fund	6,200	7,700	8,900	9,600	9,600
Sinking fund	780	1,324	1,542	1,391	2,135
Treasury bills and bonds	50	150	945	3,163	2,989
Capital mobilized by DAF's branches (ST)	0	0	495	2,329	4,297
ODA	20,864	26,720	29,649	32,728	38,347
Total	32,167	42,632	53,706	70,658	83,157
as a percent of GDP	7.3	8.9	10.0	11.5	11.7

Source: Data provided by the Vietnamese authorities.

11. In 2004, the value of outstanding DAF bonds nearly doubled to VND 13 trillion (US$825 million, or 1.8 percent of GDP). DAF bonds are fixed-rate 5-, 10- and 15-year bonds sold via auction as well as through underwriters. The maximum interest rate is set by the MOF. The bonds carry one lump-sum repayment (interest is paid either upfront or capitalized and paid in full upon maturity). While they are tradable, there has been no secondary market activity to date.

12. DAF bonds are reportedly held mainly by insurance companies looking for scarce long-term domestic instruments. However, the DAF has recently experienced difficulty in placing bonds at the current fixed rates (as of May 2005 only 18 percent of the annual plan had been issued), reflecting in part the rising international interest rates and fears of continued high domestic inflation. Investment in DAF bonds is also reported to have been discouraged by ongoing uncertainty as to whether they carry an explicit MOF guarantee, together with the fact that they are not discountable at the SBV.

13. On the lending side, while both public and private firms are eligible for DAF support, SOEs account for about 70 percent of the total number of projects financed by DAF, absorbing nearly 90 percent of State Credit. At end-2004, DAF had a portfolio of 5,924 project loans financed by State Credit, with an average loan size of about VND 6.5 billion (US$412,000) (Table 3). Loans can be used either to set up new enterprises or to expand existing ones. Interest rates are subsidized, with the subsidy paid out of the state budget. The interest rate is set by the Ministry of Finance at 70 percent of the average rate of

©International Monetary Fund. Not for Redistribution

medium- and long-term lending rates of SOCBs, and can be adjusted up to twice per year based on market developments. In the event that the SOCB lending rate fluctuates by more than 15 percent, the Minister of Finance can use discretion regarding the adjustment.

Table 3. DAF: State Credit Loan Portfolio

end-2004 State credit to:	Number of Projects	Outstanding Loans (In billions of dong)	Percent	Average Loan Size (US$ millions)
By project group	5,924	38,395	100.0	0.412
Group A	78	10,964	28.6	8.925
Group B	469	14,649	38.2	1.983
Group C	5,377	12,782	33.3	0.151
By ownership	5,924	38,395	100.0	0.412
SOE	2,954	34,068	88.7	0.732
Private	2,970	4,327	11.3	0.093
By sector	5,924	38,394	100.0	0.411
Construction and industry	2,915	24,767	64.5	0.539
Transportation	287	5,559	14.5	1.230
Agriculture, forestry, fisheries	1,970	6,379	16.6	0.206
Other	752	1,689	4.4	0.143

Source: Data provided by the Vietnamese authorities.

14. DAF's reported level of non-performing loans (NPLs) is quite low at under 2 percent at end-2004. For ODA on-lending the NPL ratio is reportedly 0.44 percent, while for export credit it is 2.67 percent, and for State Credit the ratio is 3.2 percent, mostly on loans to the sugar industry extended by DAF's predecessor institution. However, these numbers should be viewed with extreme caution due to a lack of rigorous regulations regarding loan classification and rescheduling, and structural issues related to the brief period in which the DAF has been in operation versus the long-term nature and term-structure of its lending portfolio. While no data is available on evergreening, current regulations give considerable discretion to the General Director of DAF to extend, reschedule and otherwise change the terms of overdue loans (Box 1).

C. Suggested Best Practice and Concerns about DAF

15. Given its current level of development, Vietnam will continue to have large investment needs over the coming years. This implies that policy lending in some form is likely to continue, despite the transition to a more market-based economy. This section sets out some generally accepted principles of best practice in policy lending and supervision and reviews current practices regarding DAF operations against these standards.

©International Monetary Fund. Not for Redistribution

Box 1. DAF Operational Regulations: Decree 106

Decree 106 of April 1, 2004 was meant to overhaul the framework under which the DAF operates. The main changes regarding investment loans comprise: setting maximum exposure limits of the DAF to a given project, tightening the eligibility criteria for lending, defining non-performing loans (NPLs) and related charges, and setting out the roles and responsibilities of various Ministries and the DAF in resolving NPLs. It was followed by Decision 54 of June 16, 2004, which sets forth a list of projects and programs entitled to investment loans valid through December 31, 2005. The most salient features are summarized below.

- **Maximum project exposure and co-financing**. The total support level shall not exceed 85 percent of the investment capital of any given project, and investment loans shall not exceed 70 percent of investment capital.
- **Eligibility criteria for investment loans**. In order to be eligible for investment loans projects must: be on the list of eligible projects; have profitable business plans; have their financial plans or loan capital repayment plans evaluated by the DAF before investment decisions are made; and comply with regulations regarding insurance and non-disposal of assets used as collateral.
- **Lending terms**. The maximum loan maturity is 12 years, with an exception for projects subject to long capital recovery periods (specifically re-forestation projects) of 15 years, and carry a fixed interest rate. The rate will be set at 70 percent of the average medium- and long-term loan interest rate of SOCBs, and will be announced by the Minister of Finance. If in any (unspecified) period the market interest rate fluctuates by more than 15 percent, the finance minister will adjust the rate a maximum of twice per year.
- **Late payments and penalty rates**. After 10 working days, missed amortization and interest payments will be considered non-performing and a penalty rate of 150 percent of the contracted rate will be charged.
- **Extensions, rescheduling and changes in lending terms**. If for "objective reasons" debtors can not repay, a written request must be sent to the DAF for consideration and adjustment of lending terms. The General Director of the DAF is charged with adjusting the lending terms (grace period, repayment terms and/or maturity), with a maximum extension of one-third of the original loan maturity.
- **Risk Reserve Fund**. The DAF *may* set up, on an annual basis, a risk reserve fund to cover non-payment of interest and principle falling due. The Minister of Finance will guide the setting up of the risk reserve fund, with the maximum provision of 0.2 percent of the sum of the average investment loan portfolio outstanding and investment loan guarantees.
- **Agency responsibilities**. In the case of NPLs which can not be resolved via an extension or change in lending terms through administrative measures by the general director of the DAF, the Minister of Finance will submit a proposal for resolution to the Prime Minister. This may include further evergreening through an interest rate exemption, a write down of principle or a debt "freeze or remission", or other change in the loan terms. In such cases where the DAF's risk reserve fund is insufficient to offset the non-performing asset, the case is sent to the prime minister for resolution.

©International Monetary Fund. Not for Redistribution

Box 2. Principles of Effective Supervision over State-Owned Financial Institutions

There is no standard-setting body regarding best practice in development banking, hence no "best-practice" standard exists. However, Fiechter and Kupiec,[1] in an effort to foster such a discussion, put forth a list of Ten Proposed Principles of effective supervision of state-owned financial institutions, which is summarized below (h referred to as the List).

The List draws heavily on, and is consistent with, the Basel Core Principles of Effective Banking Supervision, with an added focus on public disclosure as a means for overcoming limitations to effective supervision imposed by state participation. In the case of hybrid institutions, commercial lending should be subject to Basel Core Principles, while policy directed lending should be subject to the principles below.

1. **Preconditions.** Supervision is enhanced under the following conditions: sustainable macroeconomic policies, a well-developed legal system, and a robust accounting profession.
2. **Limitation of activities and audit/evaluation.** The authorizing law should provide a clear mission statement as well as define permissible activities and use of market resources, specify accounting and auditing procedures, and establish a process for setting goals and evaluating performance.
3. **Supervisory objectives, empowerment and disclosure.** In order to be effective, the supervisory system should assign clear responsibilities and objectives to each supervisory agency. The supervisor should be empowered with the legal means to enforce prudential standards, and this should be reinforced by public disclosure to ensure efficiency and encourage compliance
4. **Supervisory role.** Given the risks posed by policy directed lending, the supervisor should have the responsibility of monitoring activities, be required to evaluate activities versus mission statements, and raise public objections against inadmissible activities.
5. **Capital adequacy.** The supervisor or the authorizing legislation should define regulatory capital and set minimum risk-adjusted capital adequacy standards which adequately reflect the nature of the institution's liabilities.
6. **Independent evaluation and audit.** The supervisor should conduct independent evaluations of an institution's policies and procedures and ensure that there are appropriate independent internal or external audit and compliance functions to evaluate adherence to controls and laws.
7. **Transparency.** The institution should publish on a regular basis audited financial statements that fairly reflect its financial condition. This requires that state-owned financial institutions be subject to accounting standards that ensure that assets and liabilities, including off-balance sheet items, are valued appropriately. The supervisor should be satisfied that the accounting standards set forth in the authorizing law adequately reflect the true financial position, and if not, be empowered to recommend to standard setting bodies that the standard be modified.
8. **Risk Management.** The supervisor should ensure that the institution has in place a comprehensive risk management process, including appropriate senior management oversight and the use of modern risk-modeling techniques.
9. **Monitoring.** The supervisor should conduct both on-site and off-site supervision.
10. **Corrective Action.** The supervisor should be able to bring about timely and corrective action when the institution fails to meet prudential requirements, and have the legal authority to take appropriate remedial actions when an institution fails to meet prudential requirements or violates regulations. The supervisor should have the legal authority, and perhaps the obligation, to make its concerns and recommendation public.

[1]Fiechter, J. and P. Kupiec, *Principles for Supervision*, Chapter 10 of Caprio et al, editors, The Future of State-Owned Financial Institutions, Brookings Institution Press, 2004.

©International Monetary Fund. Not for Redistribution

16. Fiechter and Kupiec propose that best practice in the supervision over state-owned financial institutions should follow closely the Basle Core Principles of Effective Banking Supervision, with particular focus on transparency and public disclosure as a means of overcoming difficulties associated with state participation (Box 2). Also relevant are the recent OECD Guidelines on the Corporate Governance of State-Owned Enterprises. Both would seem to apply equally to DAF and the SOCBs, which face similar weaknesses in supervision and corporate governance. Key points relate to the need for clear delineation and limitations on authorized activities, proper audit and evaluation, and adequate objectives and empowerment of supervisors.

17. As a first principle, policy lending should be well targeted and should not compete for projects which could be carried out on commercial terms. In this context, policy lending should be restricted to only those projects for which private participation on a commercial basis would not be forthcoming (i.e., owing to market failure or the dominance of social over profit motives), but which nevertheless can be expected to yield a positive stream of net socio-economic returns.

18. A corollary to the above is that policy lending should be completely removed from commercial banks. The systemic risk posed by large-scale policy lending through commercial banks is potentially large as this lending can lead to compromised prudential regulations and risk management practices. These considerations support the case for carrying out policy lending either through a specialized financial institution or directly through the budget process.

19. In the case of Vietnam, removing residual policy lending from SOCBs is important not only to limit systemic risk but also to pave the way for the much-needed reform of the banking sector. Moreover, the continuing possibility of substituting SOCB lending for DAF lending thwarts the authorities' efforts to improve the quality of investment, and severely undermines the transparency of the fiscal and monetary accounts. A particular difficulty stems from the use of both the DAF and the SOCBs to on-lend ODA funds (through multiple accounts in the banking system). The authorities are reportedly studying a proposal to transform the DAF into a development bank, which would be supervised by the SBV and fall under the banking law. However, in order for such a change to have the desired outcome, the management and supervision of DAF would have to be significantly strengthened.

DAF's internal controls, transparency, and the quality of policy lending

20. Directed lending has played a major role in the build-up of non-performing loans in the Vietnamese banking sector over the last decade. While policy lending through the SOCBs was formally abolished, the government at all levels continues to exert considerable influence over SOCBS' lending decisions, including through moral suasion. However, removing policy lending from SOCBs alone would not be sufficient to increase fiscal transparency and improve the quality of policy lending—the soundness and operational efficiency of the DAF would need to be improved simultaneously.

©International Monetary Fund. Not for Redistribution

21. Consistent with best practice in fiscal transparency, quasi-fiscal activities such as directed credit should be placed on-budget and the associated liabilities duly recorded in the official public debt statistics. This would facilitate assessment of the true fiscal policy stance, and of the potential implications for debt sustainability. In addition, DAF should be audited on a regular basis, and audited financial statements based on appropriate valuation techniques should be published regularly. DAF operations for 2003 were recently audited by the State Audit of Vietnam (SAV) and auditors have reportedly been invited to begin auditing DAF's 2004 financial statement. Audit results have not been published.

22. The effectiveness of the DAF in carrying out adequate financial analysis, and its ability to turn down projects that carry low or even negative expected rates of return, are hindered by various institutional factors and capacity constraints. Projects are often put forth or backed by the same ministries charged with their authorization. DAF personnel often only have limited knowledge of the true financial position of the borrowing enterprise, and there is scope for improvement and training of DAF staff, particularly on credit risk management and project appraisal techniques. Moreover, the mere nature of DAF as a government-owned policy lending institution makes it susceptible to pressure to authorize projects which may not always meet basic standards of economic and social return.

23. The authorities have attempted to address some of the above concerns by successively narrowing the list of sectors eligible for DAF lending (Annex II). However, this sectoral approach provides no guidance on how to assess the quality of individual projects. Moreover, it is not clear why some of the specified sectors need to be supported through policy lending, and there appears to be scope for further streamlining of the eligibility list as well as for the opening up of non-priority sectors to private investment.

Supervisory and regulatory issues

24. As with any state-owned financial institution, in principle, the supervisory and prudential framework should be brought in line with best international practice for commercial banks, with due recognition of special difficulties and risks faced by development institutions. In order to be effective, an adequate supervisory and prudential framework must be accompanied by a strengthening of accounting standards in line with IAS, developing criteria for evaluating projects' socio-economic returns on a more rigorous basis, and developing a legal system which encourages private sector investment.

25. Best practice requires that a bank supervisory agency exist, and be independent and free from owner interference. It should be assigned clear responsibilities, be empowered to enforce prudential standards, and conduct independent evaluations of the supervised institutions' policies and procedures to ensure that they comply with controls and laws. While the tight control exercised by the MOF over DAF operations may currently appear to obviate the need for external oversight, the establishment of an effective and independent supervisory agency will be a prerequisite for any move towards the conversion of the DAF into an autonomous development bank.

©International Monetary Fund. Not for Redistribution

26. The internal Supervisory Board (SB) of the DAF, also known as the Control Board, has not been designed to play the role of an independent supervisory agency. The DAF Charter gives it the authority to independently carry out programs approved by the Management Board (MB); inspect and supervise the observance of guidelines and policies; and report on financial performance to the MB. However, the SB is appointed by, and is answerable to, the MB, and the MB can dismiss the deputy-chairman and members of the SB at the proposal of the chairman of the SB. The salaries of the members of the SB are paid out of DAF funds, with the amounts decided by the General Director of DAF. Moreover, current authorizing legislation of the DAF does not discuss prudential regulations, nor does it empower the SB to set these standards. Indeed, it is unclear from the current legislative framework what, if any, prudential regulations the SB is to gauge against when carrying out its functions.

27. The above concerns about DAF also apply to alternative sources of policy lending, which appear to be on the rise in Vietnam. The existing local development funds already engage in financing local infrastructure projects, with the support of the MOF, despite the fact that there is currently no regulatory framework in place for these funds. While the size of these funds can be expected to remain contained as long as they continue to be financed out of local government revenues, they could expand considerably if they are authorized to issue bonds, as currently planned. In addition, the municipalities of Hanoi and Ho Chi Minh City are already carrying out large investment programs, increasingly financed through the issuance of their own bonds. Thus, the welcome increase in the authorities' recognition of risks regarding DAF operations appears to have been offset by a shift toward alternative sources of funding, which are generally less transparent, and subject to less scrutiny, than on-budget activities.

28. The recently approved State Audit Law, which is to come into effect from January 1, 2006, is an important step that could help enhance the external monitoring and control over DAF operations. Under this law, SAV is to become an independent agency under the National Assembly, which will have the authority to appoint and, if necessary, dismiss the auditor general. SAV reports that have been approved by the National Assembly are to be publicly disclosed, in marked contrast with past practice, whereby audit findings were not made public except with government authorization. The SAV is expected to complete the State Auditing Standards by end-2007 to bring them more into line with international practice. In the meantime, the government is considering possible ways to further streamline the eligibility list for DAF projects and it is working towards the establishment of an appropriate regulatory framework for local infrastructure funds.

D. Policy Recommendations

29. Two general policy recommendations emerge from the foregoing discussion:

- Policy-based lending should be limited to cases of market failure, and only for projects that are selected based on rigorous evaluation of their socio-economic

©International Monetary Fund. Not for Redistribution

returns, with a view to increasing the quality of publicly-funded projects and avoiding the crowding out of private investment.

- The DAF and local development funds should align their operations with best international standards on accounting, supervision and regulation, and they should not be granted greater autonomy in their funding and lending operations until these standards have been fully put in place.

30. While existing capacity constraints imply that it may take some time before the authorities can implement the above recommendations, prompt steps need to be taken in the meantime to protect debt sustainability and enhance fiscal transparency. To those ends:

- Residual policy lending should be completely removed from the SOCBs.

- DAF's transparency and accountability should be increased through the conduct of external audits and publication of its audited financial statements.

- Operations carried out through the DAF and local development funds should be explicitly accounted for in annual budget documents, and the resulting contingent liabilities incorporated in official government debt statistics.

©International Monetary Fund. Not for Redistribution

References

Carmichael, J., 2001, "Public Sector Governance and the Financial Sector," in Litan et. al. *Financial Sector Governance: the roles of the public and private sectors*, Chapter 5, (Washington DC: Brookings Institution Press).

Development Assistance Fund, 2004, *Development Assistance Fund Report*, (Hanoi, DAF).

Fiechter, J., and R. Kupiec, 2004, "Principles for Supervision", in Caprio et. al. *The Future of State-Owned Financial Institutions*, Chapter 10, (Washington DC: Brookings Institution Press).

Fouad, M., R. Hemming, D. Lombardo and W. Maliszewski, 2004, "Fiscal Transparency and State-Owned Banks," in Caprio et. al. *The Future of State-Owned Financial Institutions*, Chapter 4, (Washington DC: Brookings Institution Press).

Marston, D., and A. Narain, 2004, "Observations from an International Monetary Fund Survey", in Caprio et. al. *The Future of State-Owned Financial Institutions*, Chapter 3, (Washington DC: Brookings Institution Press).

OECD, 2005, "Guidelines on the Corporate Governance of State-Owned Enterprises", (Geneva: OECD).

World Bank in collaboration with the Asian Development Bank, December 2002, *Vietnam: Delivering on its Promise*, Development Report 2003, p. 89, (Hanoi: World Bank).

©International Monetary Fund. Not for Redistribution

Investment Categories and Approval Process			
Description of investment projects	**Group A**	**Group B**	**Group C**
1. Projects under the domain of national security and defense, national secrecy or important socio-political significance; the building of new industrial parks; and investments in production of noxious substances and explosives.	Unlimited	n.a.	n.a.
2. Related to power, oil and gas exploitation, chemical and fertilizer, machine building, cement, metallurgy, mineral exploitation and processing industries; major traffic infrastructure projects (bridges, ports, railways, highways); and the building of residential quarters.	Over VND 600 billion	Between VND 30 and 600 billion	Less than VND 30 billion
3. Related to irrigation, traffic (except those under point 2 above), water supply and drainage, technical infrastructure, electric technology, production of information, electronic, informatics, chemo-pharmaceutical, medical equipment, and other mechanical engineering structures.	Over VND 400 billion	Between VND 20 and 400 billion	Less than VND 20 billion
4. Related to light industry, chinaware, porcelain, glassware, printing; national parks, nature conservation zones, agricultural and forestry production, aquaculture, agricultural and forestry products processing.	Over VND 300 billion	Over VND 300 billion	Less than VND 15 billion
5. Related to healthcare, culture, education, radio, television broadcasting, other civil construction (excluding housing), warehousing, tourism, physical training and sports, scientific research and other projects.	Over VND 200 billion	Between VND 7 and 200 billion	Less than VND 7 billion
Approval and Appraisal Process			
1. Approval by the Prime Minister required	X		
2. Approval by relevant line ministry or People's Committee		X	X
3. Project appraisal by central DAF	X		
4. Project appraisal by HCMC branch instead of central DAF, where relevant	X		
5. Project appraisal by local DAF branch.		X	X

©International Monetary Fund. Not for Redistribution

Projects Entitled to Investment Loans through 12/31/05: Decision 54 (2004) as supplemented by Decisions 80 (2004), 19 (2005) and 31 (2005)

1. Projects on planting concentrated paper raw-material forests, pulp and artificial board, associated with processing enterprises.* Special authorization for the Central Highland area and mountainous and remote areas (Decision 19).
2. Projects aimed at producing prototype breeds and new breeds using high technology.
3. Potable water projects
4. Production and processing of industrial salt.
5. Manufacturing of antibiotics.
6. Investment projects on job-training schools.**
7. Investment projects on complete textile, printing and dying factories.
8. Production of steel cast from ores and high quality special-use steel, and aluminum exploitation and production.
9. Manufacturing of vehicles with 25 or more seats with more than 40 percent domestic content; building of train carriages at domestic manufacturing establishments; manufacturing and assembling of train locomotives; and investments in shipyards.
10. Manufacturing of diesel engines of 300 CV or more. Special authorization granted to the Song Cong Diesel Company for 100–400 CV engines (Decision 80).
11. Manufacturing of heavy and new mechanical products, and large-scale casting projects. These include investment in the manufacture of complete equipment for cement, paper, nitrogenous fertilizer, hydro-electric power, thermoelectric power, oil and gas plants.
12. Special authorizations granted via Decision 31 to (i) new cement projects in Tay Ninh, Son La, Yen Bai, Phu Tho and Tuyen Quang provinces (30 percent of required capital); (ii) Quang Trung Mechanic Enterprise for investment in the lifting equipment plant located in Quang Ninh; and (iii) Quang Trung Mechanic Enterprise for construction works and investment projects as specified in Decree 35 (2002).
13. Special authorization granted to Vinashin company for projects to produce one ship of each of the four types specified in Decision 80.
14. Large hydro-electric power plants to service population relocation and domestic equipment manufacture.*
15. Manufacturing of nitrogenous and DAP fertilizers.
16. Reciprocal capital for projects financed through ODA on-lending.

Note: Project marked with an asterisk (*) are eligible only if located in "geographical areas meeting with socio-economic difficulties according to the government's lists B and C guiding the implementation of the Domestic Investment Promotion Law (amended)", while a double asterisk (**)indicates rural areas.

©International Monetary Fund. Not for Redistribution

II. Does Vietnam Overtrade with its Neighboring Countries? A Regional Investigation Using a Gravity Model[1]

A. Introduction

1. **Regional trade integration has gained momentum in recent years in the Asia and Pacific region**. Intraregional trade has expanded rapidly as countries' ongoing efforts to achieve international economic integration have been supplemented by the signing of a number of Regional and Bilateral Trade Agreements. Regional trade integration is only one of the multiple facets of enhanced cooperation initiatives in the region that have come about since the Asian crisis. Vietnam stands out for its progress in achieving global, as well as regional, economic integration. During 1993–2004, Vietnam's trade openness as measured by the sum of exports and imports in relation to GDP more than doubled, while market share of its exports more than tripled (Tables 1 and 2). This is an impressive record of performance compared both with other countries in the region as well as with the rest of the world.

Table 1. Indicators of Trade Openness in Selected Countries

	1993	2004	1993	2004
	Goods[1]		Goods and Services[1]	
Argentina	13.3	36.6	17.3	44.2
Brazil	14.6	26.3	16.9	31.2
Cambodia	25.9	116.2	30.9	139.8
China	26.9	68.2	30.8	76.3
India	17.4	27.7	20.8	38.6
Indonesia	39.2	47.6	47.4	64.3
Hong Kong SAR	232.1	322.3	270.2	372.3
Japan	13.0	20.2	16.4	25.2
Korea	46.9	69.6	55.0	83.0
Lao P.D.R.	50.7	61.4	61.9	71.1
Malaysia	132.7	190.8	158.1	221.1
Philippines	53.3	100.6	67.6	112.0
Singapore	277.1	340.1	331.6	416.7
Thailand	67.0	116.5	82.7	135.4
United States	15.7	19.4	20.4	24.9
Vietnam	**54.2**	**123.9**	**65.3**	**141.9**
APEC[2]	63.9	88.8	29.5	42.9
ASEAN[2]	86.5	129.2	103.5	154.9
ASEAN-5[2]	113.9	159.1	137.5	189.9
EURO zone	38.8	55.7	50.6	70.7

Source: World Economic Outlook (WEO) database.

[1]Exports plus imports in percent of GDP.

[2]Simple average.

2. **This chapter investigates the extent to which Vietnam's favorable trade performance may have been excessively centered on trade with other countries in the region, by using a gravity model applied to cross-country trade data for 2002**. The model's specification includes regional dummy variables to capture the influence of regional trade agreements (RTAs) on trade flows, with a view to determining the extent to which the RTAs have affected the level and direction of trade among their members.[2]

[1] Prepared by Patrizia Tumbarello (APD).

[2] This specification is in line with that developed by Wei and Frankel (1997). It differs from other gravity models in the literature (Wang and Winters, 1991; Frankel, 1997; and Thornton and Goglio, 2002), in that it uses a gravity equation that permits gauging whether RTAs' effects on trade within their membership may have occurred at the expense of trade with nonmembers.

©International Monetary Fund. Not for Redistribution

3. **Conventional economic theory questions the benefits of RTAs, as discriminatory arrangements are often likely to be inferior even to unilateral trade liberalization**. Thus, RTAs can be associated with losses not only to third countries, but to the member countries themselves, as they may divert imports from nonmember sources to member suppliers, whose production costs may be higher. Such cost differences would be borne by the importing member, and are commonly known as trade-diversion effects. On the other hand, resources previously engaged in costly domestic production could be reallocated as a result of the RTA based on each country's comparative advantage. This would increase economic welfare in RTA members and would constitute a trade-creation effect. Net trade creation is more likely to dominate if RTA members' rate of protection vis-à-vis nonmembers is low to start with, or if the RTA partners agree on a schedule of swift reductions in their MFN tariffs over time—ideally, to eventually match their preferential rates.

Table 2: Export Market Share in Selected Countries
(Exports of goods as a percentage of world imports of goods)

	1993	2004
Argentina	0.36	0.39
Brazil	1.05	1.09
Cambodia	0.01	0.03
China	5.74	9.64
India	0.59	0.88
Indonesia	0.98	0.82
Hong Kong SAR	3.70	2.90
Japan	9.60	6.09
Korea	2.23	2.91
Lao P.D.R.	0.01	0.01
Malaysia	1.25	1.43
Philippines	0.31	0.44
Singapore	2.20	2.20
Thailand	0.99	1.09
United States	12.43	9.12
Vietnam	**0.08**	**0.29**
APEC[1]	2.33	2.25
ASEAN[1]	0.60	0.60
ASEAN-5[1]	1.10	1.20
EURO zone	31.89	30.88

Source: World Economic Outlook (WEO) database.
[1]Simple average.

4. **The chapter's findings suggest that RTAs in the Asia and Pacific region have indeed promoted trade among their members, but not at the expense of trade with nonmembers**. The model's estimates fit Vietnam's cross-country trade flows well, on average. The empirical results suggest that, while the impact of RTAs on Vietnam's trade appears to have been strong, it is unlikely that the increasing trade with RTA members has been accompanied by a diversion of trade vis-à-vis nonmembers.

5. **The chapter is organized as follows**. Section B briefly reviews RTAs in the Asia and Pacific region as well as the progress of Vietnam's economic integration, both at the regional and the multilateral level. Section C presents the gravity model, while section D provides the results of the regressions. Section E addresses the question of whether Vietnam overtrades or undertrades with its neighboring countries, using the results of Section D, and Section F presents the conclusions of the paper. The specifications of the model are further discussed in the Annex.

©International Monetary Fund. Not for Redistribution

B. Selected Regional and Bilateral Trade Arrangements in the Asia and Pacific Region

6. **Regional trade agreements have proliferated in the Asia and Pacific region during the 1990s.** At the same time, the region has achieved a successful track record in pursuing nonpreferential trade liberalization, even within the context of regional integration.[3]

7. **The Association of Southeast Asian Nations (ASEAN) was established in 1967 to accelerate economic growth and promote peace and stability in the region**.[4] In January 1992, the creation of the ASEAN Free Trade Area (AFTA) was announced. Its objective was to eliminate tariff and nontariff barriers among the Southeast Asian countries with a view to integrating the ASEAN economies into a regional market of more than 500 million people. The agreement on the Common Effective Preferential Tariff (CEPT) scheme for AFTA required that tariff rates levied on a wide range of products traded within the region be progressively reduced to no more than 5 percent. For the five original members (Indonesia, Malaysia, the Philippines, Singapore, and Thailand) and Brunei Darussalam (which together comprise the ASEAN-6), this tariff reduction was to be completed by 2003. A somewhat longer adjustment period was allowed for the four newer members, with Vietnam committed to reduce its CEPT to no more than 5 percent by 2006, Lao P.D.R. and Myanmar by 2008, and Cambodia by 2010. All import duties are to be eliminated by 2010 for the former six countries and by 2015 for the latter four.

8. **ASEAN members have made s ign ificant progress in the lowering of intra-regional tariffs through the CEPT scheme for AFTA** (Table 3). More than 99 percent of the products in the CEPT Inclusion List of the ASEAN-6 have been brought down to the zero percent tariff rate. Vietnam has been a member of ASEAN since 1995. It began to reduce its tariffs vis-à-vis the other ASEAN members in January 1996 and is expected to fully implement its AFTA commitments by June 2006. Currently it is not far from full implementation of these commitments. As of 2004, Vietnam's CEPT rates had fallen to an average of 5.9 percent, down from an average of 7.1 percent in 1999.

Table 3. ASEAN Members: Simple Average MFN Tariff Rate and CEPT Rates, 2002

	MFN Rate (%)	CEPT Rate (%)[1]
Brunei	2.6	1.0
Cambodia	16.4	8.9
Indonesia	7.3	3.7
Lao P.D.R.	9.5	6.7
Malaysia	8.3	2.6
Myanmar	5.5	4.7
Philippines	6.0	4.2
Singapore	0.0	0.0
Thailand	16.1	...
Vietnam	**16.5**	**6.9**

Sources: IMF Trade Policy Information Database (TPID); and Statistical Appendix.

[1]Common Effective Preferential Tariff scheme under AFTA.

[3] See Feridhanusetyawan (2005) for a comprehensive description of the Asia and Pacific RTAs.

[4] The ASEAN members are: Brunei Darussalam, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Vietnam.

©International Monetary Fund. Not for Redistribution

9. **The trade liberalization measures implemented under the AFTA, together with the region's rapid economic growth, have led to significant growth of trade among ASEAN countries in recent years** (Table 4). Vietnam's trade data, in particular, highlight its dramatic progress towards economic integration with both ASEAN as well as non-ASEAN members.

Table 4. Intra and Extra-ASEAN Trade, 1993-2003
(In millions of U.S. dollars)

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Percentage Change (1993-2003)	Percentage Change (1996-2003)
Total Intra-ASEAN trade													
Exports	44,324	59,464	71,291	82,751	87,374	71,333	77,452	97,887	87,043	88,828	103,277	133	25
Of which: Vietnam	643	893	1,112	1,778	2,022	2,020	2,516	2,619	2,555	2,437	2,958	360	66
Imports	40,082	48,601	55,980	67,203	67,866	54,991	61,111	78,085	71,812	77,000	81,828	104	22
Of which: Vietnam	1,318	1,690	2,378	2,992	3,245	3,386	3,291	4,449	4,172	4,769	5,949	351	99
Total Extra-ASEAN trade													
Exports	165,298	191,355	231,027	248,074	264,780	254,625	275,894	327,289	298,519	311,729	348,344	111	40
Of which: Vietnam	2,342	3,161	4,509	5,686	7,462	7,287	9,025	11,862	12,459	14,265	17,190	634	202
Imports	187,153	224,466	270,934	294,688	299,980	215,775	231,973	283,379	261,630	270,857	304,233	63	3
Of which: Vietnam	2,605	4,136	5,981	8,293	8,630	7,923	8,450	11,187	12,044	14,975	19,305	641	133

Sources: ASEAN Trade Statistics Database; and IMF, Direction of Trade database.

10. **The Asia Pacific Economic Cooperation (APEC) Forum is another regional initiative, which seeks to promote regional integration in tandem with continuing unilateral and multilateral liberalization**.[5] Since its inception, APEC has worked to reduce tariffs and other trade barriers across the Asia and Pacific region, and has been the cornerstone of a larger effort to deepen the policy dialogue and economic cooperation among countries in the region. The 1994 APEC Bogor Declaration was aimed at forming a free trade area in the region by 2010 for developed countries and by 2020 for developing countries. Rather than focusing on trade preferences, however, APEC trade liberalization is based on concerted unilateral liberalization in accordance with the most-favored-nation (MFN) principle. The current APEC tariffs are, in fact, below the world average (Table 5) and declining. Vietnam became a member of APEC in 1998. Its MFN tariff is still above regional and world averages. Vietnam's trade flows with APEC have become increasingly important in recent years (Table 6).

Table 5. Simple Average Tariffs, 2002
(In percent)

Vietnam	**16.5**
Asia and Pacific region	12.0
APEC	8.1
ASEAN	8.8
ASEAN-5	7.5
World	12.6

Source: IMF Trade Policy Information Database (TPID).

[5] APEC comprises: Australia, Brunei Darussalam, Canada, Chile, China, Hong Kong SAR, Indonesia, Japan, Korea, Malaysia, Mexico, New Zealand, Papua New Guinea, Peru, the Philippines, Russia, Singapore, Taiwan Province of China, Thailand, the United States, and Vietnam.

©International Monetary Fund. Not for Redistribution

Table 6. Vietnam. Trade with APEC Members, 1993-2003
(In millions of U.S. dollars)

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Percentage Change (1993-2003)	Percentage Change (1998-2003)
Vietnam exports to:													
APEC	2,211	3,019	4,079	5,363	6,449	6,257	7,602	10,223	10,283	11,970	14,839	571	137
of which:													
United States	1	95	170	204	287	469	504	733	1,066	2,453	3,940	393,856	740
Japan	937	1,179	1,461	1,546	1,675	1,514	1,786	2,575	2,510	2,437	2,909	210	92
China	305	493	619	653	906	759	982	1,853	1,735	1,859	2,253	639	197
Non APEC	774	1,035	1,542	2,100	3,035	3,050	3,939	4,259	4,732	4,732	5,309	586	74
Vietnam imports from:													
APEC	2,851	4,163	6,494	8,923	9,392	9,446	9,828	13,244	13,573	16,297	20,561	621	118
of which:													
United States	4	44	130	246	252	326	323	364	411	459	1,144	29,945	250
Japan	452	586	916	1,260	1,509	1,482	1,618	2,301	2,183	2,505	2,982	559	101
China	231	463	749	1,088	1,003	1,073	1,178	2,000	2,144	2,964	4,130	1,688	285
Non APEC	1,073	1,663	1,865	2,362	2,483	1,863	1,913	2,392	2,643	3,447	4,693	338	152

Source: IMF, Direction of Trade Database.

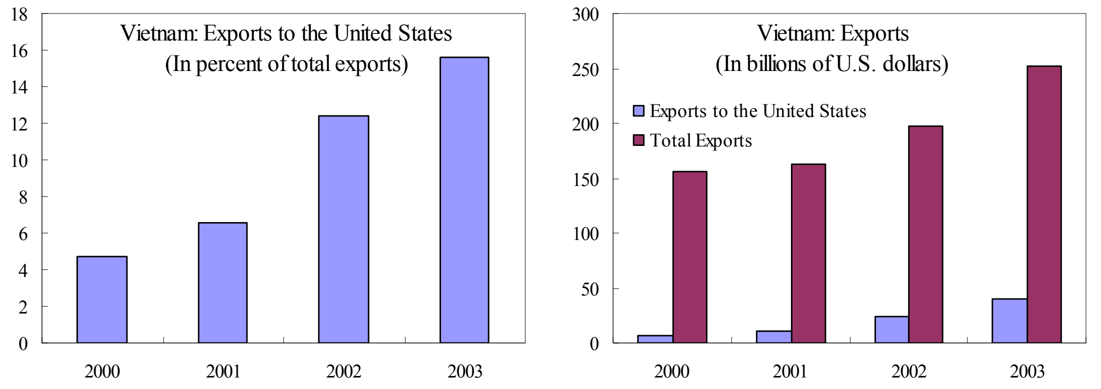
11. **Vietnam signed a bilateral trade agreement (BTA) with the United States in 2001**. Under the BTA, the United States granted MFN status to Vietnam's goods and services. As a result, tariffs on U.S. imports from Vietnam fell dramatically on average to around 3–4 percent from around 40 percent.[6] The BTA has required Vietnam to reduce its tariffs by 25–50 percent, mostly on agricultural products. In addition, it includes obligations on market access for trade in goods and services, intellectual property rights, foreign investment regulations, business facilitation, dispute settlement mechanisms, customs procedures, and transparency of laws and regulations. Because many of these obligations reflect similar commitments required by the World Trade Organization (WTO), the BTA has encouraged Vietnam to liberalize its economy in a way that should facilitate its prospective WTO accession (see below). In addition, the BTA has offered other WTO members a useful framework as a reference for their bilateral negotiations with Vietnam on its WTO accession. Following the implementation of the BTA, Vietnam's exports to the U.S. have risen dramatically, both in nominal terms and as a share of total exports (Figure 1).

12. **Vietnam applied to join the WTO in 1995 and has so far concluded bilateral negotiations with 20 WTO members**. It is expected to become a WTO member in 2006.

[6] CIEM and Star—Vietnam Project, (2003).

©International Monetary Fund. Not for Redistribution

Figure 1. Vietnam: Export Performance



Source: IMF, Direction of Trade Database.

C. The Gravity Model

13. **The gravity model is an empirical model of bilateral trade flows that is generally used to assess the extent of a country's trade flows with its partners**. This model is based on the idea that trade between two countries is normally a function of their "mass" (in this case GDP and population), as well as of the distance between them.[7] Gravity model estimations provide a useful framework for assessing the impact of RTAs on both the level and the direction of trade. The gravity model equation used in this chapter is as follows:

$$LnTrade_{ij}=\alpha+\beta_1 Ln[GDP_i GDP_j]+\beta_2 Ln[\frac{GDP_i}{Pop_i}\frac{GDP_j}{Pop_j}]+\beta_3 Ln[Dist_{ij}]+\beta_4 RTA_{ij}+\varepsilon \qquad (1)$$

This equation regresses the total trade between countries *i* and *j* on the economic size of the two countries (the product of their GDP), their level of development (proxied by the product of their GDP per capita), the distance between the economic centers of the two countries, and common membership in a regional agreement. A negative coefficient is expected on the distance variable and positive coefficients on all other variables. All variables are expressed in natural logarithms, with the exception of the variables representing RTAs which are dummy variables.

Data issues, methodology and specification

14. **The data sample used for the estimation of Equation (1) above includes 182 countries and 32,942 observations**. Actual bilateral trade data refer to the year 2002

[7] The authors associated with developing the theory underlying the gravity model include Deardorff (1984); and Helpman and Krugman (1985).

©International Monetary Fund. Not for Redistribution

and are extracted from the COMTRADE database. An OLS regression technique is used to estimate the coefficients of the explanatory variables, using cross-sectional data.

15. **The regression results are used to estimate the effects of two preferential arrangements on bilateral trade flows, APEC and ASEAN**. We also introduce in some regressions an "Asia effect" to capture the impact on trade of any other Asia-specific features of these economies, which may be unrelated to whether they are members of an RTA or not (e.g., to account for the dynamism of Asian economic growth). This makes it possible to separate the effects on trade of belonging to an RTA from the general effect of belonging to the Asian region.[8] We also test for the existence of a differential impact of membership in a subgroup of ASEAN—ASEAN-5—which includes the original ASEAN members. Because the ASEAN-5 have a lower average MFN tariff than the combined ASEAN members, we would expect to find a higher degree of trade creation as a result of belonging to the ASEAN-5 group, compared with the broader ASEAN group.

16. **Two different specifications of Equation (1) are used to capture the effects of membership in regional groups on trade flows**. The first specification identifies the extent to which an RTA promotes its members' overall trade, while the second identifies whether this occurred at the expense of trade with nonmembers (see Annex II.1 for more details). In particular:

- The first specification, which is the basic gravity model framework, estimates the effect of an RTA on intra-members trade. Membership in each RTA is represented by a dummy variable, *RTA*2, where the suffix 2 implies that both countries, *i* and *j,* are members of the same RTA. *RTA2* is equal to 1 when both countries are members of the same RTA and 0 otherwise. A positive coefficient for the *RTA*2 variable indicates that the RTA tends to generate more trade among its members.

- The second specification aims to disentangle the effects of an RTA on bilateral trade flows between members and nonmembers. In doing so, it provides an indication of whether an RTA is more likely to produce trade creation or trade diversion. This specification includes an additional dummy, *RTA*1, where the suffix 1 implies that either *i* or *j* belongs to the tested RTA. *RTA*1 takes the value 1 if the pair includes one country that belongs to the tested RTA and one that does not, and zero otherwise. The coefficient of *RTA*1 captures the amount of trade between one RTA member and one non-RTA member relative to trade between a random pair of countries that are not members of that RTA. A negative coefficient on the *RTA*1-dummies implies that trade between a member of an RTA and a nonmember is smaller, on average, than that between two otherwise similar countries that are not RTA members. This suggests possible trade diversion.

---

[8] Soloaga and Winters (2001) also introduce an Asia effect in their model.

©International Monetary Fund. Not for Redistribution

The results are reported in Table 7, columns i, and ii. For each specification, seven regressions are estimated to measure the effects of membership in several—and sometimes simultaneous—RTAs on bilateral trade flows.

D. Empirical results

17. **The empirical estimates show that all three standard gravity variables—economic size, per capita income, and bilateral distance—are statistically significant at the 99 percent confidence level and have the expected signs** (Table 7). Size and per capita income have positive coefficients, while the distance variable has the expected negative coefficient. For example, in regression 1 (Column i), the coefficient on GDP is equal to 1.07 and the coefficient on the GDP per capita is equal to 0.16, which confirms the familiar pattern that trade increases as the country's size increases and that higher-income countries trade more than poorer ones. The estimated negative coefficient on distance indicates, as expected, that bilateral trade flows decrease as distance increases, reflecting higher transportation costs. In particular, when the distance between two countries is increased by 1 percent, trade between them falls by 1.13 percent.

18. **The results under the first specification indicate that the RTAs established under the auspices of the ASEAN and APEC have generally had a positive impact on bilateral trade flows among their members.** The coefficients of the regional dummies in regressions 1, 5, 6 and 7, in particular, are all highly significant and positive. More specifically:

- While the results of regression 6 suggest that trade between two ASEAN countries is four times larger than between two otherwise similar countries, ASEAN countries are estimated to trade only 1.2 times more than any other similar pairing of countries when we test simultaneously for the ASEAN and APEC effects (regression 5).[9] Moreover, the coefficient on the ASEAN dummy is no longer significant when tested simultaneously with dummies for Asia and/or APEC (regressions 2 and 4). These results suggest that it may be difficult to disentangle the extent to which the high degree of intraregional trade is attributable to membership in each of these groups (with eight of the eleven ASEAN members also belonging in APEC, the ASEAN and APEC dummy variables are highly collinear). Previous studies have found a larger effect of ASEAN on intra-ASEAN trade.[10] However, these studies did not include any dummy variables to capture the possible APEC and Asia-specific effects.

---

[9] The estimated change in trade when a dummy variable is equal to one is calculated as the exponential of the estimated coefficient minus one (i.e. [exp(1.649)-1=4.2] and [exp(0.806)-1=1.2], respectively).

[10] Frankel (1997) found that ASEAN countries trade 6 times the amount that would be traded by two otherwise similar countries and concluded that ASEAN is one of the most significant trading areas in the world. See also Wang and Winters (1991).

©International Monetary Fund. Not for Redistribution

Table 7. Estimations of the Gravity Equation 1/

	Regression 1		Regression 2		Regression 3		Regression 4		Regression 5		Regression 6		Regression 7	
	(i)	(ii)	(i)	(ii)	(i)	(ii)	(i)	(ii)	(i)	(ii)	(i)	(ii)	(i)	(ii)
Intercept	-7.165**	-5.718	-7.157**	-5.728**	-7.176**	-5.853**	-7.389**	-6.407**	-6.956**	-5.766**	-7.234**	-6.997**	-6.942**	-5.801**
	(.2950)	(.3181)	(.2954)	(.3198)	(.2951)	(.3182)	(.2939)	(.3032)	(.2955)	(.3154)	(.2948)	(.2950)	(.2950)	(.3134)
Independent variables:														
GDP_i,GDP_j	1.069**	1.048**	1.069**	1.048**	1.069**	1.048**	1.078**	1.072**	1.064**	1.027**	1.076**	1.062**	1.065**	1.029**
	(.0076)	(.0084)	(.0076)	(.0084)	(.0076)	(.0084)	(.0075)	(.0077)	(.0076)	(.0082)	(.0076)	(.0077)	(.0076)	(.0082)
$GDPi/Pop_i{*}GDPj/Pop_j$	0.156**	0.164**	0.156**	0.165**	0.156**	0.1678**	0.155**	0.167**	0.154**	0.169**	0.153**	0.173**	0.154**	0.164**
	(.0111)	(.0111)	(.0112)	(.0113)	(.0111)	(.0111)	(.0112)	(.0113)	(.0112)	(.0113)	(.0112)	(.0114)	(.0011)	(.0111)
Distance	-1.129**	-1.289**	-1.129**	-1.289**	-1.128**	-1.277**	-1.120**	-1.262	-1.137**	-1.235**	-1.125**	-1.164**	-1.138**	-1.227**
	(.0274)	(.0298)	(.0274)	(.0299)	(.0274)	(.0298)	(.0274)	(.0296)	(.0275)	(.0285)	(.0275)	(.0277)	(.0274)	(.0284)
Asia and Pacific 2	1.270**	1.259**	1.285**	1.255**	1.257**	1.149**	1.494**	1.595**	...	...	...	...	...	...
	(.1294)	-0.1356	(.1328)	(.1418)	(.1298)	(.1365)	(.1295)	(.1353)	...	...	...	...	...	...
Asia and Pacific 1	...	0.501**	...	0.484**	...	0.438**	...	0.586**	...	...	...	...	...	...
	...	(.0557)	...	(.0592)	...	(.0564)	...	(.0566)	...	...	...	...	...	...
APEC 2	1.527**	1.647**	1.542**	1.652**	1.466**	1.313**	...	...	2.036**	2.239**	...	...	2.002**	1.942**
	(.2218)	(.2279)	(.2238)	(.2309)	(.2267)	(.2356)	...	...	(.2185)	(.2236)	...	...	(.2204)	(.2267)
APEC 1	...	0.367**	...	0.357**	...	0.197**	...	...	...	0.597**	...	...	...	0.457**
		(.0687)		(.0701)		(.0729)				(.0664)				(.0684)
ASEAN 2	...	...	-0.235	-0.305	...	...	0.200	0.187	0.806†	0.579	1.649**	1.737**	...	...
	...	...	(.4786)	(.4789)			(.4751)	(.4750)	(.4676)	(.4679)	(.4600)	(.4588)	...	...
ASEAN 1	...	...	...	0.071	...	...	...	0.183**	...	0.384**	...	0.722**	...	...
	...	...	...	(.0866)	...	...	...	(.0848)	...	(.0811)	...	(.0752)	...	...
ASEAN-5, 2	...	...	...	...	1.150	1.517†	...	...	...	...	...	...	1.815*	2.058*
	...	...	...	...	(.8714)	(.8672)	...	...	...	...	...	...	(.8717)	(.8671)
ASEAN-5, 1	...	...	...	...	...	0.745**	...	...	...	...	...	...	...	0.934**
	...	...	...	...	...	(.1093)	...	...	...	...	...	...		(.1080)
Adjusted R squared	0.682	0.685	0.682	0.685	0.682	0.686	0.681	0.684	0.680	0.683	0.679	0.680	0.680	0.684
Standard error of regression	3.865	3.845	3.866	3.845	3.866	3.840	3.871	3.852	3.877	3.858	3.887	3.875	3.876	3.851

Source: Author's estimations. GDP and population data from WEO. Distance data from CEPII database. Trade data from COMTRADE.

1/ The dependent variable is the bilateral trade of 182 countries in 2002. Data do not include Brunei Darussalam and Taiwan Province of China. Trade is defined as the sum of exports and imports. Standard error in parenthesis. ** , * and † denote significantly different from zero at 99 percent, 95 percent level, and 90 percent respectively. The regional variables (Asia and Pacific, APEC, ASEAN and ASEAN-5) are dummy variables. Regional 2 variables (i.e., ASIA 2, APEC 2, ASEAN 2, ASEAN-5, 2) take value 1 if both countries (i and j) in the pair belong to the tested regional group. Regional 1 variables (i.e., ASIA 1, APEC 1, ASEAN 1, ASEAN-5, 1) take value 1 if one of the countries (i or j) in the pair belongs to tested regional group. All variables, except dummy variables, are in logs. The standard errors and R-squared values were adjusted to correct for the duplication of observations present in the original data set based on 32,942 observations, while the corrected number of observations is 16,471.

©International Monetary Fund. Not for Redistribution

- Trade among the ASEAN-5 countries is five times greater than that between two otherwise similar countries, even after allowing for an APEC effect (regression 7). The difference in the results when we test for an ASEAN-5 effect—as opposed to a broader ASEAN effect, as in equation 5—may be partly due to the fact that the ASEAN-5 countries have liberalized their trade regimes to a considerably greater extent than the broader ASEAN group (Table 5). Therefore the positive impact of membership in the ASEAN-5 group is greater than that of membership in the broader group of ASEAN countries.

- The results of regression 1 suggest that two Asian countries trade 2.6 times more than two similar countries of which at most one belongs to the Asia region, even when we test simultaneously for the effect of APEC membership.

- The dummies on APEC show a consistently high degree of intraregional trade for its member countries. Two APEC countries tend to trade 3.6 times more than another similar pair of non-APEC countries when we control for an Asia effect (regression 1). This estimate is similar to those found in previous studies (e.g., Frankel (1997)).

19. **The estimation results for the second specification suggest that the regional trade agreements within all the groups under consideration (APEC, ASEAN, ASEAN-5) have been trade-creating in a broader context**. This is an important result. Given that the coefficients on both the *RTA*2 and *RTA*1 dummies are positive for all regional groups wherever they are statistically significant (as in equations 1, 3, 6 and 7), the evidence strongly suggests that membership in any one of these groups is associated with increasing trade both with members and nonmembers of the group. More specifically:

- In regression 5, both ASEAN and APEC members are estimated to have traded more with both each other and with nonmembers than would have been predicted by a standard version of the gravity model that abstracts from the effects of RTAs, as both coefficients on the *RTA1* dummies have positive signs.[14]

- When possible trade-creation and trade-diversion effects are both allowed for, the trade between two APEC countries is estimated to be 4.2 times greater than the trade between a member of APEC and a non-APEC member (regression 5).[15]

---

[14] A negative coefficient in ASEAN 1 or APEC 1 would have pointed to possible trade diversion.

[15] This estimated effect is significantly lower than the corresponding estimate in the first specification of regression 5. This is because the APEC 2 coefficient in the first specification measures trade between two APEC countries relative to any other pair of similar countries, while in the second specification the comparison is with a pair composed of one APEC and one non-APEC country.

©International Monetary Fund. Not for Redistribution

- Bilateral intra-ASEAN trade is estimated to be 180 percent greater than the bilateral trade of ASEAN members with nonmembers (regression 6); however, the effect of ASEAN membership in no longer significant when an APEC effect is introduced (regression 5).

E. Does Vietnam Overtrade or Undertrade with its Neighboring Partners?

20. **The gravity model specified in the previous section fits Vietnam's actual trade flows on average very well.** Table 8 reports Vietnam's actual versus predicted trade flows based on the estimates of the gravity model. The model's estimates explain Vietnam's cross-country trade particularly well when the dummies for Asia and APEC are included as explanatory variables in addition to the standard variables of the gravity model.[16] [17] More specifically:

- The model appears to account for 84 percent of Vietnam's world trade flows, and it provides at least as good an account of its trade with emerging Asia and NIEs.

- The differences between the actual and predicted trade values between Vietnam and the APEC countries, as well as the Asia and Pacific region as a whole, indicate that there is still, on average, some unexploited trade potential.

- The model points to a significant amount of overtrading between Vietnam and ASEAN countries (i.e., actual trade flows are higher than those predicted by the model). However, these results may be largely due to the estimated overtrade with Singapore, which is not particularly surprising given the role Singapore plays as a transshipment trade center. This interpretation is corroborated by the positive sign on the estimated coefficient for ASEAN1 in regression 6.

---

[16] The fitted values are based on the second specification of the gravity model that allows for a separation of trade-creating and trade-diverting effects.

[17] The predicted values reported in Table 8 are based on regression 1 (Table 7, coulum ii) for a number of reasons. Coefficients on the regional dummies in regressions 2, 4 and 5 are not significant, and therefore it is not possible to use these specifications to assess the possible undertrade/overtrade of Vietnam with its partners. Regression 6 (Table 7) does not provide a good enough fit for the purposes of this exercise, in that the ASEAN dummy, together with the other standard variables of the gravity model, explains only about 20 percent of Vietnam's trade flows with its neighboring countries.

©International Monetary Fund. Not for Redistribution

Table 8. Vietnam Bilateral Trade: Actual Versus Predicted Trade
(Based on Table 7, equation 1, column ii)

Vietnam's Regional Trading Partners	Actual 2002	Predicted (gravity model)	Predicted-to-Actual Trade Ratio[1] (In percent)
	(In millions of U.S. dollars)		
Japan	5,031	10,971	218
Singapore	3,471	367	11
China	3,275	3,386	103
United States	3,041	2,794	92
Hong Kong SAR	1,061	2,318	218
Malaysia	1,010	332	33
Thailand	955	1,026	107
Indonesia	622	290	47
Russian Federation	582	119	20
Korea, Dem. Rep.	470	1,697	361
Philippines	382	262	68
India	354	231	65
Emerging Asia	11,600	9,908	85
NIEs	5,003	4,382	88
East Asia	7,972	6,291	79
Asia and Pacific	18,418	21,345	116
ASEAN-5	2,969	1,909	64
ASEAN	6,574	2,297	35
Non ASEAN	23,876	23,352	98
APEC	21,910	24,229	111
Non APEC	8,540	1,420	17
Euro zone	6,320	853	13
World	30,450	25,648	84

Sources: Actual data from COMTRADE database; and author's estimations.
1/ One hundred indicates perfect prediction of Vietnam's actual bilateral trade by the gravity model. Numbers below (above) 100 indicate that Vietnam currently overtrades (undertrades) with the corresponding country, compared to what is predicted by the gravity model. Data do not include Brunei Darussalam and Taiwan Province of China.

- The model accounts almost fully for bilateral trade flows between Vietnam and China, but it points to significant undertrading with Japan, which would seem to suggest that there remains considerable potential for future expansion of trade between the two countries. This result could be due to the fact that Japan granted MFN status to Vietnam only in 1999, and therefore there is still scope for Vietnam to

©International Monetary Fund. Not for Redistribution

increase its exports to Japan in the future.[18] The same result applies to Korea and, to a smaller extent, Hong Kong SAR.

- The model suggests that there is a large amount of overtrading with the Euro zone and the Russian Federation. To a large extent, this may reflect Vietnam's past political, historical, and cultural links with these areas, which are not captured in the standard gravity model of trade used in this chapter.

- The data appear to predict accurately bilateral trade with the United States. The specification of the gravity model, however, does not include any dummy to capture the effect of the 2001 BTA. Should this effect be included in the model, the data would probably show that there is still some unexploited trade potential between Vietnam and the United States.

F. Conclusions

21. **Vietnam has made considerable progress in integrating its economy at both the regional and multilateral levels.** Vietnam's trade flows with ASEAN and APEC countries have increased rapidly over the last decade, with the help of its participation in these trade agreements. The BTA signed in 2001 with the United States has also been conducive to a sharp expansion in exports to the U.S., and is likely to have had a salutary impact on multilateral liberalization. In all, Vietnam has made impressive progress towards opening its trade system since the early 1990s, and it has made great strides in increasing its export market share. These developments attest to the successful implementation of an outward-oriented growth strategy. Nevertheless, the level of Vietnam's MFN tariff remains relatively high, possibly reflecting ongoing tariffication of nontariff trade barriers, and there is room for significant further progress towards multilateral trade liberalization in the period ahead.

22. **The results of the gravity model suggest that APEC and ASEAN-5 have indeed promoted trade among their members.** The estimated equations also indicate that participation in these groupings has not generally led to trade diversion. This could be due to the fact that the main participants in these groups already have a relatively liberal trade regime, including significantly lower than average tariff rates. As a result, the risks of trade diversion have been small. The empirical results have also corroborated the finding of previous studies that APEC's open regionalism approach has had particularly strong trade-creating effects.

23. **The trade-creating effects of ASEAN membership, however, appear to have been less pronounced**. The reason for this could be that the average MFN tariff of the ASEAN

[18] The data used in the gravity model refer to the year 2002 (i.e., only three years after Japan granted MFN status to Vietnam).

©International Monetary Fund. Not for Redistribution

members is still higher than the average MFN tariff of other groups. These considerations reinforce the need for ASEAN members with more restrictive trade regimes to continue to decrease their MFN tariffs along with their ongoing integration in the regional markets, so as to minimize the risks of possible trade diversion.

24. **A comparison between the actual and predicted values of the estimated gravity model of trade indicate that there may still be unexploited trade potential between Vietnam and other countries in the Asia and Pacific region**. In particular, there would appear to be considerable scope for a continuing expansion of Vietnam's exports to Japan. While the model provides a reasonably good fit for trade flows with the United States as a member of APEC, it does not take into account the effects of the more recently-signed BTA. As a result, it may tend to underestimate the scope for further increase in trade with the United States. The model provides a poor fit for trade flows with the EU and the Russian Federation, possibly because it does not take into account important historical links.

25. **Although multilateral and regional trade liberalization are not necessarily inconsistent frameworks, regional integration cannot be a substitute for multilateral liberalization**. Thus, while continuing to enhance Vietnam's intra-Asian integration may be desirable, the government would be well-advised to also strengthen the outward-orientation of its policies vis-à-vis the rest of the world. In this connection, the government's efforts to join the WTO in the near future are warranted and are worthy of the international community's support. Continuing multilateral liberalization should serve to ensure that Vietnam will reap the benefits from its regional economic integration to the fullest extent possible without suffering from any significant trade diversion.

©International Monetary Fund. Not for Redistribution

References

CIEM and Star—Vietnam Project, 2003, An Assessment of the Economic Impact of the United States—Vietnam Bilateral Trade Agreement, Vietnam Central Institute of Economic Management and USAID.

Deardorff, A., 1984, "Testing Trade Theories and Predicting Trade flows," in *Handbook of International Economics*, Vol. 1, ed. by R. Jones and P. Kenen (Amsterdam: Elsevier Science Publisher).

Feridhanusetyawan, T., 2005, "Preferential Trade Agreements in the Asia-Pacific Region," IMF Working Paper 05/149 (Washington: International Monetary Fund).

Frankel, J., 1997, *Regional Trading Blocs*, (Washington DC: Institute for International Economics).

Fukase, E., and W. Martin, 1999, "A Quantitative Evaluation of Vietnam's Accession to the ASEAN Free Trade Area (AFTA)," Policy Research Working Paper No. 2220, (Washington DC: The World Bank).

Helpman E., and P. Krugman, 1985, *Market Structure and Foreign Trade* (Cambridge Massachusetts: MIT Press).

Soloaga, I., and A. Winters, 2001, "Regionalism in the Nineties: What Effect on Trade," *North American Journal of Economics and Finance,* No. 12, pp. 1-29.

Thornton, J., and A. Goglio, 2002, "Regional Bias and Intra-regional Trade in Southeast Asia," *Applied Economic Letters*, Vol. 9, pp. 205-208.

Wang, Z., and A. Winters, 1991, "The Trading Potential of Eastern Europe," Centre for Economic Policy Research, Discussion Paper Series, No. 610, UK.

Wei, S., and J. Frankel, 1997, "Open versus Closed Regional Trade Blocs," in *Regionalism versus Multilateral Trade Arrangements*, ed. by T. Ito and A. Krueger (Chicago University Press).

©International Monetary Fund. Not for Redistribution

Gravity Model Specifications

The first specification of the gravity model is as follows:

$$LnTrade_{ij} = \alpha + \beta_1 Ln[GDP_i GDP_j] + \beta_2 Ln[\frac{GDP_i}{Pop_i}\frac{GDP_j}{Pop_j}] + \beta_3 Ln[Dist_{ij}] + \beta_4 RTA2 + \varepsilon \quad (2)$$

The coefficient of the $RTA2$ dummy, β_4, measures the amount of trade between two members of the same RTA in excess of that between two countries at least one of which is not a member of that RTA.

The second specification is as follows:

$$LnTrade_{ij} = \alpha + \beta_1 Ln[GDP_i GDP_j] + \beta_2 Ln[\frac{GDP_i}{Pop_i}\frac{GDP_j}{Pop_j}] + \beta_3 Ln[Dist_{ij}] + \beta_5 RTA2 + \beta_6 RTA1 + \varepsilon \quad (3)$$

The coefficient of $RTA1$, β_6, expresses the amount of trade between one RTA member and one non-RTA member relative to that of two non-RTA members. The coefficient on the $RTA2$ dummy, β_5, now represents the extra amount of trade between two RTA members relative to that of two non-RTA members. Finally, the difference between the $RTA2$ and $RTA1$ dummies represents the level of trade between two RTA members relative to that of one RTA member and one non-RTA member. Because the second specification makes it possible to disentangle the effects of trade among members and non-members of RTAs, it provides an indication as to whether RTAs in the region may have been trade creating or trade diverting.

While the coefficients of the dummies of the first specification measure the extra amount of trade between two member countries of a regional group compared with “any other pairing,” the second specification is able to further distinguish within the “any other pairing” group the extra trade between a member of the regional group and a country that does not belong to that group. For example, in the case of a dummy for ASEAN, the first specification could measure the extra amount of trade between Vietnam and Indonesia because of their common membership to ASEAN, relative to any other pair of countries of which at most one belongs to ASEAN (e.g., Vietnam and Albania, or Albania and Angola), but without distinguishing among them. The second specification, however, can distinguish the pair Vietnam and Albania (i.e., when at least one country is part of ASEAN), from a pair of countries where neither belongs to ASEAN, such as Albania and Angola.

In the first specification (Table 7, Column i,), the $RTA2$ dummy takes value 1 when both countries belong to the same RTA and 0 otherwise (e.g., either when both countries are nonmembers of RTAs, or when only one country in the pair is a member of an RTA). In the second specification (Table 7, Column ii), $RTA1$ takes value 1 if the pair includes one

©International Monetary Fund. Not for Redistribution

country that belongs to the tested RTA and one that does not, and zero otherwise. An example regarding ASEAN RTA is shown in the matrix below.

		Column (i)	Column (ii)	
		ASEAN 2	ASEAN 2	ASEAN 1
Vietnam	Indonesia	1	1	0
Vietnam	Albania	0	0	1
Albania	Angola	0	0	0

©International Monetary Fund. Not for Redistribution

III. The Size, Benefits, and Determinants of Migrants' Remittances in Vietnam[1]

A. Introduction

1. The role workers' remittances play in economic development, their determinants, and the channels through which they are transferred have attracted renewed attention in the economics literature in recent years. Vietnam has not been well-covered in that literature despite the large size of the remittances it receives. However, important progress has been made in recent years in improving data reporting on remittances and in understanding the various channels through which they are transferred to Vietnam.[2] Building on this progress, this chapter aims to highlight the macroeconomic significance and main determinants of Vietnam's remittances.

2. The chapter is structured as follows. Section B provides an overview of the size, sources, likely measurement errors, and relative importance of remittances in Vietnam's balance of payments. Then, Section C discusses their potential benefits, while Section D identifies the main policy and non-policy variables that are likely to affect their evolution. Section E concludes by drawing some policy implications.

B. Vietnam's Migrants' Remittances and their Macroeconomic Relevance

3. There is currently no public record of the number of Vietnamese migrants abroad or their incomes. Available estimates are mostly based on incomplete information and anecdotal evidence gathered by officials, observers, and participants in the market for cross-border transfers. Most Vietnamese migrants are permanent residents abroad (*Viet Kieu*), but there is also a smaller number of temporary migrants. It is estimated that permanent migrants of Vietnamese origin abroad are about 3 million (close to 4 percent of the country's population). Most of them live in the United States, but large numbers also live in Germany, Australia, and Canada (Table 1). The majority of the migrants in the United States reportedly left Vietnam during the mid-to late-1970s, soon after the war, or are relatives of those who left at that time.

4. As mentioned above, in addition to permanent migrants, there is a growing number of Vietnamese workers who emigrate to seek temporary employment. Their initial work contracts are usually for terms of 2–3 years. However, some migrants reportedly overstay the initial terms to accumulate more savings after having paid for travel expenses and the official and middlemen fees associated with securing their contracts and work permits. In the 1970s, most temporary workers tended to migrate to countries of the former CMEA, including the former Soviet Union and the Czech Republic. However, since the 1980s, the government has

---

[1] Prepared by Khaled Sakr.

[2] See Hernandez-Cross (2005) for a detailed study of transfer channels in Vietnam.

©International Monetary Fund. Not for Redistribution

Table 1. Approximate Number of Permanent Vietnamese Migrants

	(In millions of migrants)
U.S./Canada	1.5
Western Europe	0.5
Eastern Europe	0.3
Australia	0.3
Asia	0.3
Total	2.9

Source: Estimates provided by commercial bank representatives and other market participants.

encouraged migrants to seek employment in a wider range of destinations, including East Asia, Western Europe and the Middle East. Temporary migrants are currently estimated at about 300-400 thousand, and most of them work in East Asian countries (Table 2).

Table 2. Number of Vietnamese Temporary Workers in Selected Countries

	(In thousands)
Taiwan Province of China	100
Malaysia	90
South Korea	25

Source: Estimates provided by Ministry of Labor experts.

5. Temporary migrants are usually hired through privately-run or government-owned employment agencies in Vietnam to work as domestic service providers or other low-paid jobs in construction and manufacturing. They are typically less skilled than permanent migrants (who are usually trained professionals or own small businesses) and earn US$100–350 per month, on average, excluding food and accommodation, which are often provided by their employers free of charge. When food and accommodation are not included, which is usually the case for more skilled labor, temporary workers' average monthly salary is reported to be US$500–600.

6. While permanent migrants generally earn higher incomes than temporary workers abroad, the portion of income that they remit is reported to be smaller. This is due to the relatively closer ties permanent migrants have formed with their host countries, including that they are more likely to support non-working family members who live with them abroad. Nonetheless, in absolute terms, the average amount remitted by permanent migrants is likely to be substantially higher than the average remitted by temporary workers. The aggregate amount remitted is also much higher for permanent migrants due to the fact that they constitute about 90 percent of total migrants.

7. Vietnam's official balance of payments statistics started to report remittances only in 1991, and they have only covered flows through official channels, which include the banking system, licensed transfer companies, and postal and customs offices. Thus, measured

©International Monetary Fund. Not for Redistribution

remittances do not include transfers through informal channels, which are reported to have been substantial, especially during the 1990s. However, the under-reporting of remittances is likely to have declined in recent years with the progressive liberalization of the exchange system and its improved integration with international transfer networks (Box 1). This has likely contributed to the sharp increase in measured remittances (see below).

Box 1: Government Policies and Decisions Affecting Remittances

The factors that have encouraged the flow of remittances through official channels in recent years have been as follows:

- Arbitrary treatment of formal transfers, which in the past included possible seizure, has been discontinued, and the process of monitoring has been relaxed.
- Migration and remittances have been encouraged by a number of labor and immigration regulations implemented since the mid-1990s. These have included Government Decree No. 12/1995/ND-CP on social security registration, Government Decree No. 152/1999/ND-CP and Circular No. 28/1999/TT-BLDTBXH on the implementation of the Labor Code with regard to temporary workers abroad, and Decree No. 05/2000 on the exit and entry of Vietnamese citizens. Aside from facilitating migration, these decisions are likely to have affected remittances through their positive impact on market confidence.
- A 5 percent tax on remittances was removed in 1997, and the personal income tax on them was removed in August 1999 (Government Decision No. 170-1999-QD-TTg).
- Regulations mandating that transfers can be withdrawn only in local currency were removed in August 1999 (Decision No. 170 above). At present, transfers can be withdrawn in foreign currencies or maintained in bank accounts in these currencies.
- Large transfer companies, such as Western Union and Moneygram, have been allowed to operate in the market and to form alliances with local banks. This has given migrants access to a large distribution network that covers Vietnam's most important urban and rural areas.
- Government Decree No. 81-2001-ND-CP allowed *Viet Kieu* to purchase residential housing in Vietnam. This right was reasserted by a recent Joint Ministerial Circular (02-2005-TTLT-BKH-BTP-BNG-BCA), which also further liberalized regulations governing investments by foreigners and *Viet Kieu (e.g.,* by removing the 30 percent cap on ownership of a single company if that company is not governed by the Law on State-Owned Enterprises).

8. The compilation of data on remittances has also been complicated by some additional conceptual and measurement problems. Workers' remittance should in principle include only those that are remitted by Vietnamese workers who are not permanent residents of the host country.[3] As already noted, this is not the case for the bulk of remittances in Vietnam, which is the reason behind this chapter's focus on migrants' remittances in general rather than workers' remittances as narrowly defined. A second important principle in defining remittances is that they should be unrequited, meaning that they are not in exchange for

[3] The treatment of migrants' transfers in the BOP is however very similar to workers' remittances as both would be reported under "private transfers" in the current account, albeit in two different subcategories.

©International Monetary Fund. Not for Redistribution

provision of services or acquisition of goods or assets by non-residents. However, it is not clear what portion of the remittances recorded in the official balance of payments statistics are pure unrequited remittances versus transfers in payment for acquisition of real estate or other assets by *Viet Kieu* residing abroad. Such transactions should normally be recorded in the capital account, mostly under foreign direct investment or portfolio investment as appropriate. It is important to keep these considerations in mind when analyzing the official data as well as unofficial reports.

9. Market participants estimate that the majority of migrants (i.e., *Viet Kieu*) remit annually US$500-1000 each through official channels, compared to US$300–500 for temporary workers abroad. This would imply total annual remittances in the range of US$1.5 to 3.0 billion; the upper bound of this range is in line with the official data for recent years (Table 4). As noted earlier, however, these data exclude remittances through informal channels, which are another US$1.5–3.0 billion by some estimates. Nevertheless, these estimates are subject to a wide margin of uncertainty, and many observers believe that most of the remittances are already being channeled through the formal channels. It is worth noting that, if one were to assume that the size of unreported remittances is significant, and if these remittances were to be fully recorded in the balance of payments, the net errors and omission figure would become a large negative number, indicating large unreported outflows.

10. Remittances have recorded an impressive rate of growth since the early-1990s, with their annual flow surging from a mere US$35 million in 1991 to almost US$3 billion by 2004 (Table 3).[4] As a result, remittances have become an increasingly important source of foreign exchange, as their coverage of merchandise imports increased sharply from less than 2 percent to almost 10 percent during the same period, despite the sustained rapid growth of imports. In addition, the size of remittances in 2004 was substantially larger than that of equity FDI or ODA disbursements.[5] These indicators place Vietnam within the group of developing countries that rely extensively on remittances to finance their balance of payments (Table 4).

---

[4] Remittances data used in Table 3, and in the regression analysis below, have been provided by the SBV's Balance of Payments Division. Data compiled by the SBV's Foreign Exchange Department point to somewhat larger inflows of remittances during 2000–04.

[5] Reference is made here to *equity* rather than *total* FDI due to the data problems surrounding the measurement of the latter, particularly with regard to its loan disbursements component.

©International Monetary Fund. Not for Redistribution

Table 3. Vietnam Worker's Remittances in Relation to Selected Macro Variables

Year	Remittances[1]	GDP	Imports[2]	Trade Balance[2]	FDI[3]	ODA[3]	FDI+ODA[3]
	(In millions of US$)	(In percent)					
1991	35	0.46	1.66	-55.73	10.90	63.75	9.31
1992	59	0.60	2.33	-98.66	13.76	92.04	11.97
1993	70	0.53	1.68	-5.95	10.28	36.08	8.00
1994	170	1.04	2.87	-9.12	12.15	128.79	11.11
1995	474	2.29	5.67	-15.02	35.97	138.57	28.56
1996	1,050	4.26	10.02	-33.41	92.17	216.05	64.61
1997	710	2.65	6.79	-53.99	64.35	97.92	38.83
1998	950	3.50	9.18	-96.80	137.24	98.15	57.23
1999	1,050	3.66	10.04	97.22	119.18	95.37	52.98
2000	1,340	4.30	9.52	354.80	137.18	89.52	54.17
2001	1,100	3.38	7.64	175.44	103.09	99.28	50.57
2002	1,767	5.04	10.05	-201.65	93.89	146.69	57.25
2003	2,100	5.31	9.25	-81.00	162.29	150.37	78.05
2004 [4]	2,919	6.45	10.29	-123.27	242.44	186.21	105.32
2005 [4]	3,000	5.89	8.58	-88.12	184.68	175.43	89.97

Sources: Vietnamese authorities; and staff estimates.

[1]Remittances figures as reported by the Balance of Payments division of the SBV (figures reported by the Foreign Exchange Department are somewhat larger).

[2]Merchandise imports and trade balance.

[3]Equity FDI, and ODA loan disbursements and official transfers.

[4]In their BOP estimates, staff use somewhat smaller remittances figures for 2004 and 2005.

Table 4. Remittances in Selected Developing Countries
(The largest 20 recipients in 1990-2003)

Country	1990-03[1]	Country	1990-03[1]	2003
	(In Percent of GDP)		(In billions of US$)	
Lesotho	41	India	7.0	...
Tonga	26	Mexico	6.4	16.6
Lebanon	25	Philippines	5.0	7.9
Samoa	22	Egypt	3.8	3.0
Jordan	21	Turkey	3.3	0.7
Bosnia and Herzegovina	19	Morocco	2.3	3.6
Kiribati	18	Lebanon	2.2	...
Cape Verde	17	Russia	2.2	1.1
Albania	17	Brazil	2.0	2.3
West Bank and Gaza	16	Pakistan	1.9	4.0
Yemen	13	Bangladesh	1.6	3.2
El Salvador	13	Jordan	1.5	2.2
Moldova	12	Thailand	1.4	1.6
Grenada	11	Serbia and Montenegro	1.3	...
Jamaica	11	China	1.3	4.6
Serbia and Montenegro	10	Colombia	1.2	3.1
Vanuatu	8	El Salvador	1.2	2.1
Haiti	8	Yemen	1.1	1.3
Georgia	8	Iran	1.1	...
St. Kitts and Nevis	8	Dominican Republic	1.1	2.3
Vietnam	3	Vietnam	1.0	2.1

Sources: Balance of Payments Statistics Yearbook; and Vietnamese authorities.
[1] Period's average.

©International Monetary Fund. Not for Redistribution

11. A large share of the transfers received by Vietnam are unrequited remittances in the form of cash gifts to family members to help meet living expenses, finance education, or help them start small businesses. Part of these remittances is brought in cash or transferred around the Chinese Lunar New Year (*Tet*) to help finance the holiday celebrations. As mentioned earlier, however, another substantial part of the transfers may be reported as remittances, but may in fact represent payments for permanent migrants' own investments in real estate, the capital market, and small businesses. Such investments are sometimes reported as unrequited transfers, rather than FDI or portfolio investment, when the ownership may need to be registered in the name of a family member, who is a citizen and legal resident of Vietnam, to avoid the more burdensome administrative requirements or procedures required for nonresidents. As already noted in Box 1, the government has been relaxing these requirements in recent years to encourage investments by permanent migrants, including by allowing them to legally buy real estate and to register such property to themselves.

C. The Benefits from Workers' Remittances

12. Workers' remittances bring several benefits to the recipient economy.[6] Most importantly, they provide balance of payments support and can contribute to economic growth and poverty reduction. The likelihood and magnitude of these benefits are determined by the specific characteristics of the recipient country and its migrants. It can be argued that these characteristics in the case of Vietnam increase the likelihood and magnitude of the benefits from remittances.

13. *A Stable Unrequited Source of Foreign Exchange*. Remittances can be an important source of support to the country's balance of payments because of their nature as non-debt creating flows. In addition, they are typically stable and exhibit a low level of volatility compared to other foreign exchange receipts. These characteristics make remittances a valuable source of balance of payments support.

14. *Contribution to Growth.* As unrequited receipts, remittances contribute to increasing the absorptive capacity of the recipient economy (consumption plus investment). They can therefore raise economic welfare and contribute to financing both physical and human capital investments, leading to enhanced productivity and higher growth rates. It should, however, be noted that substantial inflows could, in theory, bring with them a higher risk of Dutch Disease (i.e., a real exchange rate appreciation, which could eventually reduce competitiveness). This risk could be reduced by maintaining sound macroeconomic policies aimed at promoting price stability and a sustainable external position. Thus far, it appears that Vietnam has benefited from remittances without suffering from apparent Dutch Disease symptoms. Indeed, despite some signs of price pressures, particularly in real estate, real exchange rate appreciation thus far has been moderate and the market share of Vietnam's

[6] For a succinct review of these benefits as covered in the literature on individual countries as well as cross-country studies, see IMF (2005).

©International Monetary Fund. Not for Redistribution

non-oil exports has remained on an upward trend. This has been all the more remarkable in light of the recent upsurge in receipts from net oil exports.

15. *Complementing Nascent Financial Systems and Transfer of Knowledge.* Remittances can provide a much-needed source of financing both informally and formally (through the banking sector), and thus promote both financial sector development and the growth of the private sector. This may be of particular importance in a developing-transition economy such as Vietnam. The professional and business background of a large number of Vietnamese migrants could bring additional benefits similar in part to those associated with FDI. By influencing the way part of the remittances are invested, migrants can transfer their entrepreneurial skills and technological knowledge to the private sector in their homeland, thus mitigating, and possibly more than compensating for, possible negative consequences of a "brain drain."[7]

16. *Poverty Reduction.* Remittances are expected to contribute importantly to poverty reduction as they are often received by lower-income groups and help improve their housing conditions, nutritional intake, health care, and education. In addition, by financing small businesses, remittances contribute to employment creation.

D. Determinants of Workers' Remittances

17. Given the important role of remittances in many developing countries, a growing body of literature has been dedicated to investigating their determinants.[8] The two main approaches in this area are the "portfolio" and "altruism" approaches. The former approach emphasizes the role of the migrants' decision to transfer funds for investments to their homeland, rather then investing in the host country. The latter approach focuses on the family and other links which motivate the migrant to remit funds to help his family or country. These two approaches are not mutually exclusive, and it is likely that the applicable model to any country is a combination of the two.

18. Both approaches also acknowledge the role of other factors such as economic conditions in the host country. The two models have been tested for several countries, and in cross-section studies. Since it is very difficult to conduct a rigorous econometric investigation for Vietnam, given the short time series available (15 years), the discussion below relies mainly on the common findings of recent cross-section studies, and an

---

[7] Docquier and Rapoport (2005) argue that migration could give rise to as much "brain gain" as "brain drain" in source countries due in part to the increased emphasis that needs to be placed on education to improve emigrants' prospects for gainful employment abroad, the positive role returnees may play in a country's development, and the networking that may arise between migrants and the homeland.

[8] Two recent cross-country econometric investigations of the determinants of remittances in developing countries are IMF (2005) and Chami et. al. (2005).

©International Monetary Fund. Not for Redistribution

assessment of their applicability to Vietnam. Although an OLS regression is estimated for Vietnam to gauge the empirical validity of the analysis, the results should be viewed only as indicative.

19. The major determinants of remittances can be derived from the two main factors mentioned above, namely altruism and portfolio considerations. Altruism, which motivates migrants to help their relatives in the homeland, implies that remittances would be higher the worse the economic situation is in the homeland. Remittances would thus be expected to be negatively correlated with **per capita income in Vietnam**. Portfolio allocation considerations, on the other hand, suggest that migrants would invest more in the homeland the better the economic environment is there. Some other studies have used per capita income in the homeland to represent this factor and the altruism motivation combined.

20. In the case of Vietnam, it would be reasonable to expect the aggregate impact of both factors (altruism and portfolio allocation) to be positively correlated with Vietnam's per capita income. This is because the portfolio considerations can be expected to dominate, given the relatively high level of income of the majority of migrants (*Viet Kieu*) and their relatively weaker relationship with the home country compared to the situation in typical developing countries. One possibility would be to isolate the impact of the portfolio motivation by investigating the role of some measure of the interest rate differential between the home and host country, as a proxy for the difference between the rates of return on investment in the two countries. The appropriateness of this approach, however, would require a reasonable degree of financial system liberalization as well as monetary policy independence to allow the difference in the interest rates of the two currencies to approximate the difference in the rates of return. A viable alternative for Vietnam would be to identify a proxy that would capture the attractiveness of the investment environment, and economic prospects in general, such as **FDI**. Remittances would be expected to be positively correlated with FDI inflows.

21. Another important determinant of remittances is the **income of migrants**. This determinant is typically represented by per capita income in the host countries. In the case of Vietnam, a valid assumption would be to use the average income in the main host country, the U.S. Remittances would generally be expected to be positively correlated with per capita income in the host country. However, per capita income in the host country is likely to be positively correlated with economic conditions there. The implication of the latter point from a portfolio approach point of view is that a higher income would mean better economic conditions and better investment opportunities in the host country. This, everything else being equal, could motivate migrants to remit less as they decide to invest more of their savings in the host country rather than in the homeland.

22. Finally, remittances, and especially those transferred through official channels, are highly sensitive to the restrictions and fees on, and security of, the transfers. Removing restrictions, while putting in place effective AML/CFT safeguards to discourage illicit flows, should, in principle, help attract more remittances through official channels. The relaxation of the **regulatory framework and of restrictions on investments by non-residents** in the

©International Monetary Fund. Not for Redistribution

second half of the 1990s can be represented by a dummy variable, and the more recent relaxation in the last few years can be represented by another dummy.[9]

23. To gauge the validity of the specification outlined above, an OLS regression was estimated on annual data over the period 1991–2005 (using estimated data for 2005), and the following results were obtained:

$$\underset{}{REMIT} = \underset{(0.09)}{2.03} + \underset{(2.54)}{2.85}*GDPpc - \underset{(-0.45)}{1.21}*USGDPpc + \underset{(0.04)}{0.02}*FDI + \underset{(1.50)}{0.53}*D1996 + \underset{(0.32)}{0.12}*D2000$$

R-squared = 0.979 DW=2.085

Where REMIT= remittances; GDPpc =Vietnam's per capita income; USGDPpc= per capita income in the U.S; FDI = foreign direct investment; D1996 = dummy variable that is equal to 1 during 1996-2005 and 0 during 1991-95; D2000 = dummy variable that is equal to 1 during 2000-05 and 0 during 1991-99; and numbers in parentheses are t-statistics.

24. While the above results should be interpreted with caution given the short sample period, which did not allow for the conduct of stationarity tests or the use of cointegration techniques, they nevertheless provide some evidence in support of the portfolio approach for Vietnam. Remittances appear positively correlated with favorable economic conditions in the homeland as represented by per capita GDP. They also appear positively correlated with the overall investment climate (as proxied by FDI), and with the relaxation of the regulatory environment, particularly in the late-1990s. It is interesting to note that the coefficient for per capita GDP in the U.S. appears negative, although statistically insignificant. This is consistent with the dominance of the portfolio motivation, whereby improving economic conditions in the US would tend to make Vietnam a relatively less attractive investment destination, and vice versa, as discussed earlier.

E. Conclusions and Policy Recommendations

25. The discussion and analysis above highlight the increasingly important role of remittances in supporting Vietnam's balance of payments, and their potential contributions to economic development and poverty reduction. They also suggest that remittances in Vietnam are likely to be heavily influenced by portfolio considerations, as approximated by overall economic conditions, the investment climate, and the degree of openness in the regulatory framework. These factors can all be influenced by policy actions.

[9] Please note that the dummy variables cannot fully capture the impact of the gradual relaxation of regulations, given the continuous nature of the deregulation process in Vietnam (see Box 1 above).

©International Monetary Fund. Not for Redistribution

26. To continue to attract growing remittances, it would therefore be important for the government to continue to implement reforms aimed at enhancing the investment climate and further liberalizing the trade and exchange system, while putting in place effective safeguards to combat illicit flows. The regulations governing the ability of *Viet Kieu* to buy property and other assets should continue to be relaxed.

27. While the continued increase in remittances would contribute to further enhancing Vietnam's growth potential, it could also eventually pose some risks. Reducing the risk of Dutch Disease, in particular, would hinge on continuing to enhance competitiveness through the implementation of structural reforms and avoiding any significant misalignment in the real exchange rate, through the maintenance of sound macroeconomic policies and a flexible exchange rate policy.[10] Finally, in view of the significant role remittances play in the economy, it would be useful to address the data issues identified above in order to facilitate economic analysis and policy assessments.

---

[10] While some studies have shown Dutch Disease symptoms arising from remittances (Brown, 2005; Lopez-Cardova and Olmedo, 2005; and Sakr, 1995), Rajan and Subramanian (2005) have recently found evidence that remittances have not generally given rise to exchange rate overvaluation in a number of developing countries. They explain the apparent lack of such adverse effects by hypothesizing that migrants' propensity to remit funds to their home countries may be responsive to market conditions, and may tend to decline when the home country's exchange rate becomes overvalued. The withdrawal of remittances in such a fashion makes for a self-correcting mechanism that should help guard against significant exchange rate misalignment. This hypothesis would appear to be consistent with the portfolio approach to the determination of remittances outlined above.

©International Monetary Fund. Not for Redistribution

References

Brown, Richard P.C., “Interrelationships between Remittances and Human Capital: Lessons from Pacific Island Remittances Surveys,” paper presented at the G-20 Workshop on Demographic Challenges and Migration, Sydney, August 27-28, 2005.

Burgess, Robert, and Vikram Haksar, 2005, “Migration and Foreign Remittances in the Philippines,” IMF Working Paper 05/111 (Washington DC: International Monetary Fund).

Chami, Ralph, Connel Fullenkamp, and Samir Jahjah, 2005, “Are Immigrant Remittance Flows a Source of Capital for Development?” *Staff Papers*, International Monetary Fund, Vol. 52 (April), pp. 55-81.

Docquier, Frederic, and Hillel Rapoport, “How Does Skilled Emigration Affect Developing Countries? Facts, Theory, and Policy,” paper presented at the G-20 Workshop on Demographic Challenges and Migration, Sydney, August 27-28, 2005.

Hernandez-Cross, Raul, 2005, The Canada Vietnam Remittance Corridor, Lessons from Shifting from Informal to Formal Transfer Systems, World Bank Working Paper No. 48, (Washington DC: World Bank).

International Monetary Fund, 2005, *World Economic Outlook, April*, Chapter II, World Economic and Financial Surveys (Washington).

Lopez-Cordova, Ernesto and Alexandra Olmedo, “International Remittances and Development: Existing Evidence, Policies, and Recommendations,” paper presented at the G-20 Workshop on Demographic Challenges and Migration, Sydney, August 27-28, 2005.

Rajan, Raghuram G. and Arvind Subramanian, 2005, “What Undermines Sid’s Impact on Growth?” IMF Working Paper 05/126, (Washington DC: International Monetary Fund).

Sakr, Khaled Ibrahim, “The Dutch Disease and Structural Adjustment in Egypt,” Ph.D. Thesis, University of Cambridge, U.K, 1995.

Wescott, Clay, “Promoting Knowledge Exchange through Diasporas,” paper presented at the G-20 Workshop on Demographic Challenges and Migration, Sydney, August 27-28, 2005.

©International Monetary Fund. Not for Redistribution