

ADB

ERD Policy Brief

ECONOMICS AND RESEARCH DEPARTMENT

SERIES
No. 38

Asia's Long-term Growth
and Integration: Reaching
beyond Trade Policy Barriers

Douglas H. Brooks,
David Roland-Holst, and Fan Zhai

Asian Development Bank
6 ADB Avenue, Mandaluyong City
1550 Metro Manila, Philippines
www.adb.org/economics
ISSN: 1655-5260
Publication Stock No.: 070105



Printed in the Philippines

September 2005 Asian Development Bank

Asian Development Bank
6 ADB Avenue, Mandaluyong City
1550 Metro Manila, Philippines

©2005 by Asian Development Bank
September 2005
ISSN 1655-5260

The views expressed in this paper are those of the author(s) and do not necessarily reflect the views or policies of the Asian Development Bank.

The **ERD Policy Brief Series** is based on papers or notes prepared by ADB staff and their resource persons. The series is designed to provide concise nontechnical accounts of policy issues of topical interest to ADB management, Board of Directors, and staff. Though prepared primarily for internal readership within the ADB, the series may be accessed by interested external readers. Feedback is welcome via e-mail (policybriefs@adb.org). The views expressed herein are those of the authors and do not necessarily reflect the views or policies of the ADB.

ERD POLICY BRIEF NO. 38

Asia's Long-term Growth and Integration: Reaching beyond Trade Policy Barriers

Douglas H. Brooks, David Roland-Holst, and Fan Zhai

September 2005

Douglas Brooks is Principal Economist and Fan Zhai is Economist in the Economics and Research Department, Asian Development Bank (ADB); David Roland-Holst is Professor of Economics at University of California, Berkeley. This note is based on a research project "Long-Term Scenarios for Asian Growth and Trade, 2005-2025" organized by ADB. The authors thank Ifzal Ali, Jean-Pierre Verbiest, and Frank Harrigan for encouragement and comments.

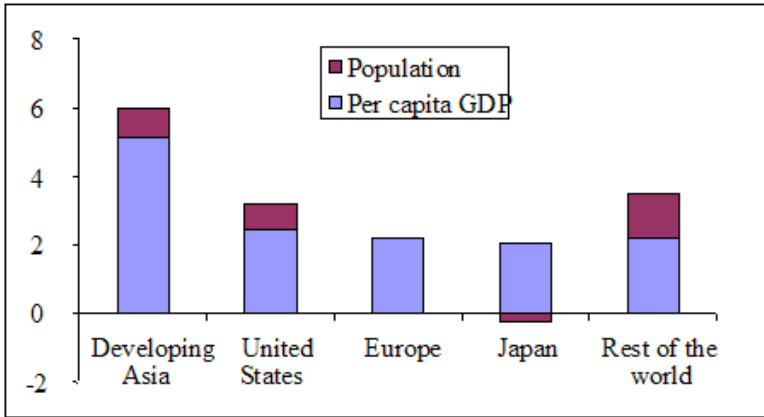
Introduction

Over the past four decades, international attention to trade policy has focused on lowering border transaction costs related directly to trade policy, most notably through GATT/WTO processes for tariffication and tariff reduction, but also in a myriad of bilateral and regional arrangements. However, trade policies are only one element of the overall costs of trade for modern international business. Logistical, institutional, and regulatory barriers are often more costly than tariffs. Broadly defined, trade costs include policy barriers (tariffs and nontariff barriers), transportation costs, local distribution costs, information costs, contract enforcement costs, and other border-related barriers such as language and currency conversion. Increasing trade efficiency and lowering these costs can boost growth, employment, trade, and integration substantially.

Trade costs are reflected not only in the direct monetary outlays associated with tariffs, freight, insurance, transport, etc., but also in indirect expenses such as time and uncertainties. For instance, with the rise of just-in-time production and international supply networks, time has become an increasingly important component of international trade costs. A study by Hummels (2001) found that for US imports, the time cost of one day in transit is equivalent to an ad valorem tariff rate of 0.8%, yielding the equivalent of a 16% tariff on an average ocean shipment of 20 days.

Looking ahead, efforts to reduce trade costs will be critical for developing Asia to maximize growth and the benefits of regional trade integration. Over the next 20 years, developing Asian economies will constitute a significant majority of the fastest growing markets in the world (see figure). For this reason alone, greater integration offers the region the greatest potential for trade expansion and sustainable growth.

Projected Real GDP Growth by Country/Region (baseline, annualized percent change, 2005–2025)



Source: Staff model simulations.

This brief reports on assessments of the potential benefits of reducing international trade costs in the region. As regional trade costs fall and intraregional trade and investment increase, a trilateral pattern is likely to emerge, with Southeast Asia acting as a growth bridge, facilitating trade between the increasingly massive economies of South and East Asia. Even Asian economies with low initial trade costs, such as the newly industrialized countries, are poised to benefit from the growth and greater trade of their neighbors.

Reducing Trade Costs

Anderson and van Wincoop (2004) estimated that the tax equivalent of representative international trade costs for industrialized countries is as high as 74%, including 21% transportation costs and 44% border-related trade barriers (Table 1).¹ Most developing countries have trade costs that are significantly higher, because of relatively poor physical and administrative infrastructure, and incomplete domestic insurance and logistics service markets.

¹ The costs are not simply additive, but rather $(0.74=1.44*1.21-1)$.

Table 1. Representative International Trade Costs of Industrialized Countries (percent)

International Trade Costs	74
Border-related Trade Barriers	44
Policy	8
Language	7
Currency	14
Information cost	6
Security	3
Transportation Cost	21
Freight	11
Time	9

Source: Anderson and van Wincoop (2004).

Cost-cutting developments, such as technological advances resulting in greater transport fuel efficiency or the spread of telecommunications may do even more to lower trade costs than reducing tariff and quota barriers. So may reductions in red tape and administrative fees or delays. Recognition of the importance of broader reforms to reduce international trade costs is reflected in the fact that trade facilitation is the only one of the four “Singapore issues”² still being advanced for inclusion in the Doha round of WTO negotiations. In addition, a growing number of regional trade agreements include transport and trade facilitation provisions.

Many of the same factors that lower production costs can also lower international trade costs. Infrastructure, both physical and institutional, plays a vital role in reducing trade and distribution margins. Where cross-border physical infrastructure is involved, regional cooperation and multilateral financial institutions can play an essential role. Where institutional infrastructure is involved, something like an “Asian OECD” could initially promote policy coherence within the region, facilitating integration without the strictures required by EU-style policy harmonization.

² Trade facilitation, government procurement, investment, and competition policy are referred to as the “Singapore issues” since they were originally presented for inclusion at the WTO Ministerial meeting in Singapore in 1996. They are often also referred to as “behind-the-border” issues, since they involve greater domestic policy reforms than border adjustments.

Foreign direct investment can lower trade costs through infusions of new technology, managerial and marketing expertise, linkages to global value and supply chains, and other spillover effects. In the process it can also contribute to international economic diplomacy, fostering greater regional cooperation and policy coherence (Brooks and Hill 2004).

Improving customs clearance efficiency and transparency through reforms that adopt international standards for classification of goods, eliminate exemptions, and use modern information technology is one important dimension of the broader trade reforms. A simplified and harmonized customs procedure can significantly reduce time delays and uncertainties at the border. In addition, it helps limit rent seeking and corruption opportunities.

The development of modern business services can also reduce trade costs and facilitate international market access. Trade efficiency depends on transportation, telecommunications, logistical, financial, accounting, and legal services. In developing countries, inefficient services in these sectors often pose significant impediments for domestic firms trying to participate in international markets. Moreover, they can discourage foreign direct investment and limit foreign firms' participation in domestic markets. Improving the regulatory environment and promoting private sector participation is essential to develop competitive service sector enterprises.

Assessing the Gains of Broader Trade Reforms

To appraise Asia's prospects for enhanced growth through broader trade reform, we simulated a baseline scenario (BaU), an Asian trade liberalization scenario (AFT1), and a scenario of Asian trade liberalization accompanied by reduction in other trade costs (AFT2).³ Trade liberalization refers here to removal of all tariff and tariff equivalent import and export barriers. In the scenario of AFT2, we assume that nonpolicy-related international trade costs within the region are around 120% on a tax equivalent basis and could be cut gradually by half over the period 2005–2025.⁴ The resulting cost levels would be close

³ The simulations were conducted through implementation of a structural computable general equilibrium model.

⁴ Here the nonpolicy-related international trade costs are modeled as iceberg type, a la Samuelson (1954). They imply that a fraction of goods and services melt away in transit due to the trade costs.

to current estimates for OECD countries. Such increased trade efficiency could arise from institutional reforms and/or public and private investments in distribution and communications infrastructure.

Table 2 presents the impacts on real income, exports, and terms of trade under trade liberalization with and without additional reduction in trade costs. Note that the numbers represent percentage changes from the baseline by 2025 and are meant to be illustrative of potential gains. There are two salient lessons in these results. First, trade efficiency offers much greater growth potential than tariff reform. Every economy considered would experience many times higher real income and trade if even modest improvements in trade efficiency could be sustained. The key to real income gains from more efficient trade is a combination of export expansion and rising terms of trade, facilitated by the productivity improvements behind lower regional trade margins. This indicates that structural barriers to trade are now a greater obstacle to growth than traditional tariff barriers.

Table 2. Aggregate Real Income, Exports, and Terms of Trade (percentage change from baseline in 2025)

Subregion	Economy	Real Income		Exports		Terms of Trade	
		AFT1	AFT2	AFT1	AFT2	AFT1	AFT2
East Asia	Japan	0.9	8.1	9.0	72.8	2.7	52.9
	PRC	1.2	19.8	18.6	107.8	0.7	33.7
	Korea	1.8	24.6	15.5	75.1	-0.3	43.4
	Hong Kong, China	2.9	53.8	3.7	31.2	1.8	48.8
	Taipei, China	1.9	25.9	7.6	55.2	2.5	45.8
Southeast Asia	Indonesia	2.1	35.5	9.3	69.1	3.7	52.2
	Malaysia	6.6	116.6	8.6	71.0	1.5	44.7
	Philippines	1.9	33.4	0.9	72.6	6.2	54.8
	Singapore	4.6	81.1	4.3	109.3	1.9	29.6
	Thailand	5.3	61.6	18.2	104.8	3.9	43.2
	Viet Nam	6.5	59.1	46.1	136.5	-1.5	31.3
South Asia	Bangladesh	0.6	11.5	39.7	101.8	-2.4	30.0
	India	0.3	10.4	30.0	105.4	0.4	43.9
	Sri Lanka	0.6	22.4	7.9	40.5	0.9	38.8

Source: Staff model simulations.

The second observation is that in relative terms, Southeast Asian countries, especially Malaysia, Singapore, Thailand, and Viet Nam, have the most to gain from an AFT arrangement, although the PRC and Japan would enjoy the largest real income increases in absolute terms. The prominence of export and income growth in Southeast Asian countries after regional trade integration reflects their pivotal roles in expanding regional trade and their initial openness. For South Asian countries, the trade expansion effects from Asia-wide trade reform are significant but real income gains are more limited, reflecting their lower prereform trade dependence.

In Table 3, the annual average growth in bilateral subregional flows for 2005–2025 and the bilateral shares of total Asian trade in 2025 are presented. Even more arresting than the uniformity of bilateral trade growth across all subregions are the magnitudes, particularly in the broader trade reform scenario (AFT2). It is encouraging to see the sustained reduction in trade costs translated into 5–8 percentage point increases in annual growth of bilateral trade flows. Thus, if greater trade can be facilitated by tariff reform and structural reform measures, the gains would be very substantial.

Table 3. Asian Subregional Trade Linkages

To / From	Subregional Trade Flows (annual average growth rate, 2005-2025, %)				Subregional Trade Shares in 2025 (%)			
	East Asia	SE Asia	South Asia	ROW	East Asia	SE Asia	South Asia	ROW
BAU								
East Asia	4.4	4.6	5.4	3.8	14.2	4.6	0.6	27.1
SE Asia	4.8	4.5	6.8	3.7	4.9	3.3	0.4	8.7
South Asia	6.6	7.3	6.2	5.1	0.4	0.2	0.1	2.6
ROW	4.1	4.4	5.1	2.7	23.3	7.4	2.3	
AFT1								
East Asia	5.8	5.9	9.8	3.6	14.3	4.7	0.6	27.0
SE Asia	6.3	5.2	10.5	3.2	4.9	3.3	0.4	8.6
South Asia	8.4	9.4	8.6	5.8	0.4	0.2	0.1	2.6
ROW	4.0	4.5	3.3	2.7	23.2	7.3	2.3	
AFT2								
East Asia	8.9	9.1	13.3	3.3	16.7	5.5	0.7	25.3
SE Asia	9.7	8.2	12.5	2.3	5.8	3.9	0.5	8.0
South Asia	13.3	14.1	11.6	5.5	0.5	0.3	0.1	2.5
ROW	3.1	4.5	1.9	2.6	21.4	6.8	2.1	

Source: Staff model simulations.

Seen from the perspective of trade shares, Asian preferential trade liberalization will shift the growth of trade into the region. For this reason, trade shares rise for all intra-Asian bilateral links, and very significantly, while shares for trade with the rest of the world (ROW) fall. This is not classical trade diversion, however, but relative shifts within a pattern of growth. Recall that Asian trade with ROW increases at an annualized rate of 2–5% in the two regional integration scenarios, so trade emanating from the Asian economies in all directions will continue to support growth, including in their established trading partners. An Asian regional free trade arrangement merely accelerates growth and confers more of the additional growth's benefits on those who create it—the developing Asian economies.

Conclusions

The results demonstrate that regional integration is the way forward for rapid and sustainable economic growth in Asia. By differentiating its traditional trade patterns toward growing demand within itself, developing Asia can leverage superior domestic growth rates, accelerate economic diversification, and broaden the basis for regional development. Integration will not only secure a more reliable basis for continuing established growth patterns, it will also confer substantially greater opportunities on many of the region's poorest economies. In this way, rapid growth can be sustained while greater convergence is achieved in the region.

This work compares the potential regional growth effects of alternative trade scenarios. In contrast with removal of traditional tariff and nontariff barriers, even modest progress toward improving trade efficiency would have a much greater impact on Asian growth. Indeed, one important conclusion is that structural barriers to trade are a much greater constraint on growth than residual protection levels.

This conclusion reaffirms the importance of policies that reduce regional trade margins. The major policy implications are: (i) Asia has great potential for trade growth; but (ii) the policy focus should extend beyond traditional trade policy; and (iii) policymakers should put more emphasis on infrastructure, ports, and customs efficiency, including simplification and coherence of rules and macroeconomic policy coherence to improve transparency and reduce uncertainty. In this way, regional cooperation for policy coherence and economic integration can make significant contributions to growth, employment, and poverty reduction in Asia.

References

- Anderson, J. E., and E. van Wincoop. 2004. "Trade Costs." *Journal of Economic Literature* 42:691-751.
- Brooks, D. H., and H. Hill. 2004. *Managing FDI in a Globalizing Economy: Asian Experiences*. London: Palgrave Macmillan and Asian Development Bank.
- Hummels, D. 2001. Time as a Trade Barrier. GTAP Working Papers 1152, Center for Global Trade Analysis, Department of Agricultural Economics, Purdue University.
- Samuelson, P. A. 1954. "The Transfer Problem and Transport Costs, II: Analysis of Trade Impediments." *Economic Journal* 64: 264-289.

ERD POLICY BRIEF SERIES

- No. 1 Is Growth Good Enough for the Poor?
—*Ernesto M. Pernia*, October 2001
- 2 India's Economic Reforms: What Has Been Accomplished? What Remains to Be Done?
—*Arvind Panagariya*, November 2001
- 3 Unequal Benefits of Growth in Viet Nam
—*Indu Bhushan, Erik Bloom, and Nguyen Minh Thang*, January 2002
- 4 Is Volatility Built into Today's World Economy?
J. Malcolm Dowling and J.P. Verbiest, February 2002
- 5 What Else Besides Growth Matters to Poverty Reduction? Philippines
—*Arsenio M. Balisacan and Ernesto M. Pernia*, February 2002
- 6 Achieving the Twin Objectives of Efficiency and Equity: Contracting Health Services in Cambodia
—*Indu Bhushan, Sheryl Keller, and Brad Schwartz*, March 2002
- 7 Causes of the 1997 Asian Financial Crisis: What Can an Early Warning System Model Tell Us?
—*Juzhong Zhuang and Malcolm Dowling*, June 2002
- 8 The Role of Preferential Trading Arrangements in Asia
—*Christopher Edmonds and Jean-Pierre Verbiest*, July 2002
- 9 The Doha Round: A Development Perspective
—*Jean-Pierre Verbiest, Jeffrey Liang, and Lea Sumulong*, July 2002
- 10 Is Economic Openness Good for Regional Development and Poverty Reduction? The Philippines
—*Ernesto M. Pernia and Pilipinas F. Quising*, October 2002
- 11 Implications of US Dollar Depreciation for Asian Developing Countries
—*Emma Xiaoqin Fan*, November 2002
- 12 Dangers of Deflation
—*Douglas H. Brooks and Pilipinas F. Quising*, December 2002
- 13 Infrastructure and Poverty Reduction—What is the Connection?
—*Ifzal Ali and Ernesto Pernia*, January 2003
- 14 Infrastructure and Poverty Reduction—Making Markets Work for the Poor
—*Xianbin Yao*, May 2003
- 15 SARS: Economic Impacts and Implications
—*Emma Xiaoqin Fan*, May 2003
- 16 Emerging Tax Issues: Implications of Globalization and Technology
—*Kanokpan Lao-Araya*, May 2003
- 17 Pro-Poor Growth—What is It and How is It Important?
—*Ernesto M. Pernia*, June 2003
- 18 Public-Private Partnership for Competitiveness
—*Jesus Felipe*, June 2003
- 19 Reviving Asian Economic Growth Requires Further Reforms
—*Ifzal Ali*, June 2003
- 20 The Millennium Development Goals and Poverty: Are We Counting the World's Poor Right?
—*M. G. Quibria*, July 2003
- 21 Trade and Poverty: What are the Connections?
—*Douglas H. Brooks*, July 2003
- 22 Adapting Education to the Global Economy
—*Olivier Dupriez*, September 2003

- 23 Foreign Direct Investment: The Role of Policy
—*Douglas H. Brooks and Lea R. Sumulong*, December 2003
- 24 Avian Flu: An Economic Assessment for Selected Developing Countries in Asia
—*Jean-Pierre A. Verbiest and Charissa N. Castillo*, March 2004
- 25 Purchasing Power Parities and the International Comparison Program in a Globalized World
—*Bishnu D. Pant*, March 2004
- 26 A Note on Dual/Multiple Exchange Rates
—*Emma Xiaoqin Fan*, May 2004
- 27 Inclusive Growth for Sustainable Poverty Reduction in Developing Asia: The Enabling Role of Infrastructure Development
—*Ifzal Ali and Xianbin Yao*, May 2004
- 28 Higher Oil Prices: Asian Perspectives and Implications for 2004-2005
—*Cyn-Young Park*, June 2004
- 29 Accelerating Agriculture and Rural Development for Inclusive Growth: Policy Implications for Developing Asia
—*Richard Bolt*, July 2004
- 30 Living with Higher Interest Rates: Is Asia Ready?
—*Cyn-Young Park*, August 2004
- 31 Reserve Accumulation, Sterilization, and Policy Dilemma
—*Akiko Terada-Hagiwara*, October 2004
- 32 The Primacy of Reforms in the Emergence of People's Republic of China and India
—*Ifzal Ali and Emma Xiaoqin Fan*, November 2004
- 33 Population Health and Foreign Direct Investment: Does Poor Health Signal Poor Government Effectiveness?
—*Ajay Tandon*, January 2005
- 34 Financing Infrastructure Development: Asian Developing Countries Need to Tap Bond Markets More Rigorously
—*Yun-Hwan Kim*, February 2005
- 35 Attaining Millennium Development Goals in Health: Isn't Economic Growth Enough?
—*Ajay Tandon*, March 2005
- 36 Instilling Credit Culture in State-owned Banks—Experience from Lao PDR
—*Robin Boumphrey, Paul Dickie, and Sam Tukuafu*, March 2005
- 37 Coping with Global Imbalances and Asian Currencies
—*Cyn-Young Park*, May 2005
- 38 Asia's Long-term Growth and Integration: Reaching beyond Trade Policy Barriers
—*Douglas H. Brooks, David Roland-Holst, and Fan Zhai*, September 2005

For information and to order, write to
Department of External Relations, Asian Development Bank
 6 ADB Avenue, Mandaluyong City
 1550 Metro Manila, Philippines
 P.O. Box 789, 0980 Manila, Philippines
 or e-mail adbpub@adb.org