

# Costs and Benefits of Economic Integration in Asia

Edited by  
Robert J. Barro and Jong-Wha Lee

**OXFORD**  
UNIVERSITY PRESS  
2011



# 1

---

## Introduction

Robert J. Barro and Jong-Wha Lee

The global financial crisis of 2008–2009 raised concerns that the world would move toward protectionism and isolationism. One fear was that tariffs and other barriers to international trade would increase, thereby reducing exports and imports of goods and services. In addition, restrictions on international financial flows might grow, thereby lowering cross-border asset holdings and amounts of foreign direct investment (FDI). Increases in trade and financial protectionism clearly pose threats to Asian economies, which rely heavily on external demand as an impetus to growth and are closely linked to global financial markets.

A crisis can also have an impact on trade and financial integration among the economies within the region. Asian economies are becoming closely intertwined, through trade, investment, and financial transactions. The regional integration that we are witnessing today in Asia emerged largely in response to the contagious impacts of the 1997–1998 Asian financial crisis. Another important influence has been the strong growth of the People’s Republic of China (PRC) as a market for other Asian economies. For Asia, it is reasonable to worry about a potential reversal in the upward trend toward regional and global integration—in trade, financial flows, and production structures.

To study these and related issues, in 2008 the Asian Development Bank (ADB) initiated a project titled “Quantifying the Costs and Benefits of Regional Economic Integration in Asia.” In January 2009, ADB and the Hong Kong Institute for Monetary Research (HKIMR) jointly organized a conference in Hong Kong, China, on the costs and benefits of economic integration.

The papers presented at the conference assess the economic consequences of deepening trade and financial and monetary integration in the region. A common theme of the research relates to the costs and benefits of economic integration at the regional and global levels. The idea is to quantify these costs and benefits for various dimensions of trade, investment, and finance.

The present volume includes updated versions of eight of the papers presented at the conference. These studies deal with time patterns in trade barriers, volumes of trade, cross-border asset holdings and flows, foreign direct investment, currency regimes, and production structures between countries. They emphasize developments in Asia since the early 1990s, but parts of the analysis relate to longer-term Asian history. The focus on the 1990s is particularly advantageous for assessing the effects of the 2008–2009 global financial meltdown, because the sample includes the Asian financial crisis of 1997–1998. Although this earlier event was more localized than the 2008–2009 crisis, the reactions observed within Asia in the late 1990s provide useful information about likely responses in Asia and elsewhere to the 2008–2009 event.

Eduardo Borensztein and Prakash Loungani, in “Asian Financial Integration: Trends and Interruptions” (chapter 3 of this volume), examine financial integration in Asian countries from the mid-1980s through early 2009. The overall trend has been toward more integration, judging by patterns in equity returns and interest rates and also by quantities of cross-border asset holdings. The speed of convergence in Asian financial patterns toward those in the world’s richest countries is comparable to Eastern Europe but faster than Latin America. Although Asian regional financial integration is clearly increasing, its financial markets are more closely linked to global markets than they are to one another. However, gains from global diversification are likely to be higher than those achievable only by regional diversification.

An important point is that the movement toward Asian financial integration was interrupted by the crisis of 1997–1998, but this interruption proved to be only temporary. In fact, one beneficial effect of the crisis was to spur the development of Asian bond markets, featuring securities denominated in local currencies. Borensztein and Loungani document another interruption in Asian financial integration in 2008–2009 because of the global financial crisis. However, given the behavior observed in the 1990s, one can reasonably project that this latest turnabout in Asian financial integration will likely again be temporary (assuming that the global financial crisis itself does not last forever!).

The study by Hector Calvo-Pardo, Caroline Freund, and Emanuel Ornelas, “The ASEAN Free Trade Agreement: Impact on Trade Flows and External Trade Barriers” (chapter 6 of this volume), examines the interplay in Asia among regional free trade agreements, external tariff barriers, and the volume of international trade. The emphasis is on the impact of the ASEAN Free Trade Agreement (AFTA) of 1992 on developments from 1993 to 2007. This regional pact initially comprised six Asian countries but later in the 1990s it was extended to cover four more.

A major finding is that AFTA led not only to an expansion of trade between member countries but also between AFTA and nonmembers. One key observation is that reductions in preferential tariffs among member countries seemed to cause reductions in external (most favored nation) tariffs. This result sheds light on the long-standing debate about whether regional free-trade agreements enhance trade and welfare overall. The usual concern is that trade diversion from nonmember countries might more than offset the expansion of trade between members. However, in the Calvo-Freund-Ornelas study, the expansion of trade (and reduced trade barriers) involving nonmembers reinforces the overall favorable impact of the regional agreement. This finding supports the view that regionalism can be a “building block” toward global free trade. Another result is that the Asian Financial Crisis of the 1990s led to only a temporary interruption of trade involving the ASEAN countries. In most cases, the countries did not react to the crisis by raising tariffs for nonmembers, with the exception of Thailand in 1998–1999. However, even in this case, the rise in external tariffs was only temporary. By 1999, there was a resumption in the downward path of most favored nation tariffs, which apply to the nonmembers.

Anthony Venables, in “Economic Integration in Remote Resource-Rich Regions” (chapter 7 of this volume), provides a framework to think about the political economy of regional versus multilateral free-trade agreements. Given the assumed absence of monopoly power in internationally traded goods, a region such as central Asia does best overall under multilateral free trade. However, distributional effects arise that may generate political support for trade restrictions or liberalizations limited to a region. Countries close to places abundant in an exported natural resource such as oil benefit if the resource-rich nation restricts its trade with the rest of the world. In effect, resource-poor neighbors gain by exporting produced goods (or labor) to the resource-abundant country—and more of this gain arises when the abundant country chooses to restrict imports from the rest of the world. This effect underscores the idea that regional integration can help to spread benefits of unevenly distributed resource wealth among the region’s economies. However, there are other channels for spreading these benefits. An even better outcome, for example, is for the resource-rich country to (efficiently) implement free trade with the rest of the world but provide foreign aid to its neighbors. Other effects involve the distribution of factor incomes within resource-rich countries. Non-owners of the exported natural resource can benefit from the imposition of tariffs on trade with neighboring countries or the world overall. However, these benefits could also be garnered by (efficiently) allowing free trade and then taxing natural-resource production.

Pol Antràs and Fritz Foley, in “Regional Trade Integration and Multi-national Firm Strategies” (chapter 8 of this volume), observe that free-trade agreements and the volume of international trade interact with the determination of FDI. They use a theoretical model of this interaction to

assess empirically the effects of the 1992 AFTA on the numbers of US firms involved in FDI in Asian countries. They also assess changes in the numbers and sizes of the Asian affiliates of the US companies. (The analysis focuses on US-origin FDI because of the availability of detailed data on this activity from the benchmark surveys of 1989, 1994, and 1999).

The key findings from the comparison of 1989 (pre-AFTA) to 1994 (post-AFTA) are that the AFTA countries showed sharp increases in the number of US parent firms, the number of Asian affiliate companies, and the average size of these affiliates, compared to non-AFTA Asian countries. This expansion in various dimensions of FDI activity is a counterpart of the increase in international trade documented by Calvo, Freund, and Ornelas. Interestingly, Antràs and Foley find from the 1999 survey that the Asian Financial Crisis interrupted the FDI expansion in the AFTA countries. To know whether this interruption was only temporary—as found by Borensztein and Loungani for financial-market integration in Asia—we will have to consult the 2004 FDI survey, which has yet to be studied. This extension will also provide guidance on whether the 2008–2009 global financial crisis, which likely caused another interruption of FDI expansion in the AFTA countries, will have only temporary retarding effects.

Jong-Wha Lee and Robert Barro, in “East Asian Currency Union” (chapter 2 of this volume), apply previous models of optimal currency areas to assess whether an East Asian currency union is likely to be desirable and, if so, what form it should take. Some of the issues involve Robert Mundell’s classic trade-off between benefits from a common currency—such as promotion of trade in goods, services, and financial claims—against costs from the loss of an independent monetary policy and possibly from forgoing seigniorage revenue. Another consideration is that linking to a stable nominal anchor currency can provide the discipline needed to achieve low and stable inflation. This study adds the idea that a satisfactory monetary union requires political negotiation, for example to determine a common monetary policy and share seigniorage revenue. Hence, the more the partner countries are politically aligned, the more attractive a common currency will be. Finally, the important role of rare macroeconomic disasters, such as the global financial crisis of 2008–2009, suggests that monetary union will be more worthwhile if linking diminishes the probability and potential size of disaster events, including financial crises and wars.

Judging by standard criteria, it is unclear that East Asia would benefit overall from forming a currency union. The large amount of intra-region trade is a favorable factor, but the low degree of output co-movement is unfavorable (because it raises the likely costs from relinquishing independent monetary policies). Another troublesome feature is the weak political proximity (gauged by voting patterns at the United Nations) between Japan and other East Asian countries. A quantitative calibration exercise suggests that most countries in East Asia would gain in welfare by forming a currency union involving a broad group of East Asian economies. However, the benefit would be much

more substantial if a currency union were to reduce the probability and size of disaster events, including wars.

Andrew Rose, in “Understanding Business Cycle Synchronization: Is Inflation Targeting Paving the Way to Asian Monetary Union?” (chapter 4 of this volume), focuses on the extent of business-cycle synchronization, that is, output co-movement between countries. As already noted, this co-movement is a major determinant of optimal currency areas in the framework pioneered by Mundell and used by Lee and Barro. Joining a currency union implies the loss of an independent monetary policy. The cost of losing independent monetary policy is, however, significantly lessened if business cycles are synchronized among member countries, for in this case the common monetary policy can be as good as individual monetary policy for each country’s stabilization.

Rose explores the two-way causation between trade and business-cycle synchronization. Although the effect of trade on synchronization is ambiguous in theory (because trade can increase specialization and lead, thereby, to less output co-movement), the empirical relationships from an array of prior studies are overwhelmingly in the positive direction. There is also clear evidence from previous research that monetary union leads to higher synchronization but little evidence that inflation targeting (IT) works in a similar way. That is, the increased rates of adoption of IT since New Zealand began to target inflation in 1990 have not led to decoupling of business cycles across countries. This pattern also holds in the sample of dyads that includes at least one Asian country. In the wake of the Asian financial crisis, the majority of the crisis-affected East Asian economies, including Indonesia, the Republic of Korea, the Philippines, and Thailand, switched to an IT regime. Rose concludes that IT may be an attractive way station on the road toward monetary union in Asia. In other words, aside from other desirable characteristics as a monetary regime, IT has the attraction of enhancing business-cycle synchronization. Through this channel, monetary union itself becomes more desirable and thereby, more likely to materialize. However, Rose observes that European monetary union took many years to construct and that the case for Asian monetary union, although plausible, is less compelling than Europe’s. Thus, a monetary union for Asia is unlikely in the near future.

Kris Mitchener and Hans-Joachim Voth, in “Trading Silver for Gold: Nineteenth-Century Asian Exports and the Political Economy of Currency Unions” (chapter 5 of this volume), study pre-World War I Asian monetary systems. This historical analysis provides an excellent counterpoint to the Lee-Barro and Rose studies, which consider the workings of modern monetary regimes in Asia and elsewhere. The Mitchener-Voth findings add further evidence on how currency unions—in this case, based on silver or gold—affect the volume of international trade. The major result is that currency union promotes trade but that some unions are better than others. Most of the Asian countries were on the silver standard around 1870, but many shifted

to gold between 1870 and 1913. Moreover, many of these shifts were driven by decisions of colonial powers or by the politics of silver and were, therefore, largely exogenous to economic events in the Asian countries. Mitchener and Voth find that, although silver was better for trade than paper, gold was better still—presumably because much of the rest of the world was on gold in this period. The Asian countries that abandoned their ties to the silver standard early during the late nineteenth century saw large increases in their trade volume.

The study by Robert Koopman, Zhi Wang, and Shang-Jin Wei, “A World Factory in Global Production Chains: Estimating Imported Value-Added in Exports by the People’s Republic of China” (chapter 9 in this volume), investigates the impact of integration through production on the economies in Asia. Their focus is on the PRC, which is a hub of global production networks.

The Koopman-Wang-Wei study constitutes an important methodological breakthrough in the computation of the extent of foreign and domestic content in a country’s exports. The analysis requires detailed input-output tables at a disaggregated level. Using this information, the authors isolate the special role of imported inputs in the country’s export-processing sectors and also consider that imported inputs may indirectly have some content by the PRC involving earlier stages of production and trade. The final result from a detailed and careful analysis is a set of estimates of foreign content in merchandise exports by the PRC, broken down by sector and source country. One conclusion is that the share of foreign content in the PRC’s overall merchandise exports was already high by 1997 (48%), then changed little up to 2006, when it reached 49%. However, this stability reflected two opposing trends—a diminishing share of processing exports in total merchandise exports (falling from 60% to 54%) and a change in the overall composition of exports toward more sophisticated goods that, however, extensively used imported components as inputs. Within Asia, the most important source countries for the PRC were Japan and Hong Kong, China. Outside Asia, the most important were the United States and the European Union. Overall, the basic picture for the PRC is one of considerable integration of production structures for exported goods with the world economy. However, the extent of this integration has not been rising significantly in recent years.

This volume is organized around two broad topics and four subtopics. The main areas are: Monetary and Financial Cooperation and Integration; and Trade and Investment Cooperation and Integration. The first of these includes two subtopics: Asian Currency Union and Monetary/Exchange Rate Policy Cooperation and Financial Integration. The second broad area also includes two subtopics: Free Trade Agreements and Integrating Production.

Most of the contributions in this book were prepared as background and analytical papers for the Asian Development Bank’s Regional Technical Assistance Project Number 6500, “Quantifying the Costs and Benefits of Regional Economic Integration in Asia.” The authors are prominent scholars

of Asian economic development and policy, well-recognized in Asian academic and policy circles, and are drawn from leading universities and think tanks throughout the region and beyond.

We believe that this volume will become an essential reference on current consensus and controversy in the debate on economic integration, particularly as applied to Asia. Its appeal should be wider than to a purely academic audience, since government officials and other policy makers would gain from having an authoritative diagnosis of various initiatives that seek to promote regional economic integration.