The **Economic Geography** of **Regional Integration**

Done right, regional integration helps connect developing countries to world markets

A container ship off the coast of Brazil.

Uwe Deichmann and Indermit Gill

WITH the future of the Doha Round uncertain, there has been a sharp increase in the number of bilateral and regional trade agreements. This has revived long-running arguments in international economics between those promoting global trade agreements and those favoring regional approaches. But in many ways this has been the wrong debate, especially for the world's smallest, poorest, and most geographically disadvantaged countries, such as those in Africa and Central Asia.

One reason is that the difference between trade agreements and more general mechanisms for integration is often misunderstood. Regional integration includes a multitude of steps that increase the competitiveness of participating countries, not just preferential trade access. Second, this debate often implies a false choice between regional versus global integration. Both are necessary because they support different objectives. Regional integration helps small and remote countries scale up supply capacity in regional production networks. This, in turn, allows these countries to access global markets.

To understand why these distinctions matter for policy, the World Bank's latest *World Development Report* (WDR), titled "Reshaping Economic Geography," analyzes trade developments through the lens of economic geography (see box). Development is accompanied by sectoral transformations from agriculture to industry and services. The WDR argues that developing countries must also undertake spatial transformations—that is, allow a geographic distribution of economic activities within and among countries. A crucial element in these transformations is regional integration. To be effective, regional integration strategies need to be tailored to the economic geography—most important, size, location, and openness to interaction with major markets—of each part of the world.

A look at the unexpected consequences of falling transportation costs during the 20th century illustrates the role of economic geography in international development. In 1910, British exports were spread almost evenly among Europe, Asia, and other regions. But by the 1990s, 60 percent of British exports went to Europe and only 11 percent to Asia. Standard economic theory would predict that with better and cheaper transportation, trade with faraway places would increase. Instead, trade increased between neighbors.

Insights from the new economic geography and international trade theory, for which Paul Krugman received the 2008 Nobel Prize in economics, shed light on this puzzle. The first wave of globalization in the 19th century increased trade based on comparative advantage. Countries exchanged what they could not produce themselves. So Europe traded machinery for Central American bananas, or for South Asian spices. But in the 20th century, transportation costs fell so much that even trade in similar goods or in parts and components made economic sense. So countries exchanged different types of beer or traded parts of cars and computers.

Geographic transformations

Nations do well when they promote transformations along the dimensions of economic geography: higher densities as cities grow, shorter travel distances as workers and businesses migrate closer to denser areas, and fewer divisions as countries lower economic borders and enter world markets to take advantage of scale and trade in specialized products. The WDR concludes that transformations along these three dimensions—density, distance, and division—are essential and should be encouraged.

But with these transformations will come unbalanced growth. One billion people now live in slums, but the rush to cities continues. A billion people live in lagging areas of developing nations, far from globalization's many benefits. And poverty and high mortality persist among the world's "bottom billion," trapped without access to global markets, as others grow more prosperous and live ever longer lives. Concern for these three intersecting billions underlines the demand for spatially balanced growth.

But we find that although economic growth will be unbalanced, development can still be inclusive. Even people who start their lives far from dense economic activity can benefit from the growing concentration of wealth. For growth to be rapid and shared, governments must promote economic integration at all geographic levels using an appropriate mix of instruments—spatially blind institutions, spatially connective infrastructure, and spatially targeted incentives.

This favored trade between countries with similar endowments, which tend to be nearby. This interplay between falling transportation costs and the changing nature of trade has led to the concentration of economic mass in leading world markets. The experience of successful developers has lessons for today's developing regions.

Beyond the stagecoach

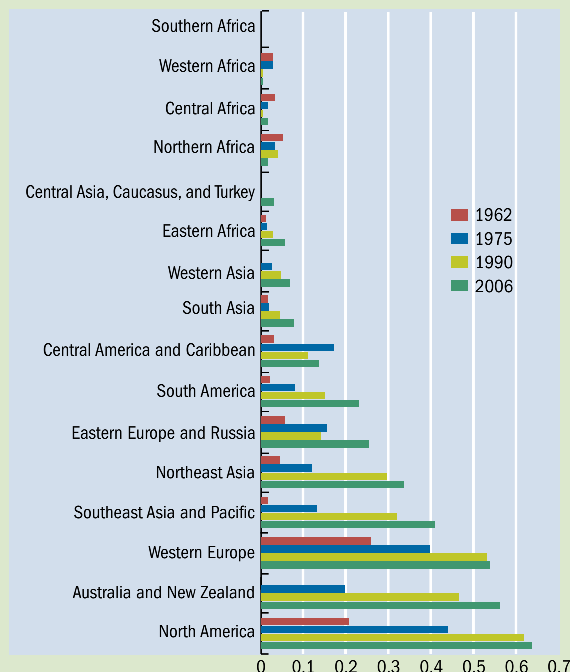
Since the end of World War II, transportation costs have indeed fallen considerably. By some estimates they are half of what they were in 1970. And transportation friction—the share of transportation costs in the total value of goods shipped—has dropped even more as the value-to-weight ratio in trade has increased. For transportation modes with less of a drop in costs and friction, quality and speed have improved greatly. The use of shipping containers, for instance, eliminates costly and time-consuming reloading, and more and more goods are now shipped by air.

But these costs have not fallen equally everywhere. Economies of scale in transportation, such as giant container ships plying the seas on lucrative routes between Northeast Asia and North America, imply that lower costs will increase trade, which will further lower costs. Much of the developing world is left out of this cumulative and beneficial process because it lacks the production scale and infrastructure to attract cheaper transportation services.

Trade concentration

Intra-industry trade is highest in the developed world, but close to zero in Africa and Central Asia, Caucasus, and Turkey.

(Grubel-Lloyd intra-regional trade index)



Source: Brülhart (2008).
Note: The Grubel-Lloyd index is the fraction of total trade that is accounted for by intra-industry trade. Data for Southern Africa; Central Asia, Caucasus, and Turkey; and Australia and New Zealand are incomplete or not available.

Where transportation costs have fallen, firms have increased scale and specialization. The key driver, and a major determinant of growth, in developing regions is intra-industry trade, mostly of parts and components. This type of trade is more sensitive to transportation costs than trade in primary goods and final products. In the world's largest markets—North America, Western Europe, and East Asia—intra-industry trade represents a high and increasing share of total trade (see chart). Increasingly sophisticated buyer-supplier networks in leading world regions have been a major feature of globalization. Customers for final products may be anywhere, but suppliers of inputs tend to be nearby. Increased specialization generates more trade, providing opportunities even to some small economies. For example, Cambodia may not be able to build computers or cars, but it can produce the cables or wires that will be used in assembly lines in China. Through this "vertical disaggregation" of production—made possible by falling transportation costs—growth and prosperity have spread within developing regions.

The recent East Asian experience can be explained by specialization in the wake of falling transportation costs, but the same thing has not happened in other parts of the world. Especially in Africa, individual countries are too small to generate sufficient scale and capacity to attract productive investment in labor-intensive manufacturing—still the most important pathway to middle-income levels. Significant divisions between countries in these regions persist. Borders are much less permeable in Africa than in Western Europe. These divisions prevent beneficial interaction and the pooling of resources, which allows regional growth centers to emerge, for instance, in favorable coastal locations. Consequently, growth spillovers, which are a major driver of development in leading world regions, are virtually absent in places such as Africa. If Switzerland had been subject to the negligible neighborhood spillovers experienced by the Central African Republic between 1970 and 2000, its GDP would have lost $334 billion. Cambodia's growth might have been much lower if it were in East Africa instead of East Asia.

Becoming close friends

How can poor, small, and remote countries benefit from the same forces that have transformed East Asia? Individually, most countries in lagging regions do not have the required number of skilled workers, local financial capacity, or ability to sustain clusters of suppliers and complementary services. A key to overcoming these constraints is regional integration. The goal is to boost the supply capacity of countries in a region by providing regional public goods and taking advantage of specialization.

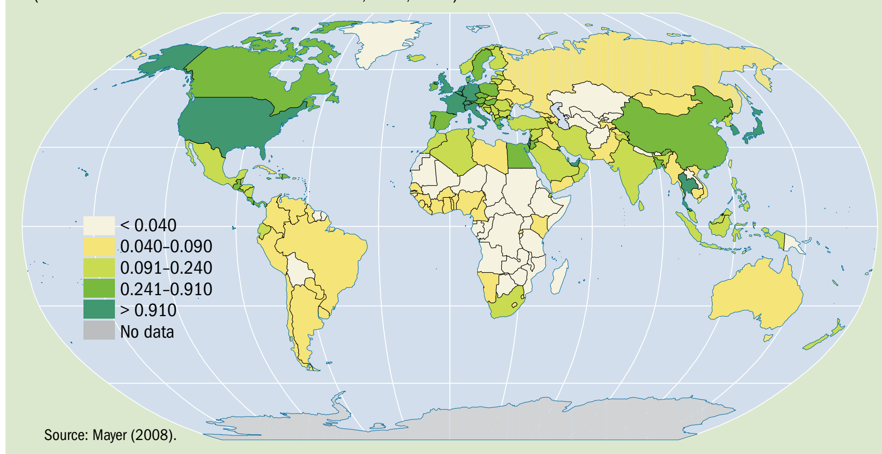
Regional integration means much more than preferential trade access between neighbors. It includes a number of steps that can be taken on the way toward full global integration, from regional infrastructure investment to the liberalization of regional labor markets. Three key principles can be identified.

Start small. Regional integration can initially address narrow areas of cooperation in which the costs and benefits are

The country club

Proximity to prosperous places shapes development prospects.

(real market access relative to the United States, index, 2003)



Source: Mayer (2008).

clearly defined. Today's European Union started as an agreement on coal and steel in six countries.

Think global. Regional integration should not create islands. It should help countries gain access to world markets that they could not achieve on their own. Larger countries may be able to choose between unilateral global integration and regional integration. But small, poor, or landlocked countries need one to achieve the other. For example, shared regional infrastructure hubs—such as transportation corridors—give countries access to previously unreachable world markets.

Compensate the least fortunate. Concentration of economic activity, which follows regional integration when firms specialize and increase scale in production in fewer places, is an inevitable and, indeed, desirable part of the development process. But it means that some areas will gain more than others—at least initially. As people migrate to leading regions, they spread the benefits by sending remittances to their home countries. But, in addition, explicit compensation schemes may be required to ensure access to social services and basic infrastructure in lagging areas. Aid flows will play an important role in compensating the laggards, but so must local efforts. The West African Economic and Monetary Union adopted a common external tariff with revenue sharing in 2000. The two richest countries, Côte d'Ivoire and Senegal, collected 60 percent of customs proceeds but retained only 12 percent.

Winners without borders

The strategies for effective regional integration are not uniform across world regions. Geography shapes development prospects and suggests the types of instruments required. The common problem is division—thick economic borders. What differs is economic density within the region and distance from large world markets (see map).

Regions close to major world markets. Countries in regions that are close to world markets—such as Central America and the Caribbean, North Africa, and Eastern Europe—face relatively easy integration. Common *institutions* can help these countries become extensions of large, more sophisticated markets.

Regions with big economies located far from world markets. Countries in regions that are geographically distant from the major world markets but have large home markets—such as China, India, South Africa, and Brazil—are attractive to investors everywhere. Good institutions and regional *infrastructure* can help them access these markets. Examples of such regions are East Asia and, increasingly, South Asia. But southern Africa and South America can also integrate globally by making their home markets bigger and more specialized through regional institutions and infrastructure. For the smallest economies, regional infrastructure is especially important to reduce the distance from large neighbors, and use those neighbors as a conduit to world markets.

Regions with small countries located far from world markets. International integration is hardest for countries in regions that are divided, distant, and lack the economic density of a large local economy. These are the regions that Collier (2007) calls the "bottom billion"—East, Central, and West Africa; Central Asia; and the Pacific islands. For these regions, all three instruments are needed—regional institutions that help thin borders, regional infrastructure that connects countries, and *incentives*—such as preferential access to world markets with liberalized rules of origin, more aid for social service delivery in lagging countries that creates portable skills, and increased support for infrastructure in coastal countries to improve market access. Incentives could be made conditional on ensuring that all countries make efforts to strengthen regional cooperation.

A better understanding of the economic geography of development can help in the crafting of responses calibrated to meet challenges of international integration. ■

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References:

Brülhart, Marius, 2008, "An Account of Global Intra-Industry Trade, 1962–2006," background paper for WDR 2009; *see http://econ.worldbank.org/wdr*

Collier, Paul, 2007, The Bottom Billion: Why the Poorest Countries Are Failing and What Can Be Done About It *(New York: Oxford University Press).*

Krugman, Paul, 2007, "The 'New' Economic Geography: Where Are We?" in Regional Integration in East Asia, *ed. by Masahisa Fujita (New York: Palgrave Macmillan).*

Mayer, Thierry, 2008, "Market Potential and Development," background paper for WDR 2009; see http://econ.worldbank.org/wdr

World Bank, 2008, World Development Report 2009: Reshaping Economic Geography *(Washington).*