4. How Can National Policies Boost Connectedness?
Increasing global connectedness has the potential to contribute to economic gains valued in trillions of dollars. This chapter briefly reviews some of the evidence on the benefits of increasing global connectedness and then turns to policies and strategies that countries can employ to capture more of those benefits for their citizens. Because cross-country differences preclude one-size-fits-all prescriptions, this chapter then turns to three country examples: the Netherlands, Vietnam, and Mexico.

The Netherlands and Vietnam are countries whose global connectedness depth scores are significantly higher than those of other countries with similar structural characteristics. Thus, these cases offer the possibility to look at policies that appear to have made large contributions to increasing countries’ depth scores. The case of the Netherlands highlights how this country achieved the top rank on the DHL Global Connectedness Index and how it still has substantial headroom to benefit from more connectedness. And the case of Vietnam exemplifies how a fast-developing country can, with appropriate policy shifts, deepen its connectedness very rapidly and reap large gains.

Mexico is a country with a depth score that is roughly in line with what is observed for other countries with similar structural conditions, and thus a more representative case for highlighting the substantial untapped opportunities that countries typically have to increase their connectedness. As the “most prolific signer of free trade agreements”¹ with pacts covering 44 countries² but with a very high level of dependency on trade with the United States, Mexico also permits a finer analysis of the interplay between the depth and breadth of connectedness.

Benefits of Deepening Global Connectedness³
This section highlights some of the evidence that the depth of global connectedness contributes to economic development. It focuses on depth rather than breadth because more depth as measured in the DHL Global Connectedness Index⁴ is thought to be generally beneficial, whereas whether countries should increase their breadth has to be evaluated on a country-by-country basis.

To briefly explain why breadth can be either too high or too low, recall (as described in Chapter 1) that because of cultural, administrative, geographic and economic (CAGE) similarities, countries’ connections naturally tend to be stronger with particular partners (typically neighbors) rather than uniformly distributed across all other countries. However, some countries’ ties are too narrowly focused while others are spread too thin across partners. In both cases countries forego economic gains. The discussion of Mexico later in this chapter will provide an example of the analysis required to determine whether a country’s breadth is too high or too low.

Focusing, therefore, on depth, there is a strong positive correlation between countries’ GDP per capita and their global connectedness depth scores, as noted in Chapter 2. This provides a first indication that the depth of global connectedness might contribute to higher levels of prosperity. But correlation does not necessarily imply causation. Other forms of evidence are also required to make the case.

Another very basic but suggestive piece of evidence that the depth of connectedness indeed contributes to prosperity is provided by regression analyses that use depth scores to predict countries’ GDP per capita growth rates after controlling for their initial GDP per capita. This type of analysis (detailed in Table B.3 in Appendix B) reveals a positive relationship between global connectedness depth scores and the growth rate of a country’s GDP per capita.
A weaker but still positive relationship is also observed between overall global connectedness and economic growth, which is consistent with the expectation that depth has a more direct relationship with growth than breadth.

The same basic regression analysis also permits a rough calibration of how much global growth could accelerate if countries improved their global connectedness depth scores by particular amounts. While the depth score increases that follow were chosen for illustrative purposes only, calculations based on them do illustrate the large impact that improvements in connectedness could have on growth. If the (weighted) average of countries’ depth scores increased by 20%, this regression implies that GDP growth would rise by 0.2% per year, compounding over a ten-year period to a 2% or $1.4 trillion increase in world GDP. Or, more aggressively, if depth scores rose by one (weighted) standard deviation (9.6 points), that would imply an increase of 5.5% or $3.9 trillion to world GDP over 10 years!

Channels for ADDING Value
A distinct and more powerful way of looking at the evidence that the depth of global connectedness can increase prosperity is by analyzing the channels through which those gains might be generated. Start with the gains from expanding merchandise trade. The traditional economic models developed for assessing trade agreements provide estimates of how much global output would expand if tariffs and some kinds of non-tariff barriers to trade were reduced or removed. The gains such models estimate – about 0.1% of world GDP for the stalled Doha round of trade negotiations and roughly 0.5% for complete liberalization of merchandise trade – aren’t very inspiring, but they actually leave out far more than they include.

Trade facilitation, just one of the tools that are left out of traditional models, could alone grow global GDP by 1%. And in calculating the benefits of additional trade, these kinds of models focus almost exclusively on growth generated by reductions in production costs as each country’s output becomes more specialized, a limited fraction of the potential gains.

To broaden the range of benefits covered, consider a modified version of the ADDING Value Scorecard, a framework originally developed to help businesses evaluate international strategies. ADDING is an acronym for the following sources of value: Adding Volume, Decreasing Costs, Differentiating, Intensifying Competition, Normalizing Risk, and Generating and Diffusing Knowledge.

Because traditional models assume full employment (especially problematic in times like these) and leave out scale economies, they capture only part of the gains in the first two categories, Adding Volume and Decreasing Costs. And they entirely leave out the last four categories, whose benefits can be seen clearly, for example, in the U.S. automobile industry. Decades ago, Japanese automakers started offering consumers differentiated (more reliable) products. Increased competition prompted U.S. automakers to improve their own quality. Now, GM sells more cars in China than in the U.S., diversifying its risks and helping it recover from the crisis. And cars are becoming “greener” faster because of international knowledge flows. Taking this broader set of factors into account, the estimated gains from expanding merchandise trade grow to 2–3% of world GDP or more.

Next, consider services trade. The service sector is roughly two-thirds of world GDP but only one-fifth of international trade. Barriers to services trade are more complex and some services (like haircuts) will always be delivered locally, but potential gains from opening up services trade have been estimated to be at least 1.5% of global GDP, putting total gains from liberalization of trade in merchandise and services at 4% of global GDP or more.
Then, look at potential gains from flows other than trade, such as people, capital, and information. Completely eliminating restrictions on migration could double global GDP, but that’s obviously not in the cards. More realistic, limited increases in people and other non-trade flows could expand GDP at least 4%, bringing the economic gains to 8% or more. And complementarities among the different types of flows push this estimate up even farther. Evidence on diasporas, for example, suggests that people flows contribute to trade flows. One does not have to pin things down further to note that this line of analysis also indicates that trillions of dollars are at stake.

Finally, and more subjectively, consider non-economic benefits. Culturally, globalization expands the range of choices available to individuals wherever they live even if in some cases it blurs distinctions at national borders. Politically, cross-border flows (especially information flows) tend to strengthen government accountability and transparency. And trade ties also seem to improve international security. The parts of the world that are isolated economically experience far more military intervention by outsiders.

To summarize (see Figure 4.1), the benefits of expanding merchandise trade are much larger than traditional models indicate, and to those one needs to add gains from services trade to have a complete picture of the benefits of increased trade flows. Then, on top of trade, other kinds of cross-border flows double the estimated economic benefits to at least 8% of global GDP. And beyond that there are complementarities and non-economic benefits that seem compelling but are harder to quantify in GDP terms.

**Policies to Promote Global Connectedness**

In light of the evidence described above on the benefits of deeper global connectedness, what policies can countries employ to capture more of those benefits? Cross-country regression analysis of the type that identified the structural influences on connectedness mentioned in Chapter 2 can also provide powerful evidence relating particular types of policies to the depth of countries’ global connectedness. (Table B.4 in Appendix B provides details of a regression based on structural factors only that parallels the policy regressions, and Table B.5 shows a regression incorporating structural and policy factors.)

The policy metrics identified below were all shown in regression analysis to be significant contributors to the depth of connectedness, even after the following structural factors were taken into account: population size, GDP per capita, remoteness, landlockedness, and linguistic commonality. In other words, the policies highlighted here are restricted to those that add to the explanatory power of the analysis even when structural factors also included – a high bar for inclusion because many structural and policy factors are correlated.
Countries can improve the depth of their connectedness both via policies that directly target trade, such as tariffs and customs clearance, as well as by improving their domestic business environments.

Consider policies to promote connectedness pillar-by-pillar, beginning with the trade pillar. While attention has rightly shifted from focusing purely on tariffs to also considering non-tariff barriers to trade, there continues to be a significant negative relationship between the weighted mean average tariffs that countries apply to their imports and depth. This highlights the importance of continuing traditional tariff-reduction efforts alongside work on reducing non-tariff barriers to trade.

The World Bank’s Logistics Performance Index is also a significant predictor of depth scores on the trade pillar (and overall). This index encompasses six aspects of logistics performance that suggest a very broad array of policies that could be pursued in this area: (1) efficiency of border and customs clearance, (2) infrastructure quality (ports, railroads, roads, information technology), (3) ease of arranging competitively priced shipments, (4) competence and quality of logistics services, (5) ability to track and trace consignments, and (6) timeliness of shipments in reaching destinations.

An even broader set of policy levers to spur trade integration is provided by the World Economic Forum’s Enabling Trade Index (ETI), which was also a significant predictor of trade depth, though not quite as strong as the combination of tariffs and the logistics performance index. The ETI encompasses 47 specific indicators covering market access, border administration, transport and communications infrastructure, and business environment.

Note how both policy areas that directly target trade (such as tariffs and customs clearance) as well as those that affect both domestic and international commerce (such as logistics performance and the business environment sub-index of the ETI) are significant explanatory factors for trade depth. Countries can improve the depth of their connectedness both by improving their domestic environment as well as by directly acting to spur international flows.

Turning to the capital pillar, the importance of the domestic business environment to international connectedness is underscored by the fact that the best policy indicator identified for this pillar was Regulatory Quality, as reported in the World Governance Indicators. Regulatory Quality “reflects perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development.”

Policies that more directly target capital flows such as the presence or absence of capital controls and the Heritage Foundation’s Financial Freedom index (which encompasses various aspects of financial market regulation including openness to foreign competition) are also significant predictors of depth on the capital pillar, though neither matched the explanatory power of the more general Regulatory Quality metric. The practical implication of this pattern is, again, for countries to combine efforts to improve their internal business environments and to remove barriers to connectedness. (Note that this analysis excludes short-term debt, where it may actually be beneficial to implement tighter regulation of international flows.)

Analysis of policy drivers of the information pillar is hampered by the fact that, in contrast to the wealth of policy ratings and rankings focusing on trade and capital flows, an extensive search failed to uncover any research that has ranked or scored a large sample of countries on policies related to their openness to international information flows. However, the Press Freedom index prepared by Reporters Without Borders was significantly and positively associated with depth on the information pillar. This index covers 44 criteria to assess “the degree of freedom that journalists, news media and netizens enjoy in each country and the efforts made by the authorities to respect and ensure respect for this freedom.”
On the people pillar, visa policies are the natural ones to turn to in order to explain levels of openness. However, the fact that the number of countries citizens of a particular country can visit without a visa has a very strong correlation (0.8 correlation coefficient) with GDP per capita obscures the independent impact of visa policies on depth in terms of the people pillar: recall that GDP per capita is already included in the analysis as a structural factor. The Heritage Foundation’s Labor Freedom index, however, is significantly and positively related to people pillar depth. This index covers “regulations concerning minimum wages, laws inhibiting layoffs, severance requirements, and measurable regulatory burdens on hiring, hours, and so on.”

To summarize, the combination of policy and structural variables described in this section together explain 77% of the variation among countries’ observed depth scores. Because countries that have more favorable structural conditions for connectedness also tend to implement more favorable policies (the statistical challenge of “multicollinearity”), it is impossible to distinguish precisely the relative impacts of structural versus policy factors on connectedness. It is also important to remember that 77% refers to the proportion of the variation among countries’ observed depth scores explained by the policy and structural factors. What has not been considered is the common, untapped potential to increase depth scores that exists across all countries.

There are two additional reasons that policies can have an even larger influence on connectedness than has been shown via regression analysis. First, the fact that there are less than 200 countries in the world and many of them pursue similar policies means that there is little evidence on the effects of many policies that could potentially be implemented. And second, many policies that countries do implement are not captured in cross-country ratings and rankings, and so they cannot be incorporated into this type of statistical analysis.

Therefore, to provide more nuanced characterizations of how public policies can influence the depth of global connectedness and the importance of tailoring connectedness strategies closely to countries’ structural conditions, the following sections present three brief case examples: the Netherlands, Vietnam, and Mexico. These three examples were selected based on their diversity along various dimensions: In terms of connectedness scores, they range in the rankings from #1 overall and #5 on depth (Netherlands) to #31 overall and #46 on depth (Vietnam) to #84 overall and #93 on depth (Mexico). The Netherlands and Vietnam also stand out among the top 10 countries in terms how much more deeply connected they are than a regression model predicted based on their structural conditions, whereas Mexico’s depth score is about average for a country with its structural conditions (see Figure 4.2). Geographically, they draw from three distinct regions (Europe, Asia, and Latin America). And in terms of economic development, they include one advanced economy (Netherlands) and two rapidly developing countries (Vietnam and Mexico). The Netherlands’ GDP per Capita is 35 times higher than Vietnam’s and 5 times higher than Mexico’s.

The Netherlands
The Netherlands has been the top ranked country on the DHL Global Connectedness Index since 2005, the first year for which the index was calculated. It ranks 5th on depth and 3rd on breadth in this edition of the index. The case of the Netherlands highlights, among other factors, the power of regional integration, in this case via the European Union,
to enhance connectedness. And more surprisingly, it also reveals the Netherlands’ connectedness to be limited in absolute rather than relative terms. The fact that the top ranked country has so much headroom to become more connected implies that other countries have even more untapped possibilities to benefit from more connectedness.

A brief review of the Netherlands’ country profile at the back of this report indicates that it ranks in the top 10 countries on three of the four pillars of the DHL Global Connectedness Index – all except for the people pillar, on which it ranks 13th. To see how the Netherlands got to where it is, it is useful to add a historical dimension to the analysis – complementing the cross-country comparisons that were the focus of the previous section. Merchandise trade is the flow with the best historical data, so begin by considering the growth of the Netherlands’ merchandise exports depth over the period from 1960 to 2011, as shown on Figure 4.3, as a (partial) source of historical insight.

Over the 33 years from 1960 to 1993, the Netherlands’ merchandise exports depth rose modestly, from 37% to 43%. Then, over the much shorter (18-year) period from 1993 to 2011, the same metric nearly doubled – increasing from 43% to 79%. Why was 1993 such a pivotal year? Two facts point to European integration as the main driver of the Netherlands’ rising merchandise exports depth: First, merchandise exports depth rose not only in the Netherlands but across all of the original six members of the European Economic Community (EEC-6: Belgium, France, (West) Germany, Luxembourg, Netherlands, and Italy). And second, roughly 80% of the Netherlands’ exports went to other European countries.

**Regional Integration and National Policies**

December 31, 1992 was the deadline set under the Single European Act for the creation of a single market across the countries of the EEC. While a customs union already existed among the member countries, 279 additional legislative measures were identified to address de facto barriers to market integration. And 1993 was also the year that the European Union itself was born as the Treaty on European Union came into effect – the treaty that is more commonly referred to as the Maastricht Treaty because it was signed the prior year in Maastricht, Netherlands. The Maastricht Treaty also set in motion the process of creating a common currency in Europe. While introduction of the Euro took roughly a decade, the immediate effect of the Maastricht Treaty on trade reminds us – as do the Eurozone’s present circumstances – of the importance of expectations about future levels of policy integration themselves as drivers of rising (or falling) connectedness.

The broader importance of the EU to European countries’ global connectedness can be summarized by noting how the EU’s famous “four freedoms” touch three of the four pillars of the DHL Global Connectedness Index: free movement of goods and services (trade), free movement of...
Policy choices must be tailored to a country’s structural conditions. The Netherlands’ unique location, combined with its world-class physical and institutional infrastructure, underpin its status as the world’s most globally connected country.

capital, and free movement of people. The remaining pillar, information, is included in the EU’s Copenhagen Criteria for accession to the Union, based on which “the EU makes press freedom one of the main criteria for accession.”

Regional integration in Europe, of course, is only part of the Dutch story. Note that, as shown on Figure 4.3, the Netherlands has roughly twice the merchandise exports depth of the EEC-6 as a whole. And while European countries hold 9 of the top 10 positions in this year’s DHL Global Connectedness Index, EU members also hold positions as low as 66th overall (Romania) and 91st on depth (Greece).

Recognition must also be given to the Netherlands’ favorable geography, which contributed over centuries to its development as one of the world’s great trading nations: its location at the estuary of navigable rivers connecting it to Europe’s industrial heartland. But it is the combination of natural geography and infrastructural investment that position Rotterdam as Europe’s largest port. In the latest edition of the World Economic Forum’s Global Competitiveness Report, the Netherlands overtook Singapore as the top-ranked country on Quality of Port Infrastructure.

Tax policies are another area where the Netherlands has sought to make itself an attractive place for foreign companies to do business. Rather than focus on levels and types of taxation – where critics of globalization fear the possibility of a “race to the bottom” – consider how the Netherlands turns clarity in tax administration into an advantage. According to a report by the accounting firm Deloitte, “Perhaps the most significant incentive in the Netherlands for international firms is the willingness of Dutch tax authorities to provide advance tax rulings on proposed transactions. These rulings attract international investors by providing certainty on tax structures and allowing companies to negotiate multi-year rulings with the tax authorities.”

The material discussed already has touched on the administrative and geographic legs of the CAGE framework – and the economic component is usually excluded from policy analysis because economic results are viewed as the outcomes policy is meant to influence rather than policy choices themselves. But what about cultural factors? In the 2011 IMD World Competitiveness Yearbook, the Netherlands ranked fifth out of 37 countries (and second in Europe) on Cultural Openness. And culture also includes more practical considerations such as foreign language proficiency – another area where the Netherlands is a leader. According to a Eurobarometer survey conducted in 2005, 87% of the population of the Netherlands can speak English, 66% can speak German, and 24% can speak French.

This subsection has cited only a small sample of the policies that have let the Netherlands capitalize on the potential of its structural (particularly geographic) conditions to capture the top rank on the DHL Global Connectedness Index. Even this brief list, however, highlights three important lessons:

First, policy choices must be tailored to a country’s structural conditions. It was because of the Netherlands’ geography that it made sense for that country to prioritize investment in its port facilities. And more broadly, the policy content to which new EU members have to make their laws conform to join the EU – at least 20,000 pages and by some estimates more than 80,000 – provides an indication of the range of policies adopted by the Netherlands in part because of its location in Europe. If the Netherlands was in a different region, policy harmonization to promote integration would have required different policies.
Second, cooperation with neighboring countries significantly expands the possibilities for connectedness. Without openness on the part of Germany and other neighbors, the Netherlands could not have achieved its level of connectedness. Connectedness is pursued most effectively in concert with a country’s natural partners based on cultural, administrative, geographic and economic (CAGE) factors.

And third, the most connected countries implement policies that go well beyond the standard ones covered in the statistical analysis in the previous section. There are no cross-country rankings or ratings of countries’ willingness to provide advance tax rulings, but sensitivity to the challenges prospective foreign investors face uncovered a possibility to improve upon typical practice. In light of the limited levels of connectedness described in Chapter 1, it is not difficult to identify barriers that could be targeted for policy innovation.

**Surprising Headroom**

As one of the pioneers of global trade, located at the heart of the world’s most connected continent, it is perhaps unsurprising that the Netherlands is a leader in global connectedness. What is more surprising is how much headroom the Netherlands still has to become more connected.

Returning to merchandise exports, while the Netherlands exported goods worth 79% of its GDP in 2011, over half of those exports flowed through the Netherlands, rather than originating in the Netherlands’ internal economy. So, from the standpoint of a Dutch manufacturer (rather than a trader), it is better to think of the depth of the Netherlands’ merchandise exports as somewhere in the range of 30–40%, rather than close to 80%. And since the Netherlands comprises only about 1% of the world economy (implying that if borders and distance didn’t matter at all, it would export 99% of its output), it could increase the intensity of its merchandise exports significantly.

The breadth of the Netherlands’ merchandise exports also indicates significant growth potential. In 2010, 80% of the Netherlands’ merchandise exports went to destinations within Europe, even though Europe makes up only 30% of the world economy. A useful device to summarize the limited depth and breadth of the Netherlands’ trade is a map that scales the Netherlands based on its GDP minus its merchandise and services exports (to approximate the proportion of its output that remains within the country, after adjusting for re-exports), and scales all other countries in proportion to the value of the Netherlands’ exports to them, as shown in Map 4.1. The Netherlands itself dwarfs even its larger neighbors, and Europe fills nearly the entire map area.

Data for other types of flows also indicate that the Netherlands could substantially increase its global connectedness. Between 2009 and 2011, only 9% of gross fixed capital formation in the Netherlands was accounted for by inflows of foreign direct investment (FDI), and as of 2011, 68% of the Netherlands’ stock of inward FDI came from within Europe. With respect to information flows, 76% of the international calling minutes from the Netherlands were to other countries within Europe and 94% of the Netherlands’ exports of printed publications were also intra-regional. And considering people flows, 95% of people born in the Netherlands still reside there, and among the 5% who have migrated outside the country, 46% remain in Europe. Regarding incoming tourism and education, 84% of international tourists and 81% of international students come from within Europe.

For the Netherlands and for Western Europe in general, expanding the breadth of its global connectedness takes on particular importance in light of projections for slow growth close to home over the medium to long term.
Map 4.2 is a rooted map with other countries sized according to Netherlands’ merchandise exports to them and colored according to their projected real GDP growth rates from 2012–2017. Roughly 87% of the Netherlands’ exports in 2010 were to high income countries – only 13% to far-away and fast-growing emerging and developing countries. And longer term, note that the Europe’s share of world GDP is projected to decline from 30% in 2010 to 25% in 2030 (and the EU27’s share is projected to fall from 26% to 20%).

The Netherlands’ imports, however, reflect stronger connections to emerging markets: 28% came from low and middle income countries in 2010. The Netherlands increasingly serves as a gateway for Asian imports into Europe. Similarly, the Netherlands is a major investor in emerging markets but attracts little FDI from them. In 2009, the Netherlands had less than 2% of the EU-15’s total inward FDI stock from BRIC countries. Companies from the Netherlands will need to stretch their ability to bridge CAGE distances to tap more effectively into emerging markets, expanding breadth and depth in tandem. Extending the Netherlands’ language competencies into key Asian languages would also help.

There are also large untapped integration opportunities at the EU level, where progress on removing barriers to integration would help deepen the Netherlands’ connectedness. To cite just one example, while one of the EU’s four freedoms promises a unified market for services, there remain large barriers to services market integration – one reason that the Netherlands’ services exports depth is only 1/5th as high as its merchandise exports depth even though services generate 3/4th of Netherlands’ GDP.

To summarize, the Netherlands illustrates the power of intra-regional integration to spur gains in connectedness as well as the untapped potential that all countries have to become more connected. And while the latest Dutch elections were read by many as a boost for European integration, the continuing prominence in that country of political movements that favor reducing connectedness provides a reminder that even in the world’s most connected country, openness still needs to be nurtured in both the cultural and the economic domains.

Vietnam
Vietnam in the 1980s could scarcely have presented a starker contrast with the Netherlands. Its 1989 GDP per capita of $97 ranked it as the poorest country in the world (Somalia was the second poorest with $166). And its economy was almost entirely closed. From that very bleak starting point, Vietnam’s economic transformation since it launched its Doi Moi (“renovation”) reform process in 1986 has been remarkable.
By 2011, Vietnam’s GDP per capita had risen to nearly $1400 (ranking 134th out of 177 countries). Vietnam opened up to the extent that it now ranks 31st globally on the DHL Global Connectedness Index (46th on depth and 36th on breadth). It achieved the 5th largest connectedness score increase from 2005 to 2011, and in 2011, only Hong Kong and Malaysia beat Vietnam in terms of how much higher their depth scores were than what a regression model predicted based on countries’ structural characteristics (Figure 4.2).

As the details in Vietnam’s country profile at the back of this report reveal, Vietnam’s high connectedness score is driven almost entirely by its merchandise trade flows (both imports and exports) and by its inward capital flows (FDI and portfolio equity investment). Vietnam is in the bottom 10% of countries on people pillar depth and the bottom 30% on information pillar depth. Therefore, to highlight how connectedness contributed to Vietnam’s growth, the material that follows will focus on the trade and capital pillars. Nonetheless, Vietnam’s low rankings on the people and information pillars provide another example of the pattern that even countries that do well in terms of overall connectedness tend to have substantial headroom for improvement along at least some dimensions.

**Figure 4.4** plots the depth of Vietnam’s merchandise exports and FDI inflows from 1980 to the present and juxtaposes those two connectedness metrics against the country’s GDP per capita in U.S. dollars. The figure shows how Vietnam’s connectedness and prosperity surged in tandem since the country began opening up in 1986. The following subsections will review, in turn, Vietnam’s trade and FDI policies and how Vietnam’s participation in international trade and capital flows contributed to its economic development.

**Merchandise Trade**

Vietnam’s initial Doi Moi reforms, spurred by economic pressures associated with declining Soviet support during the early 1980s, simultaneously scaled back restrictions on private enterprise and opened up the economy to foreign participation. Prior to 1988, only a small set of state-owned international trading companies were permitted to import or export. These companies operated a “planned import/export regime” under which import volumes were set according to anticipated shortfalls of domestic production versus demand and exports targets were set based on requirements to fund imports.

In 1988, Vietnam’s new Import and Export Duties Law officially ended the planned trade regime, but specific trade policies were liberalized more gradually. In 1989, multiple official exchange rates were phased out and the Vietnamese dong was devalued from 607 dong per U.S. dollar in 1988 to roughly 10,000 in 1991. In 1990, private enterprises were permitted to conduct international trade, but a complex licensing process limited the number of private firms.
that actually did trade themselves. Tariffs were also reduced, an import duty drawback system was introduced to facilitate exports, and export processing zones were set up. In 1999, licensing requirements were scaled back so that all private enterprises could participate in international trade. In 2001, restrictions on the commodities that particular firms could export were lifted. By 2004, almost all import quotas had been eliminated. Customs administration was also overhauled in the early 2000s.

The expansion of Vietnam’s merchandise trade was also spurred by its entry into a series of multilateral and bilateral trade accords. In 1995, Vietnam joined ASEAN (the Association of Southeast Asian Nations), and in 2001, Vietnam entered into a bilateral trade agreement with the United States. The U.S. and other bilateral accords paved the way for Vietnam’s eventual entry into the WTO (World Trade Organization) as a full member in 2007. In 2008, Vietnam and Japan signed a broad “economic partnership pact.” Carrying this trajectory forward, Vietnam presently has multiple free trade agreements under negotiation.

Vietnam’s exports became more diversified as they expanded. Alongside primary exports such as crude oil and agricultural products (after struggling to feed itself before initiating reforms, Vietnam is now the world’s second largest rice exporter), Vietnam has become one of the world’s leading apparel and footwear exporters. More recently, Vietnam’s fastest growing export sectors include mobile phones and other consumer electronics. In 2010, Vietnam classified “light industry and handicraft goods” as its largest export category, accounting for 46% of total merchandise exports.36

Vietnam also diversified its export destinations to the extent that it ranked fifth worldwide on merchandise exports breadth in 2011 (see left side of Map 4.3). Its imports, however, came from a much narrower set of sources (right side of Map 4.3), ranking only 60th on merchandise imports breadth. This pattern reflected its exports’ reliance on imported inputs from more advanced economies in East Asia, a phenomenon to which the final subsection of this example will return.

A 2012 World Bank report summarized the economic and political benefits Vietnam reaped by opening up to international trade since Doi Moi as follows: “Trade liberalization has had a huge positive impact on Vietnam’s economy. Some of the visible benefits of trade liberalization include a significant boost to foreign direct investment, a resilient export sector, lower prices, and improved quality of goods and services. Bilateral trade agreements and WTO commitments have led Vietnam to introduce important modifications in its institutional and administrative systems. For example, as part of its WTO commitments, Vietnam publishes an official journal of all the laws, regulations, and administrative procedures of general application before enforcing them. Moreover, the full texts of the legal acts are posted on a government website at least 60 days prior to approval so agencies, organizations, and individuals can submit comments.” 37

As this World Bank evaluation described, one of the major benefits to Vietnam of opening up to international trade involved rising foreign direct investment inflows. As the material that follows will describe, rather than trade simply spurring FDI, both were mutually reinforcing contributors to Vietnam’s economic development.

Foreign Direct Investment

Foreign direct investment, alongside merchandise trade, was a crucial part of Vietnam’s spectacular rise from poverty to middle-income status. As one analyst put it,
It is hard to envisage ‘Doi Moi’ without the presence of FDI activity; an imported ‘private sector’ for a country that only had a fledgling private sector of its own at the beginning of the 1990s. By the end of the 1990s, although foreign-invested companies employed less than 1% of the total workforce in Vietnam, they cumulatively accounted for around 27% of the country’s (non-oil) exports, 35% of the country’s total industrial output, they constituted almost 13% of Vietnam’s GDP, and contributed around 25% of total tax revenues.”

Vietnam’s inward FDI spiked in the early 1990s, with FDI rising to nearly 50% of Vietnam’s gross fixed capital formation in 1994. This initial surge of inward FDI was enabled by 1987 reforms that opened most sectors to FDI as well as subsequent policy adjustments in 1990 and 1992. Foreign governments’ cancellation of embargoes on their nationals’ investing in Vietnam over the same time frame led to “home country waves” of pent-up investment as companies from new countries rushed into Vietnam. Companies seeking an early-mover advantage in what looked like a promising market raced to enter as soon as the necessary reforms were enacted.

FDI into Vietnam slowed sharply in 1997 with the onset of the Asian financial crisis. Subsequent reforms were enacted to further streamline approval processes and improve operating conditions for foreign invested enterprises. While FDI as a percentage of gross fixed capital formation never regained the lofty levels of the early 1990s, substantial inflows were sustained and the depth of Vietnam’s FDI inflows began rising again in the last few years.

Foreign direct investment was an important enabler of Vietnam’s expanding merchandise exports. Figure 4.5 tracks the proportion of Vietnam’s merchandise exports that were generated by foreign invested enterprises from 1995 to 2010. This proportion soared over the late 1990s and early 2000s, and has exceeded 50% every year since 2003. In 2010, 54% of Vietnam’s merchandise exports came from foreign invested firms. One analysis found that “on average, US$2.5 of FDI in Vietnam is associated with US$1 of exports.”

The geography of Vietnam’s inward FDI also bears a close resemblance to its merchandise imports, reflecting how foreign investors imported inputs for their products as well as capital equipment from their home countries. From 1990 to 2010, 45% of Vietnam’s inward FDI based on registered capital came from Taiwan (China), Korea, Singapore, and Japan – the origins of 36% of Vietnam’s 2011 merchandise imports (See Map 4.4). Research based on FDI that was actually disbursed (rather than registered capital) indicates Japan was actually the largest source followed by Singapore – adjusting somewhat the pattern shown on the map – but nonetheless under this method the same four countries remain Vietnam’s largest foreign investors.

Before turning to the implications of this pattern for Vietnam’s challenges and opportunities moving forward, it is useful to note how Vietnam’s inward FDI is reflective of its geography and history. Vietnam’s location in Southeast Asia and long coastline positioned it to take advantage of the development of multi-country production chains in East and South-East Asia that coincided historically with its economic reforms. An African or Latin American country would not have had the same opportunities that were available for Asian countries connecting to Japan, Korea, Taiwan (China), and Singapore over this time period.

Vietnam’s history also shaped its integration in other ways. Vietnam was controlled by various Chinese dynasties from 111 B.C. until the 10th century resulting in cultural ties and
shares a similar political system with China, but the Sino-Vietnamese relationship in recent decades has been marked by substantial friction. The Sino-Vietnamese War of 1979 remains a fresh memory and territorial disputes in the South China Sea remain an active source of conflict. One study found that, even after controlling for various factors, mainland Chinese firms were late movers investing in Vietnam. On the other hand, firms with Chinese cultural but not political linkages (from Taiwan and Hong Kong) were early movers. Vietnam’s colonial history and political system were also reflected in French firms and firms from socialist countries being early investors in Vietnam. 

Challenges and Opportunities
Vietnam’s trade and FDI patterns as described in the previous two subsections reflect its focus on labor-intensive manufacturing (e.g., apparel and footwear) and assembly (e.g., electronics), along with crude oil and agricultural products. 75% of Vietnam’s exports in 2008 were either low-tech or resource based (compared to only 42% of China’s exports in the same year).

The economic development challenge associated with such low-tech manufacturing and assembly is the limited value-added Vietnam contributes to its exports. Recall that assembly accounted for only 4% of the cost of producing an iPhone and an even smaller fraction of its selling price. Moving forward, Vietnam will have to follow other countries that have pursued similar development models up the value chain, growing its productivity to reduce its reliance on low labor costs as a basis for attracting investment.

Wage levels in Vietnam in early 2012 were less than half those prevailing in China: unskilled laborers in Vietnam made only $100–150 per month, versus $300 in southern China’s major manufacturing zones. Vietnam’s cost advantage, however, was offset by lower productivity. One study put Vietnam’s labor productivity at only 53% of China’s (and 40% of Thailand’s), classifying Vietnam as a “low productivity country.”

Macroeconomic instability, rapid wage inflation, strikes, skill shortages, infrastructure bottlenecks, and other complaints caused many analysts and investors to scale back their exuberance about Vietnam’s prospects in 2011 and 2012. Headlines such as The Economist’s “Vietnam: A Tiger at Bay” and Forbes Asia’s “Vietnam Loses its Luster” began to appear. Vietnam’s present growth model had not yet run out of steam, but there were clear signs that more reforms would be required to sustain the country’s growth. The IMF’s July 2012 staff report provided the following guardedly optimistic assessment of Vietnam’s medium term prospects: “Growth prospects remain good as Vietnam transitions to middle-income status, if macroeconomic stability is restored and sustained and structural reforms, notably in the financial and SOE [state-owned enterprise] sectors, are implemented.”

Broader studies of Vietnam’s economy offered a wide range of reforms that could help Vietnam sustain its growth trajectory – reforms that range from restructuring state-owned enterprises to strengthening its banking system. The unifying thread across the recommendations on offer was a focus on accelerating productivity growth.

Focusing in on measures to deepen its global connectedness, Vietnam, at its current stage of development, could reap large gains simply by improving many of the basic enablers of connectedness that were featured in the policy regressions presented earlier in this chapter. While the policy changes Vietnam has already implemented have been transformational, it still lags on many of the policy metrics covered in the regression analysis.
Vietnam provides a vivid example of how connectedness in terms of both trade and inward FDI can help a country escape from extreme poverty and achieve middle-income status.

Starting on the trade pillar, on the World Economic Forum’s 2011 Executive Opinion Survey, the second most problematic factor cited for exporting from Vietnam (after finding customers) was “access to imported inputs at competitive prices.” And the most problematic factor for importing was “tariffs and non-tariff barriers.” Vietnam’s weighted average applied tariffs remain higher than those of its immediate neighbors, indicating at least some basis for respondents’ emphasis of tariff reduction. And on the same survey, “burdensome import procedures” was the second most problematic factor for importing.

Turning to the capital pillar, Vietnam also ranks in the bottom half among countries covered in the DHL Global Connectedness Index on the two metrics shown in regressions to be associated with capital pillar depth: regulatory quality and capital account openness. Across the trade and capital pillars, indications that administrative barriers loom even larger than physical infrastructure bottlenecks could be advantageous because they could potentially be addressed more quickly than new infrastructure can be planned and constructed.

To summarize, Vietnam provides a vivid example of how connectedness in terms of both trade and inward FDI can help a country escape from extreme poverty and achieve middle-income status. Connectedness contributed to Vietnam’s growth directly by providing foreign capital and expertise as well as access to foreign markets, and it also contributed indirectly by spurring improvements in Vietnam’s internal business environment.

**Mexico**

Mexico is classified as an upper middle income country by the World Bank: its GDP per capita in 2011 was seven times higher than Vietnam’s, but still only one-fifth as high as the Netherlands’. In terms of global connectedness, Mexico trailed both of those countries, ranking 84th overall (93rd on depth and 68th on breadth). Its depth score was similar to that of other countries with comparable structural conditions.

Mexico is a particularly interesting country to focus on this year because of investors’ rising expectations about its future performance. Slowing growth and rising costs in the BRIC countries are shifting attention to what Jim O’Neill of Goldman Sachs dubbed the MIST countries of Mexico, Indonesia, South Korea, and Turkey. And among those, O’Neill had identified Mexico and Turkey as the most attractive at the moment.

**Figure 4.6** tracks the intensity of Mexico’s merchandise exports (split into fuel exports and non-fuel exports) as well as the proportion of Mexico’s exports destined for the United States over the period from 1962 to the present. While the Netherlands and Vietnam grew their merchandise exports depth almost continuously year after year over the past two to three decades, Mexico’s depth has expanded in fits and starts – stalling over extended periods. The last decade-and-a-half represent such a period: Mexico’s non-fuel exports reached 25% of GDP in 1995 (one year after the launch of the North American Free Trade Agreement), fell in the early 2000s and after recovering over the last few years were still only 26% of GDP in 2011.

To dig into the reasons for the pattern shown in Figure 4.6, the next section describes the policy initiatives that have shaped Mexico’s trade integration. Then, the following section turns to what Mexico’s breadth (particularly its focus on exporting to the United States) implies for opportunities to increase its depth and identifies specific policy implications.

**Deepening Trade Integration**

Mexico’s trade policy from the 1930s until the early 1980s was characterized by high levels of protection, reflecting a strategy of “import substitution industrialization” that was
formalized in the 1950s. This economic model, popular among developing countries in Latin America and elsewhere over this historical period, combined high barriers to international trade and investment with substantial state intervention designed to accelerate industrial development. Levels of protection in Mexico, at their peak, subjected imports of nearly all types of goods that Mexico produced domestically to import license requirements and set tariffs as high as 100%.

One important early exception to Mexico’s inward focus was the “Border Industrialization Program” that was launched in 1965 and created the industry known as the “maquiladoras.” This program provided special allowances and incentives to permit foreign (nearly all U.S.-based) companies to import materials into Mexico to be assembled or otherwise worked on and then re-exported. The program started slowly, employing only 62,000 workers in 1975. Initially, it required factories to be located close to the U.S.-Mexico border but that and other restrictions were later relaxed.

The maquiladoras and Mexico’s non-fuel exports began a first wave of rapid growth in the early 1980s, as Mexico opened up in response to a severe balance-of-payments crisis brought on by falling oil prices. Among the key reforms that stimulated the growth of the maquiladoras was relaxation of restrictions on inbound FDI, another reminder of the complementarities between trade and capital openness. The crisis also prompted a devaluation of the Mexican peso which reduced the cost of Mexico’s exports. In 1983, Mexico began relaxing its system of import license requirements and tariffs, and 1986 saw its accession to the General Agreement on Tariffs and Trade (GATT), committing it to further liberalization. By 1990, there were nearly 2000 maquiladora plants that employed nearly half a million people.

The next major acceleration of Mexico’s trade integration came in 1994, the year that the North American Free Trade Agreement (NAFTA) was implemented. NAFTA was Mexico’s second free trade agreement, following an accord reached with Chile in 1992. In 1994, Mexico also entered the Organization for Economic Cooperation and Development (OECD). December of 1994, however, also brought another economic crisis – the “tequila crisis” – that caused the peso to lose nearly half its value in six months and real wages to fall by 20%. Again, administrative integration and a sharp drop in the cost of Mexico’s exports prompted its depth score to rise, with the maquiladoras at the center of the action. Before their growth stalled around the turn of the millennium, the number of maquiladora plants would reach nearly 4000 and employ 1.3 million people.
After NAFTA, Mexico continued negotiating and signing free trade agreements, ultimately reaching free trade accords covering more trade partners than any other country. In the decade after NAFTA, Mexico signed free trade agreements with various countries across Latin America. It also signed a free trade agreement with the European Union in 1997 (which came into force in 2000) and another with Japan in 2004 (implemented in 2005). The Japanese agreement was particularly groundbreaking as Mexico was only the second country to sign a free trade agreement with Japan, after Singapore. As of 2012, Mexico had free trade agreements in force with 44 countries.

Expanding Breadth to Increase Depth
Despite Mexico’s expanding set of free trade accords since NAFTA, its merchandise exports depth has not increased significantly since the mid-1990s. Competition from China is a widely cited factor – and one that will be revisited in the conclusion to this case example. However, less attention has been paid to insufficient breadth as a barrier to increasing Mexico’s exports depth.

Between 2007 and 2011 (a timespan chosen to smooth out the impact of the financial crisis), 81% of Mexico’s merchandise exports went to the U.S. It is natural that the U.S. should be Mexico’s top export partner, but should the U.S. share of Mexico’s exports be quite so high? As the first section of this chapter explained, case-by-case analysis is required to determine whether a country’s breadth is too high or too low.

The results of one such analysis are summarized in Figure 4.7. The pie chart on the left side depicts Mexico’s actual exports, and the pie chart on the right shows the export pattern that is predicted by a gravity model that takes into account nine cultural, administrative, geographic, and economic (CAGE) factors, whose effects were estimated on the basis of a cross-country regression. The model implies that Mexico has substantial scope to broaden its export distribution.

The model estimates that the proportion of Mexico’s exports destined for the U.S. should be closer to 70% than 80%. This, however, does not imply that Mexico should reduce its exports to the U.S.! Rather, Mexico should increase its exports to the rest of the world. The model also provides an indication of which markets remain underexploited: Europe and Asia.

Mexico’s limited exports to Europe and Asia (only 9% of the total) are surprising in light of the fact that Mexico, as described above, has free trade agreements with the EU and Japan. The sticking point is that Mexico’s reliance on imported (particularly U.S. but increasingly also Asian) inputs in its manufacturing means that many products produced in Mexico don’t count as Mexican under the rules of Mexico’s trade agreements. In 2006, Mexican content accounted for only 34% of the value of Mexico’s manufacturing exports (as compared to 51% for China).

In addition to restricting Mexico’s exports breadth, its heavy reliance on imported inputs also means that Mexico benefits less from its depth than other countries do. According to an analysis by Jaime Serra, who was Mexico’s lead negotiator on the North American Free Trade Agreement (NAFTA), each dollar of Mexican exports generates only $1.80 of economic activity in Mexico, versus comparable figures of $2.30 for Brazilian exports and $3.30 for U.S. exports.

The clear implication for Mexico is to strengthen its domestic supply base in order to increase its domestic value added and reduce its reliance on imported inputs, without resorting to protectionism. How? The analysis at the beginning of this chapter highlighted how both international and domestic policies can spur connectedness.
made great strides in opening up its international policies, Mexico should focus on improving its domestic business environment.

Increasing the intensity of competition in the domestic market to reduce the cost of inputs would help. Mexico ranks 100th out of 132 countries on the Domestic Competition component of the World Economic Forum’s 2012 Enabling Trade Index. Increasing competition in the domestic market by opening up to more foreign competition is a way that connectedness itself could contribute to improving this aspect of the business environment.

Improving physical security is also an obvious priority. Physical Security is Mexico’s weakest pillar on the Enabling Trade Index, ranking 126th out of 132 countries. Other priorities to improve Mexico’s domestic business environment include long-stalled labor, education and energy sector reforms.

The importance of building up Mexico’s domestic supply base also highlights the role of the private sector in improving a country’s connectedness. As Mexico’s government implements the necessary reforms, managers at export-oriented factories and their suppliers, along with domestically focused businesses and entrepreneurs, will need to identify specific opportunities, invest, and guide the development of Mexico’s supply base.

A Window of Opportunity

Competition from China for low-cost manufacturing and assembly was cited above as one of Mexico’s principal challenges over the past decade. Barclays estimates that competition from China slowed Mexico’s GDP growth by 0.6% per year between 2002 and 2006. But rising production costs in China as well as high fuel prices impacting transportation costs support the optimistic expectations about Mexico’s prospects mentioned at the opening of this section.

Mexico’s wages are now only 29% higher than China’s, as compared to nearly 400% a decade ago. For serving the North American market, this reduced labor cost gap combines with transport savings and delivery time advantages to have improved Mexico’s competitiveness as a manufacturing exporter. Surface shipments from Mexico to the U.S. take a few days, versus “between 20 days and two months” from China. Mexico’s demographics and macroeconomic fundamentals are also favorable.

Some recent movement as of this writing on anti-monopoly and labor market reforms provide encouraging signals that Mexico may enact the policy changes that are necessary to take advantage of this window of opportunity – although such signals have, in the past, failed to culminate in real changes. If this time turns out to be different, complementarities between increasing depth and breadth could power a new wave of gains from connectedness. As Mexico exports more to North America, it can attain the scale economies required to build a local supply base in more industries, which in turn would enable it to fulfill the promise embodied in the breadth of its trade agreements.

Figure 4.7

Mexico Exports Breadth Analysis: Actual Exports Versus CAGE Based Gravity Model Prediction

A CAGE based gravity model indicates that the U.S. share of Mexico’s merchandise exports would naturally tend toward closer to 70% than its current level of roughly 80%. It also indicates that Mexico likely has untapped export opportunities specifically in Europe and Asia. Source: Actual exports from UN Comtrade Database. CAGE Model prediction is based on the gravity model analysis underlying the CAGE Comparator™. For more details, refer to www.ghemawat.com/cage.
Conclusion

This chapter opened by presenting evidence that the potential gains from deepening global connectedness add up to trillions of dollars. It then identified a set of policies that cross-country regression analysis has shown to be significant contributors to the depth of global connectedness. And three case examples – the Netherlands, Vietnam, and Mexico – were presented to highlight the importance of customizing connectedness strategies to individual countries’ conditions. The 8 points that follow summarize implications for thinking through a country’s global connectedness strategy:

1. *Remap the world from your country’s perspective.* Use “rooted maps” like those presented in this report to visualize your country’s connectedness pattern. By re-sizing countries based on their trade, capital, information, and people flows but otherwise maintaining their familiar geographic shapes and positions, rooted maps help reveal drivers of connectedness. Geography was a central factor in all three case examples: Netherlands as a gateway to Europe, Vietnam connecting into Asian production networks and Mexico with its focus on exports to the United States.

2. *Account for other structural and historical factors.* A properly customized connectedness strategy must also account for other structural factors. Look, for example, at which other countries share your country’s language, have similar legal and political systems, and so on. And don’t forget about history, one indication of the importance of which is provided by the fact that colonial ties dismantled decades and in some cases centuries ago still have large impacts on trade flows. If two countries share a historical colonial linkage, they will typically trade almost three times more than two otherwise similar countries that don’t share colonial ties. Spain’s prominence on Mexico’s export map (in Mexico’s country profile at the back of this report) exemplifies how rooted maps can also highlight such non-geographic similarities.

3. *Increase depth via policies that target international flows.* Every country, even the Netherlands, has much to gain by increasing the depth of its connections with other countries. The regression analysis highlighted the impacts of tariffs, border administration, capital account openness and other policy areas that directly target international flows. And note that the regression analysis also associated specific policy measures with each of the four pillars of the DHL Global Connectedness Index, facilitating the development of strategies to improve connectedness at the pillar level.

4. *Increase depth through domestic policy as well.* The regression analysis also revealed that improving a country’s domestic business environment can contribute powerfully to deepening its global connectedness. Regulatory quality, for example, was an even better predictor of capital pillar depth than capital account openness. Without deep roots in and understanding of a particular country, foreign firms may be even more sensitive than domestic firms to its business environment. In light of the strides Mexico has already made on policies that directly target international flows, it makes sense for Mexico to focus now on domestic policy levers to deepen its connectedness.
5. **Analyze breadth to find untapped markets.** Some countries focus too much on only a few trading partners, whereas others miss out on nearby opportunities. Gravity models, as the Mexico example demonstrated, can help figure out whether a country should increase or decrease its breadth and even specify where to target development efforts. And while working on the rebalancing that such models indicate, don’t treat global connectedness as a zero-sum game; expand your connections rather than just shifting shares from one country to another.

6. **Focus on value, not on volume.** That was how Pascal Lamy, director-general of the WTO, summarized the implications of the ADDING Value scorecard, pointing out how trade professionals still often think mainly about increasing trade volumes rather than the value generated via trade. Vietnam and Mexico can both tap into large gains from increasing the share of domestic value-added in their exports at the same time as they continue growing their trade volumes.

7. **Recognize the importance of imports.** Don’t mistake an export-only development strategy for a true global connectedness strategy. Recall the emphasis Vietnam’s exporters placed on challenges associated with the cost of imports. Imports of capital goods – machinery, equipment, and infrastructure-related products – boost productivity by facilitating the adoption of new technologies. New evidence suggests that imports might be associated with even more domestic innovation than exports. Importing is also usually the first step in the internationalization of small and medium-sized businesses that later go on to export.

8. **Recognize the long-term shift in world demand.** It can take years, if not generations, to build robust international connections; they are often based on factors that, like the proportion of a country’s population that speaks a particular foreign language, evolve slowly over time. Given these adjustment lags, it is important for every country to think through and anticipate the effects of the eastward shift in the world’s economic center of gravity. To participate in the world’s fastest-growing markets, most Western countries – both advanced economies such as the Netherlands and emerging markets like Mexico – will need to increase their breadth by dealing more effectively with cross-country differences and distances. Vietnam, on the other hand, may naturally find the breadth of its exports decline as it finds more demand closer to home.