2.

A more global South

A striking feature of the world scene in recent years is the transformation of many developing countries into dynamic economies that are doing well in economic growth and trade and progressing rapidly on human development. During these uncertain times, they are collectively bolstering world economic growth, lifting other developing economies, reducing poverty and increasing wealth on a grand scale. They still face formidable challenges and are home to many of the world's poor.[1] But they have demonstrated how pragmatic policies and a strong focus on human development can release the opportunities latent in their economies, facilitated by globalization.

The rise of the South is noteworthy for its diversity. This wave of developing countries encompasses countries with very different endowments, social structures, geography and history: for example, Algeria and Argentina, Brazil and Bangladesh, China and Chile, Ghana and Guyana, India and Indonesia, and Malaysia and Mozambique. These countries demonstrate that rapid people-centred development can take root in a wide range of contexts. And their experiences and knowhow are an expanding source of best practice that should enable other developing countries to catch up.

The rapidly expanding connections between these countries are also leading to a more balanced form of globalization. New trade routes are flourishing: countries as diverse as Morocco, South Africa, Thailand, Turkey and Viet Nam each have substantial export and import relationships with more than 100 economies.[2] New and improved technologies, adapted to local conditions, are boosting people's productivity and enabling production to be shared across borders.

And all this is happening as people and continents are connected on a previously unimaginable scale. More than 2 billion people use the Internet, and every year more than 1 billion people travel internationally.[3]

This transformation is affecting the dynamics of regional and global relationships. The leading countries of the South played a crucial role in responding to the 2008 financial crisis. Dialogue is intensifying on the appropriate provisioning of global public goods, such as curbing climate change, developing rules for stable financial markets, advancing multilateral trade negotiations and agreeing on mechanisms to finance and produce green technologies. It may seem that increasing the number of participants will make it more difficult to arrive at a global consensus. But the rise of the South could help break stalemates on some of today's global issues and lead to more development-friendly global agreements.

Rebalancing: a more global world, a more global South

Global production is rebalancing in ways not seen for 150 years. Growth in the cross-border movement of goods, services, people and ideas has been remarkable. In 1800, trade accounted for 2% of world output.[4] The proportion remained small right after the Second World War, and by 1960 it was still less than 25%. By 2011, however, trade accounted for nearly 60% of global output.[5] The expansion it represents is widely distributed, with at least 89 developing countries increasing their trade to output ratio over the past two decades (box 2.1).[6]

Today, as a result of reduced trade barriers and lower transport costs, the production of manufactures is fragmented across borders, with many countries trading intermediate goods.[7] And changes in information technology have made services increasingly tradable. The result has been a remarkable rise in intra-industry and intrafirm trade.

Developing countries, particularly in Asia, have ridden these shifts to great advantage. Between 1980 and 2010, they increased their share of world merchandise trade from about 25% to 47%[8] and their share of world output from 33% to 45%. Today, developing countries account for a third of value added in world production of manufactured goods.[9] Between 1990 and 2010, the merchandise exports of eight developing country members of the Group of 20 (G20) increased 15-fold, from about

BOX 2.1

The South's integration with the world economy and human development

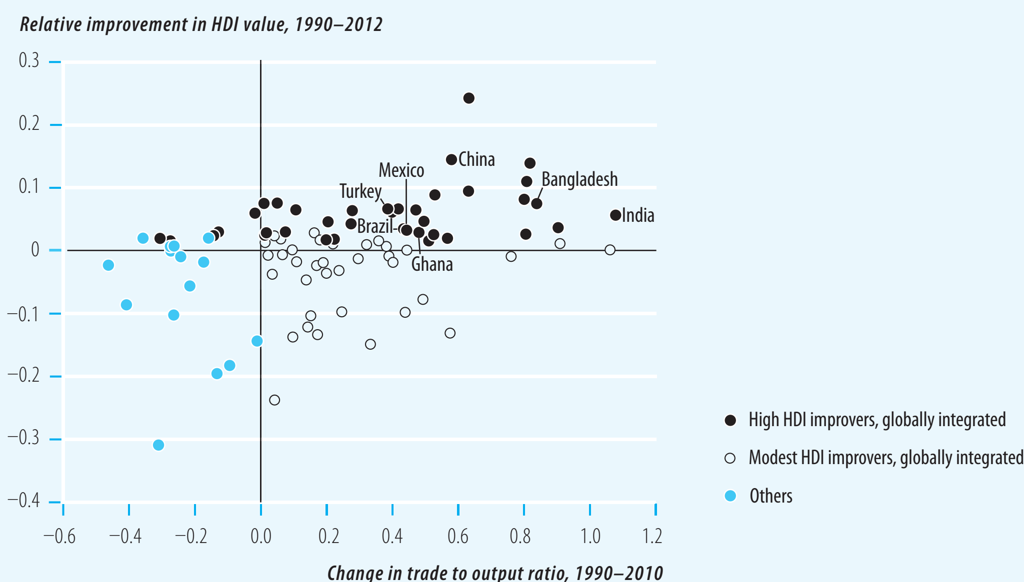
In a sample of 107 developing countries over 1990–2010, about 87% can be considered globally integrated: they increased their trade to output ratio, have many substantial trading partnerships1 and maintain a high trade to output ratio relative to countries at comparable income levels.[2] All these developing countries are also much more connected to the world and with each other: Internet use has expanded dramatically, with the median annual growth in the number of users exceeding 30% between 2000 and 2010.

While not all globally integrated developing countries have made rapid gains in Human Development Index (HDI) value, the converse is true. Almost all developing countries that made the most improvement in HDI value relative to their peers between 1990 and 2012 (at least 45 in the sample here) have integrated more with the world economy over the past two decades; their average increase in trade to output ratio is about 13 percentage points greater than that of the group of developing countries with more modest improvement in HDI value. This is consistent with earlier findings that countries tend to open more as they develop.[3]

The increasingly integrated countries with major improvement in HDI value include not only the large ones that dominate the headlines, but also dozens of smaller and least developed countries. Thus they constitute a larger and more varied group than the emerging market economies often designated by acronyms, such as BRICS (Brazil, Russian Federation, India, China and South Africa), IBSA (India, Brazil and South Africa), CIVETS (Colombia, Indonesia, Viet Nam, Egypt, Turkey and South Africa) and MIST (Mexico, Indonesia, South Korea [Republic of Korea] and Turkey).

The figure below plots improvement in HDI value[4] against the change in trade to output ratio, an indicator of the depth of participation in global markets. More than four-fifths of these developing countries increased their trade to output ratio between 1990 and 2012. Among the exceptions in the subgroup that also made substantial improvement in HDI value are Indonesia, Pakistan and Venezuela, three large countries that are considered global players in world markets, exporting or importing from at least 80 economies. Two smaller countries whose trade to output ratio declined (Mauritius and Panama) continue to trade at levels much higher than would be expected for countries at comparable income levels. All countries that had substantial improvement in HDI value and increased their trade to output ratio between 1990 and 2012 are highlighted in the upper right quadrant of the figure. Countries in the lower right quadrant (including Kenya, the Philippines and South Africa) increased their trade to output ratio but made modest improvement in HDI value.

Human progress and trade expansion in the South



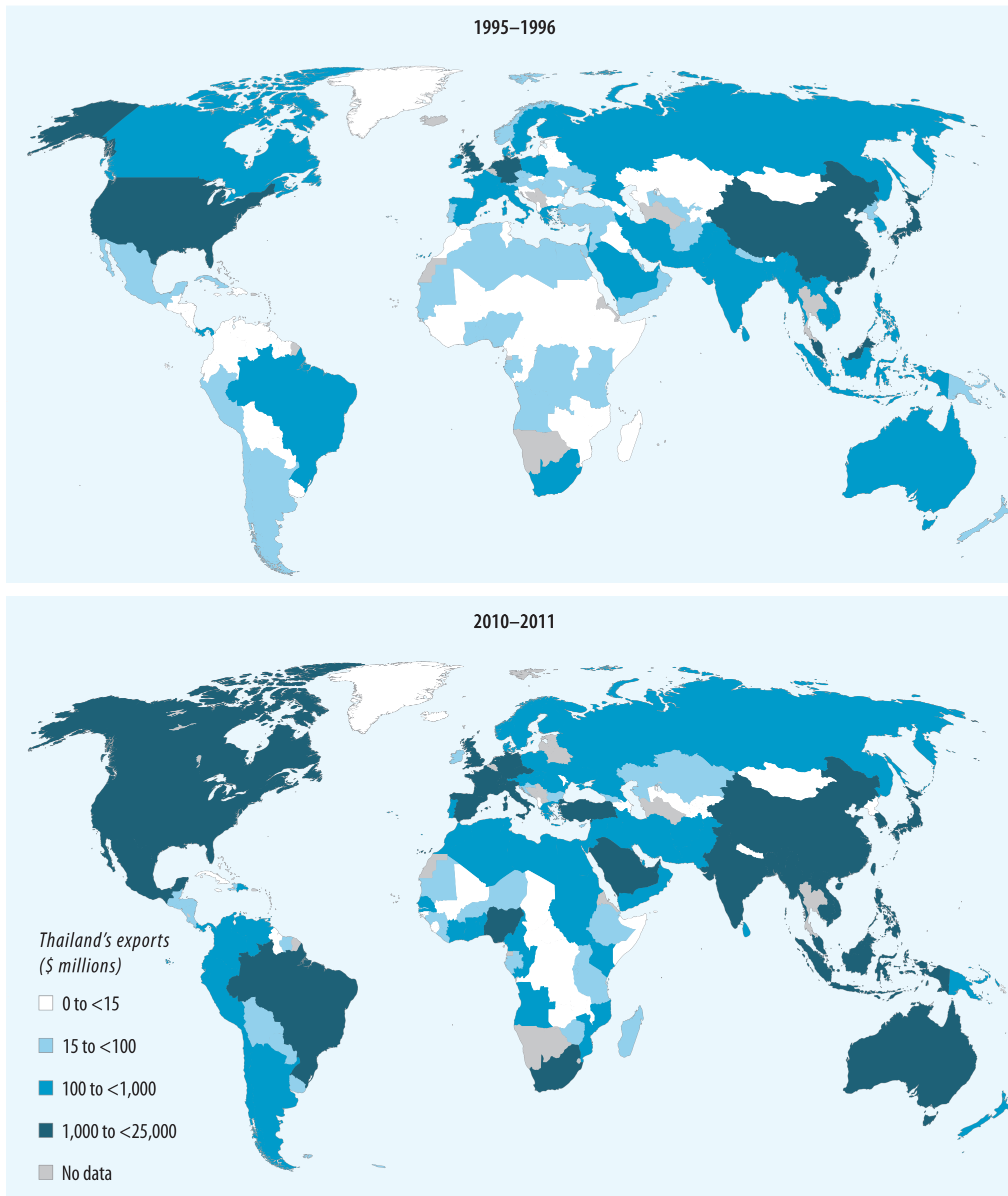
1. Bilateral trade exceeding $2 million in 2010–2011.
2. Based on results from a cross-country regression of trade to GDP ratio on income per capita that controls for population and landlockedness.
3. See Rodrik (2001).
4. Relative HDI improvement is measured by residuals from a regression of the change in the log of HDI value between 1990 and 2012 on the log of initial HDI value in 1990. Five countries with black dots in the upper left quadrant made substantial improvement in HDI value but reduced their trade to output ratio between 1990 and 2010, though they either maintained a large number of substantial trading ties globally or traded more than predicted for countries at comparable levels of income per capita. Countries with open circles in the upper right and lower right quadrants had modest relative improvement in HDI value between 1990 and 2012 but increased their trade to output ratio or maintained a large number of substantial trading ties.

Source: HDRO calculations; trade to output ratios from World Bank (2012a).

$200 billion to $3 trillion.[10] But trade has also increased for many other countries. In 2010, merchandise exports per capita from Sub-Saharan Africa were more than twice those from India.[11] In 1995–1996 Thailand had around 10 trading partners to which it exported more than $1 billion in goods each; just 15 years later it had three times as many, spread across the globe (map 2.1).[12]

MAP 2.1

Thailand's export expansion, 1995–2011



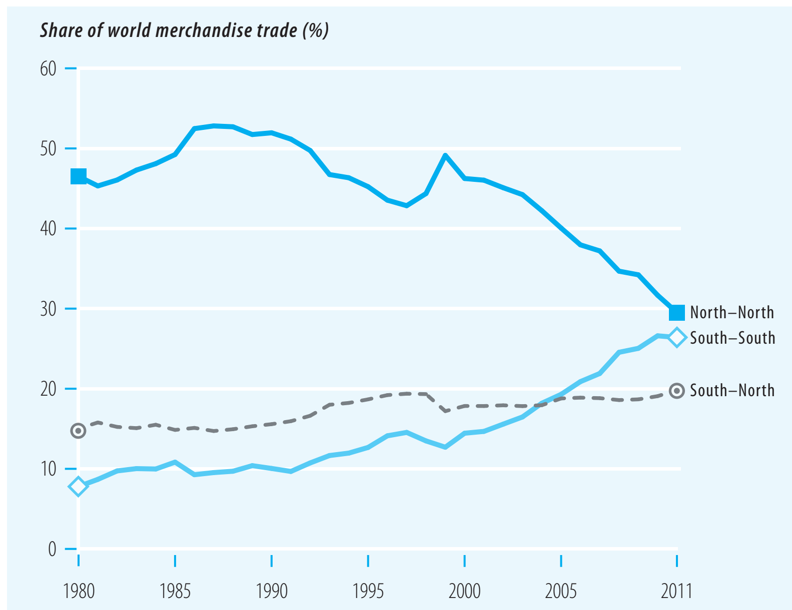
Note: Data are averages for 1995 and 1996 and for 2010 and 2011.
Source: UNSD 2012.

Global rebalancing has been accompanied by an unprecedented linking of developing regions. Between 1980 and 2011, South–South trade as a share of world merchandise trade rose from 8.1% to 26.7%, with growth particularly remarkable in the 2000s (figure 2.1). Over the same period, the share of North–North trade declined from about 46% to less than 30%. These trends hold even when exports and imports of natural resources are excluded.[13] South–South trade has been an important growth stimulus during the recent economic downturn. Countries of the South are exporting more merchandise (and manufactures) to each other than to countries of the North, and those exports are more intensive in skills and technology.[14]

Sub-Saharan Africa has become a major new source and destination for South–South trade. Between 1992 and 2011, China's trade with Sub-Saharan Africa rose from $1 billion to more than $140 billion. Indian companies are investing in African industries ranging from infrastructure to hospitality and

FIGURE 2.1

As a share of world merchandise trade, South–South trade more than tripled over 1980–2011, while North–North trade declined



Note: North in 1980 refers to Australia, Canada, Japan, New Zealand, the United States and Western Europe.
Source: HDRO calculations based on UNSD (2012).

TABLE 2.1

Least developed countries' trade with China, 2000–2001 and 2010–2011 ($ millions at current exchange rates)

	Imports from China		Exports to China	
Sector	**2000–2001**	**2010–2011**	**2000–2001**	**2010–2011**
Agricultural raw materials	16	105	243	1,965
Food and beverages	164	1,089	378	841
Fuel, ores and metals	42	323	3,126	44,244
Chemicals	232	2,178	1	93
Textiles and leather	1,323	8,974	14	138
Iron and steel	61	1,642	0	1
Other material-based manufactures	236	3,132	44	540
Industrial machinery	400	4,415	1	1
Electronics	382	3,806	3	7
Road vehicles and equipment	266	6,691	0	1
Apparel and footwear	266	2,577	4	129
Professional equipment and fixtures	147	2,291	1	34

Note: Export values are averaged for 2000 and 2001 and for 2010 and 2011 and rounded to the nearest whole number, as reported by China; import values include cost, insurance and freight.
Source: HDRO calculations based on UNSD (2012).

telecommunications, while Brazilian firms are some of the largest employers in Angola.[15]

Trade in capital goods and services

South–South trade offers developing countries access to affordable capital goods that are often more appropriate to their needs than are capital goods from richer countries and that are therefore more likely to be acquired, adopted and imitated.[16] Even India has benefited. In 2010, capital goods such as electrical machinery, nuclear reactors and boilers dominated India's imports from China (60%) and cost an estimated 30% less than if they had been sourced from richer countries.[17] This still does not reflect the full dynamism of such exchanges. For example, China's fourth-largest turbine producer, Mingyang, recently acquired 55% of India's Global Wind Power, with the aim of installing 2.5 gigawatts of wind and solar capacity in India.[18]

In 2010–2011, crucial inputs for augmenting productive capacity and infrastructure—road vehicles and equipment, industrial machinery, professional equipment and fixtures, chemicals, and iron and steel—made up nearly half of least developed countries' imports from China (table 2.1). The largest import category was textiles and leather, including yarn and fabric that are used as inputs for least developed countries' exports of apparel to markets in the North. Consumer electronics and apparel and footwear accounted for less than 20% of least developed countries' imports from China.

Developing countries have also seized opportunities for trade in services. Advances in information technology have facilitated services trade at different skill levels: lower skill work, as in call centres and data entry; medium-skill work, as in back office accounting, programming, ticketing and billing; and high-skill work, as in architectural design, digital animation, medical tests and software development. This trend is expected to intensify as developing countries take advantage of the benefits of scale from servicing their own expanding consumer markets.

One of the largest internationally traded services is tourism, which accounts for as much as 30% of world exports of commercial

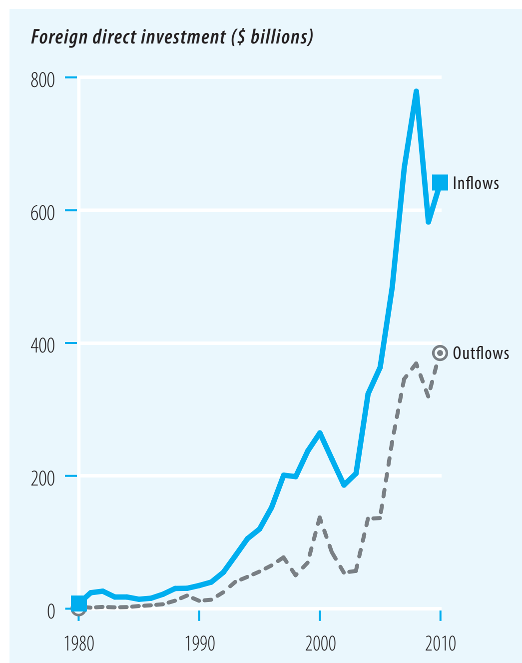
services.[19] Tourists spent roughly $1 trillion in 2010; China was among the most popular destinations (more than 57 million arrivals), along with Egypt, Malaysia, Mexico, Thailand and Turkey. The UN World Tourism Organization projects that by 2020, three-fourths of more than 1.5 billion tourist arrivals will occur within the same geographic region.

Foreign direct investment

The increase in output and trade in many developing countries has been assisted by large inflows of foreign direct investment (FDI): between 1980 and 2010, the countries of the South increased their share of global FDI from 20% to 50%.[20] FDI flows into developing countries have been a forerunner of outward FDI from developing countries. The growth rate of the South's FDI inflows and outflows rose rapidly in the 1990s and early to mid-2000s (figure 2.2). FDI from the South destined for other countries in the South grew 20% a year over 1996–2009.[21]

FIGURE 2.2

Foreign direct investment flows to and from the South have veered sharply upward since the 1990s



Note: Data are for developing and transitional economies as defined by the United Nations Conference on Trade and Development. Data are converted to US dollars at current exchange rates.
Source: HDRO calculations based on UNCTAD (2011a).

In many least developed countries, a sizeable share of inward FDI now originates in other developing countries, especially from the fast-growing multinational corporations based in the South.

These investments generally involve links with local firms and transfers of technology that make intensive use of labour and local content. There is some evidence of a strong regional dimension to South–South FDI, with most investments in countries in the same region, often to neighbours and to countries with shared languages.[22] The biggest outward investor from the South is China, with an investment stock of $1.2 trillion.[23]

In 1990, companies in the South made up only 4% of the Fortune Global 500 ranking of the world's biggest corporations; in 2011, their share was 22%. Today, one in four transnational corporations is based in the South. Though the enterprises may be smaller, they are numerous: there are now more Korean than Japanese multinational companies, and more Chinese ones than US ones. Enterprises from the South are going global earlier than firms from developed countries did at a similar stage of development.[24] They are augmenting their competitiveness by acquiring strategic assets such as brands, technology and distribution networks (box 2.2).

Production networks

The increase in trade and investment by multinational corporations and others has been linked to the expansion of international production networks, especially in Asia. Likened to a third industrial revolution,[25] these networks split production processes into multiple steps that cross national borders. As a result, developing countries have been able to diversify their industrial structures and participate in complex production processes. Developing countries engage initially in the labour-intensive segments, typically in product assembly, and then graduate to component fabrication and equipment manufacture. Meanwhile, the less complex production relocates to less advanced neighbouring economies. At the same time, these manufacturing plants create demand for domestic firms to supply inputs and producer

The increase in trade and investment by multinational corporations and others can be likened to a third industrial revolution

BOX 2.2

Acquisitions by the South of brands in the North

In 2011, 61 of the world's biggest corporations on the Fortune 500 list were Chinese, 8 were Indian and 7 Brazilian. Just five years earlier, China had 16 on the list, India 5 and Brazil 3. The South is going global through outward investment using mergers and acquisitions. The acquisition of venerated brands from the North by companies in lower and upper middle-income countries is a portent of the rise of the South. In 2005, the Chinese company Lenovo bought IBM's laptop division for $1.25 billion and took over $500 million of its debt. In 2010, Zhejiang Geely purchased the Swedish car company Volvo. In 2011 alone, Chinese firms spent $42.9 billion on an eclectic mix of more than 200 acquisitions: Sany Heavy Industry Co. acquired Putzmeister, Germany's largest concrete pump maker; Liugong Machinery Co. Ltd. purchased the Polish construction equipment manufacturer Huta Stalowa Wola; and Shandong Heavy Industry Group bought a 75% stake in Italy's Ferretti Group, a luxury yacht maker.

India's Tata Group acquired the Anglo-Dutch steel firm Corus for $13.3 billion in 2007 and Jaguar Land Rover for $2.6 billion in 2008. The Aditya Birla Group bought US aluminium firm Novelis in 2007 and Columbian Chemicals in 2011. Mahindra and Mahindra acquired Sangyong, a bankrupt Korean carmaker. Brazil's food companies have also been active: in 2007, JBS Friboi bought Swift, a US rival, to ease its entry into the United States. In 2011, Turkish companies made 25 deals worth nearly $3 billion. One of Turkey's famous acquisitions is Godiva, a Belgian chocolate manufacturer, bought for $850 million by Yildiz Holding. There are scores of lesser known purchases of smaller brands from the North by companies in Southeast Asia and the Arab States. (Many big purchases are also South–South. In 2010, India's Bharti Airtel acquired the African operations of Zain for $10.7 billion, and China spent $9.8 billion in 27 deals across Brazil, India, the Russian Federation and South Africa.)

South–North acquisitions are often interpreted in patriotic terms. Whether the deals help short-run profitability and value creation is unclear. In the long run, however, the strategic motives (outside the resource sector) appear to be about acquiring proprietary knowledge, skills and competencies that will help companies expand abroad and at home. Acquiring an established, albeit struggling, brand from the North gives companies from the South a foothold in mature markets. The acquiring companies lower their cost base by diversifying and globalizing supply chains and gain the technology and tacit knowhow (such as risk management or credit rating in the case of financial institutions) to enhance operating capabilities.

Source: HDRO; *China Daily* 2012; *The Economist* 2011a,b, 2012a; Deloitte 2012a,b; Luedi 2008.

services. In this way, opportunities to participate in international production have widened for new entrants—as for Malaysia in the 1970s, Thailand in the 1980s, China in the 1990s and Viet Nam today.

The North has played an important role in this rise of the South, just as the South is contributing to the North's recovery from the economic slowdown (box 2.3). International production networks have been driven mainly by final demand in the North. The surge in integrated production networks within Asia alone resulted in a high-technology export boom of nearly $320 billion between 1995 and 2005.[26]

Personal networks

Many transnational opportunities in both trade and investment arise through personal connections, often between international migrants and their countries of origin. In 2010, an estimated 3% of the world's people (215 million) were first-generation immigrants,[27] and close to half of them lived in developing countries.[28] Almost 80% of South–South migration takes place between bordering countries.[29]

Migrant diasporas are a huge source of foreign exchange. In 2005, South–South remittances were estimated at 30%–45% of worldwide remittances.[30] Diasporas are also a source of information about market opportunities. Diasporas can be associated with increased bilateral trade and FDI.[31] For example, US multinational firms with a high proportion of employees from particular countries have less need to rely on joint-venture partners in countries with which their employees have cultural ties.[32]

Links can also be strengthened when migrants return to their home country. Many information technology professionals in California's Silicon Valley, for example, have taken their ideas, capital and networks back with them when they return to their home countries. Other returnees are building new infrastructure, universities, hospitals and businesses. Returning entrepreneurs stay in touch with former colleagues, facilitating the diffusion of business information. Cross-border scientific collaboration also disproportionately involves scientists with diaspora ties.[33]

Other flows of information are made possible by the widening penetration of the Internet and new social media. Between 2000 and 2010, average annual growth in Internet use

BOX 2.3

Ties that bind: the mutual dependence of North and South

A substantial share of South–South trade, especially in manufactured parts and components, is driven by demand in the North. This makes the countries of the South sensitive to shocks in the North. After the 2008 global financial crisis, for instance, exports from Southeast Asia to Japan, the European Union and the United States fell about 20% between 2008 and 2009. The percentage drop in China's exports to these economies was also in double digits.

The North is also increasingly relying on the South to power its own rebound. Since 2007, US exports to China and Latin America and the Caribbean have grown two and a half times faster than US exports to traditional markets in the North. Helped by a weak dollar and increasing purchasing power in the South, expansion of US exports involved not only traditional sectors such as aircraft, machinery, software and Hollywood movies, but also new, high-value services such as architecture, engineering and finance. Behind Shanghai's booming architectural wonders (including Shanghai Towers, which will be the country's tallest building in 2015) are US designers and structural engineers, who are drawing an ever-increasing share of fees and royalties from services exported to Brazil, China and India.

Furthermore, a growing "app economy" supported by such companies as Apple, Facebook and Google employs more than 300,000 people whose creations are easily exported across borders. Zynga, a large company that makes online games and mobile applications, recorded $1.1 billion in revenue in 2011, a third of it from players outside the United States. The impact of a growing consumer class in the South is felt not only in services, but also in manufacturing and commodities. A third of US exports are now accounted for by firms employing fewer than 500 people; through new techniques, such as three-dimensional printing, many are recapturing markets once lost to imports. Emerging markets have also revived the US role as a commodity producer (of grains, for example). These shifting trade patterns suggest that a slowdown in the South would halt growth in the newly dynamic exports from the North, just as the recession in the North hit the South.

Source: HDRO; *The Economist* 2012b.

was exceptionally high in around 60 developing countries (figure 2.3).[34] Of the 10 countries with the most users of popular social networking sites such as Facebook, 6 are in the South.[35] While these rates reflect in part the low base in 2000, the spread and adoption of new media have revolutionized many sectors across diverse countries (box 2.4).

Impetus from human development

Successful performance in trade, investment and international production also depends on rising levels of human development, as illustrated by the association between high export earnings per capita and achievement in education and health (figure 2.4). The more successful countries in the upper right quadrant of the figure also tend to have better economic opportunities for women. Increased trade draws new workers, often women, into the labour market, expanding their choices. These new workers do not always benefit from good working conditions; efforts to keep costs low can put pressure on wages and work environments. Some governments may be reluctant to expand worker rights, if they believe it would raise production costs and reduce competitiveness (box 2.5).[36]

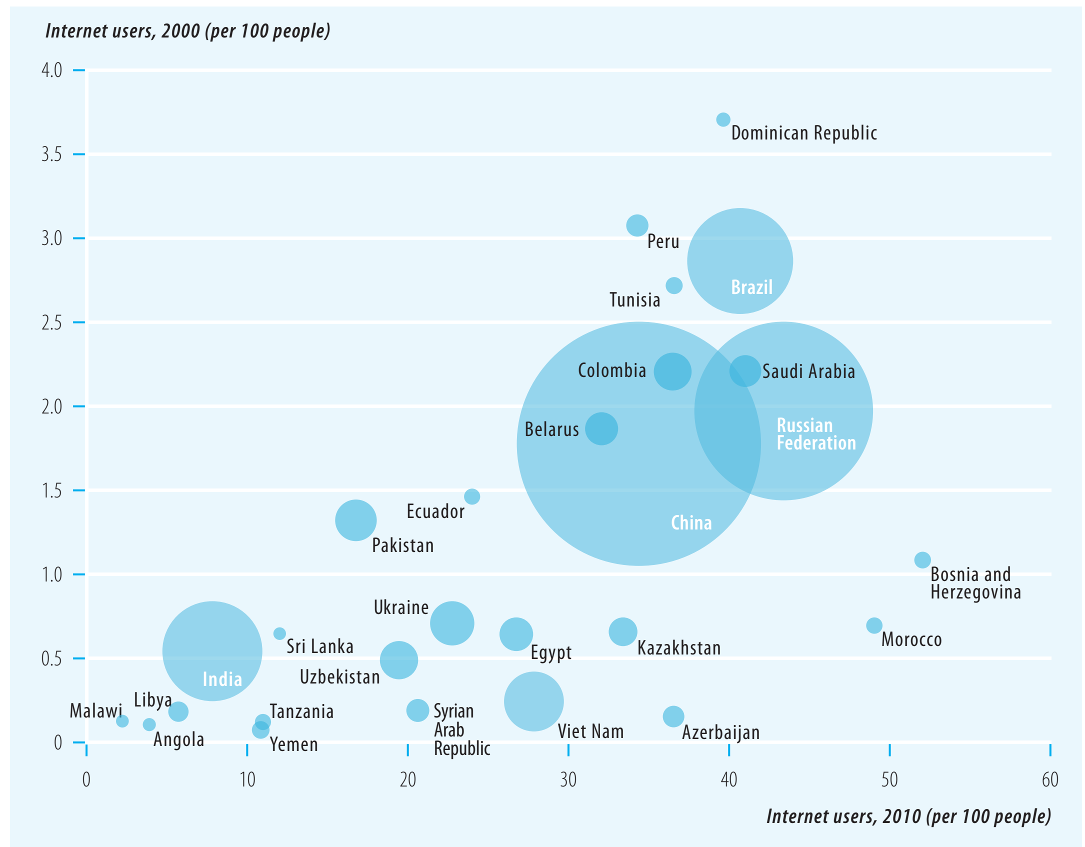
The capacity of people and institutions also affects the benefits from FDI. Host countries need to invest in the capacity of their people to identify, assimilate and develop the useful knowledge embedded in foreign capital and ideas.[37] Indeed, an educated and healthy workforce is often a key factor in influencing the decision of foreign investors on where to locate. This positive association between FDI inflows and achievements in health and education is evident for a sample of 137 countries (figure 2.5).[38]

This relationship between a skilled populace and inward foreign investment tends to be mutually reinforcing. But there are outliers. FDI could still flow to countries with modest achievements in human development if they are exceptionally well endowed in natural resources. Between 2003 and 2009, for instance, many resource-rich African countries where FDI contributed substantially to economic growth saw some of the lowest nonincome Human Development Index (HDI) values.[39] However, the impact on development is limited when such investments are confined to enclaves and delinked from the rest of the economy. Spillover benefits from FDI are unlikely to be widespread if there is no sustained investment in people's capabilities. In this regard, relatively

Host countries need to invest in the capacity of their people to identify and use the knowledge embedded in foreign capital and ideas

FIGURE 2.3

Between 2000 and 2010, Internet use grew more than 30% a year in around 60 developing countries



Note: Bubble size is proportional to total Internet subscriptions in 2010 (320,000 in Angola and 6.7 million in Viet Nam, for reference). Only developing countries exceeding the 75th percentile of compound annual growth in Internet users are shown.
Source: ITU 2012; World Bank 2012a.

resource-poor Ethiopia and Tanzania are noteworthy for their large increase in nonincome HDI value between 2000 and 2010 and for their above-average FDI over the same period.

Human development is also vital for participating in global supply chains. Contrary to popular perception, an abundance of low-wage and low-skill labour is not enough. Even assembling components made elsewhere can be complex, requiring individual skills and social competencies to coordinate and organize on a large scale. People can learn such skills with appropriate education, training and policy support. Basic human capabilities are also crucial.[40] China, Malaysia, the Philippines and Thailand in East Asia; Brazil, Costa Rica and Mexico in Latin America and the Caribbean; and Morocco and Tunisia in the Arab States have some of the highest trade shares in parts and components. Widespread benefits accrue only when activities are scaled up (box 2.6). However, it should also be noted that in trade of parts and components, the share of value added by any one country is generally low. In countries where production takes place almost entirely in enclaves connected to overseas supply chains, with limited ties to the domestic economy, the benefits to the rest of the economy are limited.[41]

Human development is vital for participating in global supply chains; an abundance of low-wage and low-skill labour is not enough

Helping other countries catch up

All developing countries are not yet participating fully in the rise of the South. The pace of change is slower, for instance, in the majority of the 49 least developed countries, especially those that are landlocked or far from world markets. Nevertheless, many of these countries have also begun to benefit from South–South

BOX 2.4

Mobile phones and the Palapa Ring: connecting Indonesia

Indonesia used telecommunications technology to connect its large cluster of far-flung islands and to open the country to the outside world in ways unimaginable a generation ago. This transformation was not spontaneous: it required extensive private and public investment and prescient policy guidance from the state-run information and communications technology council, Dewan Teknologi Informasi dan Komunikasi Nasional (DETIKNAS). With a diverse population stretched across a vast archipelago of nearly a thousand inhabited islands, Indonesia faced formidable obstacles in its transition to the digital age. Communications between islands was limited. Landline telephones were few, available to most ordinary Indonesians only in major cities and at high cost.

By 2010, however, 220 million mobile phones were registered in a country of 240 million people. An estimated 85% of adults owned phones, as state encouragement and market competition slashed the prices of handsets and phone service alike. The number of Indonesian Internet users has also grown exponentially. As recently as 2008, just an estimated 13 million had regular Internet access. By late 2011, more than 55 million people did, according to industry surveys. The majority of young Indonesians in urban areas now enjoy Internet access, mostly through mobile phones, but also through the country's 260,000 Internet cafes (*warnets*).

Through DETIKNAS the government has made Internet access a national priority, building what it calls a Palapa Ring of fibre-optic cables throughout the archipelago. It is closing in on its goal of wiring schools in a thousand remote rural villages with Internet service and has introduced e-budgeting and e-procurement systems for its own business operations. Perhaps most striking is the explosion of social media. In July 2012, there were 7.4 million registered Facebook users in greater Jakarta alone—the second most of any city in the world, after Bangkok's 8.7 million. In all of Indonesia, there were 44 million Facebook accounts—almost as many as India's 49 million. Indonesia has become a country where cabinet ministers send daily tweets to constituents. It has the third most Twitter subscribers in the world, and environmentalists use online databases and Google Earth mapping tools to publicize deforestation.

The human development benefits of this digital revolution are apparent, Indonesian analysts say, with mobile phones giving rural communities access to public health information, banking services and agricultural market information. Civic engagement has benefited, with online public information services expanding since the 2010 passage of a far-ranging access to information law. The economy is profiting too. A December 2011 study by Deloitte Access Economics calculated that the Internet economy already accounts for 1.6% of Indonesia's GDP, greater than the value of natural gas exports and comparable to the share in Brazil (1.5%) and the Russian Federation (1.6%), though still less than in China (2.6%) and India (3.2%). Deloitte projects an increase to at least 2.5% of GDP in five years, a substantial contributor to Indonesia's International Monetary Fund–predicted annual GDP growth rate of 6%–7% through 2016.

Source: Karimuddin 2011; Deloitte 2011.

trade, investment, finance and technology transfer.

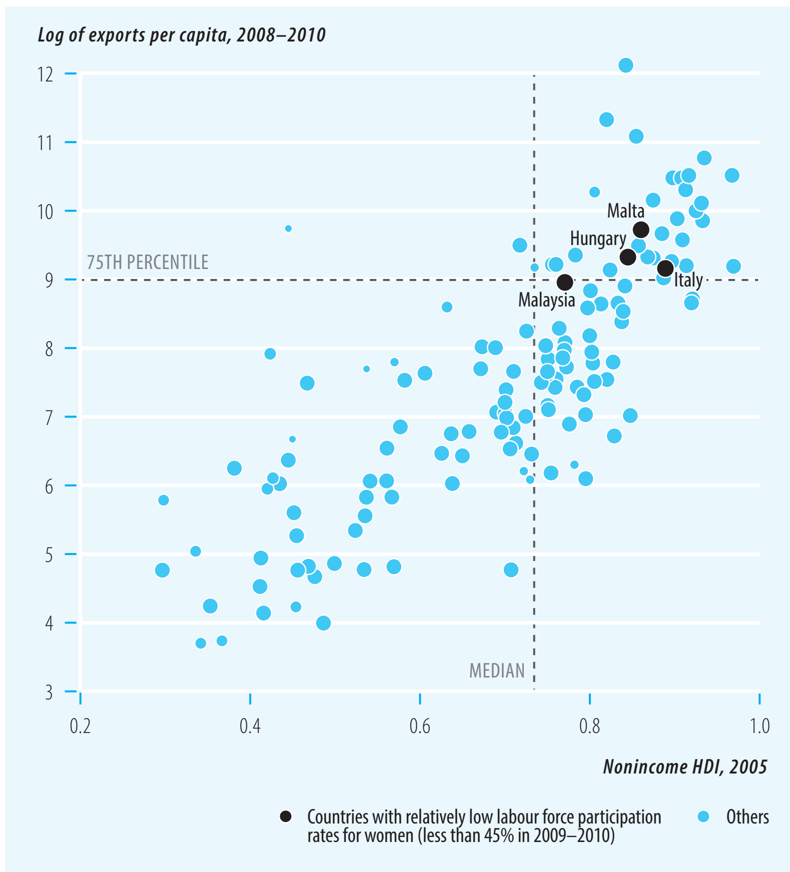
A recent study of trends over 1988–2007 finds positive growth spillovers from China to other developing countries, particularly close trading partners.[42] These benefits have to some extent offset slackening demand from developed countries. Growth in low-income countries would have been an estimated 0.3–1.1 percentage points lower in 2007–2010 had growth fallen at the same rate in China and India as in developed economies.[43] FDI from a single source country, China, was credited with contributing substantially to growth rates in several African countries, including in 2008–2009 when other growth impulses were dissipating. Between 2003 and 2009, the estimated contribution to growth from Chinese FDI ranged from 0.04 percentage point in South Africa to 1.9 percentage points in Zambia. The contribution was also high in the Democratic Republic of the Congo (1.0 percentage point), Nigeria (0.9), Madagascar (0.5), Niger (0.5) and Sudan (0.3).[44]

Commodity producers in Sub-Saharan Africa and elsewhere have benefited from a prolonged commodity boom arising in East and South Asia. Cheap imports also increase the purchasing power of low-income consumers and the competitiveness of export-oriented producers. Some African countries may, however, be hampered by the enclave character of extractive industries, which reduces the potential gains from South–South trade and exposes economies to the risk of Dutch disease. Nevertheless, the primary sector can generate sizeable backward and forward links, as Brazil, Chile, Indonesia, Malaysia, and Trinidad and Tobago have shown. Possibilities include agroindustry and logistics infrastructure, as well as demand for services (in food processing and distribution, construction, repair and maintenance), all of which create jobs, income and learning and can enable entrepreneurs to begin new cycles of innovation and investment.

Several encouraging signs are evident. The more recent investments from East and

FIGURE 2.4

Export earnings per capita and human development are highly correlated



Note: Bubble size is proportional to the share of the nonprimary sector in output.
Source: HDRO calculations and World Bank (2012a).

South Asia in the African commodity sector show fewer enclave characteristics. And many governments in the South are being more pragmatic. While adopting sound macroeconomic policies, strengthening institutions and becoming more open, they are actively engaging in industrial policy and promoting entrepreneurship, education, skill formation and technology upgrading. While supporting industrial clusters and economic zones and expanding regional trade and investment, they are also creating finance and credit facilities for small and medium-size enterprises. Sound macroeconomic policy helps manage the risks of large foreign exchange inflows, while smart industrial policy strenghtens domestic links and enhances market multipliers.

Many countries have also benefited from technology transfer and FDI into sectors that contribute to human development. Indian firms, for example, are supplying affordable medicines, medical equipment, and information and communications technology products and services to countries in Africa. Brazilian and South African companies are doing the same in their regional markets. Asian FDI in Africa has also expanded utility and telecommunications infrastructure.

Rising competitive pressures

Nevertheless, exports from larger countries can also have disadvantages. Large countries generate competitive pressures in smaller countries that can stifle economic diversification and industrialization. Examples span the electrical industry in Zambia, clothing in Kenya and Senegal and textiles in South Africa.[45] Clothing exports from Africa would struggle to retain their trade share in major markets without the trade preferences and liberal rules of origin available through the US African Growth and Opportunity Act and the EU Everything But Arms initiative.[46]

Even larger countries are not immune from competitive pressures. Chinese exports affect Brazilian manufacturing through imports of cheaper manufactures and indirectly through competition in third markets.[47] As an indirect response, in September 2011, Brazil formally submitted a proposal to the World Trade Organization to examine trade remedies for redressing currency fluctuations that lead to import surges.[48] India has long sought reciprocal market access for its automobiles in China.

To check the adverse consequence of rising exports on some of its partners, China is providing preferential loans and setting up training programmes to modernize the garment and textile sectors in African countries.[49] China has encouraged its mature industries such as leather to move closer to the supply chain in Africa and its modern firms in telecommunications, pharmaceuticals, electronics and construction to enter joint ventures with African businesses.[50]

Moreover, there are instances where competitive jolts have been followed by industrial revival. Ethiopia's footwear industry, for example, was initially displaced by cheap East Asian imports, resulting in large-scale layoffs

BOX 2.5

Decent work in a competitive world

The availability of decent, well paying jobs is economically empowering, especially for women. Yet today's competitive global environment pressures workers to do more in less time for a lower wage. From both a human development and a business perspective, competitiveness is best achieved by raising labour productivity. Competitiveness squeezed out through lower wages and longer working hours is not sustainable. Labour flexibility should not mean adhering to practices that compromise decent working conditions. At least 150 countries have signed on to core International Labour Organization conventions on such matters as freedom of association and discrimination in the workplace. Labour laws on minimum wage, employment protection, working hours, social security and forms of contracts all aim to reduce inequality, insecurity and social conflict; they also provide incentives for businesses to pursue high-road management strategies. The view that more regulation is always bad for business has been discredited. One of the World Bank Group's core Doing Business indicators on employing workers, which ranked countries on the leniency of measures related to hiring and firing workers, was discontinued because it falsely implied that fewer regulations were always preferable.

International retailers and sourcing agents have a responsibility to ensure that working conditions in the firms they source inputs from comply with international standards. Consider the recent case of one of the world's most valuable companies, Apple, and its contractor, Foxconn. After a series of media exposés that documented terrible labour conditions in Foxconn factories, Apple asked a monitoring group, the Fair Labor Association, to investigate. When the association published its findings of low pay, long hours and hazardous working conditions, Foxconn agreed to substantial reforms, eventually reducing the average workweek to 49 hours as required by Chinese law. As China's largest private sector employer, Foxconn had the power to directly improve and indirectly influence the working conditions of millions of people. Notable in this episode was that public opinion in a country of the North (US media and advocacy groups) pressured a corporation headquartered in that country to nudge a partner in a country of the South to uphold that country's own labour standards. This outcome was possible only in an era when trade, business practices and ethics and the universality of basic human rights are coalescing into a global norm.

Source: HDRO; Berg and Cazes 2007; Duhigg and Greenhouse 2012; Heller 2013.

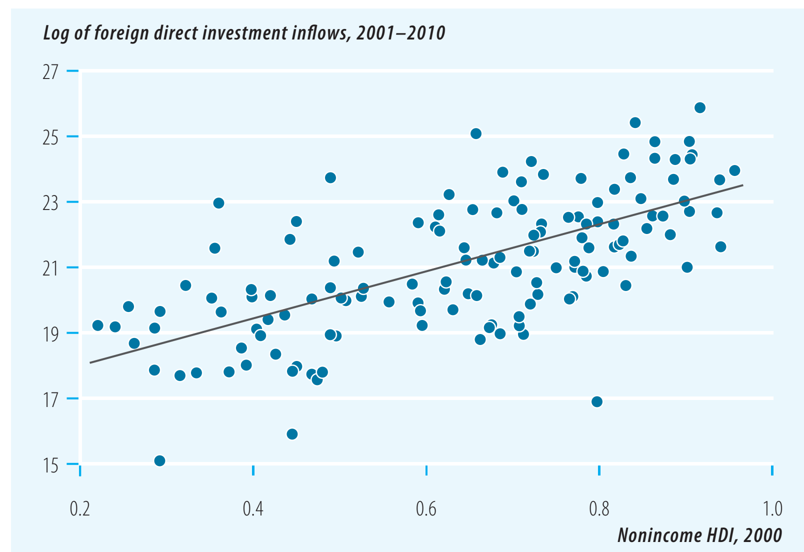
and business closures, especially in the lower end of the market traditionally catered to by Ethiopian microenterprises. But the industry soon rebounded, even finding its way into the international market.[51] One survey found that 78 of the 96 Ethiopian firms that reported in 2006 being hit hard by import competition had adjusted and become competitive within a few years. Nigeria's plastics industry experienced a similar revival.[52]

Another concern is that the current patterns of demand from other countries in the South could accentuate the chronic specialization by many African economies in primary commodities. The experience of the least developed countries, 33 of which are in Africa, seems to bear out this concern (see table 2.1). In 2011, agricultural raw materials and fuel, metals and ores made up more than 96% of least developed countries' exports to China. Total exports of manufactures by least developed countries to China were less than $1 billion; manufactured imports from China exceeded $38 billion.

Over the longer term, however, South–South cooperation could undo this pattern by fostering sequential investments outside natural resource industries in agriculture and manufacturing, as well as in services such as finance and telecommunications. In Africa, after years of neglect by governments and traditional donors, infrastructure has again become a priority, drawing on the experiences and support of the region's new development partners. Some

FIGURE 2.5

Current foreign direct investment is positively associated with achievements in health and education in previous years



Note: Inward FDI (in millions of US dollars) is averaged for 2001–2010. Nigeria's nonincome HDI is for 2005.
Source: HDRO calculations and UNCTAD (2011a).

BOX 2.6

Final assembly is about more than low wages

The iPhone and iPad, two popular technology products, are assembled in a firm in Shenzen, China, and sold worldwide at retail prices in the hundreds of dollars. The value of labour performed in China, at under $10, accounts for less than 2% of the cost of an iPad, while just 3.6% of the wholesale cost of an iPhone went to Chinese workers. The rest of the value is earned by suppliers of parts and components headquartered in Germany, Japan, the Republic of Korea and the United States. Korean firms LG and Samsung make the display and memory chips; Apple retains the product design, software development and marketing functions in the United States; and the assembly firm is owned by a company from Taiwan Province of China.

The low share of value captured by workers in China could give the impression that assembly does not require much sophistication. This is misleading. While Asia is attractive because of cheaper wages, especially for semiskilled workers, a more important challenge for technology companies is managing global supply chains that involve procuring parts and components from hundreds of companies. This requires a rare combination of industrial skills, flexibility, speed and diligence at both the individual and collective levels. For instance, an Apple executive told *The New York Times* that "the US has stopped producing people with the skills we need."

Consider this incident from mid-2007, when Apple hastily redesigned the glass for the iPhone's screen. The first delivery of a new load of strengthened, scratch-free glass arrived at a Foxconn plant in the middle of the night, and work started immediately. Within three months, Apple had sold a million iPhones. It took 15 days to hire 8,700 industrial engineers to oversee the 200,000 assembly-line workers eventually involved in manufacturing iPhones. Apple's internal estimate was that a similar feat in the United States would have taken nine months.

Source: HDRO; Kraemer, Linden and Dedrick 2011; Xing and Detert 2010; Duhigg and Bradsher 2012.

countries have even resorted to unique credit arrangements to fund infrastructure, backed by supplies of commodities.[53]

Neither the complementary nor the competitive perspective is sufficient to explain South–South interactions. Because a competitive role today may easily turn into a complementary role tomorrow, these labels should not be applied rigidly. Moving from competition to cooperation seems to depend on policies for dealing with new challenges. More pessimistic pronouncements that there is no hope for industrialization in Sub-Saharan Africa have been overtaken by realities on the ground, which demonstrate an ability to advance despite or maybe because of competition. In this regard, African writers such as Dambisa Moyo are positive about the mutually beneficial role of new actors in the continent.[54]

The shift from traditional to emerging markets is also affecting countries in ways that are difficult to predict. Take the timber industry in Africa, which has reoriented itself from serving a predominantly European market towards China.[55] In sheer volume China is the most important market, which is good for focusing business on it. The set of technical standards that China requires of exporters, however, is less onerous than those the European Union requires. Standards range from product specifications to accreditation from third-party certification schemes for forest sustainability and health regulations governing formaldehyde emissions. There is no evidence so far that the shift towards emerging markets is being accompanied by a ratcheting up of the technical standards they require, which would have required upgrading workers' skills and capabilities.[56]

Innovation and entrepreneurship in the South

In North–South trade, the newly industrializing economies developed capabilities for efficiently manufacturing complex products for developed country markets. But South–South interactions have enabled companies in the South to adapt and innovate in ways that are more suited to developing countries. This includes new business models whereby companies develop products for a large number of low-income customers, often with low margins.

Countries of the South are also natural locations for experimentation in new technologies and products, such as those based on the global system for mobile (GSM) communications standard. Under the 2005 GSM Emerging Markets Initiative, manufacturers slashed the price of mobile handsets by more than half and expanded the GSM subscriber

base by 100 million connections a year. This in turn stimulated investment: in 2007, mobile operators, including South Africa's MTN and Kuwait's Zain, announced a five-year plan to invest an additional $50 billion in Sub-Saharan Africa to improve mobile coverage and expand it to 90% of the population. Indeed, the spectacular increase in phone connectivity in Africa has been driven almost entirely by companies based in India, South Africa and the United Arab Emirates.[57]

Mobile phone manufacturers have also re-engineered products for the needs of lower income consumers. For example, in 2004, TI India, a research and development centre of Texas Instruments in Bengaluru, designed a single-chip prototype for use in high-quality, low-cost mobile phones. In 2005, Nokia, in cooperation with TI, began to market the Indian-made one-chip handsets in India and Africa, selling more than 20 million units. Single-chip designs have also emerged for other devices, including affordable digital display monitors and medical ultrasound machines. Intel has developed a handheld device for rural banking, and Wipro has marketed a low-power desktop computer for basic Internet connectivity. And in 2008, Tata announced the ultra-low-cost Nano car, exportable in kits for assembly by local technicians.

Technology diffusion through South–South investment is also unleashing entrepreneurial spirit, particularly in Africa. People are often self-organizing, creating buyer–seller relationships and becoming entrepreneurs to fill unmet needs in spontaneously sprouting markets. This is evident in the uses to which Africans are putting affordable Asian-built mobile phones: cellular banking, for example, is cheaper and easier than opening a bank account; farmers can obtain weather reports and check produce prices; and entrepreneurs can provide business services through mobile phone kiosks. The use of mobile phones in Niger has improved the performance of the grain market, and Ugandan farmers are using mobile phones to obtain higher prices for their bananas.

These and other transformations multiply the possibilities of what people can do with technology: participating in decisions that affect their lives; gaining quick and low-cost access to knowledge; producing cheaper, often generic medicines, better seeds and new crop varieties; and generating new employment and export opportunities. These possibilities cut across income classes, reaching down to the grassroots.

To respond to the changing needs of middle class consumers, companies doing well in the South tend to be long-term risk-takers and agile in adapting and innovating products for local buyers. Consumers in the South tend to be younger, are often first-time shoppers for modern appliances with distinct in-store habits and are usually more receptive to branding. Companies in emerging market economies have the advantage of different management approaches from those dominant in the North: majority shareholders have greater power and redeploy resources more speedily than those in companies in the North.[58]

Companies doing well in the South tend to be long-term risk-takers and agile in adapting and innovating products for local buyers

Some of these developments are based on interactions among research and development institutions, businesses and community stakeholders. In such ways, innovation and its benefits spread, spawning faster change. There is greater appreciation of a broader role for the state in stimulating research and development and in nurturing synergies stemming from cooperation among private, university and public research institutions. For example, many African countries have emulated the early success of Mauritius in attracting East Asian FDI by creating export processing zones. Malaysia's investment promotion policies have also been widely copied.

Increasingly, the most important engine of growth for countries of the South is likely to be their domestic market. The middle class is growing in size and income. By 2030, 80% of the world's middle class is projected to live in the South. Countries in South Asia and East Asia and the Pacific will alone account for 60% of the middle class population and 45% of total consumption expenditure.[59] Another estimate is that by 2025, a majority of the 1 billion households earning more than $20,000 a year will live in the South.[60]

Since 2008, Chinese, Indian and Turkish apparel firms have shifted production from shrinking global markets to expanding domestic markets. Greater reliance on domestic markets will boost internal dynamism and

contribute to more-inclusive growth. Given current trends, African consumers will continue to benefit from increased imports of affordable products. Flourishing local markets are likely to breed local entrepreneurs and attract more investment in extractive industries as well as in infrastructure, telecommunications, finance, tourism and manufacturing—particularly light manufacturing industries in which African countries have latent comparative advantage. In this scenario, which has already begun to play out in the past decade and in other regions, host economies undergo structural change, and indigenous industry responds to competitive pressure from imports and investment inflows by upgrading production. But the process is proving difficult in countries where technological capabilities and infrastructure are less well developed.

Such expansion of domestic markets will be hampered by substantial pockets of deprivation and lagging regions within large developing countries. Although South Asia, for example, reduced the proportion of the population living on less than $1.25 a day (in 2005 purchasing power parity terms) from 61% in 1981 to 36% in 2008, more than half a billion people there remained extremely poor.[61]

These disparities undermine the sustainability of progress because they create social and political tensions. In India, the Maoist rebels are active in a large swathe of the country's hinterlands; in neighbouring Nepal, Maoists evolved from an ill-equipped militia to become the country's largest political party within 12 years.

Instead of having a centre of industrialized countries and periphery of less developed countries, there is now a more complex and dynamic environment

TABLE 2.2

Different models of development partnerships

Paris Declaration principle	Traditional donors	New development partners
Ownership	National development strategies outline priorities for donors	National leadership articulates need for specific projects
Harmonization	Shared arrangements to minimize burden on recipients	Fewer bureaucratic procedures to minimize burden on recipients
Managing for results	Recipient-led performance assessment practices	Focus on delivering aid quickly and at low cost
Mutual accountability	Greater accountability through targets and indicators	Mutual respect of sovereignty; policy conditionality eschewed

Source: Adapted from Park (2011).

New forms of cooperation

Many developing countries are emerging as growth poles and drivers of connectivity and new relationships, opening up opportunities for less developed countries of the South to catch up and leading to a more balanced world. Instead of having a centre of industrialized countries and periphery of less developed countries, there is now a more complex and dynamic environment. Countries of the South are reshaping global rules and practices in trade, finance and intellectual property and establishing new arrangements, institutions and partnerships.

Development assistance

The rise of the South is influencing development cooperation bilaterally, regionally and globally. Bilaterally, countries are innovating through partnerships that bundle investment, trade, technology, concessional finance and technical assistance. Regionally, trade and monetary arrangements are proliferating in all developing regions, and there are pioneering efforts to deliver regional public goods. Globally, developing countries are participating actively in multilateral forums—the G20, the Bretton Woods institutions and others—and giving impetus to reforms in global rules and practices.

A rising number of developing countries provide aid bilaterally and through regional development funds. Often, this involves entwining conventional development assistance with trade, loans, technology sharing and direct investments that promote economic growth with some degree of self-reliance. Countries of the South provide grant aid on a smaller scale than traditional donors do but also give other forms of assistance, often without explicit conditions on economic policy or approaches to governance.[62] In project-based lending, they may not always have been very transparent, but they do give greater priority to the needs identified by receiving countries, ensuring a high degree of national ownership (table 2.2).

Brazil, China and India are important providers of development assistance, which is substantial for countries in Sub-Saharan

Africa.[63] Brazil has transplanted its successful school grant programme and its programme for fighting illiteracy to its African partners. In 2011, it had 53 bilateral health agreements with 22 African countries.[64] China has complemented its investment flows and trade arrangements with finance and technical assistance for building hard infrastructure. In July 2012, China pledged to double concessional loans to $20 billion over the next three years.[65] The Export-Import Bank of India has extended $2.9 billion in lines of credit to Sub-Saharan African countries and has pledged to provide an additional $5 billion over the next five years.[66] Between 2001 and 2008, countries and institutions from the South met 47% of official infrastructure financing for Sub-Saharan Africa.[67]

The new development partners from the South follow their own model of bilateral cooperation (box 2.7). The scale of their financial assistance, combined with their approach to conditionality, can enhance policy autonomy in less developed countries.[68] Less developed countries can now look to more emerging partners for development support.[69] This expands their choices, as foreign powers compete for influence, access to local consumers and favourable investment terms.

The regional development assistance architecture is also evolving through the regional development banks: the African Development Bank, the Asian Development Bank and the Inter-American Development Bank. In 2009, playing a countercyclical role, the regional development banks together provided 18.4% ($3.4 billion) of the aid provided by all multilateral institutions, a 42% increase over 2005. Development assistance from the Arab States has also made important contributions, reaching $6 billion in 2008.[70] Some of the largest financiers of infrastructure in Sub-Saharan Africa between 2001 and 2008 were regional banks and funds based in Arab States.[71] Development assistance from regional development banks may become more important to low-income countries in the coming years (as may South–South development assistance) if policymakers in wealthy countries curtail aid commitments because of domestic economic and political challenges.[72]

BOX 2.7

Brazil, China and India at work in Zambia

The model of bilateral cooperation being practiced by new development partners from the South has been changing rapidly. Until recently, the contribution of the new partners to Zambia's overall development finance was small. Of the total $3 billion in grants and loans that Zambia received between 2006 and 2009, disbursements by Brazil, China and India made up less than 3%.

In November 2009, China and Zambia announced that China would extend a $1 billion concessional loan, in tranches, to Zambia for the development of small and medium-size enterprises. This is the equivalent of 40% of Zambia's total public external debt stock. In 2010, the Export-Import Bank of China extended a $57.8 million loan to Zambia to procure nine mobile hospitals. Also in 2010, India announced a line of credit of $75 million, followed by another line of credit of $50 million, to finance a hydroelectric power project. Brazil has invested heavily in mining equipment at the Konkola Copper Mines in the Northwestern province of Zambia (managed by an Indian company). The large Brazilian mining company, Vale, is in a joint venture with the South African company Rainbow in copper prospecting and mining in Zambia, with an initial investment of about $400 million. Brazil and Zambia have also signed technical cooperation agreements covering livestock and health.

Source: HDRO; Kragelund 2013.

Development partners in the South have not sought to engage with or overturn the rules of multilateral development assistance. But they have indirectly introduced competitive pressures for traditional donors and encouraged them to pay greater attention to the needs and concerns of developing countries. In contrast to many traditional donors' focus on social sectors, new partners have in recent years invested heavily in new infrastructure across low-income countries—resulting in, for instance, a 35% improvement in electricity supply, a 10% increase in rail capacity and reduced price of telecommunications services.[73]

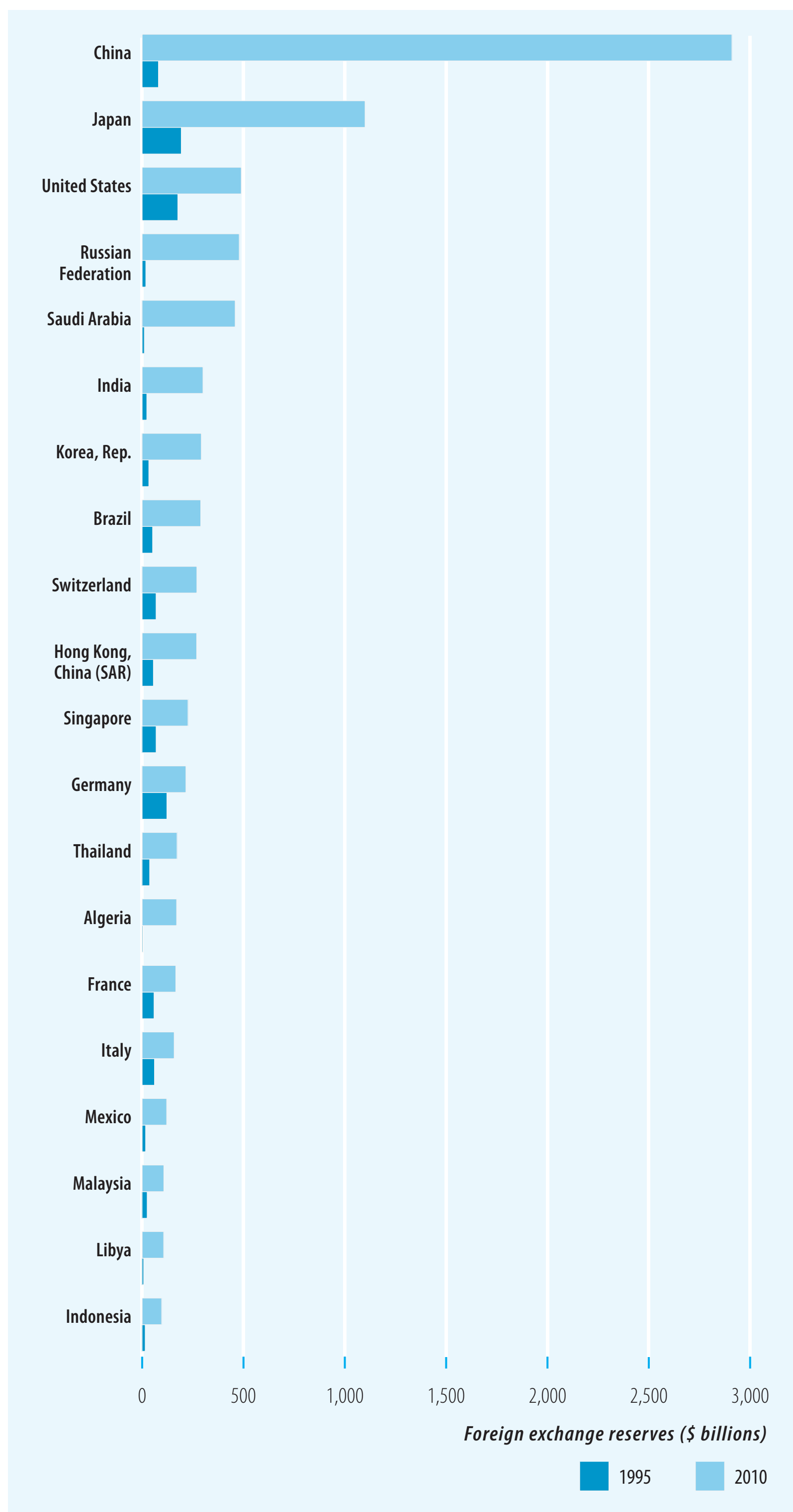
Trade and financial agreements

Africa, Asia and Latin America have seen an expansion of trade agreements—bilateral, subregional and regional. In South Asia, these regional agreements have trumped political differences. In East Africa, greater regional integration has helped shield economies from global shocks.[74] There is scope to strengthen regional integration through practical measures such as streamlining transit, transport and customs procedures and harmonizing national regulatory schemes. There is also scope to lower tariffs on South–South trade in final products,

There is much scope to strengthen regional integration through practical measures such as streamlining transit and transport procedures

FIGURE 2.6

Emerging market economies have amassed large foreign exchange reserves since 1995



Note: Includes holdings of gold.
Source: World Bank 2012a.

which are higher than those on North–South trade.[75]

In the aftermath of the 1997 Asian financial crisis, several countries of the South developed new monetary arrangements, which are transforming the financial architecture and creating space for countries to craft homegrown policies. The new lending arrangements emphasize pragmatism over ideology and conditionality.

In addition, the global financial architecture is being shaped by the rising South's vast financial reserves. A number of countries, not just Brazil, China and India, but also Indonesia, the Republic of Korea, Malaysia, Mexico, Thailand and others have amassed pools of foreign exchange reserves as self-insurance against future financial downturns and crises (figure 2.6). Between 2000 and the third quarter of 2011, global foreign exchange reserves rose from $1.9 trillion to $10.1 trillion, with a dominant share of the increase accumulated by emerging and developing countries, whose reserves totalled $6.8 trillion.[76] Some of these countries used their reserves to stimulate growth in the aftermath of the 2008 global financial crisis. In a reversal of roles, these funds have been sought by the International Monetary Fund for assistance with the financial crisis in Europe.

Developing countries with large reserve holdings generally transfer part of these to sovereign wealth funds. According to data by the Sovereign Wealth Fund Institute, these funds had an estimated $4.3 trillion in assets at the end of 2010, with $3.5 trillion held by developing and emerging economies and $800 billion in East Asia alone.[77] As of March 2011, developing and emerging economies held 41 sovereign wealth funds, 10 with assets of $100–$627 billion.

Large foreign exchange reserves and sovereign wealth funds are not the most efficient insurance against financial shocks. This unprecedented accumulation of foreign exchange has opportunity costs both for the countries holding the reserves and for other developing countries.[78] The resources could be deployed in more productive ways to support the provision of public goods, to provide capital to projects that enhance productive capacities and economic and human development and

to promote regional and subregional financial stability by increasing the resource pools of regional institutions.

Overall, the rise of the South is infusing new patterns of resource accumulation into the global financial system and building a denser, multilayered and more heterogeneous financial architecture for the South. These arrangements sometimes substitute for the Bretton Woods institutions, but in most cases, the emerging institutions and arrangements complement the global financial architecture. The changing financial landscape in the South has the potential to promote financial stability and resilience, support the development of long-run productive capacities, advance aims consistent with human development and expand national policy space. Moreover, emerging economies are having a transformative effect by pressing the Bretton Woods institutions to respond to concerns about representation, governance principles and the use of conditionalities.

The G20 has expanded its participation in such key global financial governance institutions as the Financial Stability Board, tasked with ensuring greater accountability in institutions that set international financial standards. Likewise, all G20 countries, among others, are now represented in the Basel Committee on Banking Supervision and the International Organization of Securities Commissions. The South is also gaining influence in the International Monetary Fund, where China has filled a newly created deputy managing director post and stands to become the third largest shareholder.[79] At the World Bank, the voting power of developing and transition economies rose 3.13 percentage points in 2010, reaching 47.19%.[80]

Migration policy

Regional organizations such as the Association of Southeast Asian Nations, the African Union and the Common Market of the South have added migration to their agendas. Some of this activity is through regional consultations, which are informal, nonbinding processes dedicated to finding common ground among countries. Many of these processes are interregional and straddle origin and destination regions in ways intended to enable capacity building, technical standardization and agreements on issues such as readmissions. They have lowered barriers to communication and provided a venue for countries to come together, understand each other's perspectives and identify common solutions.

These dialogues can be credited with paving the way for subsequent successful efforts on migration, most ambitiously the Berne Initiative 2001–2005, the 2006 High Level Dialogue on Migration and Development hosted by the UN General Assembly and the subsequent creation of the Global Forum on Migration and Development.[81] As the 2009 *Human Development Report* recommended, such efforts could improve outcomes for migrants and destination communities by liberalizing and simplifying channels that allow people to seek work abroad, ensuring basic rights for migrants, reducing transaction costs associated with migration, enabling benefits from internal mobility and making mobility an integral part of national development strategies.[82]

Environmental protection

The UN Conference on Sustainable Development in Rio de Janeiro demonstrated the promise of regional arrangements, as governments from the South showed how they are coming together to manage the resources they share. One initiative, negotiated by governments from the Asia–Pacific region, will protect the Coral Triangle, the world's richest coral reef that stretches from Malaysia and Indonesia to the Solomon Islands and provides food and livelihoods to more than 100 million people. In the Congo River Basin, countries are working together against the illegal timber trade to conserve the world's second largest rainforest.[83] At Rio+20, a group of regional development banks announced a $175 billion initiative to promote public transportation and bicycle lanes in some of the world's largest cities.[84]

The rise of the South is also reflected in an array of bilateral arrangements to tackle climate change. With climate-related natural disasters and rising sea levels threatening to undermine human development progress,

With climate-related natural disasters and rising sea levels threatening to undermine human development progress, countries recognize that they have little choice but to formulate policies on adapting to climate change now and mitigating climate change for the future

countries recognize that they have little choice but to formulate policies on adapting to climate change now and mitigating climate change for the future. Countries are, for example, agreeing to cooperate on technology development and to establish region-specific carbon markets. A partnership between China and the United Kingdom will test advanced coal combustion technologies, while India and the United States have forged a partnership to develop nuclear energy in India.[85]

Countries in the South are also developing and sharing new climate-friendly technologies. China, the fourth largest producer of wind energy in 2008, is the world's largest producer of solar panels and wind turbines.[86] In 2011, India's National Solar Mission helped spur a 62% increase in investment in solar energy to $12 billion, the fastest investment expansion of any large renewables market. Brazil made an 8% increase in investment in renewable energy technology to $7 billion.[87]

Regional, bilateral and national initiatives in the South to mitigate climate change and protect environmental resources are positive steps. But climate change and the environment are inherently global issues that require global resolution through multilateral agreements. The cooperation and participation of rising economies of the South in such agreements are vital to their success. Regional collaboration and agreement may be a step in this direction, indicating genuine interest in tackling the climate challenge.

Sustaining progress in uncertain times

The rise of the South was facilitated by a historic global expansion of trade and investment. More than 100 developing countries recorded growth in income per capita of more than 3% in 2007. Recently, the economic slowdown in developed countries has nudged the South to look towards regional demand.[88] Already, developing countries trade more among themselves than with the North, and this trend can go much further. South–South trade blocs remain riddled with nontariff barriers that constrict the scale of trade possibilities. Large foreign exchange reserves remain idle when there are higher returns and more-secure opportunities for South–South investment. There is potential to expand development partnerships and regional and interregional cooperation.

Developing countries trade more among themselves than with the North, and this trend can go much further

The rise of the South has underpinned rapid economic growth in Sub-Saharan Africa and enhanced opportunities there for human development progress. Many of the fastest growing economies in this century rank low on human development. While some have made progress on nonincome indicators, others have not.

Governments should seize the growth momentum and embrace policies that convert rising incomes into human development. Policies that build human capabilities and domestic productive capacity will enable countries to avoid "the commodities trap" and diversify economic activity. South–South cooperation can help bring out the learning and diffusion potential in trading, investing and partnering in all industries, even commodities. South–South partnerships can facilitate industrial diversification through FDI and joint ventures, technology sharing through peer learning, and provision of affordable products and innovative uses that meet the needs of the emerging entrepreneurial class. This cooperation is already happening and can be scaled up substantially in the years ahead.

All said, the rise of the South has been dramatic but is still in its early stages. The breadth of social, economic, technological and entrepreneurial connectedness among developing countries today is unprecedented. The daily headlines may carry dismal messages about world events. But interspersed among these discouraging notes are frequent snippets reporting on entrepreneurial ventures and common-sense applications of new technologies by enterprising people in unexpected places.

Multiply each story by the number of people in developing countries and the cumulative potential for a rising South across all regions is astounding. Chapter 3 explores this potential by identifying some of the core drivers that have enabled leading countries of the South to make rapid progress, offering inspiration to other countries that might follow.

Global prospects are uncertain, and the economic downturn in the North is adversely affecting the South. With the right reforms, however, including a shift in policy orientation,[89] the promise of sustained human progress is stronger as a result of the shift within the world economy brought about by the rise of the South.