Key findings

- **Developing countries have benefited from the rules-based trade system**, with its guarantees against trade discrimination, incentives to reform, assured market access, and dispute settlement.

- **The international trade system is especially valuable in a global value chain (GVC) world.** Policy action or inaction in one country can affect producers and consumers in other countries.

- **Increasing pressure on the global trading system, manifested in protectionism and policy uncertainty, puts these benefits at risk.** These pressures arise, first, from the growing symmetry in the economic size of countries and the persistent asymmetry in their levels of protection; second, from the failure to use domestic policies to address labor market dislocation and growing inequality in some advanced countries.

- **To sustain beneficial trade openness**, countries need to deepen traditional trade cooperation to address remaining barriers to trade in goods and services, as well as other measures that distort trade, such as subsidies and the activities of state-owned enterprises.

- **Meaningful outcomes may be possible** if the major developing country traders engage as equal partners and even leaders instead of seeking special and differential treatment; if the large advanced countries continue to place their faith in rules-based negotiations instead of resorting to unilateral protection; and if countries together define a negotiating agenda that reflects both development and business priorities.
Developing countries have benefited enormously from the rules-based multilateral trade system. In fact, it is hard to imagine any current global value chain (GVC) operating outside of the membership of the World Trade Organization (WTO). The trade system has provided countries with incentives to reform, market access around the globe, and recourse in case of disputes, even against the trade heavyweights. Estimates suggest that acceding to the WTO boosts a developing country’s growth rate by 2 percent a year for five years after joining, if the country made reforms upon accession. The tariffs they face fall significantly. For example, 90 percent of U.S. tariff lines applied to WTO members are below 10 percent, whereas for nonmembers 50 percent of products are subject to tariffs of more than 30 percent. Developing countries also have had success in WTO dispute settlement, even against the WTO’s largest members. For example, Indonesia recently won a case against the European Union (EU) about antidumping measures for biodiesel products.

Supporting the rules-based trade system is therefore important for development, but a series of events have weakened it. The failure of the WTO’s Doha Round, which began in 2001, was the first strike, and recent disputes among members have further damaged the system. Regional initiatives such as the European Union and the North American Free Trade Agreement (NAFTA) have also been hurt by disagreements among member countries. In view of this trade climate, this chapter and the next argue that (i) the multilateral trade system matters profoundly in a GVC world; (ii) the system is under stress because of tensions between the existing rules and the forces of economic convergence; and (iii) revival of the system will depend on deepening trade cooperation and extending cooperation to new areas.

The multilateral trade system is especially important for GVCs because the costs of protection are magnified when goods and services cross borders multiple times. Similarly, the gains from a coordinated reduction of barriers to trade are even larger for GVCs than for conventional trade. Trade and investment policies must be known and predictable to encourage firms to invest in long-term international relationships. To address this need, international trade agreements include rules to enhance the transparency of national policies and help reduce policy uncertainty through legally binding commitments. Trade agreements and WTO commitments can also help to discipline the protectionist impact of differences in regulatory regimes.

But rapidly growing trade, especially with low-income countries, has put pressure on both existing and new industries in advanced countries. Although the rapid trade growth of the 1990s and early 2000s supported overall income growth, it also created winners and losers. Those forces were magnified with the expansion of GVCs because of the hyperspecialization that GVCs produced. Some manufacturing communities in advanced countries experienced large job losses as imports took market shares from domestic firms. And as developing country production grew rapidly, exporters from advanced countries—the traditional supporters of open trade policies—also experienced more intense competition at home and in other markets. Because some of the new developing country markets were still relatively protected and their exporters were supported by the state, trust in the trade system to ensure equal treatment eroded.

In addition to the challenges presented by the growing competition, the new global economy produced other significant risks that led to disenchantment (discussed in more detail in chapter 10). A greater share of the burden for resource mobilization shifted to workers as capital became much harder to tax in a GVC world. Because firms operate around the world and a high share of value added has become virtual, they can easily shift profits to low-tax jurisdictions. The new global economy also sparked concerns about market failure in international markets where regulation remains mostly national. Concerns ranged from abuse of privacy in data-based services to anticompetitive practices in platform-based services. Some developing countries also became disenchanted with the international trade system, especially in light of the failed Doha Development Agenda because the areas that matter the most to them, such as agriculture and apparel, have failed to be liberalized.

The path forward will require more cooperation between the new players in global trade, the large developing countries, and the incumbents, the large advanced countries. The large developing countries were mostly inactive during earlier episodes of reciprocal liberalization, but they have now grown to a size where their exports and their markets matter. Traditional trade negotiations may deliver more meaningful outcomes if the major developing country traders engage as equal partners, and even leaders, instead of seeking special and differential treatment (box 9.1); if the large industrial countries continue to place their faith in rules-based negotiations instead of resorting to unilateral protection; and if all countries together define a negotiating agenda that reflects both development and business priorities.

To sustain trade openness, the first priority is to deepen traditional trade cooperation to address the
Box 9.1 Special and differential treatment for developing countries

An important feature of the World Trade Organization (WTO) is the approach it takes to the disparities in the economic size and capacity of its members. This approach is encapsulated in the principle of special and differential treatment (SDT) for developing countries—a feature of the trade system almost since its origins. SDT arose because the export earnings of developing countries were insufficient for development needs and unpredictable because of the fluctuations in commodity prices. The solution was to give developing countries more flexibility in tariff setting and more access to markets in developed countries.

SDT also served a purpose for developed countries; it made negotiations easier because those countries could exchange market access among a small group without having to reach consensus with the full membership of the predecessor of the WTO, the General Agreement on Tariffs and Trade (GATT). At a time when developing countries accounted for less than a third of global exports, this approach made sense to developed countries. However, times have changed, and with developing countries accounting for nearly 45 percent of global exports, it is no longer palatable to developed nations.

A peculiar feature of SDT is that countries can declare themselves developing countries on a particular issue to avoid full commitments. For example, Japan and the Republic of Korea used SDT to postpone commitments to changing from a quota system to a tariff system on rice in the Uruguay Round. The WTO does not define what constitutes a developing country, leaving it to members to self-determine their status. Outside of the group of 47 (UN-defined) least developed countries (LDCs)—the only distinct group of developing countries formally identified in the WTO—there are no criteria that allow differentiation between developing countries. WTO members have not been able to agree on criteria to differentiate between countries and determine when graduation should occur.

Notwithstanding the rhetoric by opponents and proponents of SDT, building blocks for a more differentiated approach toward addressing economic development disparities have gradually emerged. In practice, differentiation has been negotiated on an issue-specific basis. An important example is the classification of developing countries based on per capita GDP and export competitiveness in the WTO’s Agreement on Subsidies and Countervailing Measures. Other examples include the flexible approach taken in the WTO’s Trade Facilitation Agreement (TFA) to scheduling commitments by developing countries and the ability of developing countries to link implementation of specific TFA provisions to technical assistance. The TFA embodies a new approach toward SDT that is not centered on exemptions for developing countries. Instead, it lets countries decide on the sequencing of implementation, depending on which elements of the agreement are priorities from a national perspective and commitments by high-income countries to assist those countries that request it to implement specific provisions.

Studies reveal that traditional SDT has not served developing countries well. Their trade interests, such as agriculture and apparel, have been liberalized slowly or not at all. It has also lessened the ability of the trade system to act as an external force for domestic reform. As a result, tariffs in developing countries are on average bound at the WTO at 30 percentage points above actual levels. Meanwhile, tariff liberalization among developing countries has been largely unilateral; it has not occurred from external negotiations. Studies also find that developing countries have had limited gains from trade preferences, another dimension of SDT, because of their unilateral and uncertain nature and associated conditions, such as restrictive rules of origin.

remaining barriers to trade in goods and services, as well as other measures that distort trade. Alongside such an effort, cooperation should be widened beyond trade policy to include taxes, regulation, and infrastructure, as discussed in more detail in chapter 10.

The case for cooperation in a GVC world

GVCs span boundaries, and policy action or inaction in one country can affect producers and consumers in other countries. International cooperation can help address the policy spillovers and achieve better development outcomes in several ways.

First, because the costs of protection are magnified when goods and services cross borders multiple times, the gains from a coordinated reduction of barriers to trade are even larger for GVCs than for standard trade. Because foreign investment and GVCs are inextricably linked, creating an open and secure climate for investment is vital for GVC participation, especially by capital-scarce countries. International cooperation
has so far delivered greater openness in goods and services, but significant barriers remain.

Second, access to information about trade and investment policies and their predictability is important for firms, especially when investing in international relationships. To address this need, international trade agreements include rules to enhance the transparency of national policies and to help reduce policy uncertainty through legally binding commitments. But the failure of countries to honor WTO requirements that they provide regular notifications of subsidies and other measures that affect trade has led to policy opaqueness and has caused trade tensions. Similarly, large wedges between legal bindings and applied policies in both goods and services have perpetuated policy uncertainty (box 9.2).

Third, many of the policies affecting GVCs are regulatory, including technical regulations, sanitary and has so far delivered greater openness in goods and services, but significant barriers remain.

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**Box 9.2 A story of the demise of most-favored-nation status foretold?**

This is not the first time the world economy has confronted a situation in which the most powerful country moves away from a policy of nondiscriminatory openness. A surprising aspect of British trade policy in the 19th century was its nonexclusivity. With a share of world exports of more than 20 percent, Britain sought and obtained not preferred access to resources and markets but a commitment to nondiscriminatory trade (figure B9.2.1). Combined with its unilateral adoption of a free trade policy applied on a most-favored-nation (MFN) or nondiscriminatory basis, this approach defined the “free trade imperialism” that prevailed during Pax Britannica, beginning in the early 19th century and peaking in the mid-19th century. This stance was largely maintained until the early 20th century. That commitment first faltered when the United States and Germany threatened British dominance toward the end of the 19th century, causing its share of world trade to dip below 15 percent, and collapsed around the time of the Great Depression when Britain’s share fell below 10 percent, leading to a policy of imperial preferences as well as increased protection.

Figure B9.2.1 shows that the events during Pax Britannica bear an uncanny resemblance to the U.S. role as a pillar of the multilateral trading system during Pax Americana in the 20th century. The U.S. share of world trade had reached 20 percent before World War II. In 1947 the United States

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**Figure B9.2.1 Shifts in trade shares and changes in policy stances of the United Kingdom and the United States since 1800**

![Shifts in trade shares and changes in policy stances of the United Kingdom and the United States since 1800](image-url)

*Source: Hoekman and Mattoo 2019.
Note: MFN = most-favored-nation.*
A consequence is growing political sensitivity to the plight of industrial workers in advanced countries, whose incomes have stagnated during periods of rapid globalization. There is evidence that trade contributed to job loss in some countries, but technological change reduced the number of jobs in manufacturing for unskilled workers to a much greater extent. At the same time, the emergence of winner-takes-all industries concentrated income growth in the top 1 percent.

Even though trade may not have been the only source of the problem, globalization makes remedial action difficult. The winners from globalization—internationally mobile capital and skills—are increasingly hard to tax. Therefore, workers bear not only the burden of adjustment, but also, increasingly, the burden of taxation (figure 9.2). And governments are tempted to use trade policy as an instrument of social protection.

To sustain beneficial trade openness, it is essential to “walk on two legs.” The first priority is to deepen traditional trade cooperation to address the remaining barriers to trade in goods and services, as well as other measures that distort trade such as subsidies and the activities of state-owned enterprises (SOEs). In parallel, cooperation should be widened beyond trade policy to include taxes, regulation, and infrastructure (the subject of the next chapter). Table 9.1 lists the policy areas in which national incentives can produce an outcome that is bad for
all or most countries and a cooperative solution that is better for all.

Deepening trade cooperation: Tariffs on goods, restrictions on services, gaps in rules

Because the costs of protection are magnified when goods and services cross borders multiple times, the gains from coordinated reduction of barriers to trade are even larger from GVCs than from standard trade. And because foreign investment and GVCs are linked, creating an open and secure climate for investment is vital for GVC participation, especially for capital-scarce countries. International cooperation has so far delivered greater openness, if unevenly:

- For goods, multilateral and preferential initiatives have worked in tandem to reduce the tariffs on goods and to greatly enhance market access for the poorest countries. But problems remain from a GVC perspective: high tariffs in many of the poorest developing countries hurt GVC participation by increasing the transaction costs of acquiring inputs even when they are notionally tariff-exempt. Tariff escalation in

![Figure 9.1 Attitudes toward trade differ in the sluggish North and the dynamic South](image)


Note: For country abbreviations, see International Organization for Standardization (ISO), https://www.iso.org/obp/ui/#search.

![Figure 9.2 Corporate tax rates and personal income tax rates for the top 1 percent have fallen, but the rate for the median worker increased in 65 economies between 1980 and 2007](image)

Tariffs and tariff preferences

A new International Trade Centre (ITC)–World Bank Database on Deep Integration Agreements reveals that unilateral, multilateral, and preferential liberalization has reduced trade-weighted average tariff rates to less than 5 percent for most industrial countries. Preferential liberalization has reduced the applied tariffs confronting many countries to a fraction of the most-favored-nation (MFN) rate. Although preferential liberalization has targeted highly protected sectors, pockets of protection remain for agricultural products, textiles, and footwear—areas of export interest for developing countries (figure 9.3).

There is greater room for further liberalization in lower-income countries. Low-income and lower-middle-income countries still have average trade-weighted preferential tariff levels of over 5 percent (figure 9.4, panel a). When preferential tariffs are split by level of development of the importing and exporting countries, trade-weighted preferential tariffs imposed by countries in the South on other countries (in both the South and North) are more than double those imposed by the North (figure 9.4, panel b).

Table 9.1  Policy rationale, externalities, and cooperative solutions

<table>
<thead>
<tr>
<th>Policy area</th>
<th>National motive</th>
<th>International externality</th>
<th>Cooperative solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tariffs and other restrictions on trade and investment</td>
<td>Improve terms of trade; protect special interests; gain revenue</td>
<td>Negative impact on trading partners and possible prisoner’s dilemma</td>
<td>Mutually agreed reduction in protection plus legal binding to reduce policy uncertainty</td>
</tr>
<tr>
<td>Subsidies</td>
<td>Support infant, senescent, or strategic industries or stages of production; address market failures (e.g., positive environmental externalities)</td>
<td>Negative impact on trading partners’ industries but positive impact on foreign consumers—at least in the short run</td>
<td>Disciplines on use of specific types of subsidies and other forms of assistance such as tax incentives</td>
</tr>
<tr>
<td>Regulatory requirements</td>
<td>Protect consumers, the environment, and intellectual property rights</td>
<td>Industries in trading partners face higher costs for compliance, but benefit from enhanced supply of public goods</td>
<td>Regulatory cooperation in the form of harmonization, mutual recognition, or exporter regulatory commitments</td>
</tr>
<tr>
<td>Corporate taxes, investment incentives, FDI policies</td>
<td>Attract investment</td>
<td>Negative impacts on other investment locations and tax jurisdictions, potential tax competition, and a race to the bottom</td>
<td>Tax cooperation (e.g., the existing BEPS initiative at the OECD); destination-based taxes</td>
</tr>
<tr>
<td>Competition law, public ownership and control</td>
<td>Promote contestable markets; provide public goods</td>
<td>Abuse of market power; foreclosure of ability of firms to compete on a level playing field</td>
<td>Cooperation and common disciplines to control firm behavior</td>
</tr>
<tr>
<td>Investment in trade-facilitating infrastructure</td>
<td>Reduce trade costs</td>
<td>Positive externality for trading partners; potential coordination failure and underinvestment</td>
<td>Investment coordination to exploit synergies across countries and forms of infrastructure</td>
</tr>
</tbody>
</table>

Source: WDR 2020 team.

Note: BEPS = base erosion and profit shifting; FDI = foreign direct investment; OECD = Organisation for Economic Co-operation and Development.

important destination markets inhibits processing activities in agroindustry and other labor-intensive areas such as apparel and leather goods. And restrictive rules of origin curtail sourcing options.

- For services, international negotiations have not delivered much liberalization beyond that undertaken unilaterally. Important GVC-relevant services, such as air and maritime transport, for which liberalization needs to be coordinated, have typically been excluded from negotiations.
- For investment in goods, there are no multilateral rules, and the relevant policies are covered by a patchwork of preferential trade agreements (PTAs) and bilateral investment treaties (BITs).
- As for subsidies, trade rules have sought to allow space for legitimate use while preventing protectionist abuse, but recent frictions suggest that they have not succeeded.

Two policy areas in which international cooperation can help developing countries engage in GVCs are in reducing tariffs and restrictions in services both at home and abroad.
**Figure 9.3** Tariffs have been liberalized across sectors, but pockets of protection remain

![Graph showing average trade-weighted tariffs across sectors.](image)

Source: Espitia et al. 2018.

Note: MFN = most-favored-nation. The numbers on the x-axis are Harmonized System two-digit industrial codes.

**Figure 9.4** There is room for further liberalization

a. Especially in lower-income countries…

b. …in their trade with both developing and developed nations

![Graph showing average trade-weighted preferential tariffs.](image)

Source: Espitia et al. 2018.

Note: MFN = most-favored-nation.
North–South tariffs are on average higher than North–North tariffs because many of the goods developing countries export, such as agriculture and apparel, face tariff peaks. However, within product categories, low income countries do receive higher preference margins, averaging 3 percentage points above other countries. Some countries, such as Lesotho and Afghanistan, receive preference margins as much as 10 percentage points. In contrast, several countries outside the global trade system, such as Cuba and the Democratic People’s Republic of Korea, face tariffs on their goods about 5 percentage points higher than other countries. The variation highlights how the trade system supports developing countries with market access through preferences, but also how it penalizes developing countries because their export products tend to face higher tariffs. It also shows the additional hurdles countries outside the trade system face.

Tariff escalation
A goal of many developing countries is to move into higher value-added production. For example, coffee bean producers would like to sell roasted coffee, and cocoa bean producers would like to export chocolate. One difficulty, though, is that tariffs on processed goods tend to be higher than tariffs on raw materials or semiprocessed goods in many of the largest markets. This tariff escalation is designed to protect the high value-added industries, while allowing producers access to imported inputs. Tariff escalation implies especially high rates of effective protection on final goods because not only are these goods protected against competing imported goods, but they also are relatively cheap to produce because tariffs on intermediates are below the average tariffs on other goods.

All countries and groups have some degree of tariff escalation. It is particularly pernicious in middle-income countries, where processed goods face average tariffs of over 10 percent (figure 9.5). From a GVC perspective, tariff escalation tends to push countries into backward participation.

Examining industrial and agricultural goods separately reveals distinct patterns (figure 9.6). High tariffs on raw materials in low-income countries can prevent them from joining the later stages of supply chains. By contrast, middle- and high-income countries tend to have high tariffs on processed nonagricultural and agricultural goods, preventing other countries from accessing their markets. These patterns hit low-income countries twice. First, they suffer a self-inflicted wound from the relatively high domestic tariffs on raw materials and the semifinished goods needed for production of most final goods. Second, if they are able to produce final goods, their exports face higher levels of protection abroad.

Trade restrictions on services
As for services, trade agreements have not done much to deliver liberalization. The General Agreement on Trade in Services (GATS) emerged from the Uruguay Round as a framework for negotiating liberalization, but there was limited liberalization of access to markets. In telecommunications services, however, the GATS did have a mutually reinforcing relationship with a broader liberalization trend. For example,
International cooperation on trade

Several countries that were not ready to open markets immediately nevertheless chose to commit themselves legally to opening up at specific points in the future—an exercise that lent credibility to reform programs. Unfortunately, the Doha negotiations in services fell victim to the broader negotiating inertia, and the initial offers did not promise any meaningful liberalization.

Typically excluded from services agreements are air and maritime transport services—two services vital for connectivity and participation in GVCs. In international transport, it takes two to liberalize. Zambia cannot unilaterally introduce greater competition on the Lusaka–London or Lusaka–Johannesburg air routes. Both the United Kingdom and South Africa also need to agree to allow entry by third-country airlines on each route. Both industrial and developing countries use restrictive bilateral air service agreements to fragment the international market into a series of route-specific duopolies. The WTO would have been a natural platform to negotiate liberalization, but powerful members have ensured that air traffic rights are excluded from its scope.

**Trade-related regulatory costs**

An important area of traditional trade cooperation relevant to GVC participation is the concerted action to reduce the trade costs associated with trade-related regulation. Examples are customs clearance procedures; enforcement of product health, safety, and environmental standards; control of counterfeit imports; and rules to establish the origin of products needed in applying trade preference programs and PTAs. Both WTO and PTA disciplines ensure that traders know what the rules are and that enforcement procedures are predictable. Governments are increasingly cooperating to facilitate trade by agreeing on good practices to reduce trade costs without undermining regulatory goals such as product safety and tax collection.

Complying with standards is critical to participating in GVCs. Two WTO agreements—one on sanitary and phytosanitary measures and one on technical barriers to trade—encourage the adoption of international standards where they exist and require that national product standards have a scientific basis, do not restrict trade unnecessarily, and are applied on a nondiscriminatory basis.

International standards are being developed not by the WTO but by specialist organizations. For example, international standards for phytosanitary measures, which are particularly significant for agriculture GVCs, are developed and adopted by contracting parties to the International Plant Protection Convention. These standards provide countries with harmonized guidance on the implementation of regulations in the trade of plants, plant products, and conveyances that may carry pests and diseases of plants.

**Gaps in rules**

The gaps in multilateral rules are in at least two important GVC-relevant areas: investment and subsidies.

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*Figure 9.6 Low-income countries are penalized by tariff escalation both at home and in their destination markets*

<table>
<thead>
<tr>
<th>MFN tariffs on nonagricultural goods</th>
<th>MFN tariffs on agricultural goods</th>
</tr>
</thead>
<tbody>
<tr>
<td>High-income OECD</td>
<td>Raw materials</td>
</tr>
<tr>
<td>Middle-income</td>
<td>Semiﬁnished goods</td>
</tr>
<tr>
<td>Low-income</td>
<td>Finished goods</td>
</tr>
<tr>
<td>China</td>
<td></td>
</tr>
<tr>
<td>European Union</td>
<td></td>
</tr>
<tr>
<td>Japan</td>
<td></td>
</tr>
<tr>
<td>United States</td>
<td></td>
</tr>
<tr>
<td>MFN tariff, 2017 (%)</td>
<td></td>
</tr>
</tbody>
</table>

Source: WDR 2020 team, based on World Bank’s WITS database.

Note: MFN = most-favored-nation; OECD = Organisation for Economic Co-operation and Development.
**Investment**

The WTO has uneven rules for policies affecting investment. Policies for foreign investment in goods are not covered. The existing national treatment rule on the goods trade does not allow governments to give incentives or require firms, including those benefiting from foreign investments, to source inputs locally instead of importing them. But governments are free to restrict or provide investment incentives for foreign direct investment (FDI). Policies affecting the establishment of a commercial presence by foreign firms in services are covered in the GATS. WTO members may make commitments on access to markets through FDI, but this is not a general obligation—it is up to each WTO member to decide whether to do so, sector by sector.

International cooperation in the treatment of foreign investment has mainly taken the form of bilateral investment treaties. These are not always instruments of liberalization in terms of market access; instead, they provide foreign investors with protection against governments taking action against them once they have entered the country. The main goals are to ensure that foreign investors are treated the same as domestic investors and to put in place international arbitration mechanisms to determine the appropriate compensation for a foreign investor if the host government takes actions to expropriate the investment. The arbitration dimension of BITs has been contested in recent years, resulting in revisions of the regime by some jurisdictions.

Increasingly, PTAs are providing for both investment liberalization and investment protection. Liberalization may include access during the preestablishment or entry phase of investment, including national treatment, which requires the host state to remove all discriminatory market access barriers and allow foreign investors to invest on the same terms as domestic investors. Investor protections in PTAs generally grant national treatment to other members of PTAs and MFN treatment once the investment has been made (in the postestablishment phase) and cover direct and indirect forms of expropriation (figure 9.7). Finally, dispute settlement plays a prominent role in the investment chapters of PTAs, particularly investor–state dispute settlement provisions, which allow investors to bring disputes relating to the treaty’s substantive provisions. Almost all PTAs that cover this area provide for a mechanism for consultations and state-to-state dispute settlement, and 77 percent provide for investor–state dispute settlement provisions.

**Subsidies**

Subsidies, like taxes, are an important policy tool that governments can use to pursue a number of legitimate goals. Often, they are the best way to address market failures that lead to the underprovision of certain goods. They can also be used to promote social objectives such as supporting access to basic services in marginalized areas. But subsidies also can have distortive effects, including on trade. They may undermine the benefits of trade and investment by distorting international prices or limiting market access, such as when they are granted with the condition that local content be used. Such a condition can have negative welfare effects on other trading partners and the global economy. Ensuring that subsidies pursue

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**Figure 9.7 A majority of PTAs protect investors from discrimination and expropriation**

![Bar chart showing the percentage of PTAs covering various investment protections and expropriation](chart.png)

Source: Mattoo, Rocha, and Ruta, forthcoming.

Note: National treatment requires imported products to be treated no less favorably than “like domestic products.” MFN = most-favored-nation;
PTAs = preferential trade agreements.
desirable goals and are not captured by special groups to further their own interests is a challenge. Trade rules have sought to allow space for legitimate goals while preventing protectionist ones, but it is not clear they have succeeded.

The impact of a subsidy is less clear in a GVC world in terms of the resulting distortion, as well as who benefits from a “subsidy” and who might be hurt.7 The most obvious feature of a subsidy is that it can be targeted to specific stages of production or types of economic activity—presumably associated with immediate or future spillover benefits—rather than entire industries. That feature may imply that location decisions are more responsive than others to financial incentives. In relational GVCs, subsidies can help overcome a market failure in which investment in specific goods is too low because of incomplete contracts.

**The two sides of a subsidy**

The first order of business in considering a subsidy is to identify and define its spillovers. Subsidies used by a country to support local firms may have adverse effects on the firms producing similar goods or services. Therefore, the potential for welfare-reducing subsidy competition between jurisdictions is significant. U.S. states “spend” some $80 billion a year on tax incentives and subsidies of investments, reflecting vigorous competition to attract investment.4 This competition increases state-level welfare by attracting firms, increasing employment, and raising wages, but it generates beggar-thy-neighbor effects. Although large potential gains can accrue at the state level from subsidizing investment, such subsidies distort resource allocation by making inputs too cheap and generating excessive entry. The cost to the United States as a whole is significant—if states were to refrain from subsidy competition, manufacturing real income in the United States would be 3.9 percent higher.9

Although investment subsidies may have negative welfare spillovers, they can also achieve outcomes sought by governments, such as generating local employment. A U.K. program that offers investment subsidies to firms in depressed areas on the condition they create or safeguard manufacturing jobs in those areas has positive effects on employment, investment, and net entry. A 10 percent investment subsidy generates about a 7 percent increase in manufacturing employment. The “cost per job” has been estimated at $6,300, suggesting that investment subsidies can be cost-effective.10

These examples illustrate the trade-offs associated with subsidies and raise several questions from a trading system perspective. How large are any spillovers? What types of subsidies generate the greatest adverse effects for other countries and for the trade system? Are subsidies achieving government objectives, or are they likely to be captured by special interests? All these questions require better information and further analysis.

As discussed in chapter 8, about half of all trade-related policy measures imposed by governments since 2009 take the form of subsidies or some type of support for exports. These subsidies are only partially covered by WTO disciplines.

**WTO subsidy rules**

WTO subsidy rules have significant gaps—they do not cover investment incentives or support received by services activities, and only partially do they discipline the behavior of SOEs. Most PTAs do little more than the WTO on subsidies, but the European Union is a major exception. For SOEs, however, several recent deep PTAs, such as the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) and the United States–Mexico–Canada Agreement (USMCA), do go beyond the WTO.

Much of the focus of WTO members has been on agricultural subsidies, but their views have changed in recent years. Many high-income countries have long supported their agriculture sectors through a variety of policy instruments, including border barriers and production subsidies. The WTO Agreement on Agriculture negotiated during the Uruguay Round significantly reduced the ability of members to use agricultural subsidies and encouraged governments to decouple support from production. In 2015 WTO members agreed to ban agricultural export subsidies. Although other agricultural support continues to be trade-distorting, it is much less so than in the 1980s and 1990s because of the shift to decoupling support from production and linking it to achievement of equity, environmental, and sustainability goals as opposed to increasing output. Since the early 2000s, the Organisation for Economic Co-operation and Development (OECD) has seen a remarkable reduction in production support (figure 9.8), but there has been an increase in support in large emerging economies such as China. These trends illustrate the value and feasibility of cooperation to reduce the negative spillovers created by subsidies. But further cooperation is needed to address the increase in farm support not decoupled from production in countries such as China and the United States.11

Nondistorting forms of support are positively associated with agri-food GVC participation and the generation of domestic value added.12 Conversely,
the Chinese economy has resulted in a substantial increase in the relative weight of SOEs in the global economy. In 2006, 4 percent of the world’s top 1,000 firms were Chinese, and by 2014, 14 percent were Chinese, of which 70 percent were state-owned. SOEs are also active in other emerging and developed countries, often in cross-border mergers and acquisitions, engaging in outward FDI. Concerns are frequently expressed about the potential of SOEs to distort competition, reflecting views that SOEs are effectively subsidized through soft loans, guarantees, and direct subsidies, among other things. They also may benefit from indirect subsidies for factor inputs such as energy and land, as well from protection from foreign competition (reflected, for example, in FDI restrictions, joint venture requirements, and preferential access to public procurement). SOEs operate in GVC-intensive sectors, both upstream in energy and downstream in transport.

Disciplines on SOEs are included in recent PTAs such as the CPTPP and USMCA, and the relevant provisions are enforceable through dispute settlement procedures. These disciplines require SOEs to make purchases and sales on the basis of commercial considerations, and specify that subsidies granted to SOEs, both direct fiscal transfers and indirect subsidies, are actionable and that signatories may not discriminate in favor of SOEs (that is, they must apply the national treatment principle). The agreements also include provisions requiring signatories to list their SOEs and publish data on measures used to assist them. As just noted, incentives to attract investment are not covered by WTO rules.

Current WTO rules on countervailing action are directed at the domestic industry: if a sufficiently large share of the industry agrees it is being injured by a foreign subsidy, action can be initiated. In a GVC setting, the high import content of total value added embodied in a final good means subsidies will benefit foreign interests as well as local ones. The current concept of injury may need to be reconsidered. Because any GVC spans firms in different countries, it may be more appropriate to focus on the effects of subsidies on GVCs as a whole.

WTO disciplines on SOEs are limited, with only a provision for state trading enterprises to require firms granted exclusive or special privileges in trading to abide by the nondiscrimination rules. The growth of subsidies linked to output and market price support measures lower the benefits of GVC participation. Distortionary payments increase forward GVC participation in OECD member countries but decrease the domestic returns to participation in agri-food GVCs because the subsidy acts as a tax on other contributing sectors. Cooperation to limit subsidies and distortions in agri-food sectors may thus enhance the domestic value added captured through participation in GVCs.

A separate WTO Agreement on Subsidies and Countervailing Measures (ASCM) pertaining to subsidies on nonagricultural goods seeks to limit their use while granting flexibility to developing countries. The ASCM has a twofold objective: (1) to prevent the use of subsidies to circumvent market access (tariff) concessions and (2) to regulate countervailing duties (CVDs) used to offset the harmful effects on domestic producers of the foreign subsidization of goods. Export subsidies are prohibited. All other subsidies can be used, but they could lead to the imposition of CVDs in destination markets. De minimis provisions allow developing countries to use subsidies subject to certain thresholds. However, the WTO rules are not concerned with why a government has implemented a subsidy, such as whether it can be justified by a market failure.

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**Strengthening subsidy rules**

Concerns and conflicts about the effects of subsidies and the potential competition-distorting role of SOEs in the international economy call for revisiting the WTO rules. Such efforts can take different forms, ranging from “soft law”—agreement on guidelines—to enforceable treaty commitments. In 2018 the European Union, Japan, and the United States launched a
transparency on subsidies are already embodied in WTO agreements, including the green box approach used in the Agreement on Agriculture, which exempts subsidies that cause minimal distortion to trade and includes social and environmental programs. The agreement also gives developing countries additional flexibility in providing domestic support. The green box approach was also incorporated on a provisional basis in the WTO agreement on subsidies and countervailing measures that expired in 1999. Revisiting it
Deep integration agreements and GVCs

Deep trade agreements boost GVC participation

There is a strong correlation between GVC-related trade and the depth of PTAs (figure 9.9). Adding a provision to a PTA boosts the domestic value added of intermediate goods and services exports (forward GVC linkages) by 0.48 percent, while an additional provision in a PTA increases the foreign value added of intermediate goods and services exports (backward GVC linkages) by 0.38 percent. Although deep PTAs boost trade between their members, this effect is stronger for GVC trade, which is consistent with the view that policy spillovers are more relevant to GVCs than to standard trade. Indeed, deep trade agreements improve forward linkages, especially for more complex GVCs, which export intermediates across borders two or more times. Conversely, the unraveling of deep trade agreements can have an adverse effect on GVCs (box 9.3).

Figure 9.9 Deep trade agreements are associated with GVC integration

Source: Laget et al. 2018.
Note: The estimator is the Poisson Pseudo Maximum Likelihood (PPML).
GVC-related trade is defined as trade in parts and components. PTA = preferential trade agreement.
Box 9.3 The impact of Brexit on GVC trade

How will Brexit affect trade between the United Kingdom and the European Union (EU)? One difficulty in addressing this question lies in the lack of systematic information on the content of trade agreements, which makes it difficult to assess precisely the impact that a set of common rules has on trade flows.\(^a\) A recent study uses the information available on the content of trade agreements to assess the impact of Brexit on goods, services, and value-added trade.\(^a\) Specifically, it augments a standard gravity model of trade to quantify the effect that the “depth” of the EU agreements has on U.K. trade and then use the estimates from this analysis to evaluate the future of U.K.–EU trade relations under different post-Brexit scenarios. In a first step, the study examines the extent to which EU membership contributed to boosting U.K. trade, notably GVC trade.\(^c\) It finds that EU membership increased goods, services, and value-added trade for member countries and that this impact has been even stronger for the United Kingdom (figure B9.3.1). Following its membership in the European Union, the United Kingdom’s services trade more than doubled; its intermediates value added in gross exports (forward linkages) increased by 31 percent; and the foreign value added in U.K. exports (backward linkages) increased by 37 percent.

In a second step, the study examines the impact that Brexit can have on U.K.–EU trade relations going forward. Three distinct scenarios are considered, varying by the decreasing depth of the post-Brexit agreement between the United Kingdom and the rest of the European Union.

The first scenario is a “soft” Brexit, assuming that the post-Brexit arrangement between the United Kingdom and the European Union will be as deep as the agreement the European Union has with Norway. In the second scenario, the United Kingdom and the European Union will sign an agreement as deep as the average agreement the European Union currently has with third countries. The third “hard” scenario has no agreement.

Under all scenarios, bilateral U.K.–EU trade declines, and the drop is sharper the lower the depth of the post-Brexit arrangement relative to the depth of the EU agreement. In terms of value-added trade, the decline ranges from 6 percent for the “softer” scenario to 28 percent for the “harder” Brexit scenario. The largest declines are for U.K. services trade.

Figure B9.3.1 Trade impacts of membership in the European Union on the United Kingdom and other EU members

![Figure B9.3.1](image-url)

Source: Mulabdic, Osnago, and Ruta 2017.

Note: The figure reports the coefficients and confidence intervals of an augmented gravity equation, capturing the marginal impact on trade of a deep trade agreement and its statistical significance. In each category, the blue bar represents the coefficient for all countries in the sample, except the United Kingdom (for which the red bar is the coefficient). For example, a coefficient of 0.5 for goods trade indicates that country-pairs that signed the deepest trade agreement increased their total bilateral trade in goods by 69 percent (exp 0.5–1.0). The United Kingdom was not affected more than the average in terms of goods trade. The estimator is the Poisson Pseudo Maximum Likelihood (PPML). All specifications include bilateral fixed effects and country-time fixed effects. Ninety percent confidence intervals are constructed using robust standard errors, clustered by country-pair.

(Box continues next page)
Box 9.3 The impact of Brexit on GVC trade (continued)

Table B9.3.1 Changes in the United Kingdom’s bilateral trade with the European Union under three Brexit scenarios

<table>
<thead>
<tr>
<th>Type of trade</th>
<th>“Norway” (or “soft”) scenario</th>
<th>“Average PTA” scenario</th>
<th>“No agreement” (or “hard”) scenario</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goods</td>
<td>–12</td>
<td>–38</td>
<td>–50</td>
</tr>
<tr>
<td>Services</td>
<td>–16</td>
<td>–48</td>
<td>–62</td>
</tr>
<tr>
<td>Domestic value added</td>
<td>–6</td>
<td>–20</td>
<td>–28</td>
</tr>
<tr>
<td>GVC forward linkages</td>
<td>–5</td>
<td>–18</td>
<td>–26</td>
</tr>
<tr>
<td>GVC backward linkages</td>
<td>–7</td>
<td>–25</td>
<td>–34</td>
</tr>
</tbody>
</table>

Source: Mulabdic, Osnago, and Ruta 2017.

Note: The depth of the post-Brexit arrangement falls from a score of 44 to 36 (the number of legally enforceable policy areas covered by the agreement) in the “Norway” scenario, to 14 in the “average PTA” scenario, and to 0 in the “no agreement” scenario. PTA = preferential trade agreement.

Table B9.3.1 summarizes results of the study. These predictions are average effects because it takes time for trade flows to respond to changes in trade costs, and so the impact in the short run is expected to be smaller than in the longer term. Moreover, they are made under the assumption that entry and exit from an agreement are symmetric processes because the predictions are based on the impact that EU membership had on U.K.–EU trade. Because firms have already paid sunk costs to enter the market, the trade effect of a breakup can be less than what a gravity model predicts.

Deep PTAs have an indirect effect on third countries’ trade along the value chain

In a world in which production is fragmented across countries, the depth of PTAs affects their members as well as GVC trade with nonmembers. Intuitively, deeper trade agreements in third countries lower trade costs along the entire value chain, thereby encouraging trade in intermediates among countries that are not part of the agreement. The estimated impact from augmented gravity regressions are larger than those of a standard gravity model, suggesting that signing deep PTAs has indirect effects through third-country trade.25

Deep PTAs affect the structure of international production

Deep trade agreements also affect FDI and, more generally, the way in which goods are traded internationally (within firms or at arm’s length). The underlying idea is that deep PTAs affect firms’ make-or-buy decisions—that is, whether producers outsource to trading partners’ suppliers or vertically integrate production processes with affiliates in foreign economies. Consistent with a model of contractual frictions and global sourcing,26 the depth of PTAs is correlated with vertical FDI.27 This relationship is driven by areas in trade agreements (such as regulatory cooperation) that improve the process of contracting with suppliers for inputs provided by suppliers.

Addressing traditional trade barriers still matters for South–South GVC trade

The impact of deep agreements on GVC trade may be heterogeneous across countries at different levels of development. South–South GVCs tend to be impeded by traditional barriers, such as high tariffs and long delays at the border, more than GVC trade between North and South economies. Evidence suggests that PTAs boost South–South GVC integration by going further in policy areas under the current WTO mandate (such as tariffs, customs, and services), whereas North–South GVCs are primarily affected by commitments in areas such as investment, competition, and intellectual property rights protection not covered by the WTO.28
International cooperation on trade

These findings provide useful guidance for South–South integration initiatives, such as the African Continental Free Trade Area (AfCFTA). It is far more ambitious than the existing PTAs in Africa (table 9.2). Because bilateral trade protection among African countries affects backward and forward participation in agriculture and food GVCs, the immediate challenge for AfCFTA negotiations for GVC integration is to address the distortions created by traditional barriers to trade within Africa (box 9.4).

### Table 9.2 Existing trade agreements in Africa are relatively shallow

<table>
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<tr>
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<tbody>
<tr>
<td>Agreement on Trade-Related Investment Measures (TRIMs)</td>
<td>?</td>
<td></td>
<td>?</td>
<td>?</td>
<td>?</td>
<td>?</td>
<td>?</td>
</tr>
</tbody>
</table>

Source: WDR 2020 team, based on Hofmann, Osmago, and Ruta 2019.

a. The depth of AfCFTA is based on the text of the Agreement Establishing the African Continental Free Trade Area ("Kigali Draft Text," March 2018). Several AfCFTA details are still being negotiated. It is unknown if any commitments will be included in the areas of state aid, public procurement, environment, labor market regulation, and TRIMs.
Box 9.4 How the African Continental Free Trade Area (AfCFTA) can support integration into GVCs

AfCFTA will likely boost trade and deepen regional integration in Africa, with positive effects on growth and poverty reduction. The agreement, now ratified by 27 countries, has become legally binding and entered into force in May 2019. The first phase of negotiations will consider trade in goods and services, as well as procedures for dispute settlement. This phase will include negotiations on rules of origin, which are likely to have an important role in enabling the development of regional value chains. The second phase will cover the rules defining investment, competition, and intellectual property rights.

There is widespread optimism throughout the continent that increased trade integration will strengthen the emerging regional value chains and enable firms throughout Africa to participate in GVCs. Creating an integrated and much larger market can attract market-seeking foreign direct investment, especially if some of the deeper integration ambitions are also realized. Similarly, a well-staffed AfCFTA secretariat with clear monitoring and enforcement capacities can help ensure that commitments are fully implemented, leading to greater policy predictability. Some institutions such as the African Export-Import Bank are seeking to develop facilities to help governments address adjustment costs. However, it is unclear whether such efforts will be sufficient. As for most free trade agreements (FTAs), governments will have to look for ways to support those workers who may lose from the adjustment-related aspects of greater trade openness.

There is, however, reason for caution at this stage. Despite a long history of hope for greater integration in Africa, the efforts to date have fallen short. Here, the development of integrated trade and production networks in Asia provides some lessons. Implementing trade facilitation commitments and improving border management can reduce trade costs within Africa and also reduce distances to global hubs. The impact of AfCFTA depends, then, on much more than tariff reduction; some of the largest gains would come from effectively tackling nontariff barriers (NTBs) to trade in goods and services and implementing trade facilitation measures. World Bank staff estimates indicate that reduction of tariffs alone is expected to increase the welfare of AfCFTA members by 0.2 percent. Reducing NTBs in goods and services by half would increase welfare gains by 1.6 percent. Full implementation of the World Trade Organization’s Trade Facilitation Agreement (TFA) would bring the overall welfare gains to 5 percent by 2035 (compared with the baseline). However, the aggregate results mask heterogeneity of impacts across countries. Even though AfCFTA is expected to benefit all members, welfare gains by 2035 will range from 0.4 percent to 19 percent (figure B9.4.1). Thus the impact of the agreement will depend on its depth and the extent to which it covers NTBs and services, especially in backbone sectors such as transport and logistics, and on the respective export basket and economic structure of each country.

AfCFTA will also provide an opportunity to build on efforts by the many regional economic communities to develop integrated regional value chains (RVCs) to support growth and industrial development. In the recent past, these efforts have suffered from the fragmented and piecemeal engagement of the private sector and the capacity, political economy, and coordination challenges that lead to the “implementation gap” in regional commitments. Ongoing initiatives by regional communities, national governments, and donors are seeking to identify and address policy and regulatory constraints to cross-border trade, such as in the soya RVC in southern Africa, the dairy RVC in East Africa, and the leather RVC in the Common Market for Eastern and Southern Africa (COMESA) region. The benefit of structuring interventions and support around individual RVCs is that it allows participants to focus on required policy reforms and needed investments to address market failures and to create mutually beneficial outcomes. This in turn can create demonstration effects and reduce cross-cutting barriers across sectors that can be scaled up across RVCs spanning subgroups of countries.

(Box continues next page)
Box 9.4 How the African Continental Free Trade Area (AfCFTA) can support integration into GVCs (continued)

Figure B9.4.1 AfCFTA members benefit from reductions in tariffs, nontariff measures, and implementation of the World Trade Organization’s Trade Facilitation Agreement

Source: Maliszewska, Osorio-Rodarte, and van der Mensbrugge, forthcoming.

Note: The figure shows the percentage change in welfare in 2035 compared with the baseline. Tariffs refers to full elimination of tariffs in trade within the African Continental Free Trade Area (AfCFTA); NTMs refers to halving the nontariff measures (NTMs) in goods and services; and TFA refers to full implementation of the World Trade Organization’s Trade Facilitation Agreement. Rest of Central Africa includes Angola, Central African Republic, Chad, Republic of Congo, Equatorial Guinea, Gabon, and São Tomé and Príncipe; rest of Eastern Africa includes Burundi, Comoros, Djibouti, Eritrea, Mayotte, Seychelles, Somalia, South Sudan, and Sudan; rest of North Africa includes Algeria, Libya, and Western Sahara; rest of SACU (South African Customs Union) includes Eswatini and Lesotho; rest of Western Africa includes Cape Verde, The Gambia, Guinea-Bissau, Liberia, Mali, Mauritania, Niger, Saint Helena, and Sierra Leone.

Notes

2. The website for this database is still under construction.
3. Competition adjusted preference margins are calculated as the difference between the weighted average tariff rate applied to the rest of the world and that applied to the beneficiary country, holding weights constant based on preference-granting country imports.
5. National treatment is specified by the WTO (in Article III of the General Agreement on Tariffs and Trade), as well as in most preferential trade agreements. It requires imported products to be treated no less favorably than “like domestic products.”
14. Adverse effects include injury to a domestic industry, nullification or impairment of tariff concessions, or serious prejudice to the country’s interests. Serious prejudice arises if subsidies are used to cover the operating losses of a firm or industry or if debt relief is granted for government-held liabilities. Serious prejudice may arise if the subsidy reduces exports of other WTO members, results in significant price undercutting, or increases the world market share of the subsidizing country in a...
primary product. WTO disciplines focus on the amount of assistance given and not on the extent to which a subsidy harms trading partners. Subsidies below 5 percent ad valorem are not actionable. See Hoekman and Kostecki (2009).

15. In response to subsidies, other countries can impose CVUs on subsidized imports that injure a domestic industry (with duties up to the amount of the subsidy paid) or request a government to withdraw a prohibited subsidy or withdraw or modify an actionable subsidy. In case of noncompliance, the injured WTO member can take countermeasures against the subsidizing state up to the amount of the subsidy paid (in the case of a prohibited subsidy) or up to the amount of the injury suffered by the domestic industry (in the case of an actionable subsidy).

16. If the subsidy is less than 2 percent of the per unit value of products exported, developing countries are exempt from CVUs (for less developed countries the threshold is 3 percent). De minimis also applies if the import market share of a developing country is below 4 percent, and the aggregate share of all developing countries is below 9 percent of total imports. The ASCM also exempts nations with per capita incomes below $1,000 from the WTO prohibition on the use of export subsidies and precludes CVUs on associated exports if global market shares are less than 3.5 percent for a product. De minimis provisions are also included in the WTO Agreement on Agriculture, permitting support up to 10 percent of output in developing countries.

17. In the Uruguay Round, a third category, nonactionable subsidies, was included in the ASCM spanning environmental, R&D, and regional subsidies. This provision was time-bound and lapsed at the end of 1999 because a consensus could not be reached to extend it.


19. See, for example, USTR (2018) for arguments to this effect. Empirical evidence suggests that SOEs are less profitable and less productive than private firms in their respective sectors. See European Commission (2016) for the European Union; Harrison et al. (2019) for China; and Kowalski et al. (2013) and OECD (2016) for a broad sample of countries.

20. Lawrence, Bressand, and Ito (1996).


22. Laget et al. (2018). For other research on the relationship between deep PTAs and GVCs see Dhingra, Freeman, and Mavroeidi (2018); Johnson and Noguera (2017); Orefice and Rocha (2014).


25. Laget et al. (2018) build on the approach by Noguera (2012) to investigate this mechanism through a gravity model augmented to account for third-country effects.


References


