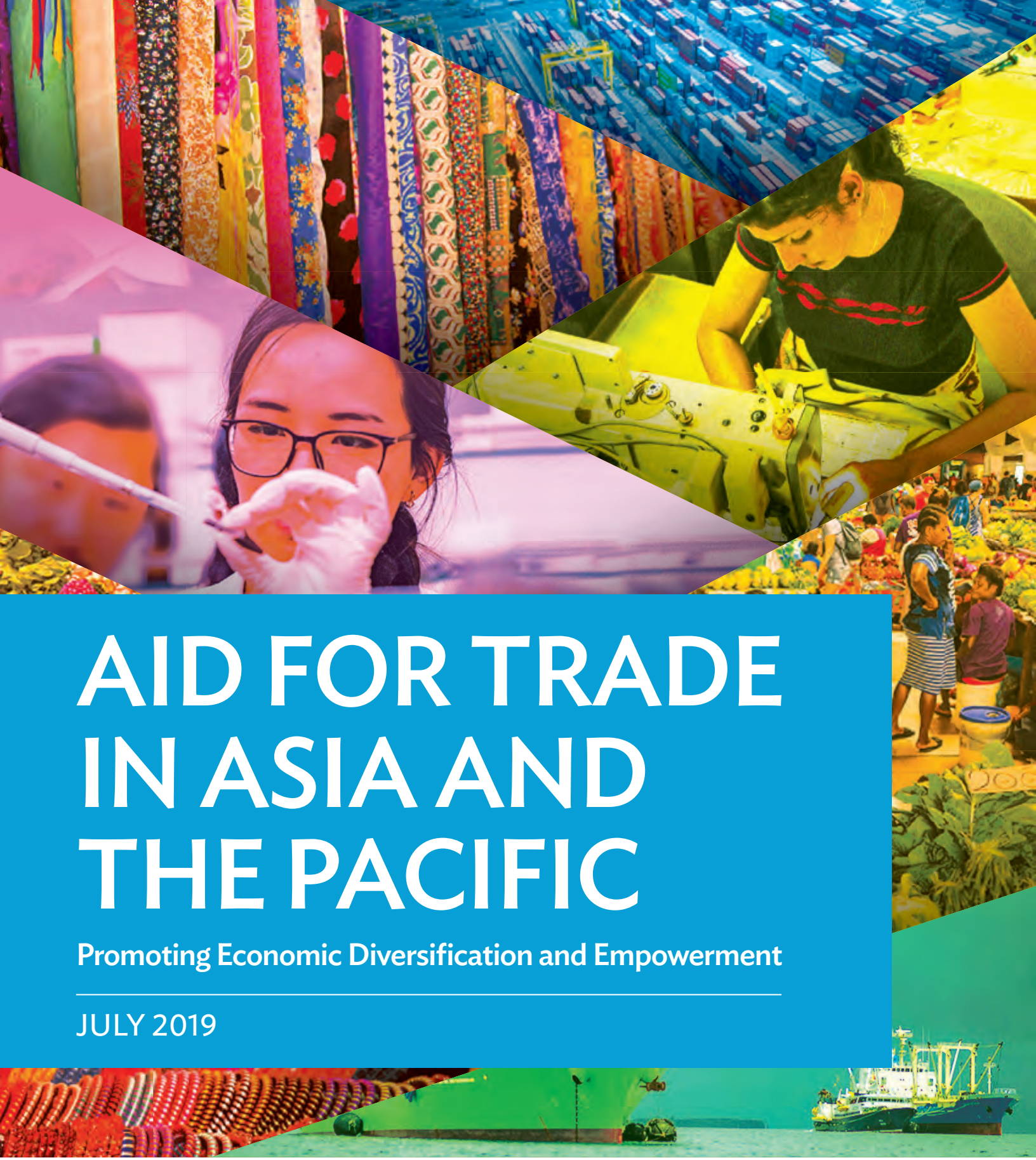

AID FOR TRADE IN ASIA AND THE PACIFIC

Promoting Economic Diversification and Empowerment

JULY 2019

WORLD TRADE ORGANIZATION

Australian Aid

ADB

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On the cover: ADB remains committed to support trading activities in Asia and the Pacific (all photos by ADB).

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FOREWORD

International trade continues to be a major driver of economic transformation across developing Asia where more than a billion people have been lifted out of poverty since 1990. Aid for Trade (AfT), in particular, has played an important part in making economic growth more inclusive. Emerging challenges to the global trade landscape are now making its role more of an imperative.

These challenges include the risk of sluggish global economic growth, the adoption of more inward-looking trade policies in some parts of the world, and widening social and income inequalities. There is now greater need for well-targeted Aid for Trade to catalyze financing that boosts services trade and enables the benefits of open trade to be shared more equitably.

As our 2019 report shows, AfT is recalibrating to tackle these challenges. Consistent with the Sustainable Development Goals, AfT is increasingly focused on vulnerable groups—particularly women, small firms, and those disadvantaged by lack of access to digital technology. AfT disbursements to developing Asia with gender equality as a main or significant objective have nearly tripled since the beginning of the initiative in 2005, as have disbursements to develop micro, small, and medium-sized enterprises.

The report demonstrates that AfT to the services sectors of developing Asia presents great opportunities to promote economic diversification and support vulnerable groups by expanding trade for small firms. Services generate over half of the region's output, comprise a quarter of its trade, and employ more women than men. AfT more targeted at trade in services can encourage structural transformation toward services, and generate employment and more socially inclusive growth. The potential return from fostering entrepreneurship among women is enormous, too.

There is still much to be done. Most women still tend to work in low-productivity traditional services associated with vulnerable employment and lower value-added roles. More efforts must be made to bring down the large barriers that make it difficult for small, women-owned firms to reach international markets and integrate into global supply chains. While aid for economic infrastructure takes the largest share of AfT, gender mainstreaming in these sectors remains minimal. AfT can contribute to women's access to economic opportunities by increasing gender mainstreaming in aid for economic infrastructure. It can also improve gender targets in trade policies and regulations, thereby further advancing gender equality and empowering women.

Digital connectivity holds great promise as an area in which AfT could help unlock trade benefits for micro, small, and medium-sized enterprises (MSMEs) and women in developing Asia. The report draws attention to high returns for inclusive growth and empowerment from expanding information and communication technology and helping socially vulnerable and disadvantaged groups to access it. Aid targeted at digital connectivity can boost these groups' economic opportunities by opening up export avenues for participation in global markets through e-commerce and facilitate trade in services such as offshore business processing and ICT-enabled services.

More focus must be placed on promoting innovative solutions such as e-commerce and digital transactions, enabling more robust trade in services, and helping small firms to access finance. By lowering barriers to market participation, AfT can significantly increase export opportunities for MSMEs and women-owned firms.

AfT accounts for about 40% of official development assistance in Asia and the Pacific, so how to enhance its effectiveness will characterize the future of the region's economic development. This report will contribute to generating bold ideas for effective strategies to deepen the gains. The Asian Development Bank looks forward to continuing to work closely with AfT stakeholders in the region to facilitate more inclusive and sustainable trade growth.

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Vice-President
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DEFINITIONS

The economies covered in this report are grouped by major geographic area. For the purposes of this publication, the following definitions apply:

- Central Asia comprises Armenia, Azerbaijan, Georgia, Kazakhstan, the Kyrgyz Republic, Tajikistan, Turkmenistan, and Uzbekistan.
- East Asia comprises Hong Kong, China; Mongolia; the People's Republic of China; the Republic of Korea; and Taipei,China.
- South Asia comprises Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka.
- Southeast Asia comprises Brunei Darussalam, Cambodia, Indonesia, the Lao People's Democratic Republic, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Viet Nam.
- The Pacific comprises the Cook Islands, the Federated States of Micronesia, Fiji, Kiribati, the Marshall Islands, Nauru, Palau, Papua New Guinea, Samoa, Solomon Islands, Timor-Leste, Tonga, Tuvalu, and Vanuatu.
- Developing Asia comprises Central Asia, East Asia, South Asia, Southeast Asia, and the Pacific.
- Advanced Asia comprises Australia, Japan, and New Zealand.
- Asia and the Pacific (or Asia as referred to in this report) comprises developing Asia and advanced Asia.

Unless otherwise specified, the symbol "$" and the word "dollar" refer to United States dollars, and percent changes are year-on-year.

This report utilizes the definitions of the International Labour Organization (ILO) regarding employment in the formal and informal sectors (please refer to footnote 26 on page 33 of the main report for the online sources). The ILO defines employment in the informal sector as including all jobs in informal sector enterprises or all persons who, during a given reference period, were employed in at least one informal sector enterprise, irrespective of their status in employment and whether it was their main or a secondary job. On the other hand, informal employment is defined as comprising the total number of informal jobs, whether carried out in formal sector enterprises, informal sector enterprises, or households, during a given reference period.

Similarly, the classification of status of employment used in this report adheres to the classifications of the ILO. People in non-vulnerable employment include employees and employers. Vulnerable employment includes own-account workers and contributing family workers—workers with a lower likelihood of having formal work arrangements and therefore more likely to lack elements associated with decent employment, such as adequate social security and a voice at work. In particular, the International Classification of Status in Employment defines

- *Employees* as all workers who hold the type of job defined as "paid employment jobs." Paid employment jobs are those where the incumbents hold explicit (written or oral) or implicit employment contracts which give them a basic remuneration not directly dependent on the

revenue of the unit for which they work (this unit can be a corporation, a nonprofit institution, a government unit, or a household).

- *Employers* as those workers who, working on their own account or with one or a few partners, hold the type of job defined as a "self-employment job," and, in this capacity, on a continuous basis have engaged one or more persons to work for them in their business as "employee(s)." Self-employment jobs are those jobs where remuneration is directly dependent upon the profits (or the potential profits) derived from the goods and services produced (where own consumption is considered part of profits). The incumbents make the operational decisions affecting the enterprise, or delegate such decisions while retaining responsibility for the welfare of the enterprise.

- *Own-account workers* as workers who, working on their own account or with one or more partners, hold the type of job defined as a "self-employment job," and have not engaged on a continuous basis any "employees" to work for them during the reference period. (It should be noted that during the reference period, the members of this group may have engaged "employees," provided that this is on a noncontinuous basis.)

- *Contributing family workers* as workers who hold a "self-employment" job in a market-oriented establishment operated by a related person living in the same household, who cannot be regarded as partners because their degree of commitment to the operation of the establishment, in working time or other factors determined by national circumstances, is not at a level comparable to that of the head of the establishment.

Due to data limitations, both small and medium-sized enterprises (SMEs) and micro, small, and medium-sized enterprises (MSMEs) are used herein to generally refer to smaller firms. Analysis throughout the report depends on data availability.

In reference to aid in support of gender equality and women's empowerment, the Organisation for Economic Co-operation and Development defines the term "bilateral allocable aid" as including sector budget support, support to nongovernment organizations, support to specific funds managed by international organizations, pooled funding, projects, donor country personnel and other technical assistance, and scholarships in donor countries (please refer to footnote 33 on page 45 of the main report for the online source). It excludes core contributions to multilateral organizations, general budget support, imputed student costs, debt relief, administrative costs, development awareness, and refugee costs in the donor country. Further, "gender-targeted aid" or "gender-focused aid" refers to aid with activities that target gender equality as a principal or significant objective. Principal refers to gender equality as an explicit objective of the activity and fundamental in its design. Significant means gender equality was an important, but secondary objective of the activity. Overall, to qualify as gender-targeted or gender equality-focused, an activity must explicitly promote gender equality and women's empowerment through specific measures which (i) reduce social, economic, or political power inequalities between women and men, girls and boys, ensure that women benefit equally with men from the activity, or compensate for past discrimination; or (ii) develop or strengthen gender equality or antidiscrimination policies, legislation or institutions.

ABBREVIATIONS

AANZFTA	–	ASEAN-Australia-New Zealand Free Trade Area
ADB	–	Asian Development Bank
ADBI	–	Asian Development Bank Institute
AfT	–	Aid for Trade
ASEAN	–	Association of Southeast Asian Nations
BIMP-EAGA	–	Brunei Darussalam-Indonesia-Malaysia-Philippines East ASEAN Growth Area
CAREC	–	Central Asia Regional Economic Cooperation
CEDAW	–	Convention on the Elimination of All Forms of Discrimination against Women
DAC	–	Development Assistance Committee
EEC	–	European Economic Community
FAO	–	Food and Agriculture Organization of the United Nations
FSM	–	Federated States of Micronesia
FTA	–	free trade agreement
GATS	–	General Agreement on Trade in Services
GDP	–	gross domestic product
GMS	–	Greater Mekong Subregion
GVC	–	global value chain
HHCI	–	Herfindahl-Hirschman concentration index
ICT	–	information and communication technology
IFC	–	International Finance Corporation
ILO	–	International Labour Organization
M&E	–	monitoring and evaluation
MSMEs	–	micro, small, and medium-sized enterprises
ODA	–	official development assistance
OECD	–	Organisation for Economic Co-operation and Development
PACER	–	Pacific Agreement on Closer Economic Relations
PNG	–	Papua New Guinea
PRC	–	People's Republic of China
PTA	–	preferential trade agreement
RCEP	–	Regional Comprehensive Economic Partnership
SDG	–	Sustainable Development Goal
STEM	–	science, technology, engineering, and mathematics
STRI	–	Services Trade Restrictiveness Index
UNCTAD	–	United Nations Conference on Trade and Development
WTO	–	World Trade Organization

HIGHLIGHTS

Aid for Trade helps developing countries benefit from trade liberalization through improving their productive capacity, infrastructure and institutions. Globally, disbursements grew from a yearly average of $13.1 billion for 2002–2005 to $40.9 billion for 2016–2017. Developing Asia was among the largest recipients.

From a low annual average of $5.3 billion over 2002–2005, Aid for Trade (AfT) disbursements to developing Asia[a] nearly tripled, reaching an average of $13.9 billion for 2016–2017 and accounting for more than a third of global AfT disbursements. Regional AfT disbursements have totaled $137.5 billion since the launch of the World Trade Organization-led Aid for Trade Initiative in 2005, and cumulatively account for 32.9% of official development assistance. AfT flows to the region have mainly targeted economic infrastructure including the transport and storage, energy, and agriculture sectors. The most significant increases have been in energy, tourism, and trade policies and regulations. This reflects the growing need for AfT to facilitate investment in productive capacities and the institutional capacity in the region.

Trade costs are in gradual decline, but further progress can be made, particularly in the services trade vital to promoting economic diversification and empowerment for vulnerable groups.

Trade costs in goods in Asia and the Pacific have declined slowly, but with wide geographical variations. Similarly, barriers to trade in services have fallen, especially those relating to digital networks and to the transport and distribution supply chain. Trade and regulatory reforms have helped to reduce trade costs associated with the logistical process of exporting and importing goods, and to lower barriers to trade and investment in services.

AfT support has made a strong contribution to these and other measures that cut trade costs further, such as trade facilitation, building infrastructure essential to expand trade capacity, and improving the business climate to increase competition.

Trade needs to be better leveraged to promote economic diversification for more inclusive development.

The global trade slowdown and declining commodity prices present a major challenge for developing countries, specifically those with narrow industrial and private sector bases for generating jobs, diversifying exports, and creating new sources of government revenue. To support diversification, economies with a few concentrated sectors must tackle issues related to limited industrial or manufacturing capacity, poor international competitiveness, and transport and network infrastructure challenges, among others.

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[a] Developing Asia refers here to 45 ADB developing member economies in Asia and the Pacific, See https://www.adb.org/about/members for details.

The remarkable success of high-performing economies of the region over many decades demonstrates how trade (especially in manufactured goods) and participation in global value chains can help diversify the economic base and drive growth. However, wide variations persist in the level of economic diversification across Asian economies, with geographically challenged and low-income developing economies often struggling to diversify. Energizing policy efforts to leverage trade to expand narrow industrial bases and promote export diversification will be important to boost inclusive development.

In this regard, expansion of services throughout Asia and the Pacific is creating opportunities for economic and export diversification. Many promising tradable services for developing countries have emerged from recent advances in information and communications technology and improved digital connectivity. Along with facilitating services trade, it is essential that nations foster increasingly dynamic and functional services sectors to drive more sustainable economic diversification strategies.

Aid targeted at tradable services can be a strong catalyst for greater economic diversification and more inclusive economic growth.

In Asia and the Pacific, services employ 48.3% of the workforce (and 50.6% of the female workforce) and contribute an average of 53.4% to the national output of economies. Services sector also account for more than a fifth of Asia and the Pacific's total trade. The region's trade in services more than doubled from 2005 to 2018 to reach $3.2 trillion, accounting for a quarter of global services trade.

Developing Asia is one of the major recipients of AfT for services. It received 38.2% of global AfT in services from 2002 to 2017. The largest beneficiaries have been South and Southeast Asian economies, while the largest sector recipients were transport and storage, and energy.

However, barriers to trade and investment in services remain higher than for merchandise trade. Policies that integrate trade liberalization with regulatory reform are critical for expanding services trade because they promote competition and help services form productive links with other sectors. Instances of regulatory reform in telecommunications, energy, transport, and financial services have spurred growth in services trade in many developing Asian economies. Along with providing support to economic infrastructure that is integral to promoting dynamic and functional services sectors, AfT can play an enabling role in the expansion of services markets through influencing policies, regulations, and institutional frameworks and improving the capacity of developing countries.

Despite a narrowing of gender gaps in many social outcomes, women in Asia and the Pacific still have less opportunity to work and to get paid as much as men. Rising female entrepreneurship and greater participation of women-led firms in global value chains can unlock the potential of women to contribute to broad-based empowerment and overall inclusive development aims.

Labor force participation rates have fallen across Asia and the Pacific for both men and women, with variations between subregions and countries. However, the female labor force participation rate remains stubbornly lower than that for men. Moreover, women are more concentrated in low-paid and low-skilled jobs, or in informal and vulnerable employment. In 2017, more than half of women in work were in vulnerable employment (only 36.5% of people in non-vulnerable employment were female). The gap in labor force participation and quality of employment persists despite economic growth and increasing education, in a disparity that is largely influenced by gender norms and compounded by social and structural constraints.

However, the region has made significant strides in support of women's entrepreneurship. For example, women-led firms in the region have become more likely to participate in global value chains, thanks to the rise of services and the enabling potential of digital technologies in recent years.

There is plenty of evidence that giving women an equal footing in economic opportunities, including through entrepreneurship, can lift economic growth and develop national productive capacities. Rising female entrepreneurship and employment in services across the region calls for trade policy and AfT to focus on how best to support trade in services while improving women's capacity to participate in trade and compete in global markets.

AfT can advance gender equality and empower women by expanding their access to trade and economic opportunities—through increasing gender mainstreaming in aid for economic infrastructure and helping to improve gender targets in trade policies and regulations.

More aid can go to programs that support women's participation in trade and economic empowerment—by promoting gender mainstreaming in economic infrastructure and building productive capacities in sectors where women are concentrated. Tailoring trade policies and regulations to support women's empowerment is also needed. Indeed, AfT support for gender equality and women's empowerment in developing Asia has been increasing. From 2009 to 2017, AfT disbursements that integrate gender equality as either a principal or secondary objective nearly tripled to $2.7 billion, accounting for 24.0% of AfT.

By AfT categories, gender equality is more strongly mainstreamed in aid for building productive capacity (35.1% of the total in 2009-2017), particularly banking and financial services, business and other services, forestry, agriculture, and tourism. This is followed by trade policies and regulations (22%). The proportion of gender-targeted aid is lowest in aid for economic infrastructure at only about one-tenth. Noting that aid for economic infrastructure comprises the largest shares of total AfT, increasing AfT's impact on gender equality and women's empowerment would entail increasing gender targeting of aid in these sectors.

AfT should now seek to strengthen country ownership of integrated gender equality programs and ensure they are aligned with national and regional priorities, while improving institutional capacity to implement them. Integrating and scaling up that focus in other official development assistance (ODA) priority areas besides AfT is also essential. Ultimately, because gender equality cuts across all areas of sustainable development, and is not limited to trade-related activities, a strategic focus on gender in development interventions can significantly boost volumes of gender-targeted aid, and hence increase support for women's empowerment.

Holistic and integrated policy support for small firms, including women-owned firms, promotes inclusive growth. Targeted AfT can help such firms overcome barriers to international markets.

Micro, small, and medium-sized enterprises (MSMEs) have long been recognized engines of growth particularly in developing countries: they can create jobs, promote competition, and make major contributions to outputs. The potential for improving inclusive development through support for MSMEs is enormous given that firms with female owners, managers, and mostly women in their workforces are more likely to be small than large. MSMEs also typically operate in local markets, where they provide economic opportunities for vulnerable and disadvantaged people, and are often located in areas neglected by large firms. However, small firms do not participate in international markets as much as large firms. Data show that, on average, only one in five SMEs in developing Asia are exporters, compared with more than a third of large firms. This is primarily because they struggle to access key economic and financial resources and face other supply-side capacity constraints.

To help small firms break barriers to international markets, key stakeholders including governments, donors, and the private sector should consider the following support programs and policy actions: (i) improving access to finance, including through gender-sensitive and innovative financing models; (ii) fostering more conducive regulatory and institutional frameworks, especially around market entry, competition, and formalization of economic activities; (iii) building capacity through business

development advisory and training services; (iv) promoting new technologies and online platforms; and (v) integrating MSME development in trade policy and trade facilitation initiatives. Ultimately, the private sector must be facilitated to strengthen trade capacity and to improve trade inclusiveness.

Digital connectivity is emerging as an important driver of inclusive economic growth, and economies in Asia and the Pacific are rapidly becoming leaders in the global market for information and communications technology (ICT).

The role of digitalization as an accelerator of sustainable and more inclusive development is increasingly recognized. ICTs, e-commerce, and other digital platforms can be leveraged to lower information and market frictions, reduce economic costs for MSMEs, create new economic opportunities, and promote entrepreneurship. They can foster productive activities and decent job creation, as well as support the growth and formalization of MSMEs by increasing access to financial services and helping firms integrate into global value chains and markets.

The center of gravity of global e-commerce markets continues to shift toward Asia and the Pacific, with the region accounting for 59% of global online retail sales, dominated by the People's Republic of China. Cross-border online shopping keeps on growing, while digital technologies used in trade facilitation are supporting greater trade integration around the globe. Trade in ICT-enabled and digitally deliverable services is also quickly gaining ground, with Asia and the Pacific accounting for around a fifth of the global trade in such services since 2005. More widespread adoption of digital technologies and further growth in these services is, however, constrained by the quality of digital and logistics infrastructure and complex cross-border regulatory issues. Cuts to digital trade restrictions must be accelerated to promote sustained growth and high-productivity sectors such as services.

AfT can be a catalyst in leveraging digital trade for economic diversification and empowerment.

In particular, AfT can play a catalytic role in tackling ICT infrastructure issues and overcoming the connectivity challenges faced by developing Asian economies, especially those with geographic constraints and underdeveloped digital trade. Moreover, AfT can help establish a business and policy environment conducive to digital trade. AfT can help strengthen domestic institutions' capacity for paperless trade and digital transactions while improving domestic e-commerce strategies and facilitating digital trade.

AfT that targets ICT-enabled services, however, remains a small fraction of total AfT. It accounted for just 8.5% of total AfT over 2002–2017, despite nearly doubling from an annual average of $375.3 million over 2002–2005 to $646.2 million for 2016–2017. Clearly, the potential for shoring up aid in ICT-enabled services is great, especially given the growing contribution these sectors make to diversifying product and export markets and encouraging more inclusive trade.

CHAPTER 1

INTRODUCTION

International trade and foreign direct investment have played strong roles in the development and economic transformation of Asia and the Pacific over the past half century. Growth of trade in goods and services in the region has averaged 11.3% annually since 1990[1] and real gross domestic product per capita has more than tripled,[2] lifting over a billion people out of poverty, as most economies in the region have reached middle-income status.[3] Open trade has accelerated output growth and, in turn, provided opportunities for upward income and social mobility, especially for lower-income groups and marginalized segments of the economy, including women and micro, small, and medium-sized enterprises (MSMEs).

However, significant structural inequalities remain and gains from trade have not been shared equitably. While overall output per capita has risen significantly, signs point to income distribution having become more unequal within and across economies. Policies that promote more equal opportunities for participation in international trade, and for better sharing the gains, are needed urgently. The role of Aid for Trade (AfT) in this endeavor, given the most recent trade trends and socioeconomic data from across the region, and informed by the current distribution patterns and the focus of Aid for Trade Initiative, is the key focus of this 2019 Asian Development Bank report.

The Aid for Trade Initiative[4] aims to help developing economies build trade-related infrastructure and supply-side capacity by increasing the available resources for developing—and especially least developed—countries to integrate with the global economy. AfT can also help tackle general and specific constraints that women and smaller firms must overcome to fully benefit from international trade.

Significant changes in the global trade landscape since the AfT Initiative started in 2005 include the rise of global value chains and the digital economy, and the transformation of many economies toward services. Although these developments will continue to present significant opportunities for developing countries to strengthen engagement in international trade, inequalities may widen unless efforts are taken to build necessary productive capacity and economic infrastructure, and to enact trade policy and regulatory reforms. Recent stagnation of Asia's participation in global value chains and the ascendancy of protectionist tendencies also present hurdles to pursuing deeper

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1 For developing Asia (which does not include advanced Asian economies of Australia, Japan, and New Zealand), the annual average growth of trade in goods and services is 11.1% (World Bank, World Development Indicators).

2 From $3,763 to $11,739 (based on a constant 2011 international US dollar at purchasing power parity).

3 Excluding advanced member economies of Australia, Japan, and New Zealand, trade of goods and services in the region grew 11.1% annually and real GDP per capita more than quadrupled from $2,421 to $10,638 (World Bank, World Development Indicators).

4 The Aid for Trade Initiative was launched in December 2005 at the 6th Ministerial Conference of the World Trade Organization (WTO) in Hong Kong, China. The initiative seeks to mobilize resources to tackle trade-related constraints identified by developing and least developed countries, and to align donor and partner countries' strategies in promoting trade to help reduce poverty. The initiative also brings together developing countries, providers of development cooperation, academia, and the private sector to make trade work for development.

economic integration and sustainable, inclusive development. Given these fundamental changes and challenges, it is crucial that developing countries continue to build and improve their trade and productive capacities, their infrastructure and institutions. Further, leveraging on sectors with the biggest potential to contribute to inclusive growth, trade flows, and economy-wide spillovers is imperative if countries are to advance efforts in sharing the benefits of trade more equally.

Economies with a solid record of following the right policies can expect to see sustained growth and poverty reduction through open trade. And if strongly inclusive trade policies are pursued, a better chance exists that trade will boost inclusive growth and promote the economic empowerment of women, young people, and smaller firms. In all these respects, AfT can encourage more inclusive trade through a greater and more effective focus on gender and social mainstreaming in its interventions.[5] Previous interventions[6] have demonstrated that AfT can help expand economic opportunities for women and young people, as well as increase MSMEs' access to finance and participation in global supply chains.

This report first examines recent trends in trade and AfT across Asia and the Pacific in the context of the emerging global economic and trade policy environment. Chapter 3 then presents detailed analysis of how well trade and AfT is tackling the issues of gender equality and women's economic empowerment, including important signs of progress, while noting some ingrained structural challenges that AfT can address. Just as a serious focus on women's economic empowerment is vital to drive trade and economic progress, there is growing recognition of the role MSMEs can play in creating a more socially inclusive—and therefore prosperous—region. That is part of the focus in Chapter 4, where the current constraints on MSMES, trade-related capacity-building interventions, and options for spurring inclusive and sustainable economic growth are examined. The far-reaching impact of the digital revolution across the region is explored in Chapter 5, along with its implications for how people on low incomes and marginalized sectors of the economy can help generate more socially inclusive trade outcomes. Chapter 6 summarizes the key lessons and ways forward for AfT in the Asia and Pacific region.

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5 Indeed, the AfT Initiative provides a clear mandate for gender equality: https://www.wto.org/english/tratop_e/womenandtrade_e/empoweringwomen_e.htm.

6 These examples are identified and discussed subsequently in this report.

CHAPTER 2

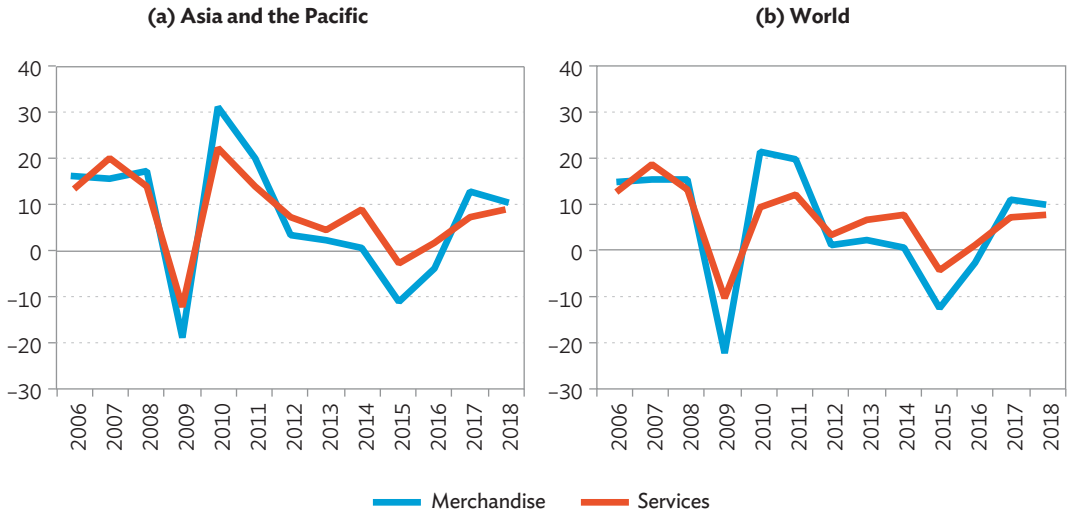
REGIONAL TRENDS

As trade tensions persist and economic uncertainties are growing, world trade is expected to face continued, if not stronger, headwinds. World merchandise trade is forecast to grow 2.6% in 2019 (slower than in 2018). Nonetheless, if trade tensions start to ease, the upside potential is 3.0% growth in trade in 2020.

By volume, global trade grew by 3.0% in 2018, down from 4.6% in 2017. The broad-based slowdown in 2018 was weighed down by a number of factors, including "new tariffs and retaliatory measures affecting widely-traded goods, weaker global economic growth, volatility in financial markets, and tighter monetary conditions in developed countries," according to the World Trade Organization (WTO).[7]

Asia and the Pacific (along with Europe) was behind much of the global merchandise trade slowdown in 2018. After strong growth of 7.4% in 2017, merchandise trade growth by volume in the region moderated to 4.1%. Even as 10.5% growth in nominal merchandise trade values in 2018 was slower than in 2017 (12.8%), services trade continued robust growth at 8.9%, up from 7.5% in 2017, surpassing the global average (Figure 2.1).

Figure 2.1: Merchandise and Services Trade Value Growth (%, year-over-year)



Note: Trade figures are based on the sixth edition of the Balance of Payments and International Investment Position Manual (BPM6). Services trade data unavailable for the Cook Islands, the Marshall Islands, Nauru, Palau, and Turkmenistan.

Source: ADB calculations using data from World Trade Organization. Data Portal. https://data.wto.org/ (accessed June 2019).

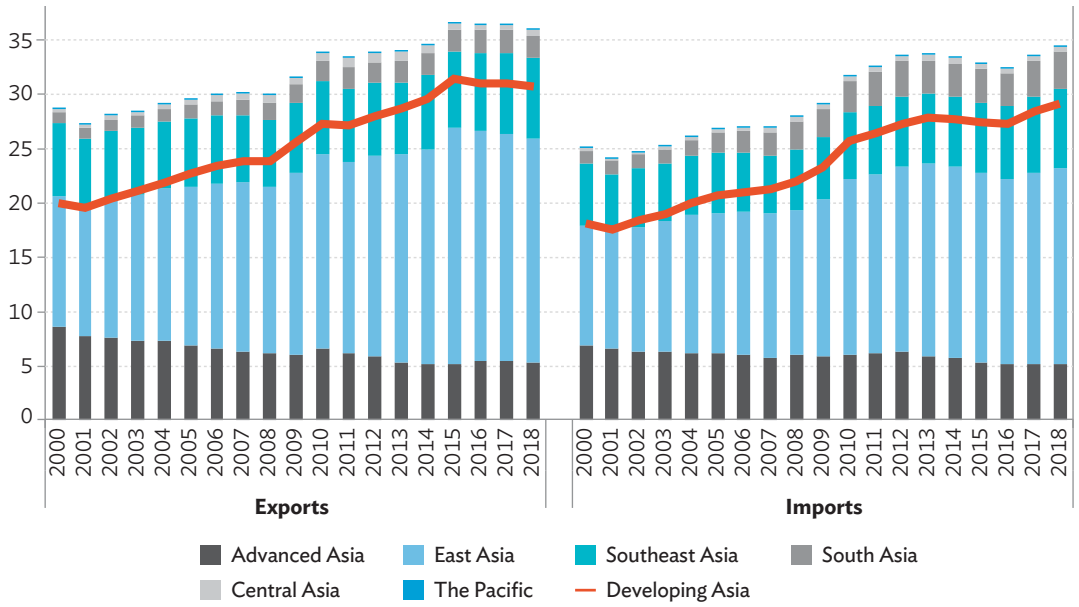
[7] World Trade Organization. 2019. Global Trade Growth Loses Momentum as Trade Tensions Persist. Press release, 2 April. https://www.wto.org/english/news_e/pres19_e/pr837_e.htm.

Merchandise Trade Still Dominates, Services in the Ascendancy

Merchandise exports totaled $7.0 trillion, up 8.5% from 2017,[8] driven primarily by increased global prices of commodities such as energy and crude oil. Services exports grew faster at 9.8% (equivalent to $1.5 trillion). Services imports, which also drove Asia's[9] services trade, grew 8.2%, again faster than the 7.0% pace of 2017.

Overall, Asia contributed 35.2% of global merchandise trade and 27.6% of services trade in 2018 (Figures 2.2 and 2.3). East Asia and Southeast Asia were the main contributors. East Asia's share of global merchandise trade was 20.6% of exports and 18.1% of imports in 2018, from 12% of exports and 11% of imports in 2000. Southeast Asia's share in global merchandise trade in 2018 likewise rose to 7.4% of exports (from 6.7% in 2000) and 7.2% of imports (from 5.7%). In terms of global services trade, East Asia's share reached 9.0% of exports and 14.1% of imports in 2018, from 7.3% and 8.9% in 2005. Meanwhile, Southeast Asia accounted for 6.9% of global services exports and 6.7% of services imports in 2018, slightly higher than its shares of 4.3% and 5.4% in 2005.

Figure 2.2: Share of Asia and the Pacific in Global Merchandise Trade *(%)*



Source: ADB calculations using data from World Trade Organization. Data Portal. https://data.wto.org/ (accessed June 2019).

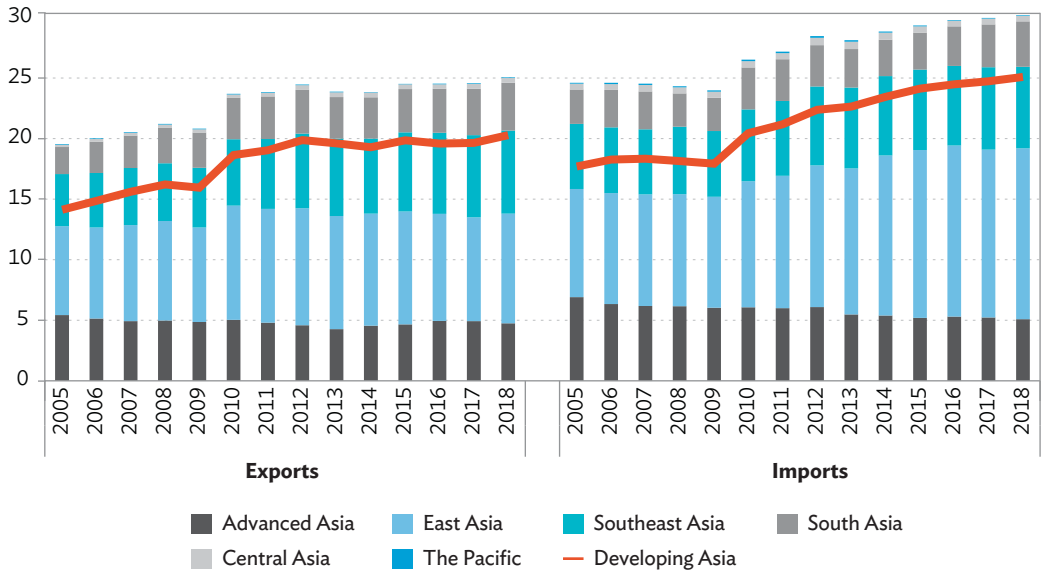
Over 2015–2018, the share of merchandise trade to gross domestic product (GDP) in Asia averaged 45.6% (Figure 2.4). Across developing Asian subregions, Southeast Asia had the highest trade openness and depended most on merchandise trade, at 92.9% of GDP. South Asian economies were the least dependent, with merchandise trade averaging 29.9% of GDP.[10] Services trade accounted for

[8] These are equivalent to a value of $6.0 trillion for merchandise exports and growth of 8.7% in 2018 for developing Asia.

[9] Henceforth, Asia refers to the Asia and Pacific region, which consists of developing Asia and advanced Asia. Developing Asia includes the 45 developing member economies of the Asian Development Bank (which includes the Pacific), while advanced Asia consists of Australia, Japan, and New Zealand.

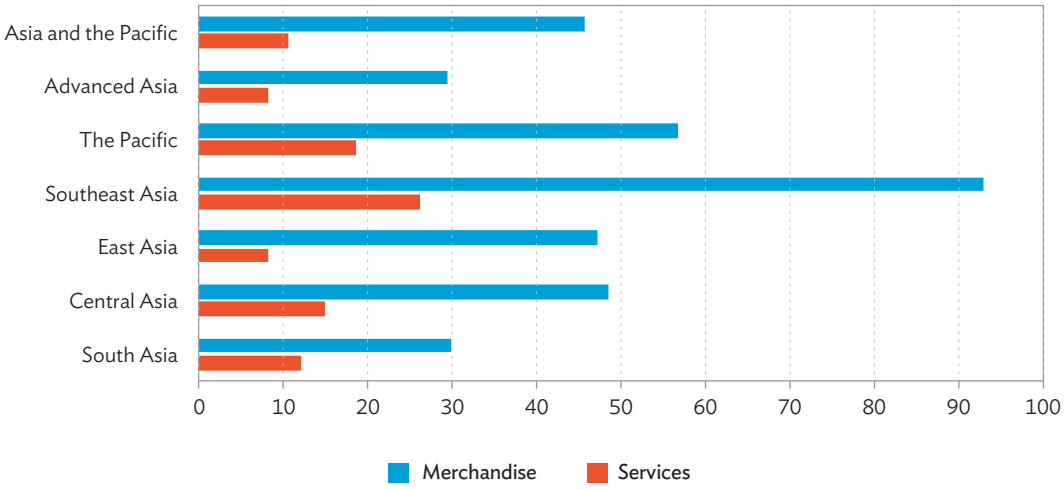
[10] In East Asia, merchandise trade in 2015–2018 was 47.3% of subregional GDP, in Central Asia 48.5%, and in the Pacific, 56.8%.

Figure 2.3: Share of Asia and the Pacific in Global Services Trade (%)



Source: ADB calculations using data from World Trade Organization. Data Portal. https://data.wto.org/ (accessed June 2019).

Figure 2.4: Merchandise and Services Trade-to-GDP (%, average 2015–2018)



GDP = gross domestic product.

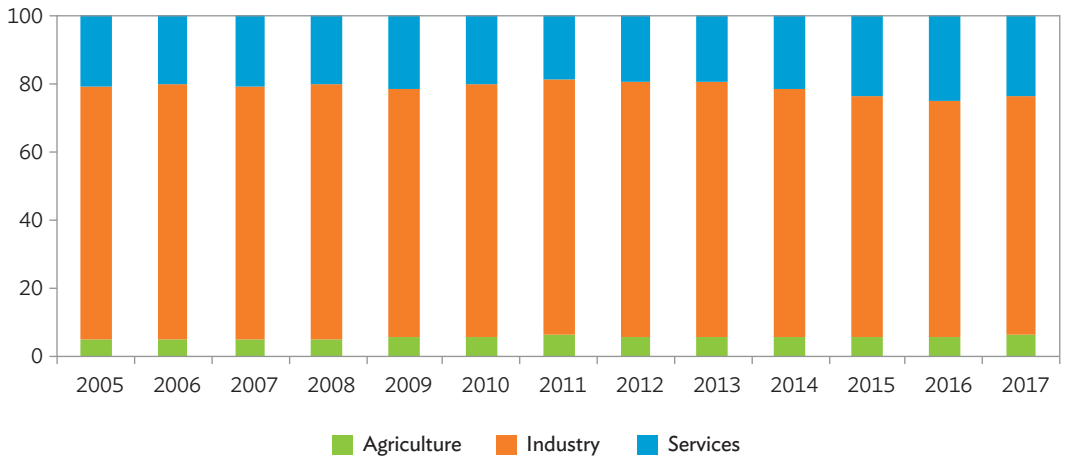
Note: Trade refers to the sum of exports and imports. Services trade data unavailable for the Cook Islands, the Marshall Islands, Nauru, Palau, and Turkmenistan.

Sources: ADB calculations using data from World Trade Organization. Statistics database. http://stat.wto.org/; and International Monetary Fund. World Economic Outlook April 2019 Database. https://www.imf.org/external/pubs/ft/weo/2019/01/weodata/index.aspx (both accessed June 2019).

10.6% of GDP during 2015–2018 and, as with merchandise trade, Southeast Asian economies were most open to services trade, which comprised 26.2% of the subregion's economy, while East Asian economies were least reliant, with services trade averaging 8.3% of GDP.[11]

In terms of the structure of trade, industry dominates in Asia and the Pacific (Figure 2.5). Its share of trade of goods and services marginally declined to 70.4% in 2017 from 74.1% in 2005. The share of services increased to 23.5% in 2017 (from 20.7% in 2005) and agriculture to 6.1% (from 5.2%).

Figure 2.5: Structure of Trade—Asia and the Pacific (%)



Notes: Agriculture includes agricultural raw materials and all food items. Industry includes fuels; manufactured goods; and ores, metals, precious stones, and non-monetary gold.

Source: ADB calculations using data from United Nations Conference on Trade and Development. UNCTADSTAT. https://unctadstat.unctad.org/EN/Index.html (accessed February 2019).

In 2015–2017, manufactures accounted for 74.4% of Asia's merchandise trade. This was slightly lower than its average share in 2000–2004 (77.8%). Except in Central Asia, where fuels and mining accounted for more than a third of merchandise trade in 2015–2017, manufactures made up the bulk of merchandise exports and imports across Asian subregions. Trade in manufactures still grew an annual average of 10.4% through 2000–2017, despite its declining share in total merchandise trade.

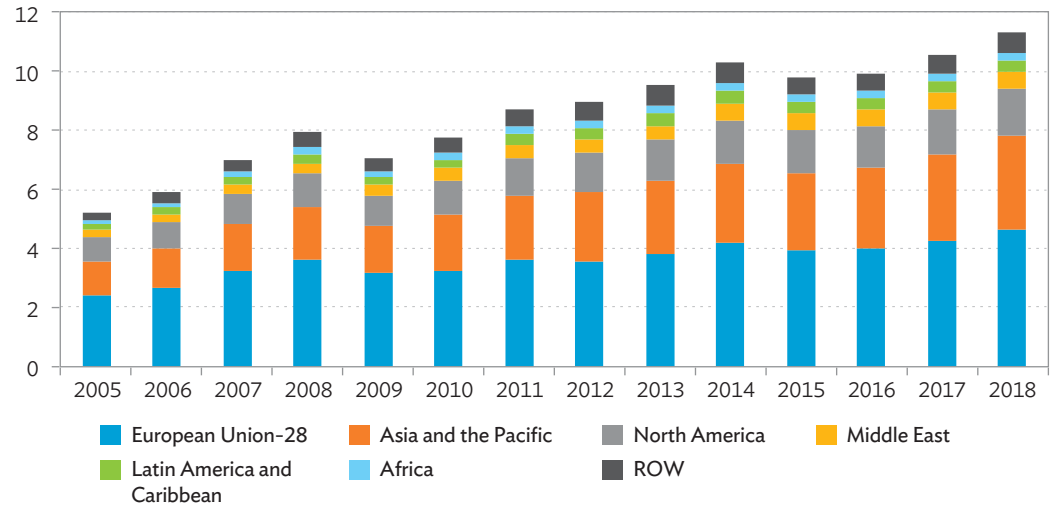
Services trade more than doubles

In terms of services trade, tourism-related services (i.e., travel and transport services) accounted for the major share of Asia's services trade in 2015–2018. Other services—mainly ICT and digitally deliverable services such as charges for the use of intellectual property; financial services; insurance and pension services; other business services; and telecommunications, computer, and information services—collectively contributed nearly two-fifths (38.9%) of services trade in the region during the same period. Notably, these services more than tripled to $1.2 trillion in value in 2018, from $394.7 billion in 2005. Furthermore, exports of these ICT-enabled services grew 10.1% on average over 2005–2018, faster than the 7.1% rate for all other services.

[11] In South Asia, services trade in 2015–2018 was 12.1% of subregional GDP, in Central Asia 15%, and in the Pacific, 18.6%.

Asia and the Pacific's services trade more than doubled from $1.6 trillion in 2005 to $3.2 trillion in 2018. Globally, services trade increased to $119.9 trillion in 2018 from $5.2 trillion in 2005 (Figure 2.6). Asian countries and European Union countries were the biggest services traders, accounting for 25.5% and 42%, respectively, of global services trade over 2005–2018.

Figure 2.6: Services Trade by Region ($ trillion)

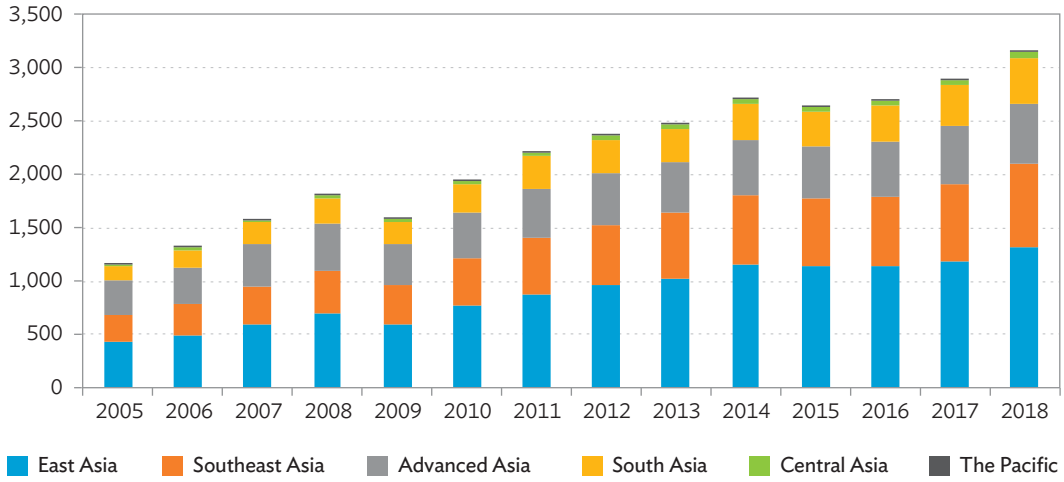


ROW = rest of the world.

Note: Total services trade refers to the sum of services exports and imports.

Source: ADB calculations using data from World Trade Organization. Data Portal. https://data.wto.org/ (accessed June 2019).

Figure 2.7: Distribution of Services Trade across Asia and the Pacific ($ billion)



Note: Total services trade refers to the sum of services exports and imports.

Source: ADB calculations using data from World Trade Organization. Data Portal. https://data.wto.org/ (accessed June 2019).

Within the region, by far the largest services trading economies were in East Asia, and they accounted for 40.5% of Asia's total services trade with the world between 2005 and 2018 (Figure 2.7) with the People's Republic of China (PRC) alone contributing 21.2%. This reflects East Asian economies' size and integration into global value chains. East Asia's total services trade with the world more than tripled to $1.3 trillion in 2018, from $428.1 billion in 2005.

Disparities in Export Diversification

The Herfindahl-Hirschman concentration indexes (HHCI) confirm that the product and geographic diversification of exports are very different across Asian economies (Figure 2.8a–b). During 2013–2017, only six Asian economies displayed considerable diversity in export portfolios (i.e., the PRC, India, Indonesia, the Republic of Korea, Nepal, and Thailand), while eleven had moderately concentrated export portfolios and the rest were highly concentrated.[12] Relative to their average HHCI scores in 1995–2000, a little more than a third of Asian member economies saw their index scores decline, implying that these economies have become less concentrated (more diversified) in recent years. Looking at market concentration, most Asian economies (22 out of 48) have considerably diversified export markets. By comparison, six economies have moderately diversified export markets while 13 have maintained highly concentrated export markets. Relative to their average market concentration index scores in 1995–2000 (or earliest year available), more than half of Asian economies have made progress in developing international linkages and diversifying their export markets.

Boosting export diversification and increasing the technological sophistication of exports could help shield from the effects of increased trade tensions and intensifying economic uncertainty as they can mitigate low growth and unemployment in many developing countries. The remarkable success of high-performing Asian economies[13] over many decades demonstrated how export diversification (especially of manufactures goods) drove growth (Samen 2010). Lagging economies in the region should follow suit, energizing efforts to expand narrow industrial bases and promote export diversification to boost economic growth and strengthen resilience to external shocks.

The 2019 Aid for Trade monitoring and evaluation (M&E) exercise offers insights into the main challenges Asian recipients of aid faced in pursuit of economic diversification. Of the participating countries, more than half identified limited industrial or manufacturing capacity; poor international competitiveness; transport and network infrastructure challenges; limited access to standards compliance and access to trade finance; and high input and trade costs as the main constraints to economic diversification.

The global trade slowdown and declining commodity prices pose a challenge for developing countries, specifically those with a very narrow industrial and private sector base for generating jobs, diversifying exports and creating new sources of government revenues. Countries with concentrated economies, particularly those reliant on natural resources, have found it difficult to design and implement public investments and policy reforms that support economic diversification (World Bank 2017). Small economies, whose size limits diversification, have little opportunity to expand their product range, a difficulty often compounded by poor connectivity from being land- or sea-locked.

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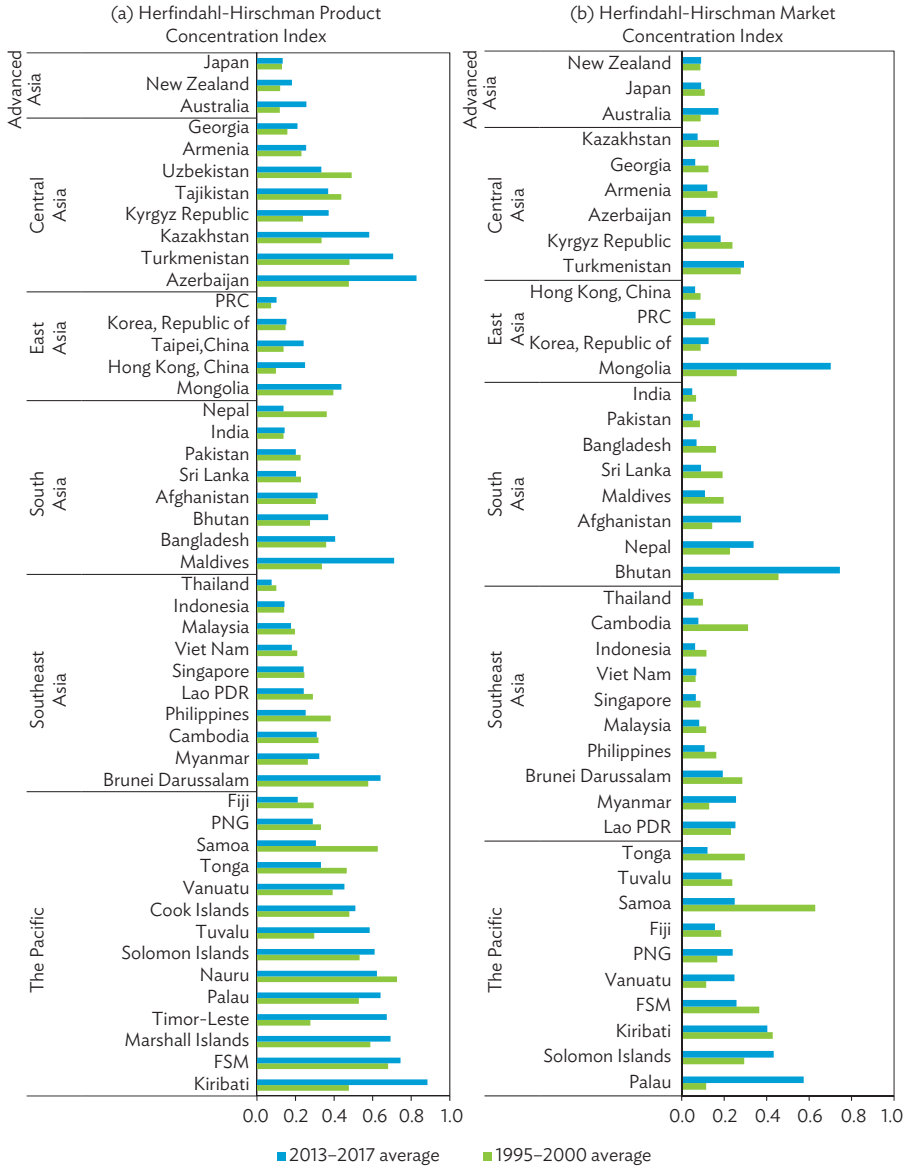
[12] The United Nations Conference on Trade and Development (UNCTAD) measures export diversification using a normalized Herfindahl-Hirschman index (HHI), but provides no specific thresholds to differentiate between concentrated and diversified exports. To enhance the interpretation of the HHI, this report draws from the Horizontal Merger Guidelines established by the Federal Trade Commission and the U.S. Department of Justice (August 2010) to differentiate between diversified, moderately concentrated, and highly concentrated exports or markets. Accordingly, a country with an HHI score of <0.15 is considered to have diversified (unconcentrated) exports or markets; HHI score of $0.15 \leq HHI < 0.25$ is considered to have moderately concentrated exports or markets; and $HHI \geq 0.25$ is considered to have highly concentrated exports or markets.

[13] Hong Kong, China; the Republic of Korea; Singapore; and Taipei,China.

The trend in structural transformation has been the gradual decline of agriculture and increase in services, which consistently shows across countries when their economies develop (Herrendorf et al. 2014). Opportunities for structural transformation and the accompanying economic and export diversification are created by the rising services sector notably derived from disruptive technology and the digital economy (UNCTAD 2017a). Many services have emerged as promising tradable services for developing countries, particularly with the development of telecommunications and information and communication technology services (Chapter 5).

Figure 2.8: Exports Diversification Index



FSM = Federated States of Micronesia, Lao PDR = Lao People's Democratic Republic, PNG = Papua New Guinea, PRC = People's Republic of China.

Notes: The Herfindahl-Hirschman Product Concentration Index is a measure of the dispersion of trade value across an exporter's products. A county with a preponderance of trade value concentrated in a very few products will have an index value close to 1. Thus, it is an indicator of the exporter's vulnerability to trade shocks. Measured over time, a fall in the index may be an indication of diversification in the exporter's trade profile.

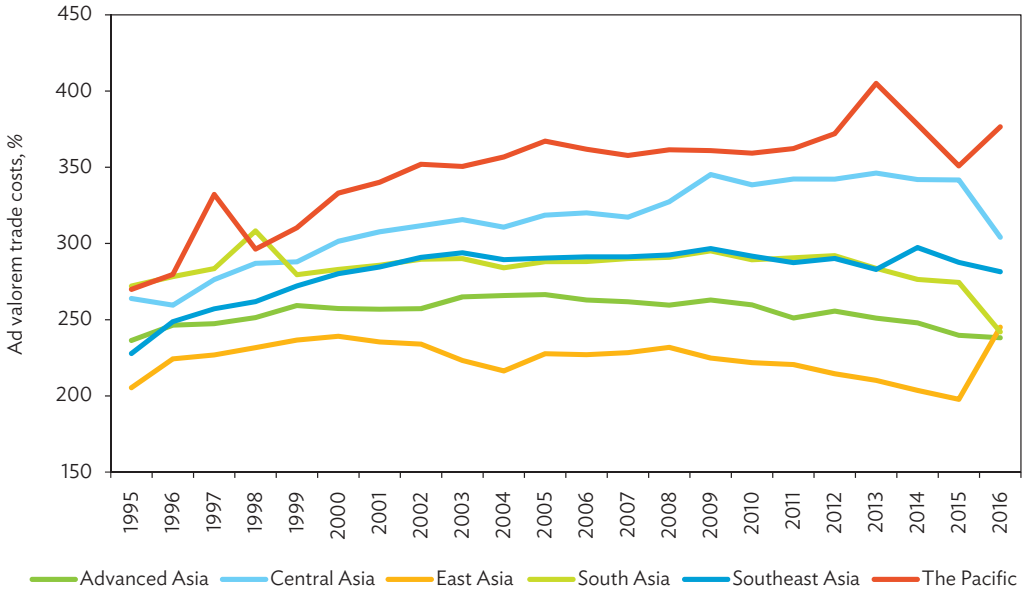
Source: UNCTAD. UNCTADSTAT. https://unctadstat.unctad.org/ (accessed May 2019).

Trade Costs in Gradual Decline

Reducing trade costs can drive trade growth and competitiveness and help economies take advantage of specialization based on comparative advantage. Lowering trade costs can improve firms' access to technology and intermediate inputs, facilitating their entry into or movement up the global value chains. Importantly, lower trade costs can contribute to improving consumer welfare through expansion of the range of goods and services offered and a potential reduction in prices. Notwithstanding the varied impact of trade cost across countries, reductions are also typically linked with net poverty reductions (OECD and WTO 2015).

Evidence shows that trade costs in Asia and the Pacific have generally declined slowly, but with wide variations across subregions. For trading goods, East Asian economies have had the lowest trade costs, although Southeast and South Asian economies have generally maintained a trend of declining costs (Figure 2.9). Trade costs have remained highest in Central Asia (where they are clearly falling) and the Pacific.[14] Notably, East Asia and the Pacific have seen trade costs increase since 2016. This may be due in part to increasingly inward-oriented policies and geopolitical tensions in recent years, as well as the natural disasters experienced by island nations of the Pacific.

Figure 2.9: Trade Costs of Asia and the Pacific Subregions with the World in the Goods Sector, 1995–2016 (% of Goods' Value)



Note: Trade costs shown are simple averages of trade costs and may be interpreted as tariff equivalents.

Source: ADB calculations using data from ESCAP-World Bank Trade Cost Database. www.unescap.org/resources/escap-world-bank-trade-cost-database (accessed April 2019).

[14] Higher average trade costs in Central Asia and the Pacific reflect geographical constraints. With the exception of Georgia, Central Asian economies are landlocked, characterized by limited border crossings and dependence on neighboring transit countries' markets and infrastructure. Similarly, apart from Timor-Leste, the island nations of the Pacific are effectively sea-locked and risk greater marginalization because of their small size, distance from large markets, and vulnerability to economic and natural shocks.

The World Bank's Doing Business project provides objective measures of business regulations and their enforcement across 190 economies and selected cities. It covers 11 areas of business regulation and allows comprehensive quantitative data to compare business regulation environments across economies and over time. Doing Business encourages economies to compete toward more efficient regulation and offers measurable benchmarks for reform. (World Bank. *Doing Business*. http://www.doingbusiness.org)

More recent data shows that Asia and the Pacific made moderate progress in reducing the time and cost (excluding tariffs) associated with the logistics of exporting and importing goods. In 2018, Asia and the Pacific was around 28% of the way to the global best regulatory performance in trading across borders (Figure 2.10). By way of comparison, the European Union and North America have set the best regulatory performance globally, while Africa still lags.

Figure 2.10: Trading Across Borders Scores by Region and Asia's Subregions, 2016 and 2018

Notes: The time and cost associated with the logistical process of exporting and importing goods is recorded in the "Trading across Borders" category of the World Bank's Doing Business reports. It reflects three sets of procedures—documentary compliance, border compliance, and domestic transport—within for exporting or importing a shipment of goods. The trading across borders score—or ease of doing business score in general (formerly called the distance to frontier score)—measures how far on average an economy is at a point in time from the best regulatory performance and assesses the absolute change in the economy's regulatory environment. An economy's score is indicated on a scale from 0 to 100, with 100 representing the best regulatory performance. For example, a score of 75 in 2016 means that an economy is 25 percentage points away from the best regulatory performance constructed from the global best performance of that year. An increase in that score to 80 in 2018 would indicate that an economy has improved.

Source: ADB calculations using data from World Bank. Doing Business Database. https://doingbusiness.org (accessed January 2019).

Time to trade[15] in Asia decreased, but were still more than 11 times longer than in the European Union. Between fiscal years 2016 and 2018, average time to trade in Asia was reduced from 115 hours to 107 hours for exports, and from 136 hours to 126 for imports. Developing Asian economies shortened the most, with an average of 8 hours reduction for exports and 10 hours for imports. Central Asia made the biggest strides, with an average cut of 22 hours for exports and 9 hours for imports attributed to initiatives and reforms, particularly around enhanced regional cooperation and integration and streamlining electronic customs procedures. Overall, among developing Asian subregions, time to trade was shortest in East Asia, at around 60 hours for both exports and imports (Figure 2.11a). Trade reforms and the reduction of trade costs from across the region are further discussed in Box 2.1.

[15] Time to export (import) data measures the hours associated with the economy's customs regulations and regulations relating to mandatory inspections for a shipment to cross a border, as well as the time and cost for handling it at a port or border (i.e., border compliance). It also covers time associated with compliance with the documentary requirements of all government agencies of the origin economy, the destination economy, and any transit economies.

Box 2.1: Trading Across Borders Reforms in Asia and the Pacific, 2014–2018

Electronic systems for filing, transferring, processing, and exchanging customs information are essential tools for managing flows of information in complex trading conditions. Advanced electronic systems allow exporters and importers to submit documents and pay duties online. Such systems can improve time efficiency and reduce costs while streamlining procedures, and they lower the risks of bribery and corruption. The adoption of regulatory frameworks for new information technologies is important for delivering these benefits.

Facilitating electronic submission and processing of information for customs

Several Asian economies have implemented reforms that allow the electronic submission and processing of information to meet customs requirements, making trade easier. During June 2014 to June 2015, Tajikistan made it possible to submit customs declarations electronically. The following year, Afghanistan improved different modules of the Automated System for Customs Data (ASYCUDA) world customs processing system; Azerbaijan introduced an electronic system for submitting export and import declarations; Georgia improved its electronic document processing system and introduced an advanced electronic document submission option; India launched a Customs Electronic Commerce Interchange Gateway portal and simplified border and documentary compliance; Pakistan enhanced its electronic Web Based One Customs platform; and Viet Nam implemented an electronic customs clearance system.

Between June 2016 and June 2017, India's elimination of merchant overtime fees and promotion of electronic and mobile platforms helped cut export and import border compliance costs; Indonesia likewise introduced an electronic single billing system; Pakistan developed a new container terminal and enhanced its customs platform for electronic document submission; Taipei,China allowed organizations to issue electronic certificates of origin; and Viet Nam upgraded its automated cargo clearance system and extended its customs department's operating hours.

More recently, in June 2017–June 2018, Azerbaijan streamlined its electronic customs procedures and fully implemented the "green corridor" gating system;[a] India further implemented initiatives that included the electronic sealing of containers, the upgrading of port infrastructure, and allowing electronic submission of supporting documents with digital signatures. Kazakhstan introduced an electronic customs declaration system, ASTANA-1 IS, and reduced customs administrative fees; the Lao People's Democratic Republic streamlined its customs clearance; Thailand introduced an E-Matching system for electronic cargo control, which reduced the time for border compliance, and Uzbekistan established an electronic application and payment system for several export certificates, effectively reducing the time for export documentary compliance.

The benefits of digitalization and electronic data interchange systems in facilitating trade are potentially vast. For Asian economies to fully realize them, coherent and robust legal and regulatory frameworks must be in place, connectivity infrastructure must be adequate, and institutional preconditions be met.

Electronic single windows

Online single window systems "allow traders to file standard information and documents through a single entry point to fulfill all import, export and transit-related regulatory requirements" (World Bank 2018). It allows information/knowledge sharing among trade stakeholders, including private participants (e.g., banks and insurance companies) and public agencies (e.g., immigration and vehicle registration agencies), and helps improve revenue yields and the adoption of control risk management techniques, among others.

continued on next page

Box 2.1: continued

The experience of Asian economies provides notable evidence about the benefits of electronic single window systems for customs. For instance, the introduction of a single window in the Republic of Korea led to $18 million of savings in 2010 (Republic of Korea, Korea Customs Service 2011) and helped the country's large electronic companies improve their competitiveness. In Singapore, the single window system brought broad-based benefits to government productivity. In Brunei Darussalam, Indonesia, the People's Republic of China, and Sri Lanka, the development and/or improvement of single window systems made trading across borders easier by eliminating or reducing administrative charges and increasing transparency and competition. The Association of Southeast Asian Nations (ASEAN) Single Window initiative—which aims to harmonize the electronic exchange of customs information and expediting cargo clearance—has facilitated a reduction in the documentary compliance time in Malaysia when importing from Thailand. The initiative is also expected to reduce the overall cost of trading by 8%, with the largest savings from cutting documentation dispatch costs (USAID 2012). Notwithstanding the complexities of implementing electronic single windows, the substantial long-term benefits of developing such systems—both nationally and regionally—inarguably outweigh the costs.

Upgrading logistics infrastructure

Adequate and efficient trade logistics infrastructure is vital to boost trade volumes, lower trade costs, facilitate employment and foreign direct investment, and to improve competitiveness. Upgrades to logistics infrastructure in some Asian economies in the past four years have helped reduce costs. For instance, in Vanuatu, improving infrastructure at the port of Vila reduced border compliance time for imports. In Singapore, the expansion and automation of port infrastructure reduced export and import border compliance times. Improvements to infrastructure, equipment and facilities at Port Klang in Malaysia and Nhava Sheva Port in India made trading activities easier.

Deepening regional cooperation

Deeper regional cooperation through cross-border agreements can bring significant benefits, particularly to least developed and geographically challenged economies. Benefits include the creation of regional markets, increased competition and generation of economies of scale for local firms, increased trade flows between cooperating partners, and correcting information asymmetries and regional externalities (Chauffour and Maur 2011). These can all translate into greater efficiency and reduced trade costs.

Central Asian economies have made significant progress in this regard. For Armenia, joining the Eurasian Economic Union helped reduce documentary and border compliance time and the cost of trading with the Russian Federation. In Tajikistan, streamlining customs clearance with Uzbekistan through the Simplified Customs Corridor agreement made trading across borders easier. The Kyrgyz Republic's membership of the Eurasian Economic Union, and the subsequent streamlining of the country's exports within the Union, reduced times and costs to trade and generally made trading across borders easier.

[a] The green corridor gating system requires transportation companies to complete an electronic declaration that is assessed based on risk. Goods can be imported without additional checks if shipments meet pre-screening requirements to use the corridor. General advantages of the corridor include faster processing of goods and vehicles from customs border gating points in priority order; priority in using customs services; minimum physical inspections; and participation in foreign trade training, among others (State Customs Committee of the Republic of Azerbaijan).

Sources: Chauffour and Maur (2011); Republic of Korea, Korea Customs Service (2011); State Customs Committee of the Republic of Azerbaijan; USAID 2012; World Bank, *Doing Business Database*.

The cost to trade in the region has also improved. The average cost associated with the logistical process of exporting and importing goods fell from $503 in 2016 to $480 in 2018 for exports, and from $572 to $549 for imports. Developing Asian economies made the biggest reductions in costs to trade, at an average of $24 both for exports and imports. Central Asia cut costs the most for exports, with an average cut of $71 while in terms of imports, East Asia had the highest reduction, at $94. (Figure 2.11b).

Figure 2.11a: Time to Trade, 2018 (hours)

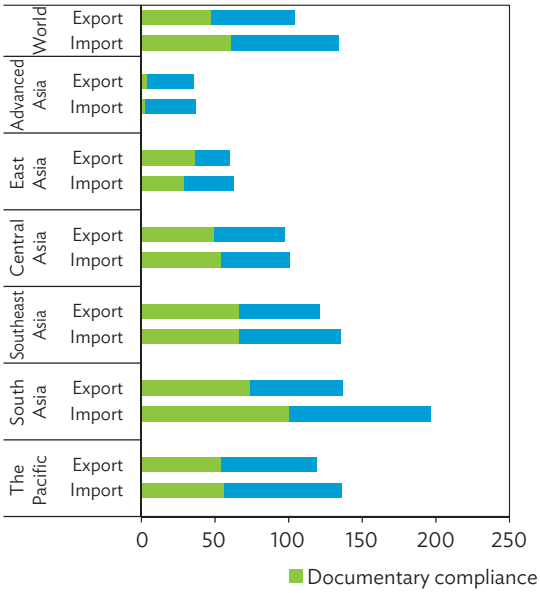
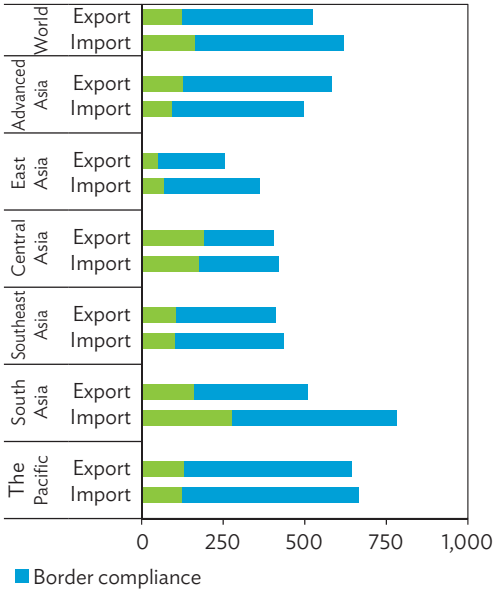


Figure 2.11b: Cost to Trade, 2018 ($)



Source: ADB calculations using data from World Bank. Doing Business Database. https://doingbusiness.org (accessed January 2019).

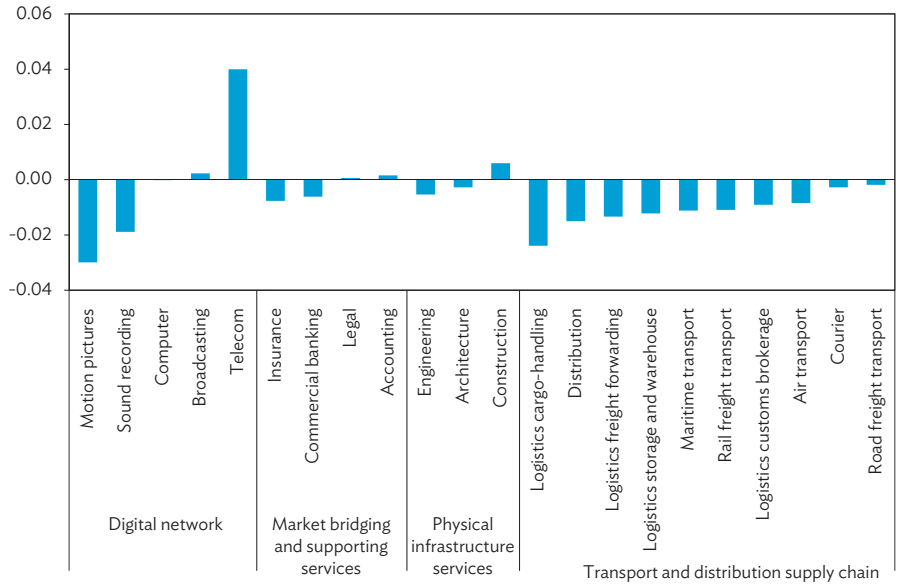
Services Trade Barriers Fall Slowly

Barriers to trade in services are also falling. Data for Asian countries from OECD's Services Trade Restrictiveness Index, indicates a gradual and welcome reduction over the last five years in most services, especially those relating to digital networks and to the transport and distribution supply chain (Figure 2.12). Wide variation remains, particularly in rail freight transport and courier services, and in professional services like accounting and legal services.

However, barriers to trade and investment in services are still wider and higher than for merchandise trade. Integrated and coherent policies, with increased trade liberalization and regulatory reform, are critical for services trade. Not only do they promote productivity and competitiveness, they also help form productive linkages between services sectors and the general economy. Instances of regulatory reform in telecommunications, energy, transport, and financial services have boosted services trade in many of the region's economies (ADB 2017).

Ultimately, with trade tensions rising among major global traders and global economic uncertainty intensifying, it is more vital that support for developing Asian economies to pursue trade cost reduction policies continues so they can further leverage trade for inclusive growth.

Figure 2.12: Changes in Trade Restrictiveness by Services Sectors, 2014–2018



Notes: The services trade restrictiveness composite indexes (STRI) are derived by quantifying the qualitative information in the regulatory database as binary scores. The resulting sector indexes take values between zero (complete openness to trade and investment) and one (total market closure to foreign services providers). Asian countries with available data include Australia, the People's Republic of China, India, Indonesia, Japan, Malaysia, New Zealand, and the Republic of Korea.

Source: Organisation for Economic Co-operation and Development. Services Trade Restrictiveness Index dataset. https://stats.oecd.org/Index.aspx?DataSetCode=STRI (accessed May 2019).

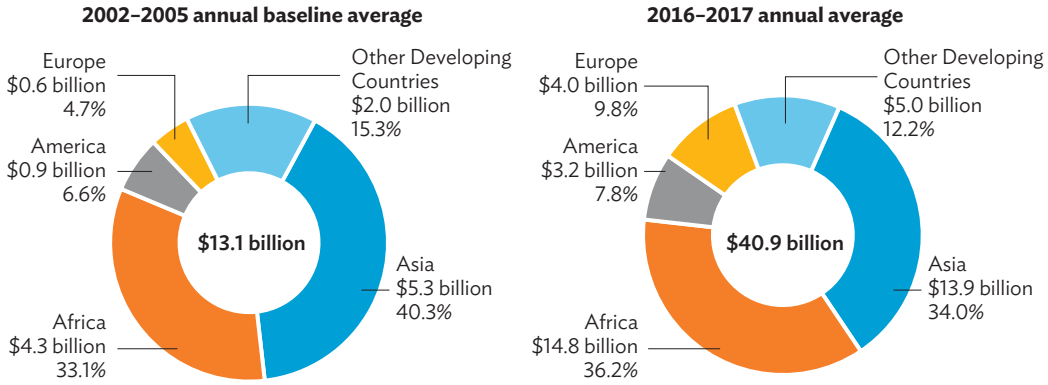
Directions and Growth in Aid for Trade

Developing Asian economies are among the largest AfT recipients. From a low base of $5.3 billion in 2002–2005, AfT disbursements to the region nearly tripled to an annual average of $13.9 billion in 2016–2017, accounting for more than a third of global AfT disbursements (Figure 2.13) and 38.0% of the $36.5 billion in total official aid to the region in 2016–2017. This was significantly higher than the global average of 22.0% of the $185.8 billion received. Since the launch of the Aid for Trade Initiative in 2005 the region has received $137.5 billion in AfT disbursements, or 32.9% of the total official development assistance. Globally, aid[16] for trade disbursements in annual official development assistance grew from a baseline[17] average of $13.1 billion in 2002–2005 to $40.9 billion in 2016–2017 (Figure 2.14).

[16] Unless otherwise specified, aid in this report refers to disbursements. Disbursements are used over commitments to reflect actual aid flows from the recipient's perspective in a given year. For reference, a disbursement is the placement of resources at the disposal of a recipient country or agency, or in the case of internal development-related expenditures, the outlay of funds by the official sector. Commitments, on the other hand, comprise new undertakings entered in the year in question (regardless of when disbursements are expected) and additions to agreements made in earlier years. Aid flows are measured on a calendar year basis.

[17] In line with the recommendation of the WTO Aid for Trade Task Force to establish a baseline for measuring progress—and with 2002–2005 average identified as the starting point—this report uses 2002–2005 as the baseline period for analysis of aid flows. The baseline 2002–2005 starts with the launch of the Doha Development Round in November 2001 and ends with the 2005 Hong Kong WTO Ministerial Conference.

Figure 2.13: Global Aid for Trade Disbursements by Region ($, % of total)



Note: Aggregates include developing countries only. Developing Asia does not include Brunei Darussalam; Hong Kong, China; the Republic of Korea; Singapore; and Taipei,China.

Source: ADB calculations using data from Organisation for Economic Co-operation and Development (OECD). Creditor Reporting System. https://stats.oecd.org/Index.aspx?DataSetCode=crs1# (accessed April 2019).

South Asia takes most AfT among Asian subregions

Within the region, most AfT disbursements went to South Asia, with cumulative $66.8 billion in 2006–2017, followed by Southeast Asia, with $47.1 bilion. Less AfT assistance went to Central Asia ($10.9 billion), East Asia ($8.1 billion), and the Pacific island economies ($4.6 billion) over that period. However, average AfT disbursements in 2016–2017 in these three subregions were 5%–9% higher than their 2014–2015 averages, with the highest growth in East Asia. By contrast, AfT disbursements in 2016–2017 contracted in South Asia (-2.3%) and Southeast Asia (-0.9%).

A breakdown of AfT disbursements is shown in Table 1. It shows that in dollar terms, India received the most over 2006–2017 and on a per capita basis Pacific economies were the largest recipients (as function of small population size and geographic isolation), even as these large flows may not cover their basic infrastructure needs.[18] As a percentage of total aid, AfT was highest in Thailand, with 53.5%.

Economic infrastructure remains the biggest AfT category

AfT can be categorized into three groups—(a) economic infrastructure; (b) building productive capacity; and (c) trade policies and regulations—defined by the Organisation for Economic Co-operation and Development (Box 2.2). Figure 2.14 and 2.15 show that, both regionally and globally, AfT commitments and disbursements have mostly gone to sectors that build economic infrastructure and productive capacity, while aid activities related to trade policies and regulations have received the least. During 2006–2017, $89.4 billion (65% of the regional AfT disbursements) supported programs and projects aimed at reducing the infrastructure gap in developing Asia. By comparison, cumulative AfT disbusements for building productive capacities over the period reached

[18] In 2016–2017, the largest AfT donors in developing Asia were Japan ($8.1 billion), the International Development Association ($2.7 billion), the Asian Development Bank ($1.2 billion), Germany ($876 million), the Republic of Korea ($675 million), European Union institutions ($455 million), the United States ($395 million), France ($329 million), Australia ($290 million), and the International Fund for Agricultural Development ($256 million).

Table 1: Top Recipients of Aid for Trade (annual averages, 2006–2017)

Total AfT ($ million)		Per capita ($)		% of GDP		% of ODA	
India	2,164	Tuvalu	823	Tuvalu	26.0	Thailand	53.5
Viet Nam	1,905	Nauru	493	Kiribati	12.4	Viet Nam	52.2
Afghanistan	1,183	Palau	312	Afghanistan	7.4	India	47.6
Indonesia	792	Cook Islands	274	Nauru	7.2	Uzbekistan	47.4
Pakistan	779	Tonga	213	Tonga	5.6	Bhutan	46.2
Bangladesh	753	Kiribati	190	Vanuatu	4.6	Mongolia	41.9
PRC	517	Samoa	151	FSM	4.1	Azerbaijan	41.8
Philippines	367	Vanuatu	131	Samoa	4.0	Armenia	40.5
Sri Lanka	364	FSM	120	Solomon Islands	3.8	Kiribati	39.5
Thailand	265	Marshall Islands	92	Bhutan	3.3	Tajikistan	39.0

AfT = aid for trade, FSM = Federated States of Micronesia, GDP = gross domestic product, ODA = official development assistance, PRC = People's Republic of China.

Note: Figures refer to disbursements.

Source: ADB calculations using data from International Monetary Fund. World Economic Outlook April 2019 Database. https://www.imf.org/external/pubs/ft/weo/2019/01/weodata/index.aspx (acessed May 2019); OECD. Creditor Reporting System. https://stats.oecd.org/Index.aspx?DataSetCode=crs1# (accessed April 2019); World Bank. World Development Indicators. https://databank.worldbank.org/ (accessed May 2019); and for Cook Islands' population and GDP: ADB. Key Indicators for Asia and the Pacific 2018. https://www.adb.org/publications/key-indicators-asia-and-pacific-2018 (accessed May 2019).

Box 2.2: Data Considerations on Aid for Trade Categories

The Organisation for Economic Co-operation and Development manages the Creditor Reporting System (CRS) for monitoring official development assistance (ODA). The recorded flows cover a range of economic sectors and AfT that supports development of trade policy, facilitation, and regional and multilateral trade negotiations. The OECD identifies AfT as comprising the following:

1. Economic Infrastructure (INF): Aid under this category is primarily directed to projects aimed at developing hard and soft infrastructure networks to enable domestic markets connect to the global economy. Sectors include Transport and Storage (210), Communications (220), and Energy Generation and Supply (230).
2. Building Productive Capacity (BPC): Aid under this category is targeted to trade-related development projects geared toward supporting the private sector exploit their comparative advantages and diversify their exports. Sectors include Banking and Financial Services (240), Business and Other Services (250), Agriculture (311), Forestry (312), Fishing (313), Industry (321), Mineral Resources and Mining (322), and Tourism (332).
3. Trade Policy and Regulations and Trade-related Adjustment (TPR) (331): Aid under this category is primarily directed to helping countries develop their trade strategies, negotiate trade agreements, and implement their outcomes, as well as to deal with costs associated with trade liberalization such as tariff reductions, preference erosion, or declining terms of trade. Sectors include Trade Policy and Administrative Management (33110), Trade Facilitation (33120), Regional Trade Agreements (33130), Multilateral Trade Negotiations (33140), Trade-related Adjustment (33150), and Trade Education/Training (33181).

Further, the CRS data does not exactly match all AfT categories. Only parts of data on ODA are reported as aid going to building economic infrastructure and as aid for the creation of "productive capacity". At best, the data are proxies for aid in building trade-related infrastructure and productive capacity since not all ODA reported under these headings is trade-related.

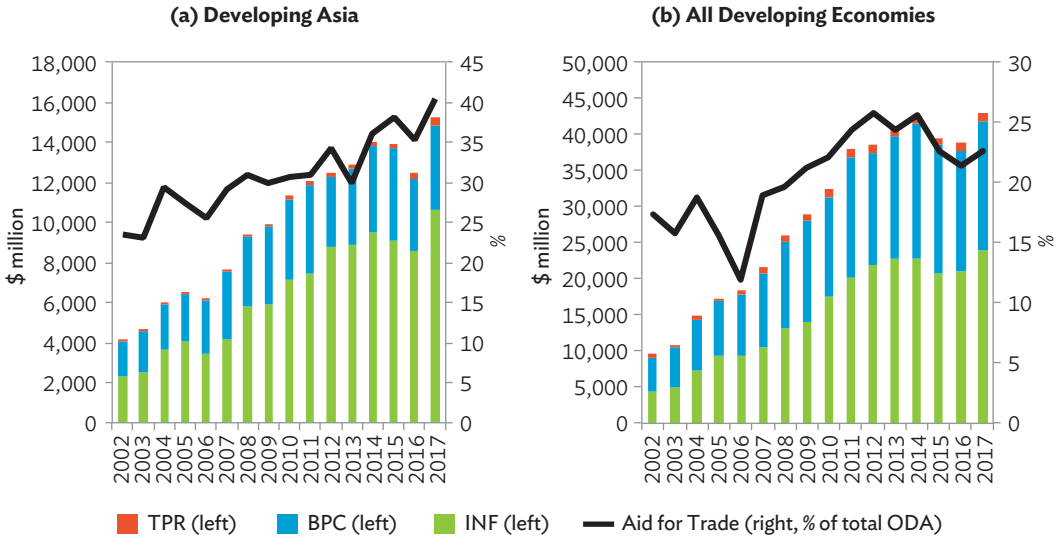
continued on next page

Box 2.2: continued

The OECD definition of "economic infrastructure" in aid data includes three services sectors—transport, energy and communications—while the creation of "productive capacity" includes aid disbursed to develop financial, travel/tourism and business services. It is also important to note that while disaggregation of the three CRS economic infrastructure "services" sectors (transport and storage, communications, and energy) does not yield information on the classification of these sectors as industry or services, they are classified as services in the UN's Central Product Classification (CPC), in the list of services sectors and subsectors covered under General Agreement of Trade in Services, and in empirical analyses of services trade. Consistent with this established practice, these three sectors are classified as services. The CRS also clubs the three sectors under the "Economic infrastructure and services" grouping and not under "Industry, mining, construction." For the same reason, the construction sector is not classified as a service as construction is included in "Industry, mining, construction" in the CRS. Hence, services used in this report include six aggregate sectors: transport and storage; communications; energy; banking and finance; business and other services; and tourism. On the other hand, agriculture, forestry and fishing are grouped to comprise the primary broad economic sector, i.e., "agriculture, forestry, and fishing". Lastly, industry and mineral resources and mining are grouped to consist the secondary broad economic sector, i.e., "industry". It should be noted that "industry" in CRS data is non-standard and has a narrower scope than "industry" as defined in the International Standard Industrial Classification of All Economic Activities Revision 4 (ISIC Rev.4).

Source: ADB staff using information from Organisation for Economic Co-operation and Development. Creditor Reporting System. https://stats.oecd.org/Index.aspx?DataSetCode=crs1# (accessed April 2019); ADB (2017).

Figure 2.14: Official Development Assistance and Aid for Trade, 2002–2017 ($ million, %)

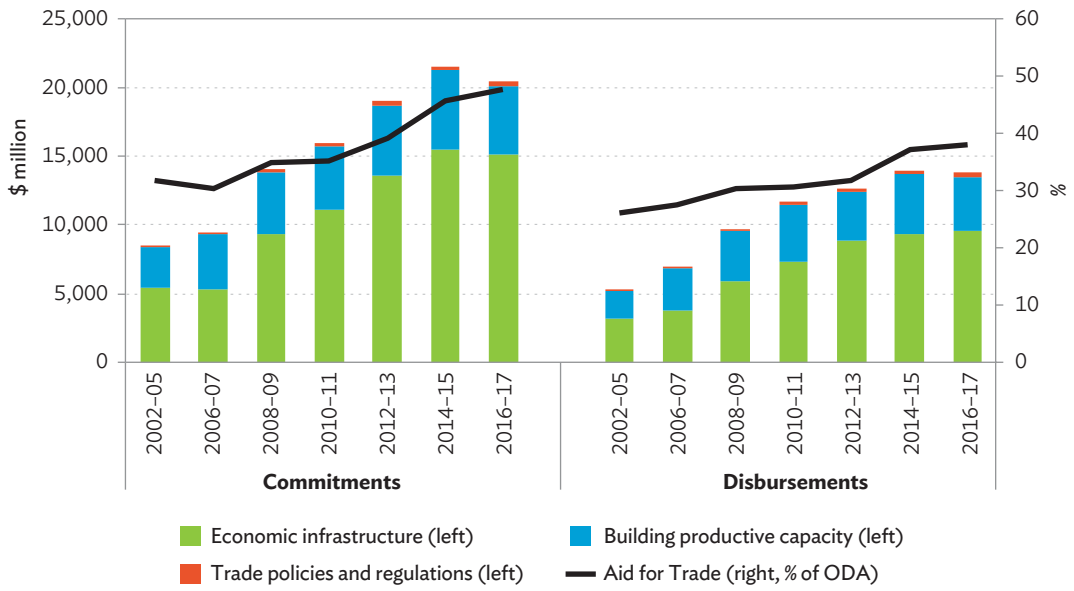


ODA = official development assistance.

Note: Total aid for trade (AfT) is the sum of INF (aid for infrastructure), BPC (aid for building productive capacity), and TPR (trade policy and regulations and trade-related adjustment).

Source: ADB calculations using data from OECD. Creditor Reporting System. https://stats.oecd.org/Index.aspx?DataSetCode=CRS1 (accessed May 2019).

Figure 2.15: Aid for Trade by Category—Developing Asia, 2002 to 2017



ODA = official development assistance.

Note: Developing Asia does not include Brunei Darussalam; Hong Kong, China; the Republic of Korea; Singapore; and Taipei,China.

Source: ADB calculations using data from the Organisation for Economic Co-operation and Development. Creditor Reporting System. https://stats.oecd.org/Index.aspx?DataSetCode=crs1# (accessed April 2019).

$45.8 billion, while $2.4 billion went to trade policies and regulations.[19] In 2016–2017, average aid for economic infrastructure reached $9.6 billion, $3.9 billion for building productive capacities, and $364 million for trade policies and regulations. By industry, AfT in developing Asia is heavily targeted to transport and storage (Figure 2.16).

On another note, growth in AfT targeted to trade policies and regulations was the most robust, with disbursements growing at least threefold in 2016–2017 from the average baseline in 2002–2005. Likewise, this reflects the growing need for investment in institutional capacities to trade.

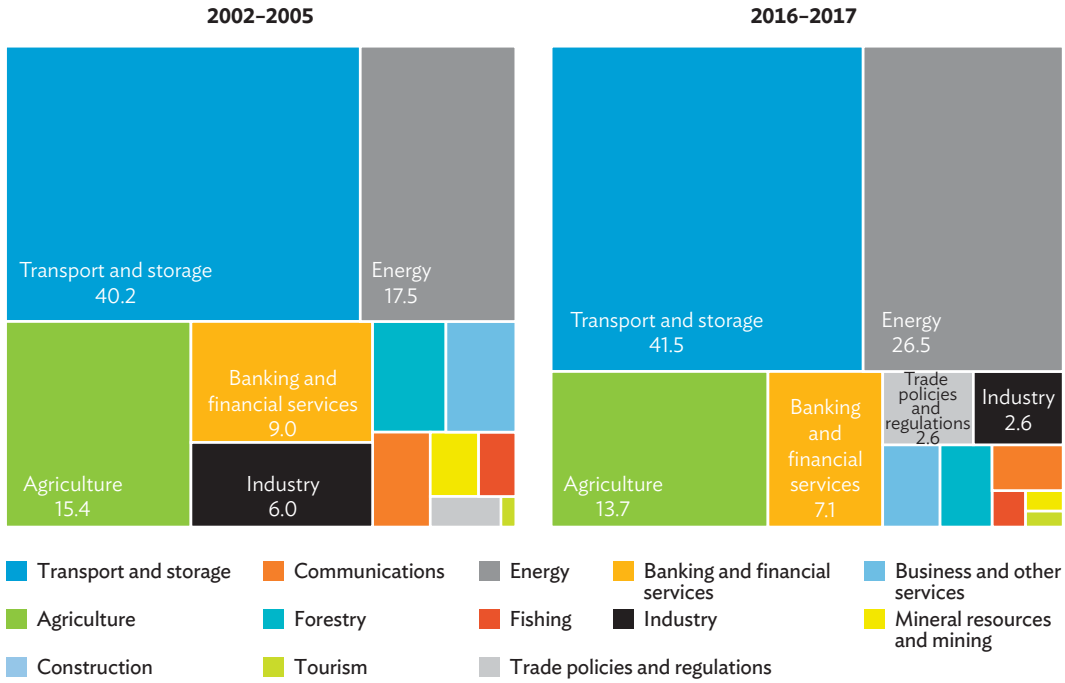
Services are the fastest-growing AfT targets in developing Asia

Over the years, services have become the predominant and fastest-growing targets of AfT in developing Asia (Figure 2.17). Aid in the primary sector—agriculture, forestry and fishing— made up the second-largest share, and industry had the least. This pattern holds true across all Asian subregions.

From a baseline average of $3.8 billion in 2002–2005, disbursements in services sectors nearly tripled to $10.9 billion in 2016–2017 accounting for 70% of the total AfT to the region. Since the AfT Initiative began in 2005, $106 billion was allocated to services, almost five times more than AfT earmarked for

[19] By commitments value, cumulative AfT commitments over 2006–2017 totaled $58.0 billion for sectors aimed at building productive capacities and $2.9 billion for trade policies and regulations.

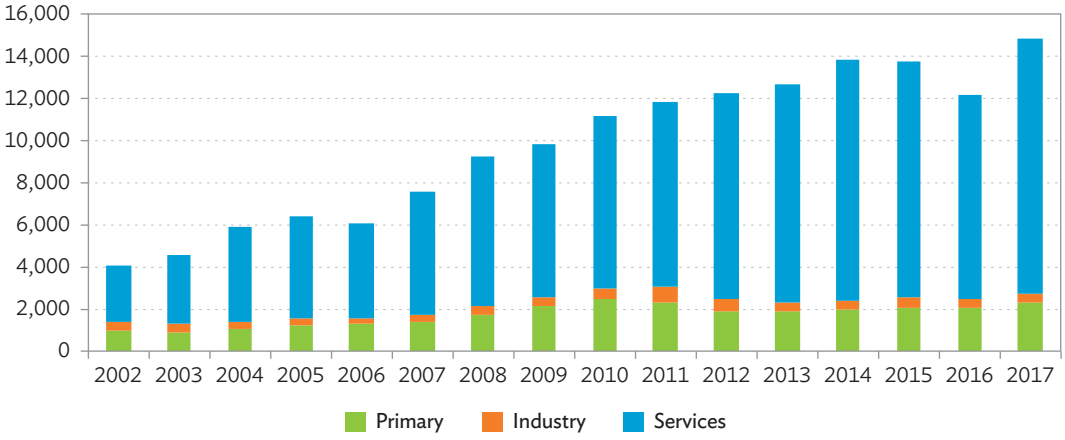
Figure 2.16: Aid for Trade Disbursements by Sector—Developing Asia (%)



Note: Developing Asia does not include Brunei Darussalam; Hong Kong, China; the Republic of Korea; Singapore; and Taipei,China.

Source: ADB calculations using data from the Organisation for Economic Co-operation and Development. Creditor Reporting System. https://stats.oecd.org/Index.aspx?DataSetCode=crs1# (accessed April 2019).

Figure 2.17: Sector Distribution of Aid for Trade in Developing Asia ($ billion)



Note: Developing Asia does not include Brunei Darussalam; Hong Kong, China; the Republic of Korea; Singapore; and Taipei,China.

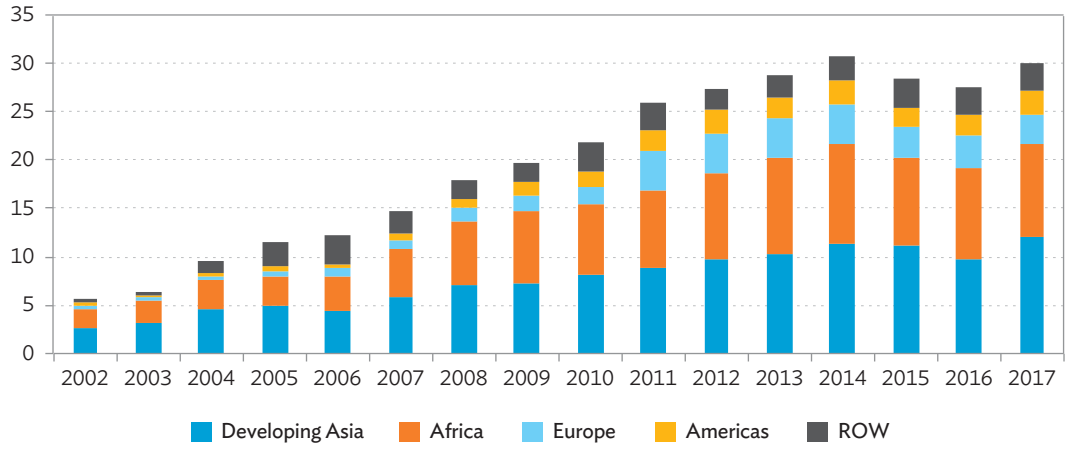
Source: ADB calculations using data from the Organisation for Economic Co-operation and Development. Creditor Reporting System. https://stats.oecd.org/Index.aspx?DataSetCode=CRS1 (accessed May 2019).

agriculture, forestry, and fishing, and 18 times higher than destined to industry. Transport and storage account for a sizable share of total AfT flows in services (52.8% in 2016–2017), as does energy (33.7% in 2016–2017).

Most global services AfT goes to Asia

Global AfT in services rose to $30 billion in 2017 from $5.6 billion in 2002, and that it peaked at $30.7 billion in 2014. Accordingly, services took 58.9% of AfT disbursements in 2002 and 70% in 2017, reflecting in particular the growth in official aid to transport and storage and energy. By region, most AfT in services was received by developing Asia (38.2%) and Africa (33.1%) over 2002–2017 (Figure 2.18).

Figure 2.18: Global Aid for Trade in Services by Region ($ billion)



ROW = rest of the world.

Note: Aggregates include developing countries only. Developing Asia does not include Brunei Darussalam; Hong Kong, China; the Republic of Korea; Singapore; and Taipei,China.

Source: ADB calculations using data from the Organisation for Economic Co-operation and Development. Creditor Reporting System. https://stats.oecd.org/Index.aspx?DataSetCode=CRS1 (accessed May 2019).

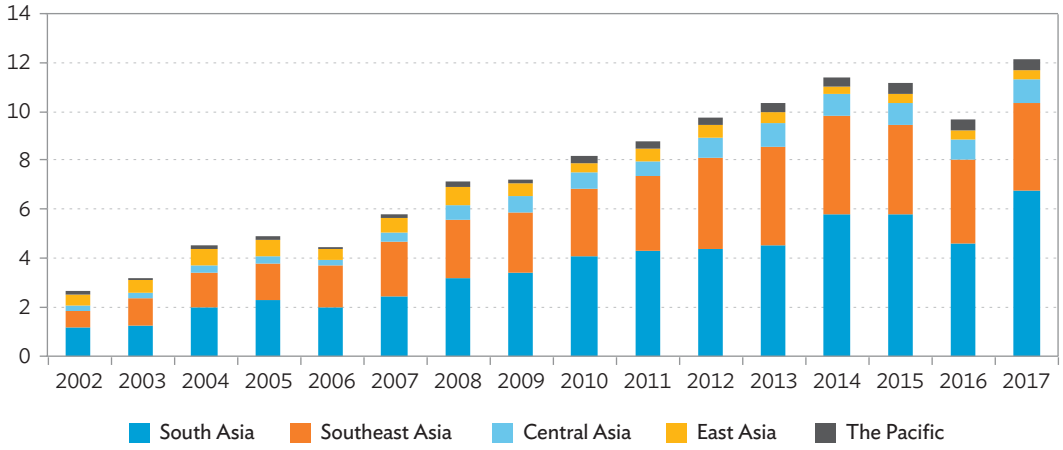
The largest beneficiaries in developing Asia have been South and Southeast Asian economies, accounting for 47.8% and 34.5% of services AfT disbursed in the region over 2002–2017 (Figure 2.19). South Asian economies received $6.7 billion of aid in services in 2017, up from $1.2 billion in 2002, while Southeast Asian economies took $3.6 billion in 2017 up from $678.7 million in 2002.

Aid targeted at tradable services is a strong catalyst for economic diversification and inclusive economic growth

AfT can further play an important role in supporting developing countries in their efforts to improve connectivity and foster inclusive development through influencing policies to provide an enabling environment for service markets.

Dynamic services sectors can be a key driver of development. An economy that is more services driven should aim at providing universal access to services and ensuring more efficient and equitable delivery of these. Digital technology in particular has shown its potential to strongly facilitate increased trade and promote inclusive growth, and its great potential is recognized in its capacity to link businesses to markets that otherwise would be well beyond their reach.

Figure 2.19: Distribution of Aid for Trade in Services in Developing Asia ($ billion)



Note: Developing Asia does not include Brunei Darussalam; Hong Kong, China; the Republic of Korea; Singapore; and Taipei,China.

Source: ADB calculations using data from the Organisation for Economic Co-operation and Development. Creditor Reporting System. https://stats.oecd.org/Index.aspx?DataSetCode=CRS1 (accessed May 2019).

The quality of policies, regulations and institutional frameworks, however, remains a significant hurdle to realizing the full potential of the services and digital economies. Efforts to build domestic institutional capacity and to integrate coherent domestic and international policies can improve performance and competitiveness of services, which provide vital support for all parts of an economy and increasingly generate jobs and entrepreneurial opportunities for women. Regulations can also facilitate equitable growth of trade in services, deepening integration into regional markets, especially for geographically challenged economies. As will be discussed in succeeding Chapters, aid for trade targeted at tradable services, along with facilitating digital trade and export diversification, has proven to be an important catalyst for promoting inclusive economic growth and structural transformation. Most notably, the tourism industry has proven to have a prominent role in promoting job creation and inclusive growth, especially to geographically challenged economies (Box 2.3).

Aid for Trade can contribute to the Sustainable Development Goals

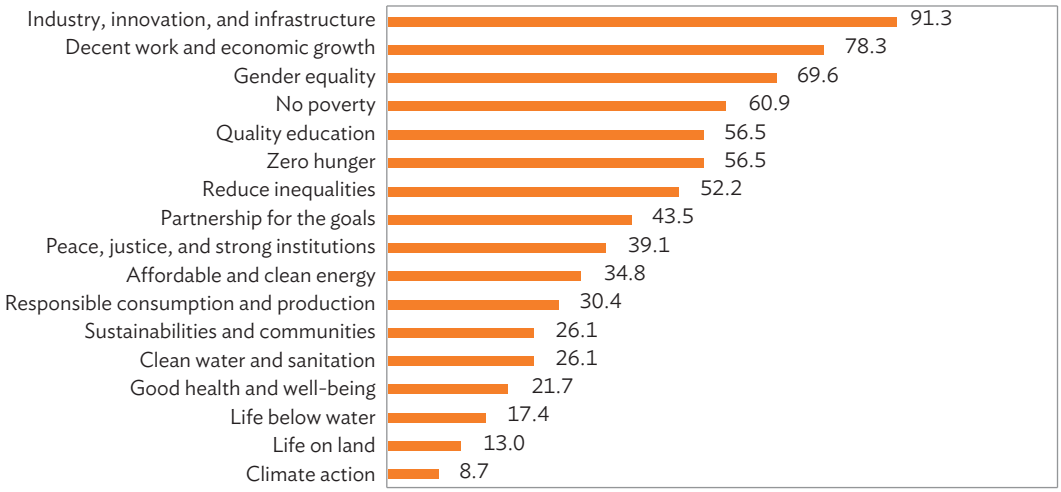
AfT can contribute to the 2030 Sustainable Development Agenda, including in promoting broad-based economic empowerment and gender equality. Results from the 2019 AfT monitoring and evaluation (M&E) exercise show that both donor and partner countries have high hopes that AfT can contribute to a country's capacity to achieve the Sustainable Development Goals (SDGs). In particular, donors and partner countries have high expectations regarding aid for trade's contribution to Asian industry, innovation, and infrastructure, decent work and economic growth, gender equality, and poverty eradication (Figure 2.20).

As captured in the survey, partner and donor countries both overwhelmingly (90% and 97%, respectively) regard aid for trade as contributing to SDG 9 (i.e., industry, innovation, and infrastructure). They also share views about aid for trade's contribution to affordable and clean energy. Their views on SDG 8 (i.e., decent work and economic growth) differ somewhat, with 78% of the partners and 100% of donor countries considering aid for trade relevant. The same is true for SDG 1 (no poverty).

The M&E exercise also reveals that economic empowerment has been gaining prominence in both donors' and partner countries' agendas. Today, 91.3% of Asia's partner countries' national or regional

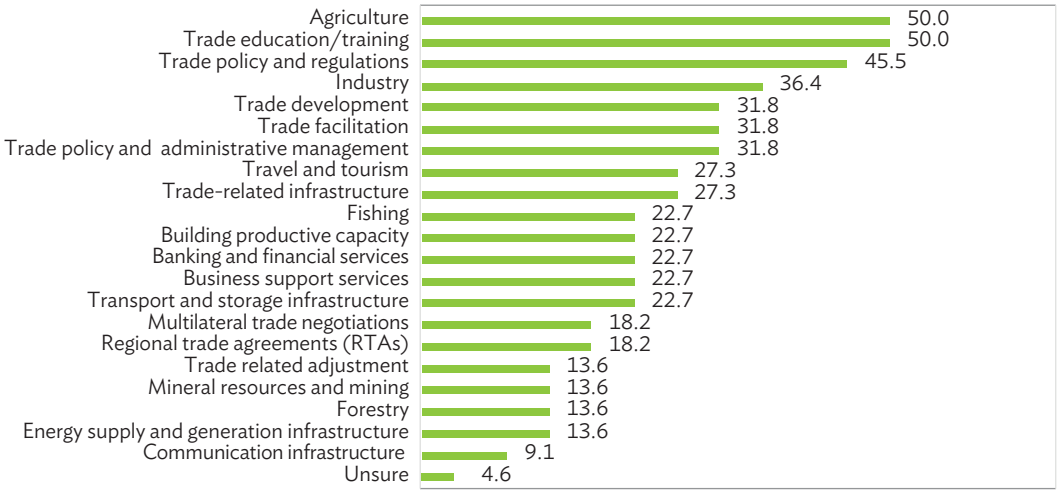
development strategy seek to promote economic empowerment. While partner countries' main target group for empowerment-related AfT is MSMEs, both women's empowerment and youth empowerment are also strong target groups for empowerment-related AfT (Figure 2.21). Trends in empowerment-related AfT and how AfT has contributed to the empowerment of women, young people, and MSMEs in Asia are discussed in the following chapter.

Figure 2.20: Aid for Trade's Contribution to the Sustainable Development Goals
(% of total respondents)



Source: Aid-for-trade monitoring exercise by the Organisation for Economic Co-operation and Development and World Trade Organization (2019).

Figure 2.21: Aid for Trade's Support for Economic Empowerment
(% of total respondents)



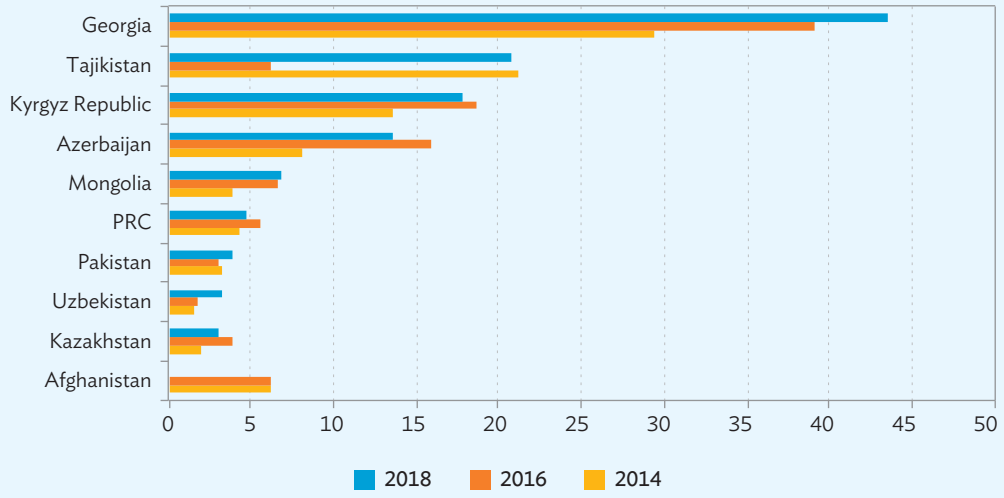
Source: Aid-for-trade monitoring exercise by the Organisation for Economic Co-operation and Development and World Trade Organization (2019).

Box 2.3: A Regional Approach to Tourism Development in Central Asia

Over the past decade, tourism has become a significant generator of jobs and a key driver of inclusive and sustainable socioeconomic development worldwide. It accounts for more than 10% of world gross domestic product (GDP), 7% of global exports and one in 10 jobs (UNWTO 2018).

The tourism sector is growing in importance in the economies of the Central Asia Regional Economic Cooperation (CAREC) program.[a] Its direct contribution to GDP in 2018 ranges from 1.1% in Uzbekistan to 10.1% in Georgia. Between 2014 and 2018, tourism receipts as a percentage of total exports substantially increased in Georgia (from 29.3% to 43.5%), and other countries such as Azerbaijan (from 8.1% to 13.5%), and the Kyrgyz Republic (from 13.5% to 17.8%). Uzbekistan's international tourism receipts as a share of exports also doubled in that time (box figure 1). Prospects for the next decade look even more promising, with tourist arrivals forecast to reach 31.7 million in eight CAREC countries and over 100 million in the People's Republic of China (PRC) by 2028.[b]

1: International Tourism Receipts, 2014–2018 (% of total exports)



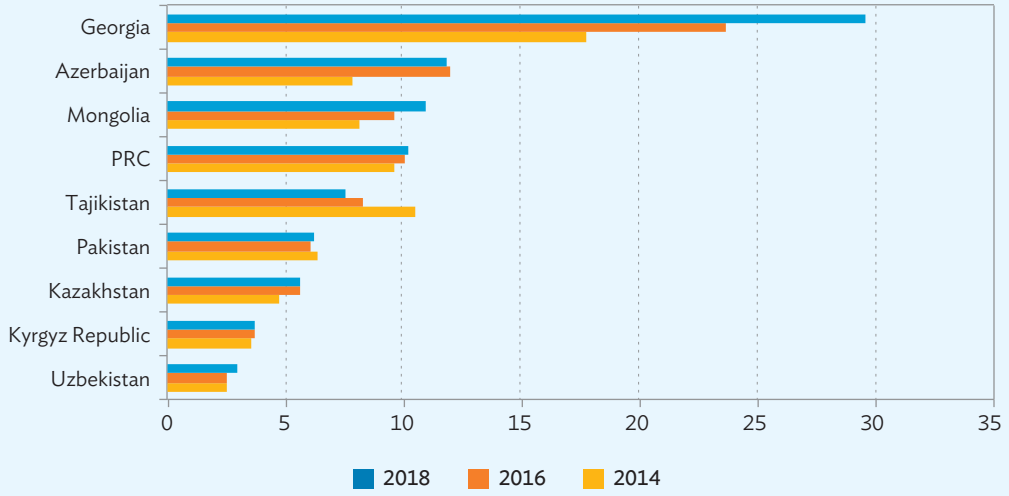
PRC = People's Republic of China.
Note: No data available for Turkmenistan.
Sources: World Travel and Tourism Council Data Gateway and World Development Indicators, World Bank (accessed June 2019).

The CAREC Program advocates a regional approach to tourism development to help realize economies of scale from greater specialization and more efficient resource use. Since tourists often combine two or more neighboring countries as destinations, cooperation on cross-border arrangements, including visa facilitation and relaxation, can help, and more generally enhance movement of people and goods across borders, bringing increased mutual benefits for each of the region's countries. Harmonization of tourism education and training systems and operating standards of tourism services can produce the requisite numbers of qualified personnel and help address supply-demand gaps.

The tourism sector can help reduce social and regional imbalances, empower local communities, and promote gender equality by generating employment and income opportunities for small and medium-sized enterprises, including those owned by women and young people. A recent report from the World Travel and Tourism Council notes that the tourism sector employs more women than most other sectors (World Travel and Tourism Council 2019). In the Caucasus countries, such as Georgia and Azerbaijan, the share of total employment taken up by the tourism sector is significant (29.5% and 11.8% respectively in 2018), as shown in box figure 2.

Box 2.3: continued

2: Tourism Contribution to Employment, 2014–2018 (% of total employment)



PRC = People's Republic of China.

Note: No data available for Turkmenistan.

Sources: World Travel and Tourism Council Data Gateway and World Development Indicators, World Bank (accessed June 2019).

Many countries in the CAREC region are making significant progress in liberalizing their visa regimes. E-visa systems are now operational in Azerbaijan, Georgia, Kazakhstan, the Kyrgyz Republic, Tajikistan, and Uzbekistan. In addition, Uzbekistan granted visa-free access to 45 countries from February 2019, and Pakistan launched a new e-visa scheme for 175 countries from March 2019. The Silk Road visa, a joint initiative between Kazakhstan and Uzbekistan, is also underway.

Despite these positive developments, several factors still form a significant barrier to the development of the tourism sector in the CAREC region. Air and land connectivity remains limited and immigration controls at many airports often require lengthy processing time. Tourism infrastructure and services are of inconsistent quality and do not meet international standards. Shortage of skilled hospitality workers and destination managers, and a challenging business environment are also hindering tourism development in the region.

Opportunities exist to overcome these constraints through collaboration among countries. Sustainable tourism development calls for a coordinated and integrated approaches among government agencies, the private sector, local communities, and civil society. CAREC, given its convening power and strong track record of implementing regional projects, provides a robust platform for cooperation among member countries to discuss common development challenges and evolve joint approaches in the tourism sector. These include support for improving air, railway and road connectivity, developing essential tourism infrastructure and services (including the incubation of innovative regional tourism projects and programs), and creating a conducive environment to attract private tourism investments and promote public–private partnerships. Cultivating quality human resources in the hospitality industry is another area for its expertise, alongside promoting joint branding and marketing activities, and mitigating impacts resulting from overtourism.

[a] The Central Asia Regional Economic Cooperation (CAREC) region is a partnership of 11 countries (Afghanistan, Azerbaijan, the People's Republic of China, Georgia, Kazakhstan, the Kyrgyz Republic, Mongolia, Pakistan, Tajikistan, Turkmenistan, and Uzbekistan) and development partners, working to promote development through cooperation, leading to accelerated economic growth and shared prosperity.

[b] World Travel and Tourism Council Country Reports 2018. Data not available for Afghanistan and Turkmenistan.

Sources: Carmen Maria Garcia Perez. Central and West Asia Department, Asian Development Bank.

CHAPTER 3

PROMOTING WOMEN'S ECONOMIC EMPOWERMENT

Since women make up more than half of Asia's working age population, it is vital that steps are taken to realize their full potential to contribute to sustainable and inclusive economic growth. Increased female participation in the labor force can improve overall productivity, with evidence showing that the skills and personality traits of women make working environments more productive than in firms where they are underrepresented.[20] Higher earning potential leads to better social development outcomes for women and girls, and their different spending, saving, and investment patterns to men can increase human and physical capital accumulation. Intergenerational spillovers also result when women work in paid employment and have the opportunity to make financial decisions.[21]

Women participate in the global economy in many ways. They take part in the production of goods and services, such as in rural farms, as textile and garment workers, and as professionals in education, health, and legal and accountancy services. Women play a key role as small-scale, cross-border traders or as entrepreneurs who own firms that export goods and services.

Trade and Women's Economic Empowerment Nexus

Free and open trade plays an important role in achieving the Sustainable Development Goals (SDGs), particularly those on gender equality and women's empowerment. Trade opens up access to new markets and contributes to increased production and job creation. Trade liberalization enables technological transfer, skills development, knowledge production and innovation, and institutional development. Along with efficient trade policies, these gains can contribute to other development-friendly outcomes.

The nexus between trade and gender is, however, complex. Trade can promote or discourage women's economic empowerment, depending on the overall policy context and a range of social, economic, and cultural issues. When trade leads to greater empowerment for women, it does so through a range of transmission channels, including through better economic opportunities, technological upgrading, socioeconomic empowerment, and labor reforms (ADB 2017, ADBI 2017, Cagatay and Erturk 2004, Fontana 2004, von Hagen 2014, Jobes 2010).

Consider first that trade and global value chains have reinforced the specialization, compartmentalization, and agglomeration of economic activities (Shepherd and Stone 2017). The key mechanism for this to improve economic opportunities for women is through the expansion of comparative advantage sectors where women are more likely concentrated. As these sectors expand,

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[20] Azmat, Ghazala, and Barbara Petrongolo. 2014. Gender and the Labor Market: What Have we Learned from Field and Lab Experiments? *Labour Economics* 30. pp 32–40.

[21] A rich literature exists on intergenerational spillover effects of education and income. For example, see Lee, Hanol, and Jong-Wha Lee. 2019. Patterns and Determinants of Intergenerational Educational Mobility: Evidence Across countries. Asia Growth Research Institute Working Paper 2019-02. <http://www.agi.or.jp/workingpapers/WP2019-02.pdf>

the relative demand for female labor will increase, which can expand employment and raise incomes for women. Likewise, female entrepreneurs tend to gain from trade if they (and their capital holdings) are concentrated in comparative advantage sectors, besides accessing valuable export opportunities that generally arise from trade liberalization (Shepherd and Stone 2017).

International trade has created employment opportunities in many developing countries through the expansion of export and import sectors and by bringing in structural changes that have increased employment of lower-skilled workers who would otherwise be confined to the informal economy. In many Asian countries, women have benefited from trade liberalization and participation in global value chains, particularly in export-oriented manufacturing and service industries. For instance, in the PRC, employment in export-oriented manufacturing increased by 2.3 million in just 4 years (from 15 million in 2004 to 17.3 million in 2008) after its 2001 accession to the World Trade Organization (Cai and Du 2014). In Bangladesh, the export-oriented garment industry employed 4 million workers in 2015, more than 75% women mostly from poor families and entering the labor market for the first time (Government of the People's Republic of Bangladesh 2016). In the Philippines, the 1.3 million jobs in business process outsourcing are filled by women (Errighi, Bodwell, and Khatiwada 2016). In Indonesia, lower import tariffs on local inputs led to more women in employment, increased work hours, and reduced domestic duties, especially for women with less education (Kis-Katos, Pieters, and Sparrow 2018).

Greater trade openness is associated with higher incidence of paid employment. Evidence also suggests that women's participation in exporting firms, both as owners and employees, is higher than in firms that do not export (Figure 3.1). Similarly, foreign-owned firms tend to employ more women than local firms. Globally engaged firms in Asia also tend to have better employment growth (Figure 3.2). Overall, countries with liberal trade regimes prove to have lower unemployment than others.[22]

The second main point is that trade may improve employment quality and labor conditions. Increased trade competition and trade policies (often driven by international agreements) encourage companies to formalize employment and adopt better labor standards. The formalization of employment can set the foundation for increased bargaining power among women. The conditions of employment formalization include labor laws, the right to unionize, and adherence to International Labour Organization standards, among others, that further welcome broader attempts to empower women economically and socially (Shepherd and Stone 2017).

Evidence also suggests that trade openness helps reduce egregious forms of employment, such as forced and child labor (Edmonds and Pavcnik 2004), in which women and girls are most vulnerable. Trade opens opportunities for women to compete in international markets where domestic prejudice might restrict their activities.

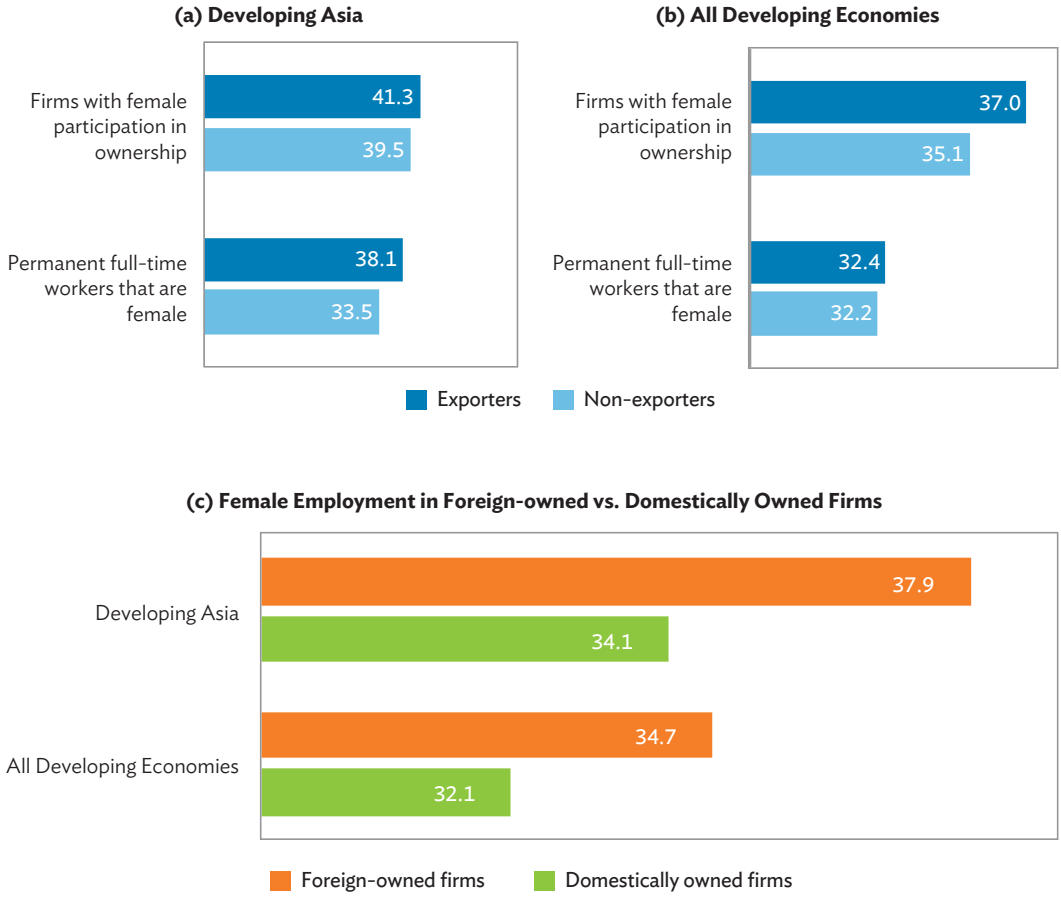
Besides boosting employment and improving working conditions, trade opening also helps increase wages. Jobs in export sectors, for instance, tend to pay better than the informal sector. While this may not always be the case, in many developing countries, export processing zones have benefited women in particular by bringing in more jobs,[23] raising incomes, and improving job stability (World Bank and World Trade Organization 2015). Importers and exporters also tend to pay higher wages (about 30% more) than firms that do not trade internationally (WTO 2017b).

Third, trade and participation in global value chains can foster technology and skills transfer, which can encourage creativity, innovation, and efficiency among firms. These dynamics hold potential to promote the expansion and quality of skills development opportunities for women and to boost inclusiveness

[22] See for example Moore and Ranjan (2005); Dutt, Mitra, and Ranjan (2009); and Felbermayr, Prat, and Schmerer (2011).

[23] Evidence shows that women constitute as much as 90% of the workforce in the export-processing zones of many developing countries (World Bank and WTO 2015).

Figure 3.1: Female Firm Ownership and Employment in Globally Engaged and Domestic Firms—Developing Economies (% of firms)

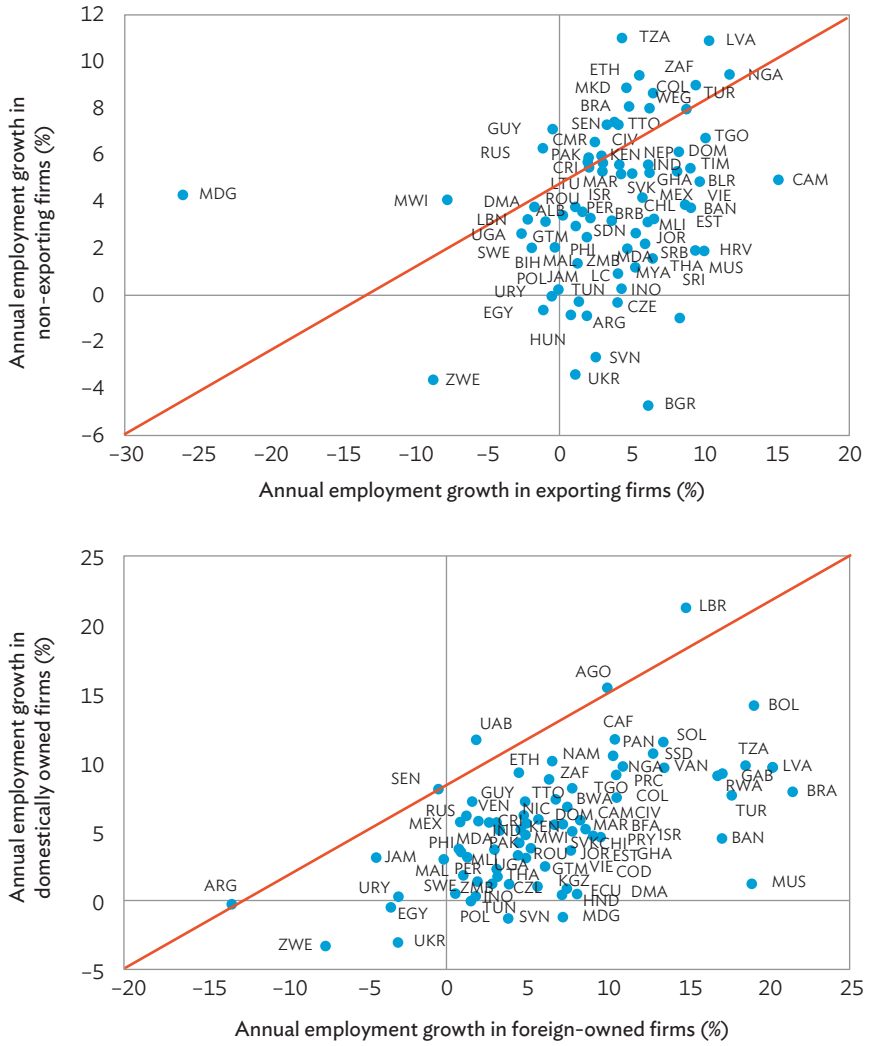


Notes: World and regional averages are computed by taking a simple average of country point estimates. For each economy, only the latest available year of survey data are used in this computation. Developing Asia does not include Brunei Darussalam; the Cook Islands; Hong Kong, China; Kiribati; the Marshall Islands; Nauru; Palau; the Republic of Korea; Singapore; Turkmenistan; and Tuvalu as data are unavailable.
Source: ADB calculations using data from World Bank. Enterprise Surveys. http://www.enterprisesurveys.org (accessed March 2019).

in education. As firms and producers forge global value chains, demand increases for technological upgrading, for meeting global quality standards, including environmental standards and raising efficiency. This, in turn, requires a more skilled workforce and sustained in-employment training.

The evidence suggests that exporting firms are more innovative and likely to use technology and offer formal training than non-exporting counterparts (Figure 3.3). Studies also find that innovation within firms is associated with increased employment, labor productivity, and skills development, and that innovative firms tend to employ more female workers (ILO 2017). Further, the creation of export-oriented market jobs, especially skill-intensive jobs, can generate incentives for training and educational opportunities (Heath and Mobarak 2015). For instance, in Indian villages where services outsourcing has increased employment for young women, girls are more likely to be in school than in villages where no such trade links exist (WTO 2017b). International standards and practices can also

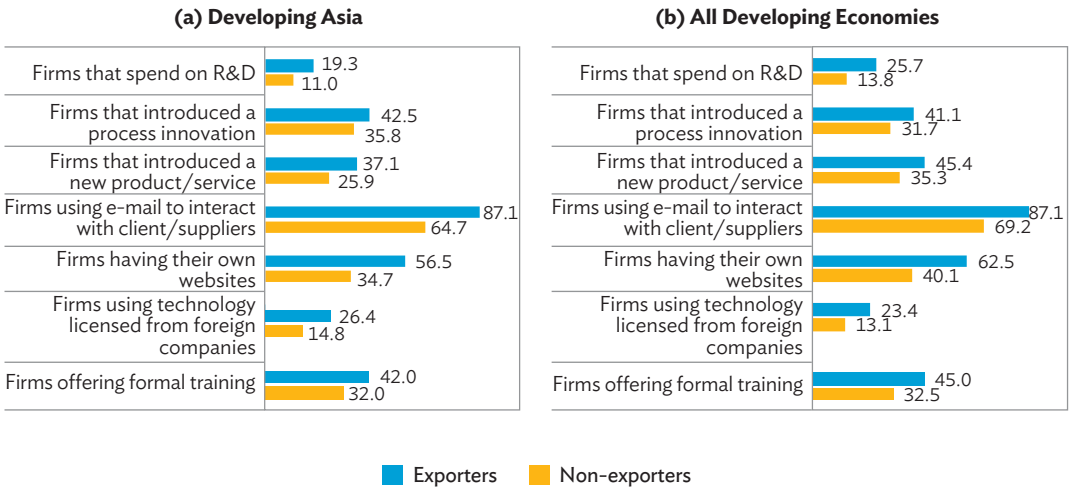
Figure 3.2: Employment Growth in Globally Engaged and Domestic Firms—Developing Economies (%)



AGO = Angola; ARG = Argentina; BAN = Bangladesh; BFA = Burkina Faso; BLR = Belarus; BOL = Bolivia; BRA = Brazil; BWA = Botswana; CAF = Central African Republic; CAM = Cambodia; CHL = Chile; CIV = Côte d'Ivoire; COD = Democratic Republic of Congo; COL = Colombia; CRI = Costa Rica; CZE = Czech Republic; DMA = Dominica; DOM = Dominican Republic; ECU = Ecuador; EGY = Egypt; EST = Estonia; ETH = Ethiopia; GAB = Gabon; GHA = Ghana; GTM = Guatemala; GUY = Guyana; HND = Honduras; IND = India; INO = Indonesia; ISR = Israel; JAM = Jamaica; JOR = Jordan; KEN = Kenya; KGZ = Kyrgyz Republic; LBR = Liberia; LVA = Latvia; MAL = Malaysia; MAR = Morocco; MDA = Moldova; MDG = Madagascar; MEX = Mexico; MLI = Mali; MOZ = Mozambique; MUS = Mauritius; MWI = Malawi; NAM = Namibia; NGA = Nigeria; NIC = Nicaragua; PAK = Pakistan; PAN = Panama; PER = Peru; PHI = Philippines; POL = Poland; PRC = People's Republic of China; PRY = Paraguay; ROU = Romania; RUS = Russian Federation; RWA = Rwanda; SEN = Senegal; SLV = El Salvador; SOL = Solomon Islands; SSD = South Sudan; SVK = Slovakia; SVN = Slovenia; SWE = Sweden; TGO = Togo; THA= Thailand; TTO = Trinidad and Tobago; TUN = Tunisia; TUR = Turkey; TZA = Tanzania; UZB = Uzbekistan; UGA = Uganda; UKR = Ukraine; URY = Uruguay; VAN = Vanuatu; VEN = Venezuela; VIE = Viet Nam; ZAF = South Africa; ZMB= Zambia; ZME = Zimbabwe.
Source: World Bank. Enterprise Surveys. http://www.enterprisesurveys.org (accessed March 2019).

promote the inclusiveness of skills development opportunities. Similarly, the trade liberalization in education services can help increase the supply and investment, and so improve its quality and access to opportunities, especially for women.

Figure 3.3: Innovation, Use of Technology, and Training in Firms—Developing Economies (% of firms)



R&D = research and development.

Notes: World and regional averages are computed by taking a simple average of country point estimates. For each economy, only the latest available year of survey data are used in this computation. Developing Asia does not include Brunei Darussalam; the Cook Islands; Hong Kong, China; Kiribati; the Marshall Islands; Nauru; Palau; the Republic of Korea; Singapore; Turkmenistan; and Tuvalu as data are unavailable.

Source: ADB calculations using data from World Bank. Enterprise Surveys. http://www.enterprisesurveys.org (accessed March 2019).

Noting that trade can be an important determinant of women's labor market participation and wages, economic incentives often have much more profound impact than simply altering women's economic outcomes (Seiermann 2018) and can help reduce other aspects of gender inequality. For instance, a study on the impact of economic incentives on women in rural PRC in the early 1980s shows that increasing returns for tea increased not only their incomes, but also the survival of girls in tea-producing regions (Qian 2008). In Bangladesh, the rise of the export-oriented garment industry, whose workforce is 80% women, has increased education for girls aged 5–9 and reduced the number of teenage girls getting married (Heath and Mobarak 2015). These examples show how the impact of trade policy on women's lives goes far beyond economic benefits. Trade policy affects not only other targets of the United Nations' SDGs, such as health and education, but the very essence of gender inequality: the way that women are perceived in society and the opportunities that come their way.

While trade continues to drive many positive impacts for women's economic empowerment, some negative effects can disproportionately accrue to women in the context of prevailing gender biases and structural constraints. Trade liberalization can disrupt economic sectors and markets and can lead to a contraction in sectors that have comparative disadvantage in trading.[24] Women in these sectors risk job displacements and losses, and in some cases, being relocated from the formal to the informal sector. Moreover, increased international competition from trade liberalization implies a need to grow and upgrade technologically. This may be particularly challenging for firms owned by women with limited access to credit, technical knowledge, training, and information networks. Along the way, increased competition can create the risk that large companies grab the opportunities to

[24] For instance, Hong Kong, China has seen employment move from manufacturing to services as comparative advantage has shifted (Vere 2014).

expand, leaving women in low-skilled jobs and small firms owned by women very little room for growth. Trade can also reinforce common forms of workplace gender discrimination and inequality. Evidence suggests that demand for low-cost and flexible labor in export industries has led to low wages and poor conditions in jobs predominantly done by women. This is particularly true in agriculture, where women are often more involved in informal labor market structures and receive little or no pay, and are concentrated in picking or packing, with limited bargaining power, erratic hours, and seasonal work. Existing patterns of gender disparity such as access to agricultural land, ownership of productive assets, and access to funding, compound the problem (ADB 2017, FAO 2011, UNCTAD 2015).

Accordingly, although international trade has helped empower many women economically, the benefits have not been equitably shared across different sectors and communities. Since international trade can have significant consequences for gender equality, trade policy and related interventions should be tailored to promote greater economic participation and empowerment of women while seeking to mitigate its accompanying risks.

Gender-Specific Constraints for Women in Trade and Global Value Chains

While women face common challenges such as limited access to productive resources, they also face specific barriers that vary according to the type of activity they are engaged in. These specific gender-based constraints limit their ability to further benefit from trade opportunities. For instance, with lower basic education levels and skills training, women producers and traders must overcome more constraints in accessing international markets than men. This is especially difficult for women in the rural economy and agriculture, where limited education and literacy hinder their ability to comply with complicated border procedures, make them vulnerable to predatory behavior and extortion of border officials—especially in areas with weak governance—and so put them at greater risk when trading across borders. These disadvantages may confine them to less lucrative and more time-consuming aspects of production, including in export-related activities (ADB 2019a, WTO 2015).

Women also have to contend with time poverty and limited mobility because of the unequal distribution of responsibilities within households. The time women can spend on trade-related activities may be limited by their unequal burden for doing household chores and unpaid care work, which is heavily influenced by social norms and gender-based stereotypes.

Women's relative disadvantage in access to productive resources, such as land and finance, is a key challenge for women's participation in international markets. On the one hand, access to finance is a significant determinant of women's participation in international markets, given the capital required to engage in trade-related activities. Restrictions on landownership and lack of collateral also often limit women's access to finance.

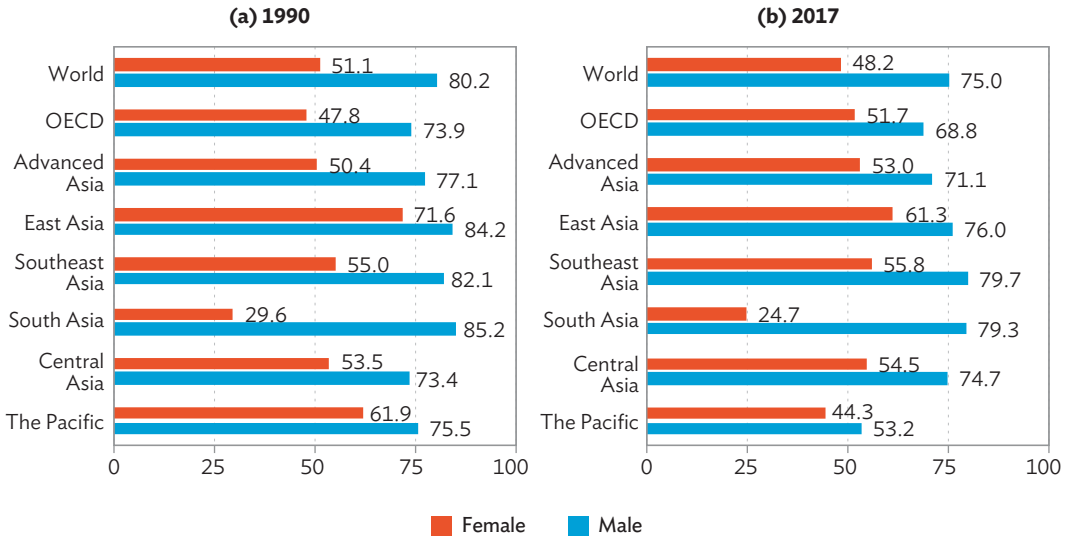
Another gender-based constraint is that women can be excluded from traditional, male-dominated distribution networks. The success of any exporting or importing activity normally requires interaction with distribution networks. However, women often have limited access to market networks and role models—essential factors to equip women in the culture of business and trade. A study shows that firms owned by men are more likely to find customers through traditional contact networks, whereas women-owned firms have to search through other means (World Bank and WTO 2015). Digital technologies and platforms, particularly mobile phones and the internet, are increasingly playing a significant role in overcoming these constraints, underscoring the importance of digital connectivity for women, especially in rural areas.

Finally, discrimination in the labor market—particularly employment segregation and gender wage gaps—may limit opportunities for women to benefit from trade. Patterns of gender-based segmentation may become more entrenched if women remain confined to slow-growth or declining non-tradables, while men predominate in high-growth and expanding tradable sectors (World Bank 2012). On a similar note, jobs for women in tradable sectors may be less sustainable if women are constantly challenged by gender wage gaps and/or remain disadvantaged in taking opportunities for training and skills enhancement.

Women's Participation in Work

Labor force participation rates have fallen across Asia for both men and women, with variations between subregions and countries. However, the female labor force participation rate remains stubbornly lower than that for men (Figure 3.4). On average, the female labor force participation rate in the region fell from 53.4% in 1990 to 46.2% in 2017. To date, women are on average 30% less likely to be in work than men, with that varying anywhere between 1.5% to 57.7%, depending on the country. The reduction in the gender gap has been starkest in the Pacific as the labor force participation rate for men decreased by 22 percentage points during 1990–2017, while that for women fell 18 percentage points. In contrast, the gender gap in labor force participation widened in Central Asia and East Asia. Gaps persists despite economic growth, decreasing fertility rates, and increasing education, in a disparity largely compounded by gender norms and structural constraints. Moreover, women are more concentrated in low-paid, low-skilled jobs or in informal and vulnerable employment. They also have the double burden of also being primarily responsible for unpaid household and family care.

Figure 3.4: Female and Male Labor Force Participation Rates, 1990 and 2017 *(%)*



OECD = Organisation for Economic Co-operation and Development.

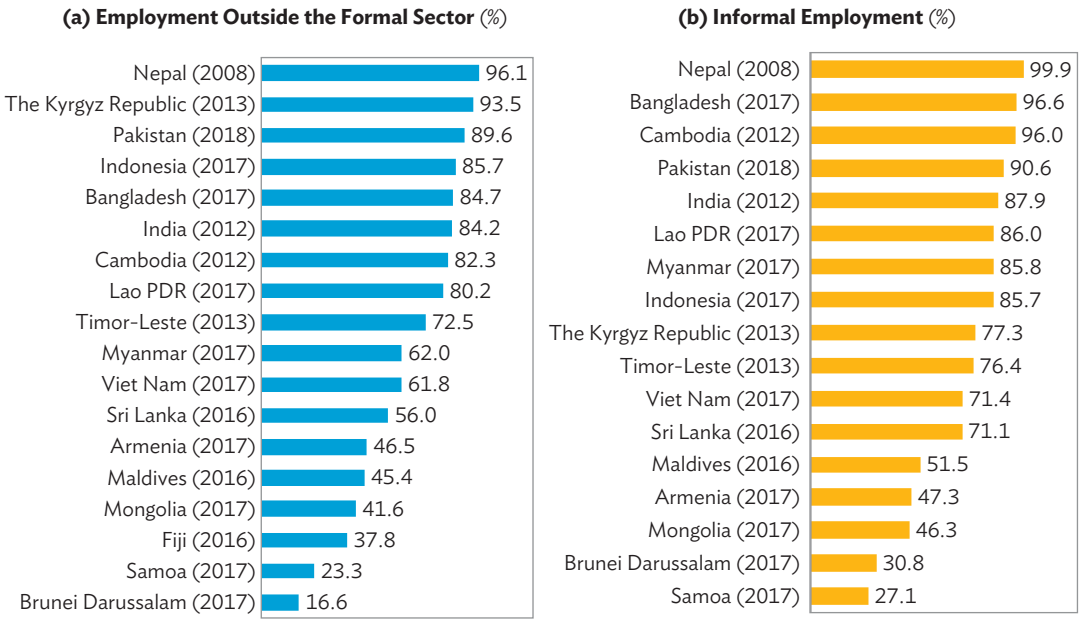
Notes: Regional female (male) labor force participation rate refers to total female (male) labor force as percentage of female (male) working-age population (ages 15 and above) per region. The Pacific does not include the Cook Islands, the Federated States of Micronesia, Kiribati, the Marshall Islands, Nauru, Palau, and Tuvalu as data are unavailable.

Source: ADB calculations using data from International Labour Organization. ILOSTAT. https://www.ilo.org/ilostat/ (accessed March 2019).

Women are concentrated in the most vulnerable forms of informal employment

Jobs in the informal economy includes jobs in the informal sector as well as informal employment in the formal sector. The informal sector generally absorbs most of the employed population in a number of developing Asian economies, with wide variations. In 18 developing member countries with available data, employment outside the formal sector accounted for a significant proportion of total female employment, ranging from 16.6% in Brunei Darussalam to over 90% in the Kyrgyz Republic and Nepal (Figure 3.5a). Similarly, informal employment[25] even within the formal sector is highly prevalent, ranging from 27.1% in Samoa to over 90% in Bangladesh, Cambodia, Nepal, and Pakistan (Figure 3.5b). In most of the 18 countries and territories, similar percentages of women and men are involved in these types of work, yet gendered hierarchies are still evident. Women are concentrated in the most vulnerable and poorest forms of informal employment characterized by low or zero wages, high job insecurity, poor working conditions, and inadequate access to/absence of social protection.[26]

Figure 3.5: Female Employment Outside the Formal Sector and Informal Employment in Selected Developing Asian Countries (latest available data)



Lao PDR = Lao People's Democratic Republic.

Note: Employment figures include both agricultural and non-agricultural activities.

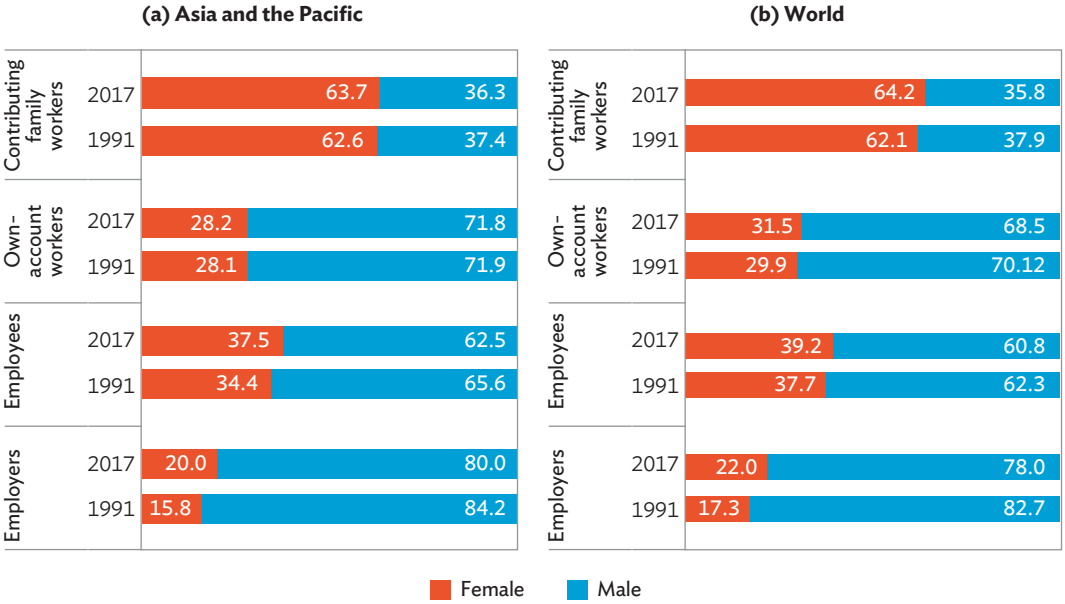
Source: International Labour Organization. ILOSTAT. https://www.ilo.org/ilostat/ (accessed March 2019).

[25] Informal employment comprises all jobs characterized by absence of social benefits and entitlements and are not subject to national labor legislation or taxation, whether carried out in formal sector enterprises, informal sector enterprises, or households.

[26] For complete definitions, see page ix, which are based on International Labour Organization. Concepts and Methods. Indicator Descriptions: Informality. https://www.ilo.org/ilostat-files/Documents/description_IFL_EN.pdf (accessed April 2019).

The high incidence of jobs in the informal economy employment among women carries economic and social risks that are aggravated by the fact that most women in the formal economy are also in vulnerable employment.[27] Data show that since 1991, men tend to work more on their own account or with one or few partners, whereas women are more likely to work in a business operated by someone else in their household (Figure 3.6). This gendered hierarchy further suggests that even in vulnerable forms of employment, women tend to have less agency and voice and are concentrated in the most insecure forms of work with the least monetary return. Within non-vulnerable forms of employment, women are also significantly underrepresented, compared to men, as employees and employers, accounting for only at least one-fifth of the total employed in each of these categories in 2017. In addition, less than half (45.8%) of all working women were in paid employment i.e. employees and only 1.4% were employers. Overall, progress in increasing the share of women in non-vulnerable employment is quite uneven. The Pacific and South Asia significantly lag other subregions: in 2017, only 17.2% of working women in the Pacific and 21% in South Asia were in non-vulnerable employment (Figure 3.7).

Figure 3.6: Employment by Status and Sex (% of total)

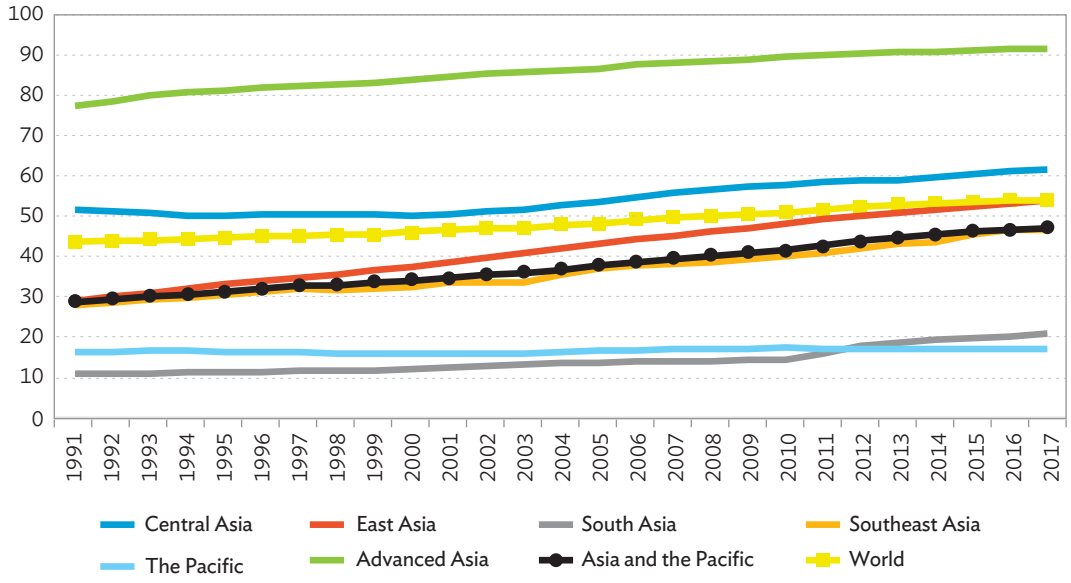


Notes: The categories of status in employment used refer to the groups of the International Classification of Status in Employment (ICSE)-93, excluding groups 4 (members of producers' cooperatives) and 6 (workers not classifiable by status), which are not taken into account by the International Labour Organization's modeled estimates. Vulnerable employment includes own-account workers and contributing family workers—workers who have a lower likelihood of having formal work arrangements, and are therefore more likely to lack elements associated with decent employment, such as adequate social security and a voice at work. Asia and the Pacific does not include the Cook Islands, Kiribati, the Federated States of Micronesia, the Marshall Islands, Nauru, Palau, and Tuvalu as data are unavailable.

Source: ADB calculations using data from International Labour Organization. ILOSTAT. https://www.ilo.org/ilostat/ (accessed March 2019).

[27] By the International Labour Organization definition, vulnerable employment comprises own-account workers (self-employed persons without engaging employees) and contributing family workers (self-employed persons working in an establishment operated by a relative of the same household). Employees and Employers comprise the non-vulnerable category For complete definitions, see pages viii–ix, which are based on ILO. ILO. Concepts and Methods. Indicator Descriptions: Employment by status in employment.https://www.ilo.org/ilostat-files/Documents/description_STE_EN.pdf (accessed April 2019).

Figure 3.7: Share of Non-Vulnerable Employment in Total Female Employment *(%)*



Note: Asia and the Pacific does not include the Cook Islands, Kiribati, the Federated States of Micronesia, the Marshall Islands, Nauru, Palau, and Tuvalu as data are unavailable.

Source: ADB calculations using data from International Labour Organization. ILOSTAT. https://www.ilo.org/ilostat/ (accessed March 2019).

In sum, much needs to be done to improve the employment status and working conditions of women in Asian economies. Policy challenges revolve around tackling job security, social and legal protection, skills development, and productivity and efficiency in sectors where women are most active. One strategy is to closely address the role of women in entrepreneurship and business leadership, which is the focus of the next section.

The Strong Economic Case for Leveraging Women's Entrepreneurship

Women's entrepreneurship is increasingly driving employment creation and inclusive, sustainable development. Studies have shown that economic growth tends to occur faster in societies where gender discrimination and income inequalities have been reduced (Alesina and Rodrik 1994). Moreover, gender equality can have a sustained valuable impact on economic growth through the greater accumulation of human capital for women and girls—a critical factor for developing national productive capacities (UNIANWGE 2011). Recent evidence suggests that giving women an equal footing with men in economic opportunities could spur $12 to $28 trillion in world GDP every year by 2025 (Woetzl et al. 2015). Asia stands to gain 70% in per capita income within roughly two generations by eliminating gender disparities in employment, including through entrepreneurship (ADB 2015).

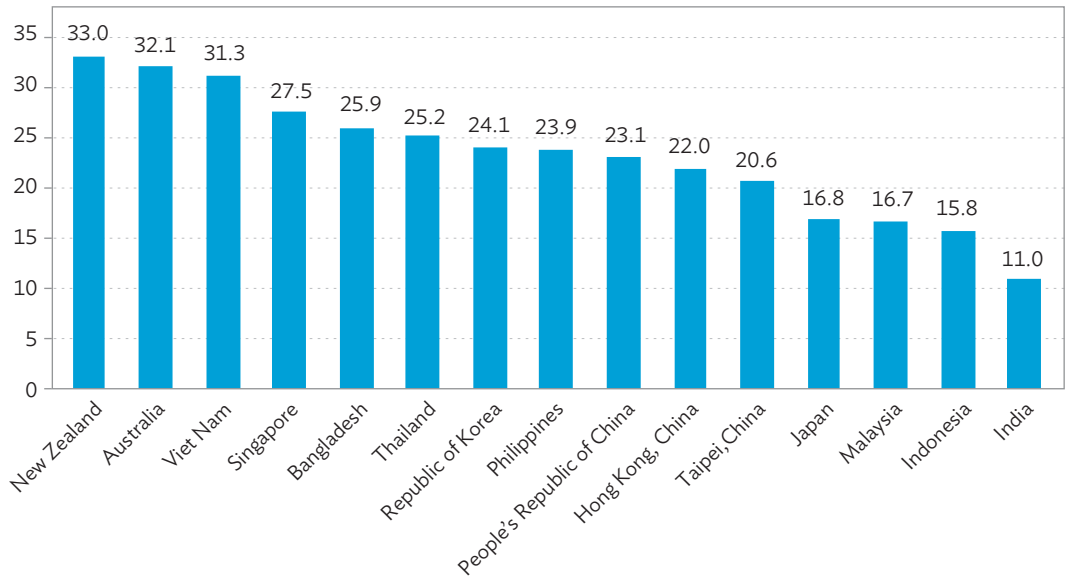
The benefits for organizations that tap the talent pool of women are numerous. They include being more in tune with consumer markets that are increasingly driven by women, to improving corporate governance and obtaining innovation and creativity dividends from gender diversity, enhancing competitiveness and other corporate outcomes. For instance, evidence from low- and middle-income

countries suggests that gender-empowering initiatives such as promoting women in leadership and senior management bolsters revenue, efficiency, and productivity (Edwards 2017). Gender diversity in corporate boards has also proved to have incremental benefits on a broad range of outcomes, including better boardroom dynamics/effectiveness and overall financial performance (Adams and Ferreira 2009, Arena et al. 2015, Mathisen et al. 2013, Nielsen and Huse 2010). A study of firms with shares listed in Singapore found that greater gender diversity improved firm performance as measured by returns on assets and equity (Dieleman et al. 2013). Similarly, in Viet Nam, firms run by women appear to do better than those run by men, even during times of financial crisis (Jalal 2014).[28]

Women's entrepreneurship in Asia and the Pacific is rising

Over the years, Asia has made significant strides in support for women's entrepreneurship. For example, the Mastercard Index of Women Entrepreneurs 2018 reveals that the region is home to economies with the most conducive environment for women to be entrepreneurs. New Zealand; Singapore; Hong Kong, China; and Australia ranked among the top 10 markets with the strongest support and best opportunities for women to thrive as entrepreneurs. Moreover, among developing member countries, Viet Nam has one of the highest percentages of women business owners globally, 31.3% of the total in the country (Figure 3.8). The Republic of Korea also recorded the largest improvement, driven by positive developments in the business landscape and a surge in entrepreneurial activities by women. In India, the entrepreneurial environment proves to be conducive for young women, as shown by the high percentage (58%) of women between the ages 20 and 30 starting their own business.

Figure 3.8: Women Business Owners, 2018 (% of total business owners)



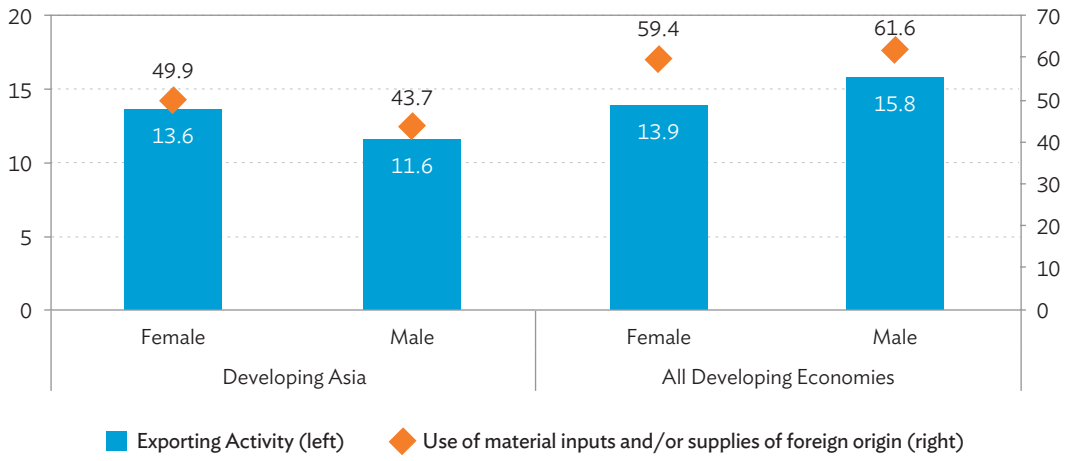
Source: Mastercard Women Entrepreneurship Index 2018.

[28] For example, in the wake of the global financial crisis of 2008, a private equity firm found that the value of shares for publicly traded companies fell less for those whose chief executive officers were women than for those led by men—a 17.1% decline in valuation compared with 38.8% (Jalal 2014).

Data from the Global Entrepreneurship Monitor also shows a narrowing of gender gap in total entrepreneurial activity (TEA). The ratio of female-to-male TEA has generally increased over the past two decades. Notably, in the Philippines, Viet Nam, Indonesia, and Thailand, women participate at levels equal to or higher than men. There is no economy in the region where women have less than half the entrepreneurship rate of men (Global Entrepreneurship Monitor Report 2018/19).

Generally more women-led firms are engaged in international markets than those owned or led by men. This is shown by the higher percentage of women-led firms either engaged directly or indirectly as exporters (forward global value chain participation) and using material inputs and/or supplies of foreign origin (Figure 3.9).

Figure 3.9: International Activity by Gender of Top Manager (% of firms)



Note: Developing Asia does not include Brunei Darussalam; the Cook Islands; Hong Kong, China; Kiribati; the Marshall Islands; Nauru; Palau; the Republic of Korea; Singapore; Turkmenistan; and Tuvalu as data are unavailable.

Source: ADB calculations using data from World Bank. Enterprise Surveys. http://www.enterprisesurveys.org (accessed March 2019).

Given this encouraging developments, there is clear potential for trade policy and Aid for Trade (AfT) to focus on how best to expand the number and the capacity of women as entrepreneurs to help strengthen equitable economic growth. Therefore, it is worth exploring how women are faring across different parts of the regional economy. The collection of sex-disaggregated data is vital in this regard, especially in light of designing and implementing evidence-based policies and gender-sensitive intervention programs (Box 3.1).

Most women workers and business owners in Asia are in services

Over the past decades, employment has shifted either from agriculture to industry and then to services, or directly from agriculture to services (ILO 2014). Globally, services have surpassed agriculture for employing the highest number of women and men. By 2017, about half of the global working age population was employed in services (51.1%). While just under half of men work in services (47%), more than half of the world's women are employed in this sector.

Box 3.1: Sex-disaggregated Data and Evidence for Tracking Empowerment of Women

Entrepreneurship plays an important role in providing employment opportunities, particularly for many women. Data presented in the 2016/2017 Global Entrepreneurship Monitor show that about 163 million women in 74 countries were either starting a new enterprise or managing one that was already doing business. Furthermore, a World Bank study found evidence that entrepreneurship reduced women's risk of falling into poverty to a minimum, and that women entrepreneurs were also more likely to be better providers for their children's educational, health and nutrition-related needs. However, despite the potential positive gains, fewer women than men are entrepreneurs.

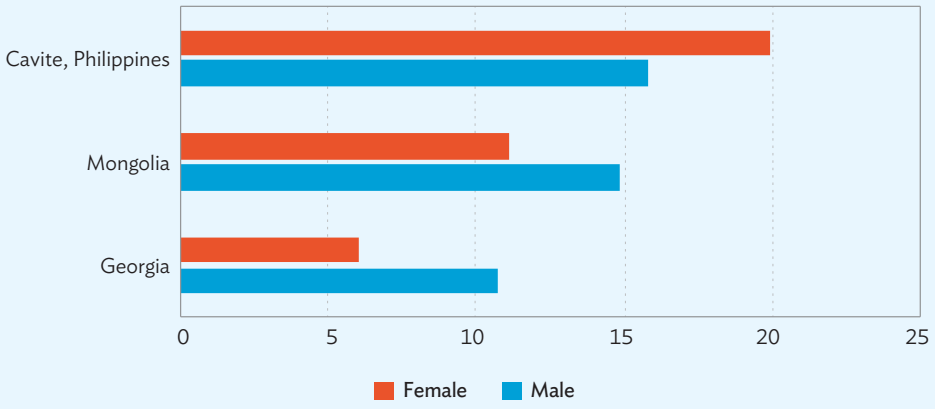
To reduce gender disparities to a minimum, it is important to examine detailed information on the profile of women owning or operating enterprises, the type of enterprises they manage, and their constraints to entrepreneurship in their chosen field. Until recently, inter-country comparable data that can shed light on these issues was sparse. Detailed information beyond simply probing whether a man or a woman was engaged in entrepreneurship was not available. In support of the global initiative on Evidence and Data for Gender Equality (EDGE) and the Empowerment of Women, which aims to develop methodological guidelines for collecting sex-disaggregated data on asset ownership and entrepreneurship, ADB and the national statistical offices in Georgia, Mongolia, and the Philippines conducted pilot surveys that collected individual-level information and men and women's assets and enterprises.

The results suggest that in Georgia and Mongolia, ownership of non-agriculture enterprise among men is nearly twice that of women. Furthermore, more than 20% of women who reported that they own enterprises in these two countries, also said that they have exclusive ownership while 34% mentioned that the enterprises were co-owned with their spouses or other household members. Despite identifying themselves as enterprise owners, 74% and 21% of women in Georgia and Mongolia, respectively, said that they did not have the right to sell or bequeath the enterprise. On the other hand, only 49% and 13% of male enterprise owners in the two countries conceded that they did not have such right.

In the province of Cavite in the Philippines, women are more likely to own enterprises than men, perhaps due to being more involved in enterprise start-ups than men.

Women may also have different motivations than men. For instance, more than 6% of women business owners in Georgia and 8% in Mongolia said they started their enterprise because they did not have any other choice, lost their jobs, or were laid off, whereas only 3% of Georgian men and 5% of Mongolian men identified the same reason.

1: Incidence of Ownership of Enterprises by Sex (%)



Source: Asian Development Bank estimates using Evidence and Data for Gender Equality pilot surveys.

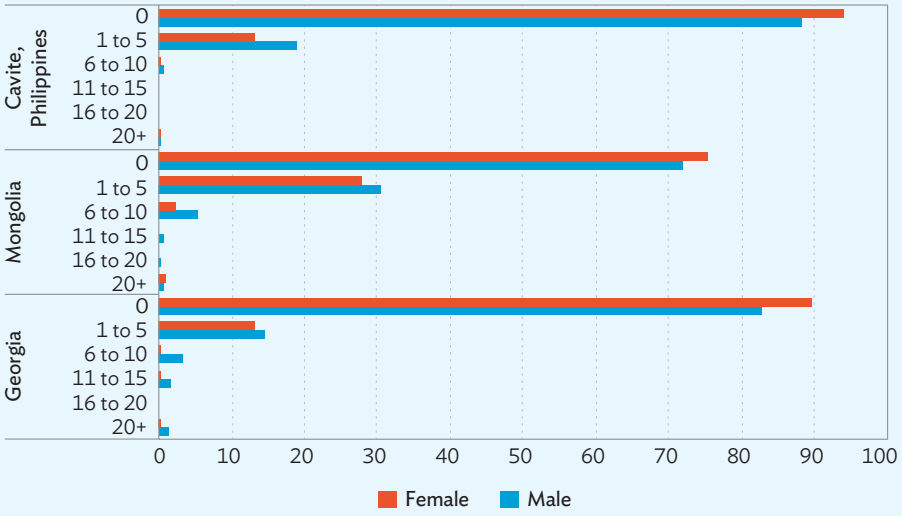
continued on next page

Box 3.1: continued

Differences also exist in the characteristics of enterprises operated by men and women. Enterprises owned by women are generally smaller; in fact, 94% of female enterprise owners in Cavite sad they did not have any paid employee, a slightly higher figure than the 88% of male enterprise owners who said they did not employ anyone. The average firm sizes are 0.4 and 0.6 for women- and men-owned enterprises, respectively, in Cavite. Furthermore, women were slightly more likely than men (81% versus 76% in Mongolia and 65% versus 59% in Georgia) to identify lack of finance as a major factor constraining the growth of their enterprise.

A significant fraction of female enterprise owners in the pilot countries are engaged in either wholesale, retail trade or manufacturing, whereas, besides these two sectors, many men also operate enterprises in transportation and storage, and in construction.

2: Distribution of Firms by Employee Numbers (%)



Source: Asian Development Bank estimates using Evidence and Data for Gender Equality pilot surveys.

Although women are generally as likely as men to set up enterprises, the survey data also reveal variations in the resources used to sustain enterprises. For instance, when starting up their business, more women in Georgia said they used private household funds, whereas more Georgian men than women said they also tapped commercial banks to start their enterprises. Along the way, enterprise owners also borrowed to either sustain and/or expand their enterprises. About one third of male enterprise owners and two-fifths of female enterprise owners in the Mongolia survey said they applied for loan. For those owners who did not apply, more women than men deemed that the enterprise had sufficient funding and did not need to borrow. Interestingly, 86% of Mongolian women who applied for a loan succeeded in getting approval, while among men the figure was 74%. Fewer respondents in Georgia and Cavite applied for loans, ranging 19% to 23%. In terms of the time spent on operation and management of enterprises, more women than men said they spent less than 20 hours a week. This may have been because household chores took up their time.

In terms of likelihood of operating in the formal sector, survey results show that about 40% to 56% of female-owned enterprises are neither registered nor in the process of registering with government authority.

continued on next page

Box 3.1: continued

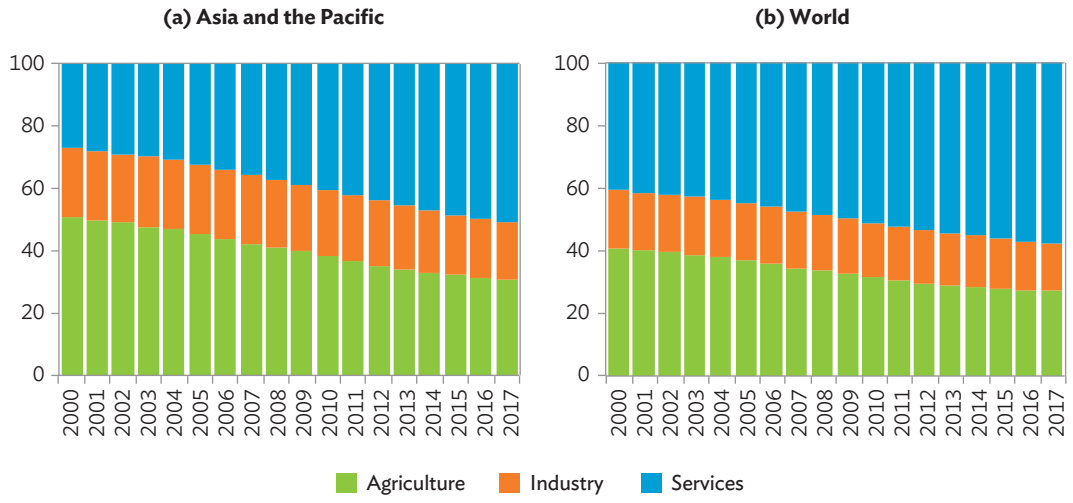
Nevertheless, efforts to reduce gender disparities in entrepreneurship to a minimum are underway: The surveys suggest that more female entrepreneurs received training, whether formal or informal, on starting an enterprise than their male counterparts.

The EDGE pilot surveys demonstrate that with the availability of standardized methods and guidelines, collecting more nuanced sex-disaggregated data on asset ownership is feasible. This marks an important step in ensuring that programs to achieve gender equality and empowerment of women are well-informed by empirical data.

Source: Kaushal Joshi, Arturo Martinez Jr., and Mildred Addawe. Economic Research and Regional Cooperation Department, Asian Development Bank.

In Asia and the Pacific, nearly half of the region's working population are employed in services (47.3%), with women's employment in the sector reaching 50.6% in 2017 from 26.9% in 2000 (Figure 3.10) and men's at 45.4% (from 32.7%). The largest increase in women's employment in services has been recorded in East Asia, where over the last two decades the share of women employed has increased from 30.9% to 45.8% (Table 3.1). In 2017, most women in Asia were employed in the services sector except in South Asia where most women worked in the agriculture sector. Employment in services is female-dominated in Central Asia and the Pacific, and in advanced Asian economies. Services continue to be a growing source of jobs for Asian women: the number increased more than threefold to 358.4 million from 1991 to 2017 (equivalent to 329 million in developing Asia). This trend will likely continue, with female employment in services in 2017–2020 (2.4%) outpacing overall growth in total female employment (0.2%).

Figure 3.10: Female Employment by Sector (% of total female employment)



Source: ADB calculations using data from International Labour Organization. ILOSTAT. https://www.ilo.org/ilostat/ (accessed January 2019).

Growth of female employment was most robust in accommodation and food service activities; education; financial and insurance activities; human health and social work activities; real estate, business and administrative activities; and transport, storage and communication, each expanding by at least 5% during 1991–2017. The participation of women in health- and tourism-related services

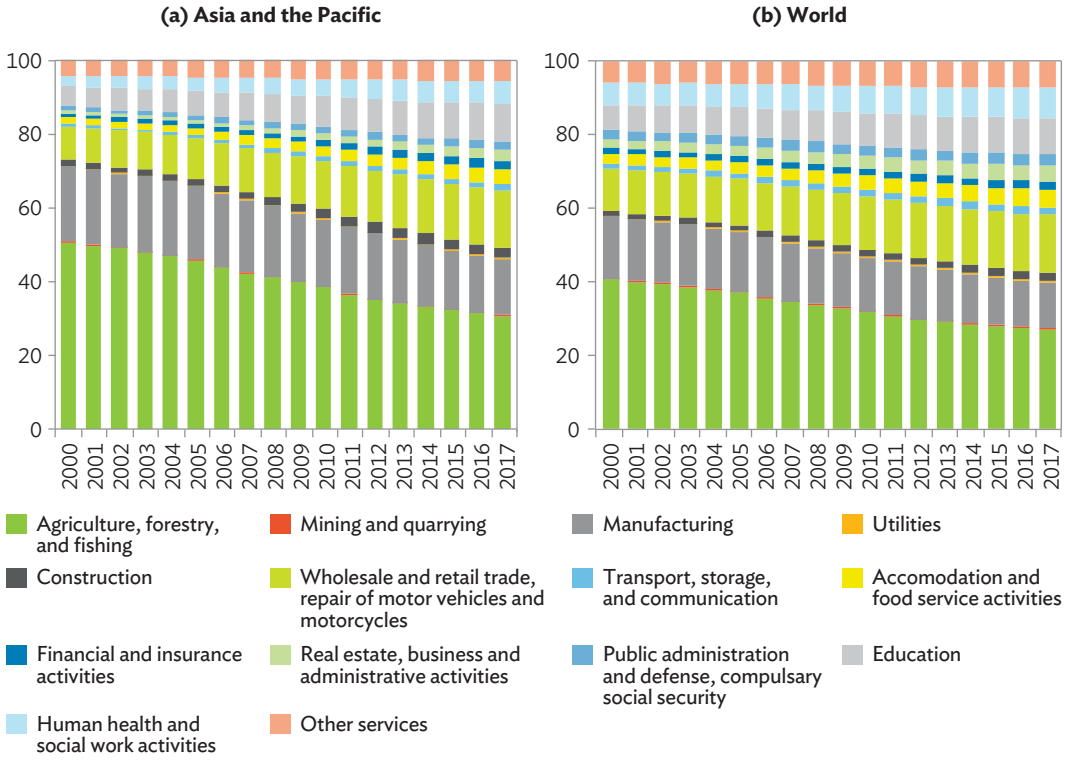
Table 3.1: Female Share of Employment (%)

	Agriculture		Industry		Services	
	1991	2017	1991	2017	1991	2017
World	40.1	40.3	35.9	26.7	40.3	43.9
Asia and the Pacific	40.6	40.0	42.4	28.5	30.9	39.6
Advanced Asia	44.9	36.2	31.6	23.8	45.3	51.0
Developing Asia	40.5	40.0	43.3	28.7	28.6	38.8
Central Asia	48.5	50.1	25.7	24.5	51.5	51.8
East Asia	46.1	51.1	52.5	35.1	30.9	45.8
South Asia	32.2	34.6	19.8	18.3	14.6	17.8
Southeast Asia	41.1	39.5	37.3	32.5	42.8	48.0
The Pacific	44.6	37.5	23.2	18.9	49.9	53.6

Note: Data refer to the share of women in employment in the respective sector as a percentage of both sexes.

Source: ADB calculations using data from International Labour Organization. ILOSTAT. https://www.ilo.org/ilostat/ (accessed January 2019).

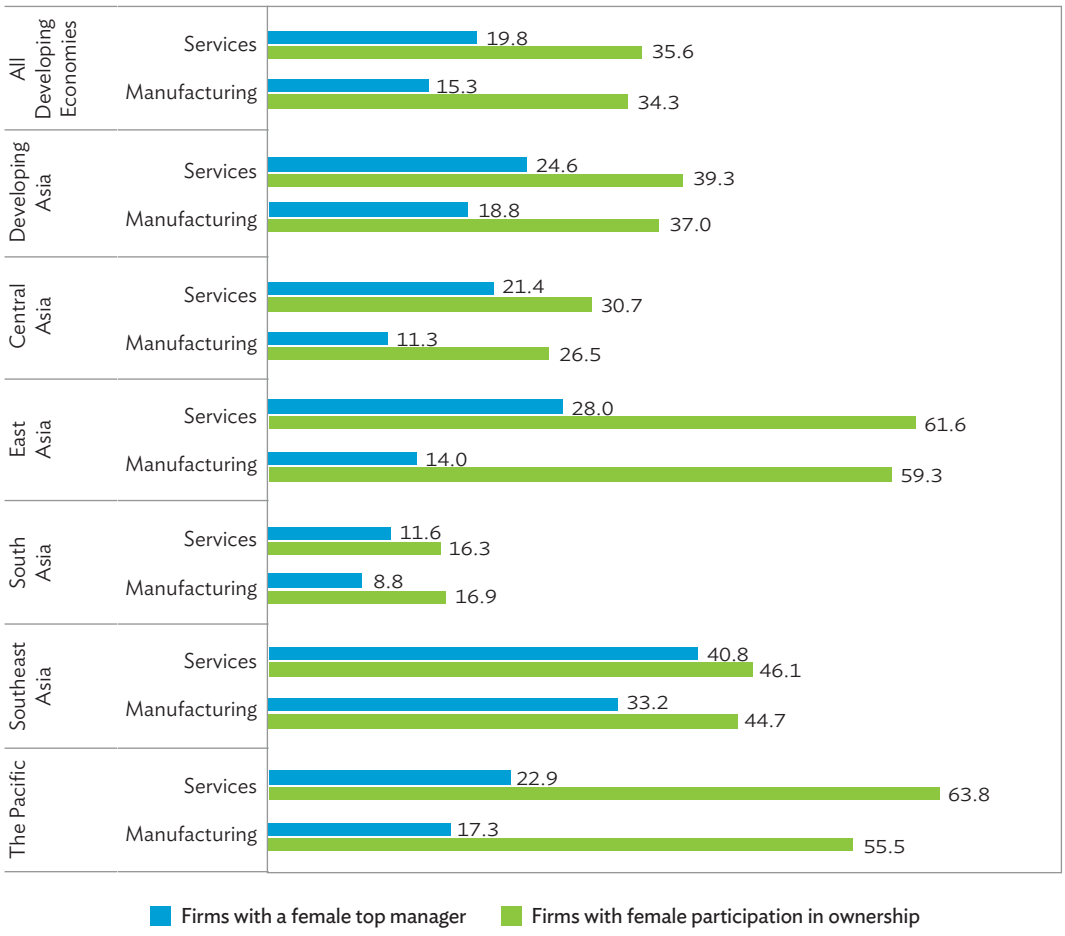
Figure 3.11: Female Employment by Industry (% of total)



Source: ADB calculations using data from International Labour Organization, ILOSTAT database (accessed January 2019).

(e.g., accommodation and food service activities) and ICT-enabled services (e.g., transport, storage and communication; business and financial services) is also anticipated to increase significantly in the coming years. Regionally and globally, wholesale and retail trade, education, health, and tourism-related activities accounted for the largest shares of female employment in services in 2017 (Figure 3.11).

Figure 3.12: Women as Business Owners and Managers (% of firms)



Notes: Regional averages are computed by taking a simple average of country point estimates. For each economy, only the latest available year of survey data are used in this computation. Developing Asia does not include Brunei Darussalam; the Cook Islands; Hong Kong, China; Kiribati; the Marshall Islands; Nauru; Palau; the Republic of Korea; Singapore; Turkmenistan; and Tuvalu as data are unavailable.

Source: ADB calculations using data from World Bank. Enterprise Surveys. http://www.enterprisesurveys.org (accessed March 2019).

Most of the enterprises owned by women in Asia are in services, specifically in: the hospitality and tourism; hotels and restaurants; transport, storage, and communications; wholesale; and retail industries. A substantial share of services firms have women owners, at 39.3%—higher than the share among manufacturing firms (37%), and higher than the 35.6% average share among services firms in developing economies globally (Figure 3.12).[29] About a fifth of such services firms in developing Asia, compared to 15% globally, are majority owned by women. The predominance of the services for women as business owners and managers generally holds across all subregions. Services firms in the hospitality and tourism, hotels and restaurants, and retail industries tend to employ more female managers than other industries.

[29] Figures are based on latest survey years of the World Bank Enterprise Surveys. Latest survey years vary by country (and are between 2009 and 2018).

Notwithstanding the growth potential and opportunities in the services sector, gender disparities are prevalent and evidence of occupational concentration exists, along with inter- and intra-industry gender-based segmentation, which often relegates women to low-paid employment and lower value-added roles, or concentrates them in informal and small-scale services. Women also tend to engage more in low productivity traditional services with limited potential for capital and skill accumulation. These are typically associated with informal and vulnerable employment, and so provide fewer opportunities for social and economic advancement. Even in modern services, international evidence points to a marked occupational segregation by gender. For example, in the IT sector, women are mostly concentrated in data processing, while men dominate better paid, high-skilled positions such as programming (Wajcman and Lobb 2007, Patel and Parmentier 2005).

The share of employment in services is projected to expand faster for women, further increasing their representation. In high-skilled occupations dominated by men, women are improving their skills more swiftly, a trend expected to continue since average annual growth in female employment in high-skilled occupations over 1991–2020 exceeds that of men, at 5.1% versus 4.2% (Figure 3.13). These gains are associated with the decline in the relative importance of employment in agriculture and medium-skilled occupations.[30]

Figure 3.13: Share of Employment in Services and High-Skilled Jobs in Asia and the Pacific (% of total employment)

Note: The bubbles are proportional to the size of total employment.
Source: ADB calculations using data from International Labour Organization. ILOSTAT. https://www.ilo.org/ilostat/ (accessed March 2019).

[30] Stagnant movement in the share of low-skilled employment suggests that elementary occupations remain widespread in all economic sectors and that it is easier for the workforce to improve aggregate skills once an intermediate level has been achieved (i.e., it is easier to go from a medium-skilled to a high-skilled job than from a low-skilled to a medium-skilled job).

Indeed, with ongoing structural transformation of Asian economies, agricultural shares in both total and female employment are in general decline. Nevertheless, agriculture remains an important source of jobs for women, particularly in South Asia where the majority (59.3%) of employed women worked in agriculture in 2017. Overall, 30.6% of employed women in Asia work in agriculture, higher than the 27.2% share globally. However, as elsewhere in the world, most are concentrated in subsistence-oriented agriculture.

Similarly, in the secondary sector—and consistent with the global pattern—women are less represented in formal employment. Manufacturing, mining and quarrying, and utilities industries—which tend to be more export-oriented and hence more likely to benefit women—are significantly male-intensive. Overall, women accounted for less than a third of workers in the sector in 2017, slightly higher than the average employment rate globally (26.7%). Women are concentrated in manufacturing (81.2% of formal female employment is in industry), yet they occupy less than 40% of total manufacturing jobs.

Across sectors and by occupation, women in Asia tend to be concentrated in medium-skilled occupations[31]—particularly in crafts and related trades—and significantly underrepresented in high-skilled employment.[32] The gender employment gap is notably pronounced in labor-intensive manufacturing and in industries with potential for women to accumulate high skills—including communications, business services, and finance and insurance—where they are at least around 30% less likely to be working than men (Table 3.2). However, the gap in some of these industries, particularly communication and business services, has been narrowing. The education industry has become more female-intensive in recent years, while human health and social work activities have traditionally been more the preserve of women than men.

Table 3.2: Gender Employment Gap by Industry in Asia and the Pacific (% of male employment)

Industry	1991	2017	Change
Transport; storage and communication	91.2	87.2	▼
Construction	84.0	85.8	▲
Mining and quarrying	77.1	80.5	▲
Utilities	88.5	74.4	▼
Public administration and defence; compulsory social security	87.4	71.4	▼
Wholesale and retail trade; repair of motor vehicles and motorcycles	49.9	40.1	▼
Real estate; business and administrative activities	53.0	39.4	▼
Manufacturing	5.2	35.5	▲
Agriculture; forestry and fishing	31.8	33.3	▲
Financial and insurance activities	29.6	29.9	▲
Accommodation and food service activities	4.6	13.1	▲
Other services	35.1	10.3	▼
Education	54.4	−8.8	▼
Human health and social work activities	−18.1	−136.1	▼

▲ Increase in gender employment gap.
▼ Decrease in gender employment gap.
Note: Gender employment gap is computed as the difference between male and female employment as a percentage of male employment in a particular sector for any given year.
Source: ADB calculations using data from International Labour Organization. ILOSTAT. https://www.ilo.org/ilostat/ (accessed January 2019).

[31] Low-skilled occupations include elementary occupations and skilled agricultural, forestry, and fishery workers. Medium-skilled occupations include clerical support workers; service and sales workers; craft and related trades workers; and plant and machine operators, and assemblers. High-skilled occupations include managers, professionals, technicians, and associated professionals.

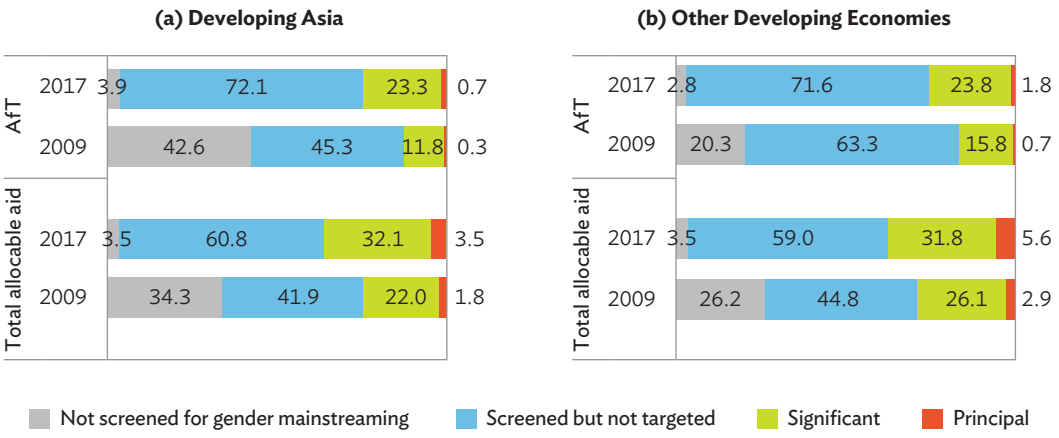
[32] Since 1991, men have accounted for at least 63% of total employment in high-skilled occupations (ILO, ILOSTAT).

By and large, these trends underline that while women play a vital role in Asian economies, the potential of the female workforce is not being fully realized. Their relative concentration in the informal sector and in low-paying jobs and less skill-intensive industries jeopardizes their productive capacities and entrepreneurial aspirations. This undermines the potential to use trade to boost inclusive growth and reduce poverty.

Targeting Gender Equality in Aid for Trade

AfT can contribute to gender equality and women's empowerment through several channels. The first step is to increase the gender dimension of AfT. In this regard, support for developing Asia has been on the rise. AfT[33] disbursements from OECD Development Assistance Committee members that integrate gender equality as either a principal (primary) or significant (secondary) objective nearly tripled to $2.7 billion in 2017 (from $968 million in 2009). These accounted for 24.0% of total AfT in 2017, up from 12.1% in 2009 (Figure 3.14). In comparison, total aid disbursements (i.e., including both AfT and non-AfT) with gender targets was much higher, reaching $8.1 billion (or 35.6% of total aid) in 2017, from $5.1 billion (23.8% of total) in 2009. These patterns are consistent with aid to other developing economies, with the percentage of gender-targeted AfT as a proportion of total AfT increasing from 16.5% in 2009 to 25.6% in 2017, and for total aid, where gender-targeted disbursements rose from 29% in 2009 to 37.4% in 2017.

Figure 3.14: Gender Equality Focus of Aid and Aid for Trade (% of total)



AfT = Aid for Trade.

Notes: Gender-targeted aid includes aid that targets gender equality as either a principal or significant objective. An activity can target gender equality as a "principal objective" or "significant objective." Principal means gender equality was an explicit objective of the activity and fundamental in its design. Significant means gender equality was an important, but secondary objective of the activity. Not targeted means that the activity was screened for promoting gender equality but was found to not be targeted to it. Developing Asia does not include Brunei Darussalam; Hong Kong, China; the Republic of Korea; Singapore; and Taipei,China. Aid data includes DAC member donors only due to data availability.

Source: ADB calculations using data from the Organisation for Economic Co-operation and Development. Creditor Reporting System. https://stats.oecd.org/Index.aspx?DataSetCode=CRS1 (accessed March 2019).

[33] Considering the data availability concerns of gender-marked aid (i.e., aid screened to support gender equality and women's empowerment), Aid for Trade (AfT) in this section refers to bilateral allocable aid for trade. For complete definitions, see pages ix–x, which are based on the OECD's Creditor Reporting System: Aid projects targeting gender equality and women's empowerment. https://stats.oecd.org; and OECD. Aid in Support of Gender Equality and Women's Empowerment. http://www.oecd.org/dac/stats/aidinsupportofgenderequalityandwomensempowerment.htm (both accessed April 2019).

AfT screened for gender equality (whether ultimately targeted or not to gender equality) more than doubled in developing Asia, exceeding its growth in other developing economies—as well as growth of total aid AfT—through 2009–2017. Calls for gender mainstreaming in aid programs are indeed growing. However, aid programs screened for gender equality need to be reevaluated and the 'targeted' proportion of such aid increased. Overall, AfT targeting gender equality and women's empowerment in developing Asia accounted for less than a fifth of total AfT over 2009–2017. The proportion is higher in other developing economies at 20.6%.

Given these relatively low proportions, substantial room exists to expand the gender dimension of AfT projects in Asia and the Pacific. For instance, AfT support for economic infrastructure in particular can help reduce women's poverty (including time poverty), enable women to enjoy basic human rights, and contribute more broadly to reducing inequalities. Improving transportation facilities can increase women's mobility and access to markets, decent work, and services (ADB 2013). Improving women's access to reliable and affordable modern energy supplies can reduce women's unpaid work, allow more time for paid work, and improve health and well-being (OECD-DAC Network on Gender Equality 2016). Similarly, enhancing women's access to communications infrastructure and services (e.g., mobile phones, internet use, digital platforms, digital financial services) can help women harness the benefits of the digital economy, including through increased employment opportunities or income-generating activities, and improved access to information and government services (Chapter 5).

Ample anecdotal evidence demonstrates that investing in physical and digital infrastructure helps ease the unpaid care and domestic responsibilities of women and girls, maximizes their employment and entrepreneurship opportunities, improves their access to health and public services, and expands their choices to lift themselves and their families out of poverty. For instance, the Central Asia Regional Economic Cooperation Corridor 3 (Dushanbe–Uzbekistan Border) Improvement Project provided women from the border communities easier access to social and educational facilities and markets, and enabled them to benefit from gender-inclusive border facilities and increased mobility.[34] In India, transport projects have improved connectivity and access to markets and services, particularly in less-developed states and remote areas. These projects have made it easier for villagers to travel, transport goods, and seek income opportunities through trade or employment, and for women to visit health centers and girls to go to school. Similarly, an energy efficiency improvement investment program and technical assistance program in Madhya Pradesh provided capacity development for women by providing business development services and training in the efficient use of electricity. These skills development programs ultimately empowered women through increased incomes and savings, a reduction in time spent on unpaid domestic work, and increased participation in decision-making within their households. Women and children have benefited most from the Pacific Regional Connectivity Program—which is financing an undersea fiber-optic cable system linking Tonga to Fiji by way of the Southern Cross Cable. The program has facilitated high-speed internet connectivity and brought a wide range of benefits to Tongans. These include reducing connectivity costs by 60%, increasing international trade opportunities in tourism and business outsourcing, improving education and health services, and facilitating other services such as bill payments, remittances, and communication services at more affordable rates.

Despite such benefits, gender mainstreaming in aid to economic infrastructure subsectors is still limited. In Asia, the proportion of aid in transport and storage, communications, and energy that targets gender equality stands only at around 3%–10%. Noting that these sectors comprise the largest shares in total AfT, increasing the impact on gender equality and women's empowerment would entail increasing gender targeting of aid in these sectors. Improving the gender-sensitiveness and

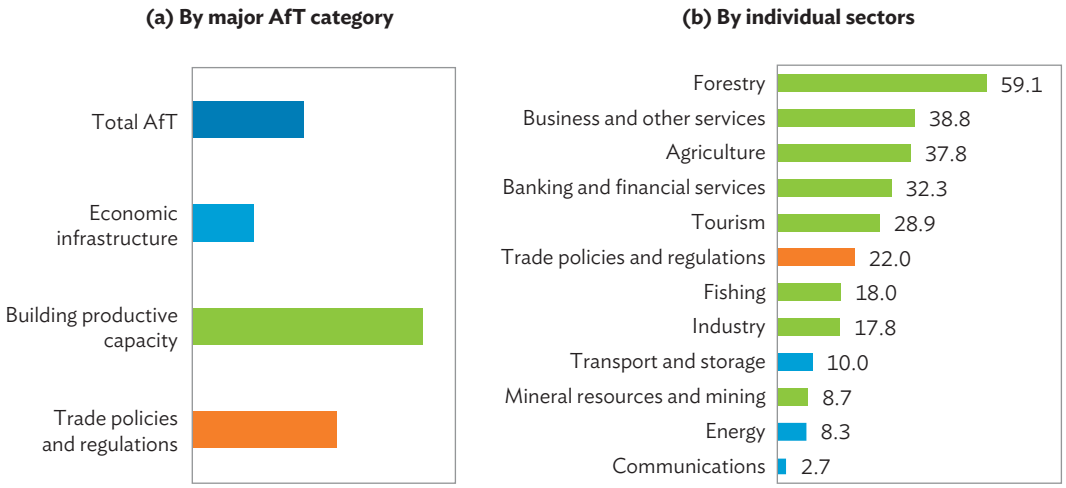
[34] Further, the project supported women through a program that improved their skills in cheese-making, baking, sewing, and tailoring through vocational training. With the project's support, 137 women entrepreneurs received grants totaling more than $225,000, which they used to start small businesses (ADB 2019b).

responsiveness of infrastructure projects should also be a priority for donors and recipients to better coordinate their gender mainstreaming strategies.

Similarly, AfT support for building productive capacity can contribute to advancing women's empowerment by redressing gender imbalances in access to and control over productive resources such as land and finance—resources that are critical to helping women access economic opportunities and realize their rights. Additionally, aid for building productive capacity can help resolve market failures and promote gender-sensitive, industry-specific policies. It can do so primarily by increasing efficiency in legal and regulatory reforms and by fostering an enabling business environment. Further, aid for building productive capacity can help economies capitalize on export-oriented services, such as business services and tourism, with great potential to contribute to GDP and growth in female employment.

Gender equality is more strongly mainstreamed in aid for building productive capacity in Asia than for infrastructure (Figure 3.15a)—most notably in forestry (59.1%) of AfT disbursements for the sector), as shown in Figure 3.15b. Gender-sensitive investments need to be scaled up to help tackle the perennial issues of access to land and finance, lack of skills training and opportunities for business development, and the relative concentration in informal sectors, among others, in which women are disadvantaged.

Figure 3.15: Gender-Targeting Aid—Developing Asia
(% of sector bilateral allocable AfT, 2009–2017)



AfT = Aid for Trade.

Notes: Blue bars refer to aid for economic infrastructure; green bars to aid for building productive capacity; and orange bars to trade policies and regulations. 'Gender-targeted aid' includes aid that targets gender equality either as a principal or significant objective. Principal means gender equality was an explicit objective of the aid activity and fundamental in its design. Significant means gender equality was an important, but secondary objective of the activity. Not targeted means that the activity was screened for promoting gender equality but was found to not be targeted to it. Figures refer to annual average between 2009 and 2017. Aid for economic infrastructure (INF) consists of transport and storage, communications, and energy. Aid for building productive capacity (BPC) includes banking and financial services, business and other services, agriculture, forestry, fishing, industry, mineral resources and mining, and tourism. Aid for trade policies and regulations (TPR) is an aggregate of trade policy and administrative management, trade facilitation, regional trade agreements, multilateral trade negotiations, trade-related adjustment, and trade education/training. Subcategories of TPR are not presented herein due to significantly small amounts relative to other AfT categories. Developing Asia does not include Brunei Darussalam; Hong Kong, China; the Republic of Korea; Singapore; and Taipei,China.

Source: ADB calculations using data from Organisation for Economic Co-operation and Development. Creditor Reporting System. http://www.oecd.org/ (accessed March 2019).

Notably, the better targeting of sectors where women are concentrated and/or are most active and have high potential for growth can be an important catalyst for empowerment. While ideally women should be encouraged and supported to participate across the economy, increasing investments and scaling up the gender equality focus of aid in such sectors could provide early entry points, allowing women to capitalize on trade opportunities and reap a broader range of economic and social benefits from these sector advantages. For women in Asia, services—particularly tourism a IT and ICT-enabled services industries such as finance, business, and education—plays a key role. Support to agriculture and rural development is another area where increased support and targeted intervention can reap dividends, especially considering the prevalence and nature of female employment and entrepreneurship in the informal economy.

Besides providing direct investments to these key sectors, the design of AfT programs should further incorporate gender objectives and wherever possible be complimented by other aid and investment programs that seek to address barriers to women's participation in trade. Among them, strengthening women's land, property and inheritance rights in agriculture, enhancing their financial literacy and business skills, extending financial or business services and credit, promoting gender-responsive digital financial or business services, and linking these to health, education, and social services, can all contribute significantly to improving the capacity of women to benefit from trade.

For other sectors, more comprehensive and integrated designs may be needed. Growth in tourism, for instance, necessitates investment in infrastructure, strengthening firms that supply industry, sustainable environmental resource management, easing people's movement by liberalizing visa regimes, and boosting complementary services such as in retail and marketing, telecom, finance, and transportation. AfT can contribute to not only catalyzing direct financing network infrastructure, but also developing tourism by strengthening policy with coherent and integrated strategies that incorporate the elements mentioned above. It can also help improve standards related to hospitality and areas such as safety, security, health, and the environment. Support can also be given for managing, developing, and protecting tourism assets, and for skills development in institutions, communities, and firms.

Results of the 2019 AfT M&E exercise further confirm that these are key areas for AfT intervention. At least half of Asian recipient countries believe that AfT can contribute to women's empowerment by improving access to information, global value chains, and foreign markets; supporting the economic development of women; providing access to finance; and supporting rural trade. Recipient countries believe that banking and financial services, business support, and trade education and training are the best forms of aid for trade for women's empowerment.

Both donors and partner countries globally have increasingly integrated gender into their AfT objectives but more needs to be done to translate this commitment across AfT program design and implementation (der Boghossian 2019). AfT should seek to strengthen country ownership of integrated gender equality programs, ensuring alignment with both national and regional priorities while developing and/or enhancing institutional capacity to implement the projects crucial in promoting women's empowerment. The importance of these factors, along with sufficient funding, the development of implementation timelines, and services capacity, is well recognized in order for AfT to successfully facilitate women's economic empowerment and gender equality through trade.

Gender and Social Mainstreaming in Trade Policy and Other Aid Priorities

The final part of this review of AfT turns to the importance of support for trade policies and regulations that are instrumental in helping economies to build the institutional preconditions to trade and get better equipped to implement empowerment-driven trade strategies and policies.

Aside from helping economies develop strong institutions necessary to take part in international trade, AfT can contribute in promoting women's empowerment by providing gender-sensitive trade education and training to national bodies involved in trade policies, regulations, and reform. It can help equip institutions to analyze and implement trade agreements, including those that incorporate gender issues. AfT can also help improve or fully implement trade facilitation measures like the simplification and harmonization of international import and export procedures that benefit SMEs, particularly those owned by women. Measures contained in the Trade Facilitation Agreement, for example, contribute directly to improving access to the internet, reducing corruption and bribery, and the formalization and growth of MSMEs, among other benefits (WTO 2017a). All have a direct positive impact on women.

Moreover, given the volatility of structural and regulatory reforms, AfT-related adjustment can raise gender equality by helping developing countries adapt to changes in trade processes and to cope with the negative socioeconomic impacts and unintended consequences of trade liberalization and regulatory reforms. AfT can support the implementation of gender-sensitive and gender-responsive labor market policies, including those that promote labor market efficiency and fair employment practices; adjustment programs that provide workers with social safety nets; and labor laws and programs that help female workers move from one workplace to another (ADB 2017b, Vandenberg 2017).

Case stories point to several projects mainstreaming gender in trade policies and regulations. In trade facilitation, the South Asia Subregional Economic Cooperation Trade Facilitation Program supports modern and effective customs administration and/or management along with streamlined and transparent trade processes and procedures, and improved information services for private sector traders and investors, including women entrepreneurs. Similarly, the Transport and Trade Facilitation in the Greater Mekong Subregion (GMS) project aims to promote the GMS as a more integrated production base and market. In the Pacific, the Pacific Agreement on Closer Economic Relations (PACER) Plus Agreement is expected to be the most welfare enhancing and could be the most important free trade agreement for the Pacific sea-locked economies, in promoting gender equality and women's empowerment (Box 3.2). Overall, efforts within these initiatives include mainstreaming gender equality and women's empowerment in transport and trade facilitation, capacity development, and legal and regulatory development.

Gender mainstreaming in AfT policies and regulations has been relatively low, at 22% in Asia. Further raising the gender equality focus of aid in trade policies and regulations is important, given that trade creates both winners and losers with potentially difficult consequences for women and other disadvantaged groups. Integrating gender in trade policies and strategies is particularly important in contexts where social norms constrain women's access to markets and/or finance.

To translate gender equality aspirations into reality, mainstreaming gender in trade policies is a prerequisite and, according to UNCTAD (2017b), should ideally entail

- accounting for how trade reforms affect productive sectors differently and recognizing that women tend to be concentrated in certain sectors;
- having a thorough understanding of overall and gender-differentiated impacts that make it desirable for trade policies and strategies to recognize that women and men face diverse challenges, have different skills and access to productive resources, and are employed in specific occupations or tasks;
- conducting gender impact assessments of trade measures to determine necessary accompanying measures to mitigate existing disparities and/or avoid exacerbating inequalities between men and women; and
- designing trade policies and strategies in a way that favors women's empowerment and well-being.

Box 3.2: Promoting Women's Empowerment through PACER Plus in the Pacific

The Pacific Agreement on Closer Economic Relations (PACER) Plus Agreement primarily covers specific chapters on trade in goods and services, investment, movement of natural persons, technical barriers to trade, rules of origin and verification procedures, customs procedures, and sanitary and phytosanitary measures. Under the Agreement, a separate arrangement also sets out a development and economic cooperation work program and commitments for broader trade-related assistance. Moreover, an arrangement on labor mobility provides a regional framework to build the Pacific's labor supply and to access regional labor markets, including to Australia and New Zealand.

A key objective of the Agreement is "to support Pacific island countries (PICs) to become more active partners in, and benefit from, regional and global trade" toward creating greater opportunities for growth, long-term job creation, and increased living standards. While the Agreement does not explicitly contain a separate chapter on trade and gender, provisions contained under the Agreement and the related Arrangements are expected to contribute in advancing more gender-inclusive and gender-responsive trade policies and strategies in the region, primarily through enhancing women's access to trade and markets, as well as facilitating labor mobility initiatives that support women's empowerment. Ongoing development assistance programs are also aimed to ensure that the implementation of the Agreement will directly benefit women. For instance, Australia's Department of Foreign Affairs and Trade (DFAT) is providing targeted support to the PACER Plus signatory PICs to streamline and harmonize trade procedures, including through the establishment of national and regional trade portals. This will help countries to meet their PACER Plus transparency obligations, which in turn, could benefit women and small and medium-sized enterprises. A study by United Nations Conference on Trade and Development (UNCTAD) on gender and trade aims to further inform this work.

As the study finds, the lack of transparency regarding the procedures necessary to run a business or participate in international trade tends to disproportionally affect small and medium-sized enterprises, many of which are managed or owned by women. Barriers that tend to affect women traders more than their male counterparts include corruption and harassment, high costs and time demands to fulfil documentary and border requirements, and to meet destination-market requirements. This is mainly due to underlying gender gaps including access to information, lack of education, limited access to productive resources, and time poverty, among others.

Key policy messages emerging from the UNCTAD study point to the need of ensuring a gender-responsive implementation of the PACER Plus through more targeted policies. Once the agreement enters into force, monitoring progresses on various elements—such as women's employment in export sectors, women entrepreneurs' participation in international trade, women's familiarity with customs rules and procedures, and women's awareness of requirements in PACER Plus destination markets for their products and services —could help in assessing whether the agreement is being implemented in a gender-responsive manner and whether it is contributing to overall efforts to improve Pacific women's standing in economies and societies.

Further priorities such as closing the gender gap in access to information and communication technology, increasing the availability of gender-related data and statistics, and promoting women's participation in the implementation of transparency provisions are identified as critical factors that contribute to enhance the beneficial impact of transparency on gender equality and women's economic empowerment.

Source: Mariangela Linoci and Simonetta Traeger. United Nations Conference on Trade and Development; UNCTAD. Forthcoming. International Trade, Transparency, and Gender Equality: The Case of the Pacific Agreement on Closer Economic Relations (PACER) Plus (funded by Australia and New Zealand under the PACER Plus Readiness Package).

The same level of exploration is needed in trade agreements and reforms, and includes

- incorporating gender issues in the main body of trade agreements, advocating for the inclusion of gender-related provisions;
- ensuring that liberalization commitments effectively and adequately reflect the interests and concerns of women;
- developing monitoring, evaluation, and accountability mechanisms to ascertain the impacts of trade reforms on gender equality over time and ensure that implementation strategies;
- addressing gender structural inequalities as well as of budgetary allocations to effectively carry out these implementation strategies; and
- ensuring policy coherence between trade and other policies, such as labor market policies.[35]

Two other essential elements for achieving gender mainstreaming in trade policy making are

- widening consultative processes to include women's perspectives in determining national priorities and formulating advocacy positions (voice and agency); and
- intensifying efforts to increase the number of senior women around the negotiating table, in which capacity needs to be built within nations and regionally (UNCTAD 2016).

Ultimately, a critical mass of female trade negotiators who can enhance women's agency and voice is more likely to bring positions about gender-equitable outcomes of trade agreements to the negotiating table.

Aid for Trade can play a very important role in supporting all measures discussed here and should help to inform program design and implementation in support of gender equality though trade. The next Chapter gives particular attention to the empowerment of women through strategic support from AfT interventions in MSMEs across the region.

Lastly, besides AfT, integrating and scaling up the gender equality focus of official development assistance (ODA) in other priority areas is essential. Development budgets for gender equality represent a small fraction of overall ODA, despite political commitments. Between 2009 and 2017, around 30% of total aid disbursements in developing Asia was targeted at gender equality.[36]

How to ensure trade liberalization is inclusive, including by creating equal opportunities for women and men is part of the debate about trade and sustainable development. While World Trade Organization (WTO) agreements do not include specific provisions referring explicitly to gender, different trade-related gender issues have recently been discussed. As of June 2019, 123 WTO members and observer countries, many from Asia and the Pacific, have endorsed the Joint Declaration on Trade and Women's economic empowerment, which calls for more gender-responsive trade and development policies (Box 3.3).

Ultimately, because gender equality cuts across all areas of sustainable development and is not limited to trade-related activities, strategically mainstreaming gender in development interventions that attract higher financing can significantly boost volumes of gender-targeted aid.

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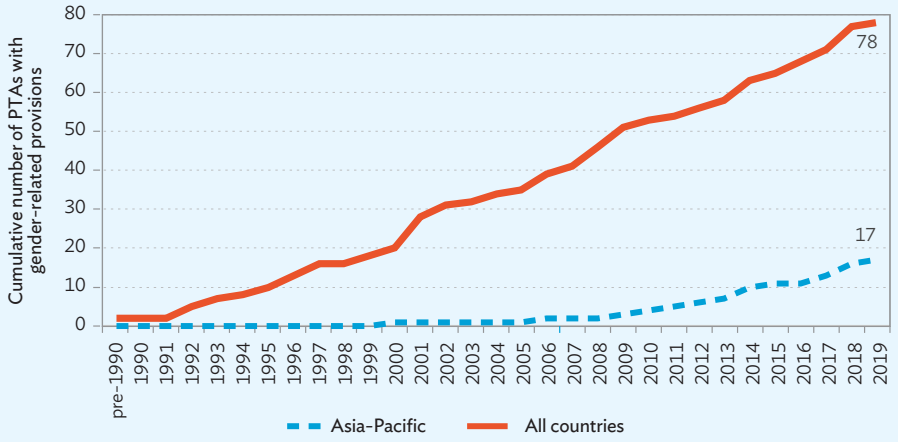
[35] In particular, incorporating labor provisions in trade agreements—especially on labor standards and workers' rights—and ensuring that these work in synergy are vital steps to promote productive employment, decent work, and women's empowerment.

[36] Equivalent to less than a fifth of overall official development assistance.

Box 3.3: Gender-related Provisions in Preferential Trade Agreements

In parallel to multilateral discussions, a limited but increasing number of preferential trade agreements (PTAs), currently 78, include provisions mentioning women and gender (box figure 1). The inclusion of such provisions is, however, not a recent phenomenon. The very first gender-related article was found in the 1957 Treaty of Rome, which established the European Economic Community (EEC). This article required application of the principle of equal pay for women and men.

1: Evolution of the number of PTAs with gender-related provisions



PTA = preferential trade agreement.
Source: Updated from Monteir (2018).

Although the number of PTAs with gender-related provisions increased quite slowly, the last three years have seen a significant increase in their number and in the average number of gender-related provisions in a given agreement. The PTAs to which Chile is a party with Argentina, Brazil and Uruguay and the amended PTAs that Canada has negotiated with Chile and Israel include the most detailed and comprehensive gender-related provisions to date.

At a regional level, only a small number of preferential trade agreements signed by countries in Asia and the Pacific, namely 17, contain explicit gender-related provisions (representing 22 per cent of all PTAs that include some kind of gender-related provisions). Australia negotiated four PTAs with at least one explicit gender-related provision, followed by New Zealand and Singapore with three PTAs, and Malaysia and the Republic of Korea, with two agreements. Other Asian and Pacific economies having negotiated a single PTA with gender-related provisions include: Brunei Darussalam; the People's Republic of China; Georgia; Japan; Kazakhstan; the Kyrgyz Republic; Samoa; Taipei,China; Tajikistan; Thailand; and Tonga. In addition to the limited number of PTAs negotiated by Asian and Pacific economies, the number of gender-related provisions in these agreements is also much smaller in comparison with other regions.

One of the few exceptions is the PTA between Australia and Peru, which includes a specific article on "women and economic growth" in the chapter on development. The agreement commits the parties to consider undertaking cooperative activities aimed at improving women's ability to access and benefit from opportunities the PTA creates, including through advice or training. Potential cooperation areas include women's skills and capacity building; access to markets, science and technology, and financing; leadership networks; and workplace flexibility. The agreement further lists gender equality and the protection of vulnerable groups, including women, children, people with disabilities, and indigenous people as potential cooperation areas.

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Box 3.3: continued

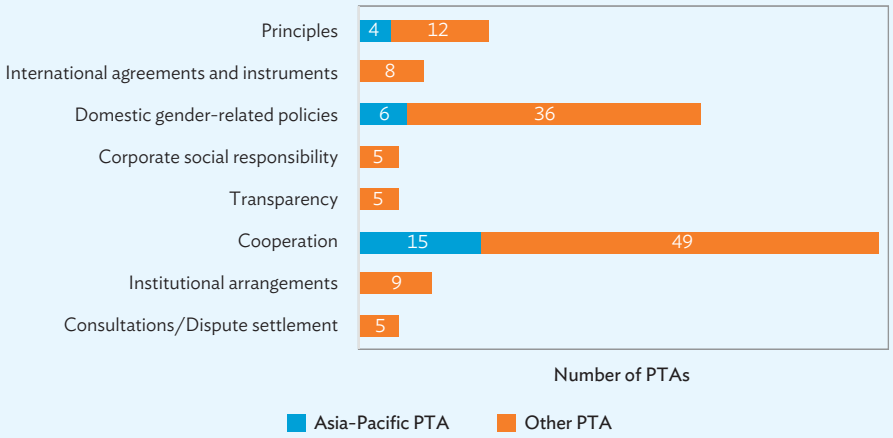
Another exception is the Comprehensive and Progressive Agreement for Trans-Pacific Partnership, negotiated among others by Australia, Brunei Darussalam, Japan, Malaysia, New Zealand, Singapore and Viet Nam. Besides an article on "women and economic growth" in the chapter on development, the partnership recognizes the importance of promoting gender equality in its preamble and identifies gender equality as a potential cooperation and capacity building area. A more specific gender-related cooperation provision, found in the chapter on labor, lists the promotion of equality, the elimination of discrimination, and the employment interests of women.

As hinted by these two PTAs, gender-related provisions differ not only in structure and location in the agreement, but also in terms of language, scope, and commitments. Although many gender-related provisions are only specific to a single or couple of PTAs, most are couched in the language of best endeavor.

Cooperation provisions on gender are the most common type of gender-related provisions, including among PTAs negotiated in Asia and the Pacific (box figure 2). The most common gender-related cooperation area targets employment, such as the elimination of employment and occupation discrimination. Other issues, mostly addressed in recent PTAs, include women's access to science, technology and innovation, female entrepreneurship, market access and collection of sex-disaggregated data. For instance, the Pacific Agreement on Closer Economic Relations Plus (PACER+) lists as cooperation activities data collection on women engaged in the primary sectors and the establishment of a women-led garment production cottage industry.

The remaining types of gender-related provisions, found in a relatively limited number of PTAs, cover various issues. Some PTAs, such as the Comprehensive and Progressive Agreement for Trans-Pacific Partnership, include provisions referring to specific gender-related principles, including gender equality. A few other provisions make explicit reference to international agreements dedicated to gender-related issues, such as the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW). Other gender-related provisions cover domestic policies. For instance, the PTA between the European Union and Viet Nam specifies that a targeted discriminatory measure based on manifestly wrongful grounds, such as gender, breaches the obligation of fair and equitable treatment and full protection and security to the other party's investments and investors. The promotion of gender equality through corporate social responsibility and transparency in gender-related policies and guidelines are also covered in some PTAs.

2: Main types of gender-related provisions in PTAs



PTA = preferential trade agreement.
Source: Updated from Monteiro (2018).

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Box 3.3: continued

The most comprehensive gender-related provisions are found in PTAs with a chapter on gender. Most establish specific institutional arrangements, such as the creation of a committee on trade and gender in charge of several functions, including the implementation review of the agreement's gender-related commitments. These chapters also include consultation provisions calling the parties to make all efforts possible to resolve any matter.

Besides gender-related provisions, other provisions can be particularly relevant for women, even though they do not make an explicit reference to gender. For instance, several PTAs contain provisions that promote the mutual recognition of standard for licensing and certification of nursing education and permit the temporary entry of nurses and care workers, a sector largely female dominated. The PTAs to which Japan is a party with India, Indonesia, the Philippines and Thailand establish programs to provide nurses from these partner countries with language and additional professional skills training.

Overall, gender-related provisions in PTAs are set in a dynamic context and are likely to keep covering new ground. Several countries, including New Zealand, are negotiating the possibility to include a chapter dedicated to gender in their PTAs, suggesting that the number of PTAs with more comprehensive provisions on gender could increase.

Source: José-Antonio Monteiro. World Trade Organization.

CHAPTER 4

INTEGRATED SUPPORT FOR SMALL FIRMS PROMOTES INCLUSIVE GROWTH

Micro, small, and medium-sized enterprises (MSMEs) have long been recognized engines of growth in developing and developed countries, given their potential to create job opportunities and intensify competition (Kritikos 2014). Indeed, MSMEs account for a significant share of firms and employment in most economies. The economic potential of improving inclusive development in these firms would be significant, as they play an important role in boosting employment growth and providing economic opportunities. MSMEs typically operate in more local markets and areas often neglected by larger firms, creating more economic opportunities for young population and start-ups. Women are also more likely to own and/or employed by MSMEs than large firms. In this regard, they are also well-placed to tackle unmet create economic opportunities for the underserved areas and population segments, also contributing to reduction of income inequalities.

In 2011, MSMEs in both the formal and informal sectors in Asia numbered 266.3 million (IFC Enterprise Finance Gap Database). Using the latest figures for economies with available data, formal MSME registrations in the region total 225.7 million, of which 26.6% are female-owned. MSMEs in the region employ 352.6 million people (MSME Economic Indicators Database).

Key Role of MSMEs in Enabling Inclusive, Sustainable Development

Figures from the World Bank Enterprise Surveys between 2009 and 2018 show that employment in small and medium-sized enterprises (SMEs) in developing Asia accounted for 46.8% of the total employment stock. In aggregate, SMEs accounted for more than 60% of total net job creation (Table 4.1). While these firms employ most workers in most Asian economies, their contribution to GDP shows room for improvement, with latest figures showing their contributions (including micro enterprises) range from 16.2% of GDP in Afghanistan to around 40% in Singapore and Thailand (MSME Economic Indicators Database).

Table 4.1: Employment by Firm Size—Developing Asia

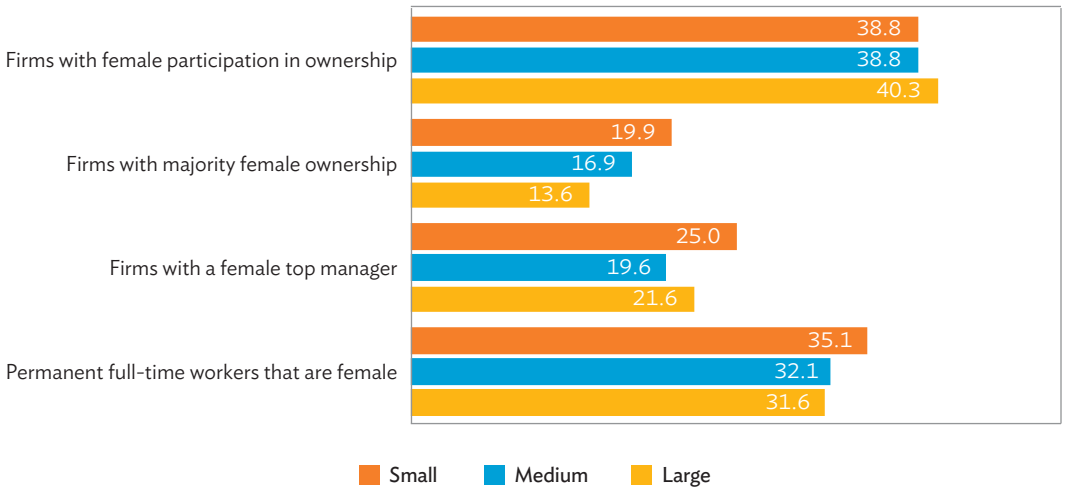
		Net Job Creation	
Firm Size	Employment Share	Net Change	Share
All	100%	5.5%	
Small (1-19)	16.3%	6.8%	30.6%
Medium (20-99)	30.5%	6.4%	37.5%
Large (100+)	53.2%	3.1%	25.6%

Note: Figures for employment expansion, employment contraction, and net job creation refer to median values, and hence may not equal to 100.

Source: ADB calculations using data from World Bank. Enterprise Surveys. http://www.enterprisesurveys.org (accessed March 2019).

MSMEs are also major drivers of women's participation in the economy—as business owners, managers, and employees. Data show that firms with majority female ownership and female managers, and that employ a higher proportion of full-time female workers are likely to be found more among smaller firms than larger firms (Figure 4.1).[37] Nonetheless, women are still less represented as business owners and full-time workers for SMEs in the formal sector compared to their male counterparts. On average, only a third of full-time workers in SMEs in developing Asia are women and less than two-fifths of these firms are owned by women.

Figure 4.1: Female Firm Ownership and Employment by Firm Size—Developing Asia (%)



Notes: Regional averages are computed by taking a simple average of country point estimates. For each economy, only the latest available year of survey data are used in this computation. Developing Asia does not include Brunei Darussalam; the Cook Islands; Hong Kong, China; Kiribati; the Marshall Islands; Nauru; Palau; the Republic of Korea; Singapore; Turkmenistan; and Tuvalu as data are unavailable.

Source: ADB calculations using data from World Bank. Enterprise Surveys. http://www.enterprisesurveys.org (accessed March 2019).

Economic Participation of Smaller Firms

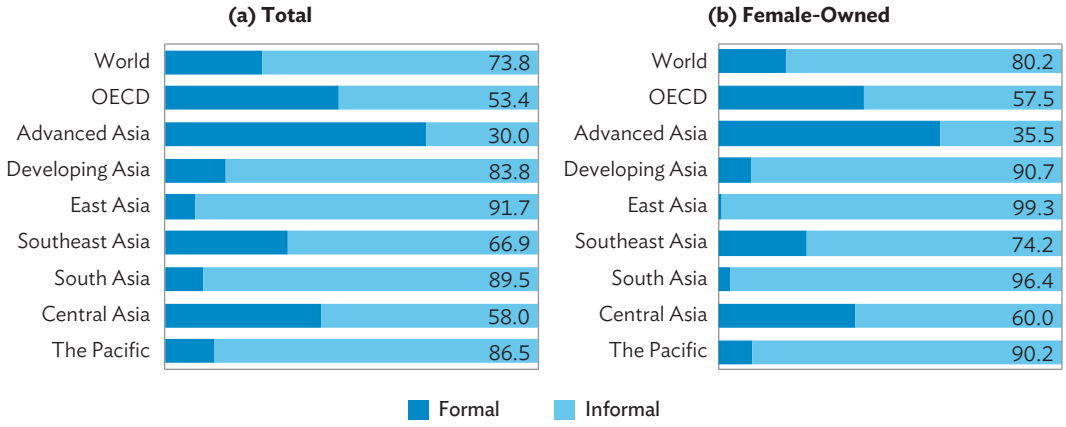
Data from the World Bank Enterprise Surveys show that, on average, 18.4% of SMEs in the region are majority female-owned, compared to 13.6% of majority female ownership among large firms. The Pacific recorded the highest percentage of SMEs with female ownership among Asian subregions at, 31.6%, followed by Southeast Asia (25.6%) and East Asia (23.6%), suggesting that female entrepreneurship is more common in these subregions.

More importantly, the bulk of MSMEs in developing Asia are in the informal sector (Figure 4.2a). East Asia, along with South Asia and the Pacific, recorded the largest proportion of MSMEs in the informal sector (i.e., 86.5%–91.7%). Informality is even greater for female-owned MSMEs. As of 2011,

[37] The slightly higher proportion of large firms with female participation in ownership in developing Asia may be because some Asian countries (especially in East and Southeast Asia) have adopted corporate governance practices geared toward achieving more gender-balanced boards, particularly in listed and public companies (OECD 2017a). Narrowing these to the level of ownership nonetheless shows that a lower proportion of large firms are majority-owned by women, possibly indicating signs of tokenism. This highlights the need for breaking the glass ceiling in firm ownership, and to advocate for a critical mass of women owners or stakeholders across all firm sizes to make progress in achieving more gender-balanced firms.

nearly 90% of female-owned MSMEs in developing Asia were informal sector enterprises compared to 80.2% globally. Likewise in East Asia, the Pacific, and South Asia, more than 90% of female-owned MSMEs were in the informal sector (Figure 4.2b).

Figure 4.2: Distribution of MSMEs by Sector (% of firms)



MSMEs = micro, small, and medium-sized enterprises; OECD = Organisation for Economic Co-operation and Development.

Note: Asia and the Pacific does not include the Marshall Islands; Myanmar; Nauru; Palau; Taipei,China; Tuvalu; and Vanuatu as data are unavailable.

Source: International Finance Corporation. Enterprise Finance Gap Database. https://finances.worldbank.org/widgets/2ppx-k958 (accessed April 2019).

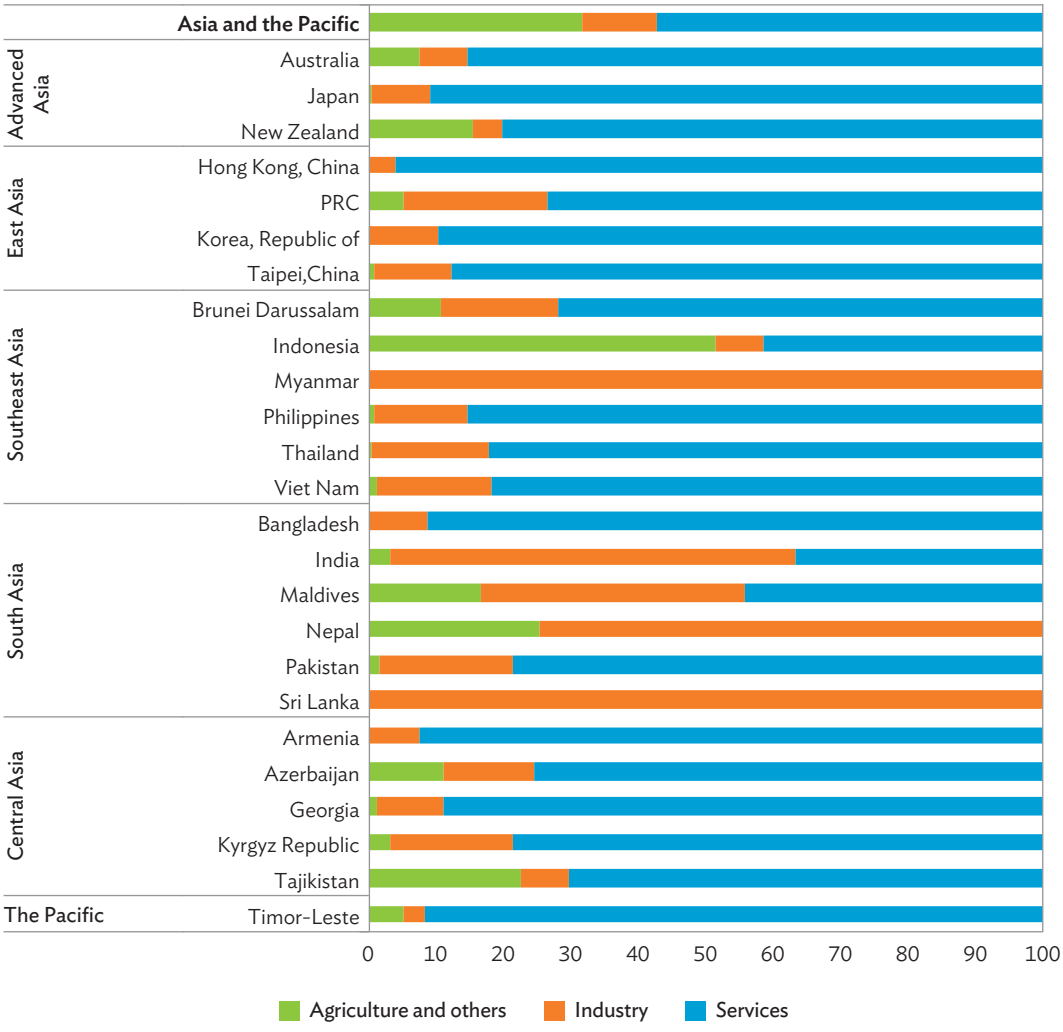
Within the formal sector, most MSMEs across Asia are micro enterprises. Most female-owned MSMEs within the formal sector are also micro enterprises. Available data on MSMEs in Asia shows 57.4% in services and less than a third in agriculture (Figure 4.3). Most are involved in the wholesale and retail trade, as well as in hospitality and tourism-related activities. Nonetheless, there are variations. For example, most MSMEs in India, Nepal, and Sri Lanka are in industry (particularly manufacturing) and in Indonesia most are in agriculture.

Participating in global value chains can provide MSMEs opportunities to increase international trade and improve their economic contributions. The international fragmentation of production has increased opportunities for MSMEs to specialize in niche markets and join different stages of the production chain.[38]

Nevertheless, MSMEs do not participate in global value chains as much as large firms. Data show that, on average, one in five SMEs in developing Asia export, while more than third of large firms do. Similarly, material inputs or supplies of foreign origin in production are used by over 60% of large firms, but less than half of SMEs. These patterns suggest that in developing Asia the direct and indirect participation of smaller firms in global value chains is much more limited than for large firms (Figure 4.4), and more needs to be done to support their integration into regional and global value chains.

[38] MSMEs can participate in global value chains in two ways. First, MSMEs can directly export intermediate goods or services or supply inputs to local firms or multinational companies (i.e., forward participation). Alternatively, MSMEs can import products as inputs to their own production or source products from local firms that use imported inputs in a process known as backward participation (Ganne and Lundquist 2019).

Figure 4.3: Sector Distribution of MSMEs by Main Economic Activity (%)



PRC = People's Republic of China.

Note: Data is based on latest available year between 2004 and 2014.

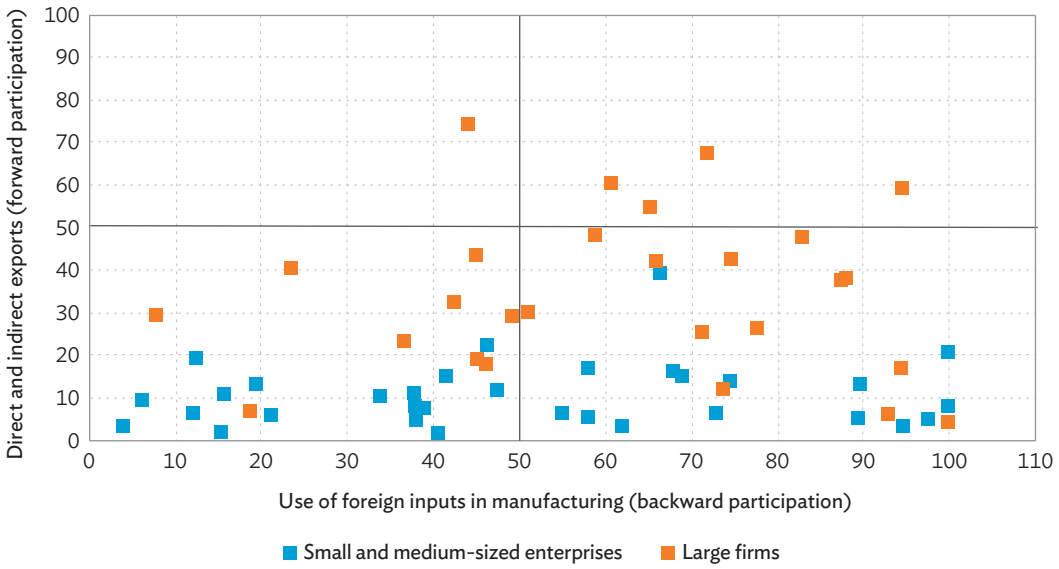
Source: SME Finance Forum. MSME Country Indicators Database. https://www.smefinanceforum.org (accessed June 2019).

Helping Smaller Firms Overcome Barriers to International Markets

The main reason MSMEs do not tend to engage in international markets is because they face greater exposure to trade costs and are less equipped than large firms to manage the risks. For instance, it tends to take SMEs in developing Asia longer to clear exports through customs (Figure 4.5). Similarly, MSMEs owned or led by women tend to suffer disproportionately more than male counterparts from trade-related fixed costs such as nontariff measures, primarily due to supply-side capacity constraints.

Overall, the resource disadvantage of smaller firms act as key constraints to their integration in global value chains. Other challenges related to their size and isolation include difficulties in achieving

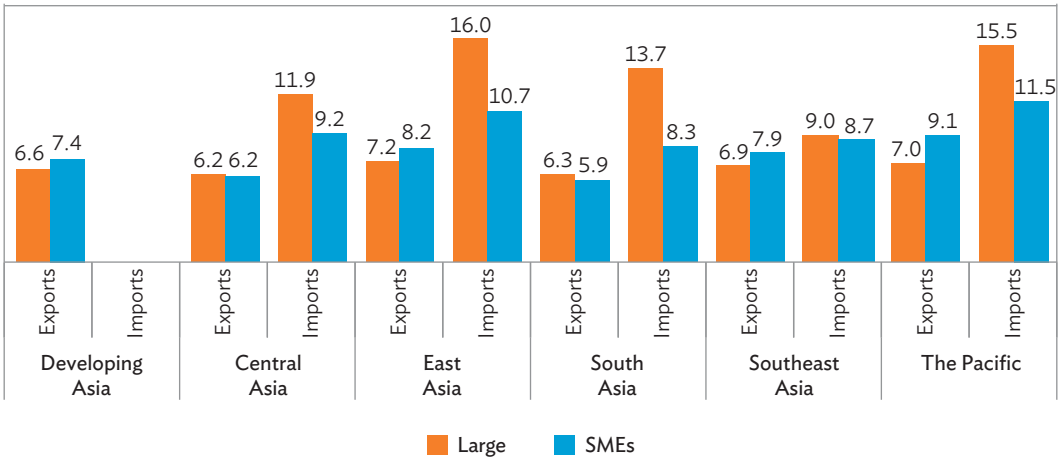
Figure 4.4: Participation of Firms in Global Value Chains—Developing Asia



Note: Each square represents a country point estimate of firms participating in global value chains.

Source: World Bank. Enterprise Surveys. http://www.enterprisesurveys.org (accessed March 2019).

Figure 4.5: Number of Days to Clear Exports and Imports in Customs—Developing Asia



SMEs = small and medium-sized enterprises.

Notes: Regional averages are computed by taking a simple average of country point estimates. For each economy, only the latest available year of survey data are used in this computation. Developing Asia does not include Brunei Darussalam; the Cook Islands; Hong Kong, China; Kiribati; the Marshall Islands; Nauru; Palau; the Republic of Korea; Singapore; Turkmenistan; and Tuvalu as data are unavailable.

Source: ADB calculations using data from World Bank. Enterprise Surveys. http://www.enterprisesurveys.org (accessed March 2019).

economies of scale in acquiring inputs; inability to identify potential markets and take advantage of opportunities that require them to supply large volumes at consistent quality, homogenous standards, and at regular intervals, and difficulty in accessing services such as training, market intelligence, and logistics (ADB 2015: p.33).

Furthermore, besides country-specific barriers for entry, Table 4.2 lays out the major challenges to SMEs participation in global value chains:

Table 4.2: Major Challenges for SME Participation in Global Value Chains

Challenges	Capabilities and limitations
Competition	• Small size of operation that results in a relatively high cost of production • Lack of consumer preferences and inability to access lead firms: – Lack of market intelligence (e.g., business opportunities, prospective customers, competition status, channels and distribution, local regulations and practices, and taxation) – Inability to network – Inability to meet large demands – Uncompetitive price, quality, and/or delivery • Inadequate institutional support and assistance • Lack of necessary staffing and financial resources
Internationalization	• Inability to internationalize operation, due to limited capacity to analyze, penetrate, and segment foreign markets • Technical limitations to act as suppliers to foreign buyers/investors • Cost and know-how to meet the growing number of products and sustainability standards
Trade liberalization	• Lack of knowledge about free trade agreements: – Lack of knowledge and skills to react the agreements • Less awareness of opportunities and challenges derived from various trade agreements
Managerial skills	• Lack of knowledge about new strategies and techniques – Inability to orient new design and production • Inability to allow time and staffing to acquire new skills • Lack of knowledge to use e-commerce • Inability to hire appropriately qualified and talented people • Inability to combat anti-competitive practices

Source: ADB (2015: p.34).

Along with these challenges, underlying gender gaps in access to information, lack of education, limited access to productive resources, and time poverty, among others, add to the disproportionate disadvantages.

Noting the predominant share of Asian MSMEs in the informal sector, another big issue for MSME participation in international markets is informality. Aside from being a binding constraint to integrating into global value chains, in the sense that they are typically in the formal sector, informality can create production inefficiencies and prevent smaller firms from accessing resources or making optimal investments to enable their direct participation in international trade.

Yet, on a similar note, the motivation for starting a business also plays a role. In the case of startups with clear motivation to grow, internationalization seems a natural step. Across Asian economies, anecdotal evidence suggests that small-scale and female entrepreneurs start a business more often due to necessity, influenced by a lack of paid employment opportunities with the initial focus more likely on the domestic market.

Gaining access to global markets is an important way to foster growth and realize the enormous potential of MSMEs to support inclusive and sustainable development. Participation in global production networks does not just expose these firms to a larger customer base, as Yuhua and Bayhaqi (2013) note, it can also provide a range of other opportunities including but not limited to:

- increased technical capacity;
- increased demand for existing products and services, greater utilization of operational capacity, and improvement of production efficiency; and
- greater access to and cooperation with other enterprises—both upstream and downstream—which can help build credibility and so make it easier to get finance and attract investors and human resources.

Lopez-Gonzalez (2017) further identifies the benefits for SMEs of participating in global value chains from both forward and backward linkages, as illustrated in Figure 4.6:

Figure 4.6: How SMEs Can Benefit from Global Value Chains

Direct or indirect forward participation

Direct exports of intermediate products or indirect exports through a domestic firm

Opportunity to focus on specific segments of the production chain (eliminating the need to master the entire production process).

Direct or indirect backward participation

Direct imports of inputs or indirect imports through a domestic firm

Wider access to:
- more sophisticated and competitively priced imported intermediates
- new technologies
- inputs that may not be accessible domestically

Exploiting other linkages arising from foreign investment

Technology transfers from lead firms

Source: Adapted from López González (2017).

Ultimately, these opportunities can boost competitiveness, open a gradual and sustainable path to internationalization, and strengthen roles in bringing job opportunities and fostering inclusive growth in a local economy.

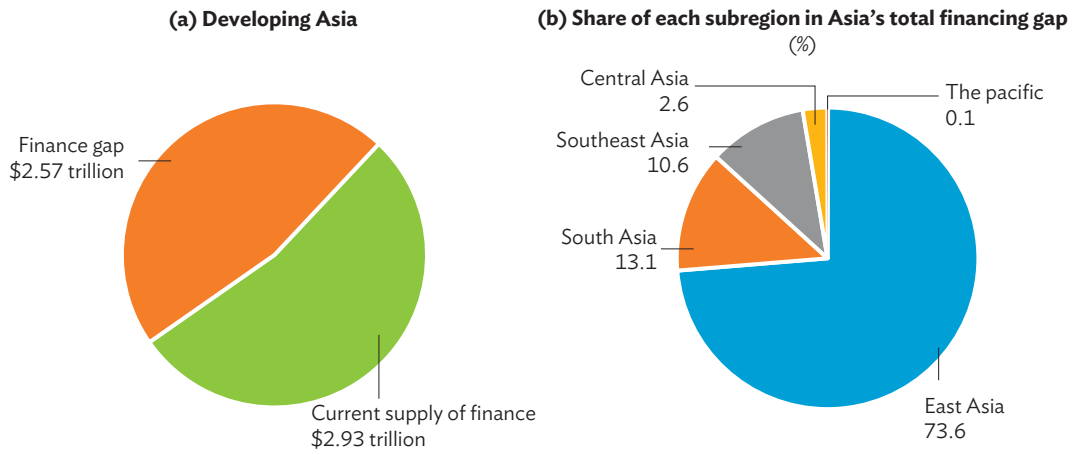
Integrated support is needed for MSMEs and women-owned MSMEs to realize these potential. Mechanisms can include paving the way for better access to finance, fostering more conducive regulatory and institutional frameworks, building capacity through business development advisory

and training services, promoting new technologies and online platforms, and integrating MSME development in trade policy and trade facilitation initiatives. These are now explored in detail.

Open up access to finance

Global experience and firm-level data show that MSMEs are largely constrained by access to finance. Latest figures show 96.7 million or 43% of formal MSMEs in developing Asia have unmet financing needs (Figure 4.7). The gap in the region is estimated $2.6 trillion and is largest in East Asia.[39] Similarly, compared with men, women-owned and -led businesses tend to face more hurdles getting credit (ADB 2018, ADB 2015). Data show that women account for 50% of the MSME finance gap in developing Asia (and 32% for developing countries globally).

Figure 4.7: Formal MSME Finance Gap in Developing Asia



MSMEs = micro, small, and medium-sized enterprises

Notes: Developing Asia does not include Brunei Darussalam; the Cook Islands; Hong Kong, China; Kiribati; Maldives; the Marshall Islands; Nauru; Palau; the Republic of Korea; Singapore; Taipei,China; Turkmenistan; and Tuvalu as data are unavailable.

Source: ADB calculations using data from International Finance Corporation. Enterprise Finance Gap Database. https://www.smefinanceforum.org/data-sites/msme-finance-gap (accessed May 2019).

An ADB survey also notes that about 74% of rejections of trade finance proposals are from MSMEs and firms with market capitalization of between $2 billion and $10 million, and female-owned firms turned down 2.5 times more rejections than male-owned firms (Di Caprio, Kim, and Beck 2017). Furthermore, these enterprises are less likely to take loans from formal financial institutions such as banks and they tend to borrow on less favorable terms and for shorter durations. To fill the financing gap, most resort to internal sources, such as personal savings, borrowing from friends and relatives, and internal profit (ADB 2017b; Harvie, Oum, and Dionisius 2013). The disadvantaged position can be primarily attributed to these firms having weak credit histories and few assets or resources available as collateral for borrowing.

[39] By comparison, 131 million or 41% of formal MSMEs in developing countries globally have unmet financing needs, estimated to be at $4.8 trillion—1.3 times the current level of MSME lending.

Targeted interventions and innovative financing models are therefore important to meet the needs of MSMEs at different stages of their business cycles and to encourage their participation in global value chains. Given that women's access to finance is hampered by customary laws (especially on landownership), financing tools that, rather than real estate as collateral for loans, use a firm's valued assets, such as movables and accounts receivable, are viable options (ADB 2015). Gender-sensitive microfinance[40] and trade finance[41] are essential support for smaller and female-owned firms to develop and internationalize. Digital technologies, including mobile networks and social media, also have potential to bring in new sources of finance for smaller firms, as is explored in Chapter 5.

Improve the regulatory and business environment

Smaller firms, especially owned by women, are vulnerable to the rigidities of regulatory frameworks and institutional settings. Excessive or cumbersome regulatory requirements tend to discourage entry into the formal economy, and in some cases, even drive firms to fall back into the informal economy, where they are even more prone to business risks. For instance, registering and eventually running a legally registered enterprise might have higher associated entry costs, stringent procedures to follow, and cumbersome tax matters to deal with. Regulatory constraints are likely to disproportionately impede smaller firms since they tend to have less resources and access to information networks than larger ones.

Therefore, regulatory barriers to the entry and formalization of smaller firms must be tackled, while reform in areas such as access to finance is also crucial to help smaller and women-owned firms grow and internationalize. Indeed, empirical studies suggest that eliminating gender-based differential treatments for entrepreneurs has positive impacts on women's empowerment. For instance, Islam, Muzi, and Amin (2018) find that laws prohibiting gender-based discrimination by creditors and laws enabling women to register a business-like men are positively associated with female participation in business ownership.

Make key resources more available

Along with access to productive assets and favorable business environments, access to information, skills, and networking opportunities all play vital roles in entrepreneurship and business expansion. Business owners and managers with these factors tend to recognize business opportunities, especially in expanding into the international marketplace, and are therefore more inclined to participate in global value chains.

However, smaller firms, especially women-owned, usually lag in related areas, including financial literacy, management skills, and digital literacy—in part because of their disadvantaged position in accessing financial and digital services and social networks (ADB 2018). Anecdotal evidence suggests that difficulties in getting training in business-related matters are also more pronounced for women due to gender norms and biases. Gender biases in education and women's underrepresentation in science, technology, engineering, and mathematics (STEM) also hinder their moving up the value chain and entering international markets.

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[40] As a case in point, a microfinance expansion project in Papua New Guinea is helping rural communities access financial services. It aims to strengthen industry regulation and the capacity of lenders to widen their range of financial services and products in rural areas, focusing on lending to micro and small enterprises, especially to women. The project also supports financial literacy, over 200,000 clients and potential clients having received such training (47% of them women). Similarly, in Cambodia, an ADB project established and strengthened credit businesses of 122 savings groups and 15 agricultural cooperatives that have provided finance to 3,200 beneficiaries. The project also helped establish/strengthened about 400 agribusinesses and significantly boosted access to loans for women. In Tajikistan, a microfinance project provided credit to 16,000 women (44% of total borrowers) enabling them to engage in entrepreneurial activities, increase their incomes, and broaden their income sources.

[41] For example, ADB's Trade Finance Program—which includes the features of strong gender and SMEs—has been helping women and SMEs participate in global and regional value chains, often by supporting their access to finance along supply chain transactions or providing guarantees.

In this regard, targeted training and capacity-building programs for smaller firms in areas such as management and IT skills would enable them to expand their businesses and tap opportunities to participate in global value chains. Public–private partnerships can also encourage business associations to contact MSME owners to promote networking opportunities and share experiences.

Furthermore, an educated and skilled workforce is particularly important for MSMEs engaged in trade, just as it is for large firms. Exporting firms and/or those that supply components/services to large exports linked to global value chains require skilled workers to produce efficiently to secure/increase market share and meet quality standards. Evidence suggests that skilled labor has a positive impact on firm productivity.

Widen the scope for digital technologies

Digital connectivity and the development of e-commerce can be a vital avenue for MSMEs and female-owned and -managed small enterprises to enhance their productivity and competitiveness, expand market access, and increase their participation in export markets.[42] With adequate access and proper use of ICTs, smaller firms and women-owned MSMEs—especially in the informal sector—can achieve the higher productivity, efficiency, and profitability needed to move toward formalizing their businesses. Chapter 5 provides a more detailed discussion.

Ensure that trade policy and trade facilitation initiatives work for MSMEs

Tariff reductions and trade facilitation initiatives can help MSMEs better engage with international markets. For one, complex customs procedures have been shown to be particularly detrimental to SMEs (WTO 2016). Minimum thresholds have also been found to pose specific barriers for SMEs involved in e-commerce, which may have frequent low volume shipments of low-value items on which customs duties must still be paid (Suominen 2017). Policies that reduce import tariffs and facilitate border procedures can therefore help MSMEs to integrate into global value chains (Cusolito et al. 2016).

Eliminating barriers to liberalization of trade in services—especially in services that allow firms to connect to global value chains, such as ICT and logistics—can also be important enablers for MSMEs' GVC participation (Ganne and Lundquist 2019).

In addition, deepening regional trade integration can help MSMEs to integrate into global markets. A recent study showed that increasing the provisions covered by trade agreements brings more value chain integration between firms of all sizes, but with small firms benefiting most (ITC 2017a). Moreover, integrating investment provisions in a preferential trade agreement rather than in a separate bilateral investment treaty was found to increase domestic value added in exports (ITC 2017b).

Leverage the private sector

By and large, the private sector plays a pivotal role in creating jobs, spreading technological innovation, and raising incomes. Its dynamism can be leveraged to strengthen the trade capacity of countries and to improve trade inclusiveness.

From a gender perspective, firms can contribute to fostering gender equality in the workplace through a range of corporate governance policies and practices, such as eliminating gender pay gaps, tackling gender-based violence at work, promoting family and parental leave, increasing women's roles in decision-making and management, and hiring and promoting women in nontraditional fields. Given that firms can play a significant part in narrowing gender disparities, incentive programs that make a

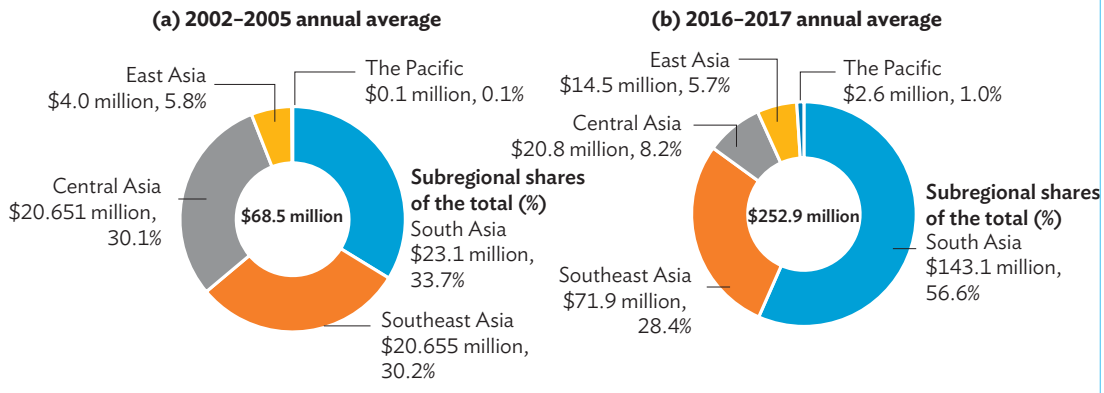
[42] See next Chapter for a more detailed discussion on how ICTs and digital trade can contribute to economic empowerment.

strong business case for gender equality are integral to encouraging firms to implement these policies and practices. These programs can take the form of tax incentives, related corporate governance training, certification programs for companies that meet standards for workplace gender equality, and incentivizing banks that support MSMEs and women-owned MSMEs, among others. Support for women's and MSMEs' associations and cooperatives could complement these incentives.

Aid for Trade and MSME Empowerment

Aid for trade can contribute to tackling the supply-side capacity and trade-related infrastructure constraints of MSMEs. Since the Aid for Trade (AfT) Initiative was launched in 2005, donors and recipients have paid more attention to SME development, even as it is still nascent. Accordingly, aid commitments in developing Asia targeted to SME development increased from a baseline average of $175.4 million in 2002–2005 to $275.9 million in 2006–2017. Related aid disbursements grew more than threefold from an average of $68.5 million in 2002–2005 to $252.9 million in 2006–2017 (Figure 4.8). Gross disbursements for SME development peaked at $534.1 million in 2011. In more recent years, both commitments and disbursements for SME development have generally fallen. Accordingly, the volume of commitments in 2012–2017 was 68% lower than in 2011, and disbursements 57% lower.

Figure 4.8: Aid for Small and Medium-sized Enterprise Development—Developing Asia



Source: ADB calculations using data from the Organisation for Economic Co-operation and Development. Creditor Reporting System. https://stats.oecd.org/Index.aspx?DataSetCode=crs1# (accessed June 2019).

South and Southeast Asian economies have been the largest recipients. Over 2002–2017, South Asia accounted for more than half (54.7%) of SME development aid disbursed in developing Asia, while Southeast Asia made up 28.6%. Over the same period, average growth in that category of aid disbursement was highest in the Pacific at 37.5% annually (compounded), followed by Southeast Asia, at 25.9%.

Over the years, the proportion of aid disbursements on SME development in total AfT has remained low. The aid disbursed for SME development In 2016–2017 was just 1.3% of the AfT total, the same as the proportion in 2002–2005. Overall, this low and slow growth in the proportion of aid for SME development in total AfT reflects the huge need to increase aid to MSMEs and to better integrate assistance into aid projects and programs.

AfT can contribute to MSME development and empowerment through several channels. Results from the 2019 M&E exercise reveal key areas of support, based on the responses of partner (recipient) countries in developing Asia. These include improving access to foreign markets and global value chains; providing access to finance; upgrading business skills; improving access to information; and supporting the growth and development of women; this highlights that empowering women can have a multiplier effect on empowering MSMEs. Responses to the 2019 Aide for Trade monitoring and evaluation exercise about the forms of AfT financing that can best empower MSMEs emphasized that importance is attached to aid for industry, agriculture, building productive capacity, trade education/training, and trade facilitation. This implies that MSMEs would like their development objectives to be better integrated into AfT sectors. Case stories in Asia point to successful initiatives in empowering MSMEs, including those owned by women (Box 4.1). Nonetheless, there is room for further improvement, particularly in advancing provisions on SME empowerment in trade agreements (Box 4.2).

Box 4.1: Support for Women-led Businesses to Meet International Standards

One of the biggest contemporary challenges facing developing country firms, and especially small-to-medium-sized enterprises, is the ever-increasing number of regulations and sustainability standards they have to meet to integrate into global value chains. Aid for Trade can tackle this by helping the most vulnerable traders, including women and young entrepreneurs, to meet these standards and access import and export opportunities.

For example, in 2010, New Zealand stopped importing watermelons from Tonga because it had received many contaminated shipments. Tongan watermelon growers were competitive in terms of production cost but unable consistently to meet New Zealand's strict biosecurity regulations, particularly as applied to fruit flies.

Tonga producers, mainly small producers run by women, needed appropriate infrastructure and food safety processes to meet sustainability standards, including New Zealand's biosecurity regulations. Watermelon global value chain export pathways require an efficient fumigation chamber as well as HACCP certification. This requires high standards of food production, storage, and sound monitoring systems for identification and control of health hazards, including contamination.

Aid for Trade support provided by the European Union, New Zealand, and Australia, included the following elements: provision of a fumigation chamber; a comprehensive review of production methods; assistance with post-harvest handling and export procedures; the delivery of training and training materials on standards compliance; the compilation of an operational manual and training for using the fumigation chamber; and the establishment of a project management team to oversee export pathway compliance.

This support has resulted in exports of Tongan watermelons increasing from 86 tons in 2010 to 271 tons in 2013. New Zealand imports 2,500 tons of watermelon a year and Aid for Trade has provided an opportunity for Tonga to grow its market share.

Source: Jim Redden. 2017. Can Aid for Trade Assist Firms in Developing Countries to Comply with Sustainability Standards? Bridges Africa. 10 July. https://www.ictsd.org/bridges-news/bridges-africa/news/can-aid-for-trade-assist-firms-in-developing-countries-to-comply

Box 4.2: Small and Medium-Sized Enterprise Empowerment Provisions in Asia and the Pacific

Free trade agreements (FTAs) can benefit small and medium-sized enterprises (SMEs) by reducing or eliminating tariff and non-tariff barriers, simplifying customs procedures, promoting electronic commerce, fostering technology transfers, and enhancing information exchange on trade-related domestic laws and financial access.

The analysis shows that of 142 FTAs with Asian partners reviewed, only 60 incorporate at least one provision explicitly mentioning SMEs. Similar to labour provisions, these SME-related provisions are remarkably heterogeneous and vary considerably across location in the FTA and in terms of language, scope and commitments. Most SMEs-related provisions are couched in best endeavour language in contrast with strong stipulations that give rise to mandatory obligations. The two most common categories are stipulations (1) promoting cooperation in SMEs and (2) specifying that SMEs are excluded from certain FTA obligations.

Of the 60 FTAs with SMEs-related provisions, only three FTAs – all involving Japan – have a chapter dedicated to SMEs while SMEs-related provisions are usually located in the cooperation chapter. The extent and areas of cooperation relating to SMEs differ across FTAs. While some FTAs merely identify SMEs as a specific area of cooperation others include more specific language on the nature of cooperation such as promotion of favorable environment for SMEs, capacity-building in terms of human resource training, information exchange, financial access, promote greater participation of SMEs in exports, and enhance technology transfers.

Other types of SMEs-related provisions are found in the following FTA chapters: (1) improvement of the business environment; (2) financial services; (3) intellectual property; (4) trade facilitation; (5) strategic partnership; and (6) transparency.

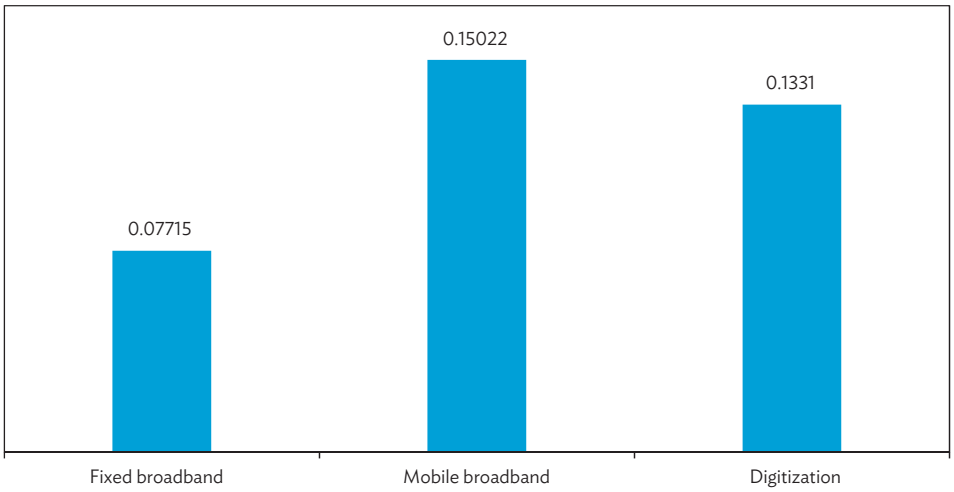
Source: Jong Woo Kang and Dorothea Ramizo. Economic Research and Regional Cooperation Department, Asian Development Bank.

CHAPTER 5

THE DIGITAL ECONOMY, DIVERSIFICATION AND EMPOWERMENT

Evidence that digital technology drives productivity and economic development continues to grow. Improvements in digital technology and connectivity indicators show positive and significant impacts on GDP growth (ITU 2018)—a 1% increase in fixed or mobile broadband penetration and digitization increases GDP by 0.13, 0.15 and 0.13% respectively (Figure 5.1). Given that, in most cases, multiple digital economy measures will be increasing in parallel, the effects of this digital shift on economic growth and development can be powerful.

Figure 5.1: GDP Boost from a 1% Increase in Independent Variables, 2004–2015 (%)



GDP = gross domestic product.

Source: International Telecommunication Union research.

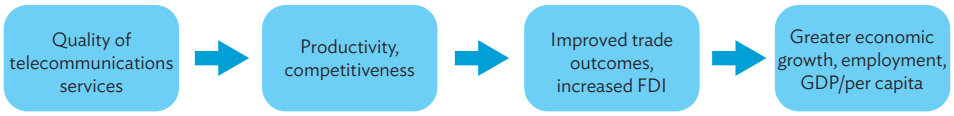
A study of 25 OECD countries[43] using data between 1996 and 2007 attributed a 10 percentage point increase in broadband penetration to boosting annual GDP per capita growth by between 0.9 and 1.5 percentage points. A similar study of 26 Latin American and Caribbean countries[44] between 2003 and 2009 found that a 10% increase in broadband penetration increased total factor productivity by 2.61%.

[43] N. Czernich, O. Falck, T. Kretschmer, and L. Woessmann. 2011. Broadband Infrastructure and Economic Growth. The Economic Journal 121 (552). pp. 505–532.

[44] G.A. Zaballos and R. Lopez-Rivas. 2012. Socioeconomic Impact of Broadband in Latin American and Caribbean Countries. Washington, DC: Inter-American Development Bank.

Findings like these lend support for government policies designed to encourage expansion of the digital economy, digital infrastructure investments, improvements in digital skills, and more widespread adoption of digital technologies. The development of digital infrastructure is usually associated with significant foreign direct investment, which creates direct and indirect economic benefits and skill transfers (Figure 5.2).

Figure 5.2: Communications Drive Economic Growth



FDI = foreign direct investment, GDP = gross domestic product.

Sources: International Telecommunication Union, Windsor Place Consulting.

Consumers benefit from the development of the digital economy by having much greater access to goods and services through e-commerce, which encourages competition and lower prices. Increasing penetration of mobile devices enables underserviced and disempowered populations to access financial services, often for the first time. Digital money is being adopted rapidly, enabling citizens without access to traditional banking services to make payments, save more securely, and invest more easily in their businesses. This is helping reduce the financial inclusion divide between urban and rural populations.

Trends and Patterns in E-commerce and Digital Trade

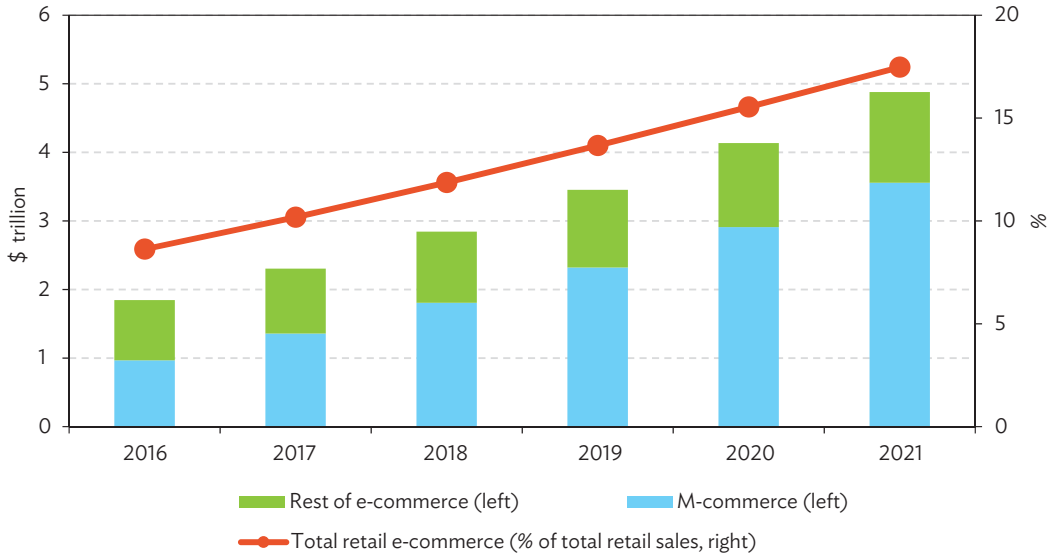
In 2017, global retail e-commerce sales totaled $2.3 trillion, up 24.8% over 2016, and representing 10.2% of retail spending. Online retail sales are estimated to have grown 23.3% in 2018, and are forecast to reach $4.1 trillion in 2020, or 15.5% of total retail sales (Figure 5.4). However, growth is projected to slow from 19.8% in 2020 to 18% in 2021, with total sales value reaching $4.9 trillion in 2021, as the e-commerce industry matures. Nonetheless, e-commerce is expected to continue to claim an increasing share, reaching 17.5% of total retail sales in 2021 (eMarketer 2018a).

Growth in global e-commerce has been primarily fueled by the increasing availability of mobile devices and resulting high growth and share of mobile commerce ("m-commerce"). M-commerce sales grew 40.3% in 2017, reaching $1.357 trillion or 58.9% of overall e-commerce spending (Figure 5.3). By 2021, m-commerce is projected to account for 72.9% of the e-commerce market (eMarketer 2018a). This growth has been driven by increasing consumer confidence in purchasing online through smartphones and, in some regions, the greater selection of low-cost items such as apparel, which encourages impulse buying.

Asia continues to drive global e-commerce growth and remains the largest retail e-commerce market

Retail e-commerce sales are estimated to have grown over 30% (equivalent to $1.3 billion) in 2017 in Asia—the highest across all regional markets—driven by an expanding middle class, rapid urbanization and technological advancements that include greater mobile and internet penetration, improving logistics and infrastructure, a continued increase in exports, and diversification of e-commerce product categories and markets (eMarketer 2018a; eMarketer 2019a). In 2017, the region accounted for more than half (58.6%) of global online retail sales. Parallel to the global trend, the rise of

Figure 5.3: Retail E-commerce Sales Worldwide, 2016–2021



Note: Includes products or services ordered using the internet via any device, regardless of the method of payment of fulfillment; excludes travel and event tickets.

Source: eMarketer (2018a).

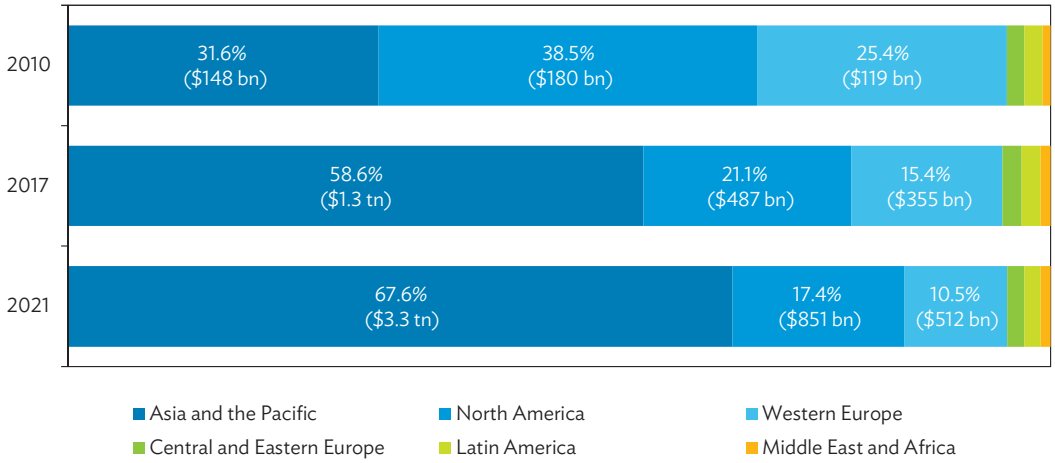
m-commerce is shoring up the region's e-commerce growth: over three-fourths of e-commerce in Asia is m-commerce, with merchant apps in particular representing more than half of the purchases made through mobile devices. Overall, Asia is forecast to have an increasing share of e-commerce sales to reach around two-thirds of global e-commerce by 2021 (Figure 5.4), and to have sales twice the size of those in Western Europe and North America combined.[45]

The top five retail e-commerce national markets—the People's Republic of China (PRC), the United States, the United Kingdom, Japan, and the Republic of Korea—account for the bulk of global retail e-commerce sales and are expected to represent more than 85% of the total in 2020. The highest growth in retail e-commerce sales is seen as taking place in the PRC, at more than 30% (to reach nearly $2 trillion in 2019), followed by the United States at about 15% (with estimates of about $600.63 billion in sales in 2019). By comparison, retail e-commerce sales are estimated to expand 11.1% ($86.59 billion) in the Republic of Korea, 11% ($137.08 billion) in the United Kingdom, and 4% ($113.63 billion) in Japan. Rising incomes, growth in exports and online payment methods, as well as continued expansion of luxury goods sold online all play a role in the growing share of these major markets in global retail e-commerce sales (eMarketer 2019a).

[45] By comparison, North America ranks as the second-largest regional e-commerce market, with the United States alone accounting for 19.7% of global online sales and growing by 15.8% in 2017. Western Europe recorded the lowest growth at 15.4% in 2017, with estimates showing a declining trend of e-commerce' growth throughout the succeeding years, estimated to reach only 7.7% by 2021. Further, North America and Western Europe will continue to experience a declining share in global e-commerce sales, with projections showing their respective shares at 17.4% and 10.5% by 2021 (eMarketer 2018a).

Growth in the PRC is driven by the continued rise of the middle class and increasing diversification of the e-commerce landscape of product categories and the rise of rural shoppers, not to mention its being home to some of the biggest global e-commerce players such as Alibaba and JD.com.

Figure 5.4: Regional Retail E-commerce Sales (% of Global E-commerce)



Note: Includes products or services ordered using the internet via any device, regardless of the method of payment of fulfillment; excludes travel and event tickets.

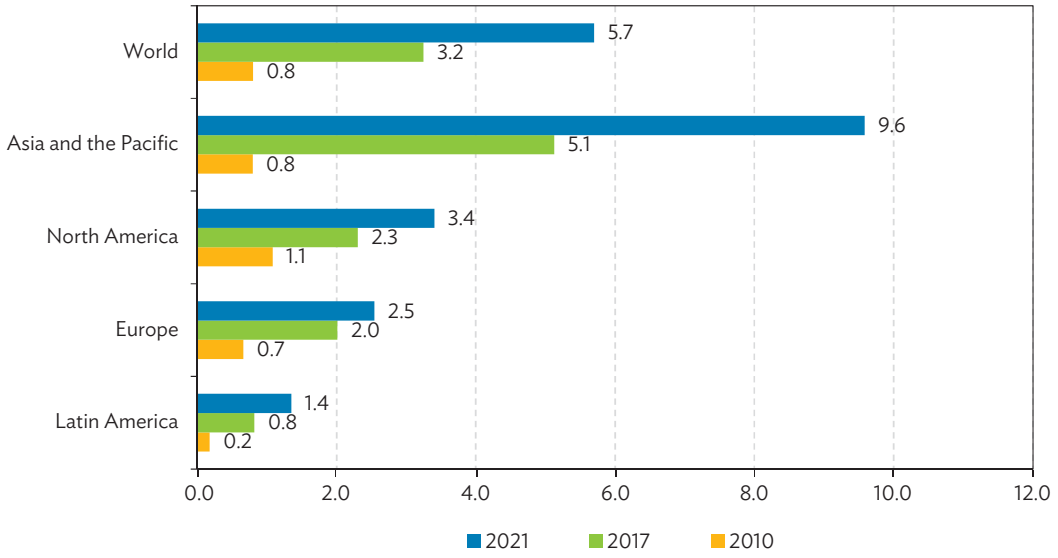
Source: eMarketer (2018a).

Meanwhile in the Republic of Korea, growth will be driven by well-established domestic sales and a continued increase in exports of its beauty products and electronics, particularly to Southeast Asia. In Japan, despite slower domestic demand from an aging population, its prominence as a major exporter of some of the world's top electronics brands and a rise in demand for its exports are propelling the nation's retail e-commerce growth (eMarketer 2019a).[46]

The share of e-commerce in global GDP has grown steadily from 0.8% in 2010 to 3.2% in 2017 and is expected to continue to rise (Figure 5.5). Similarly, Asia and the Pacific leads the way, with retail e-commerce sales worth 5.1% of GDP in 2017.

[46] In the United States, growth has and will primarily be driven by high-performing online retail product categories, such as computer/consumer electronics and apparel/accessories. In the United Kingdom, the burgeoning growth of Amazon, which is seen to ultimately benefit consumerism, is likely to drive UK e-commerce sales (eMarketer 2019a).

Figure 5.5: Retail E-commerce Sales (% of GDP)



GDP = gross domestic product.

Notes: Estimates are based on the largest e-commerce markets per region. Asia and the Pacific includes Australia; the People's Republic of China; Hong Kong, China; India; Indonesia; Japan; Malaysia; New Zealand; the Philippines; Singapore; the Republic of Korea; Taipei,China; Thailand; and Viet Nam. Europe includes Denmark, Finland, France, Germany, Italy, the Netherlands, Norway, Spain, Sweden, the Russian Federation, and the United Kingdom. North America includes Canada and the United States. Latin America includes Argentina, Brazil, and Mexico.

Source: ADB calculations using data from eMarketer (2018a) and International Monetary Fund. World Economic Outlook April 2019 Database. https://www.imf.org/external/pubs/ft/weo/2019/01/weodata/index.aspx (accessed May 2019).

Similarly, the "trajectory of e-commerce categories has followed similar evolutionary paths in markets around the world," according to the Nielsen Co. (US) LLC. E-commerce product categories with the highest online purchasing penetration are similar across regions. Notably, regardless of an e-commerce market's stage of development, purchases of services, entertainment, and durables are increasing in incidence and frequency. Travel and fashion categories ranked among the top three categories in every regional market in 2018, with online purchasing penetration rates ranging from 38% in Africa and the Middle East to 70% in Asia and the Pacific for travel, and from 38% to 69% for fashion, similarly in the same regional markets.

Asian e-commerce is dominated by the PRC, but South and Southeast Asia are growing fastest

As noted, the PRC continues to dominate the global e-commerce market. Total retail e-commerce sales in the PRC totaled $1.33 trillion in 2018, up 23.9% the previous year (Melton 2019), and forecast to grow 30.3% to $1.989 trillion in 2019, representing 35.3% of total retail sales (eMarketer 2018b). The PRC is estimated to account for more than half (55.8%) of global online retail sales in 2019, with this figure expected to rise to 63% by 2022 (eMarketer 2019b). Similarly, in m-commerce, 67.1% of m-commerce sales worldwide in 2017 were from PRC consumers, fueled by its mobile-first internet audience. M-commerce sales are expected to nearly triple from $909.93 billion to $2.595 trillion between 2017 and 2021 (eMarketer 2018a).

On the other hand, the highest e-commerce growth in Asia is expected in South and Southeast Asia, particularly in India, Indonesia, the Philippines, Thailand, and Viet Nam, fueled by the rise of the middle class, greater mobile and internet penetration, increased competition from new e-commerce

players, a wider range of logistics options, and growth already seen in payment methods (International Post Corporation 2017; ASEAN UP 2019).

Despite abundant growth opportunities, e-commerce is at a nascent stage in some parts of the region. In South and Southeast Asia, retail e-commerce sales are a fraction of total retail sales (eMarketer 2018a), due to underdeveloped digital payments infrastructure and weak logistics (ADB 2017a). However, mobile commerce and social commerce (e-commerce through social media) offers plenty of opportunities to overcome a lack of consumer access to developed payment systems and robust shipping services. Accordingly, m-commerce accounted for at least 40% of retail e-commerce sales in South and Southeast Asian economies with available data in 2017 (eMarketer 2018a).

The rise of social media as a viable business platform is even more impressive, especially in Southeast Asia. In a survey by PayPal (2018a), 80% of merchants in Asia use social media platforms/messengers with the majority in Thailand (95%) and the Philippines (87%), and with Facebook emerging as the top platform (82%) for merchants. Similarly, 79% of merchants surveyed in India engaged in social commerce. Interestingly, India also shows media savviness, with merchants using a wider array of social networking platforms to reach potential customers than counterparts in Southeast Asia. In Asia and the Pacific as a whole, the strong market position of social networking sites (primarily Facebook) among a young population and the services it offers have made consumer-to-consumer (C2C) and business-to-consumer (B2C) transactions easier (ADB 2017a). Widespread use of social media platforms is transforming the region's e-commerce landscape and enabling greater inclusiveness, particularly by opening up economic opportunities to MSMEs, especially women-owned ones, as discussed in section 6.3.

Cross-border digital trade is growing rapidly

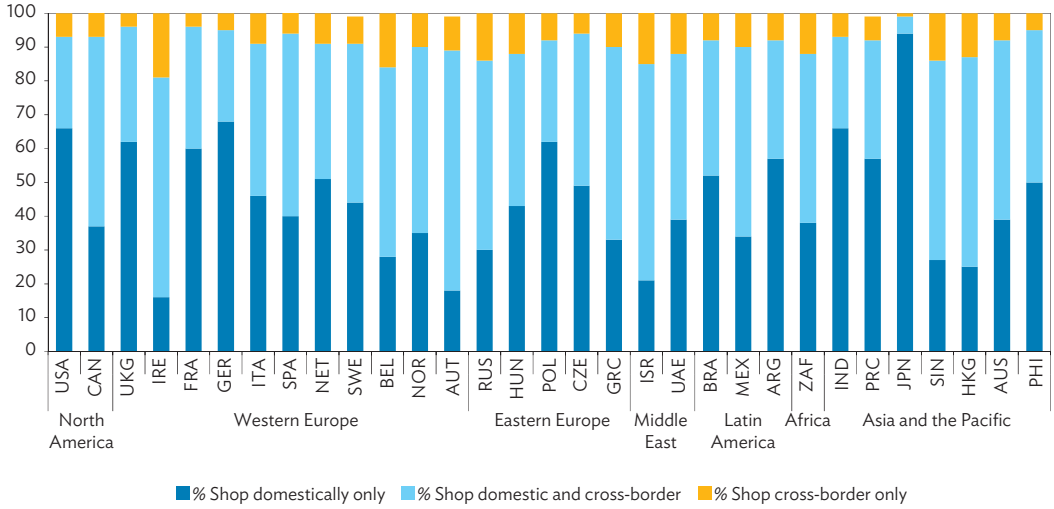
Globally, cross-border e-commerce or digital trade is gaining prominence with retailers and consumers, driven largely by the proliferation of marketplaces (eMarketer 2018c; Research and Markets 2018a). Worldwide cross-border commerce is expected to reach about one-fifth of total business-to-consumer (B2C) e-commerce within the next four years as consumers continue to seek products and cost advantages available through markets outside of their home countries (Research and Markets 2018a). In 2017, consumers in Ireland, Austria, and Israel did the most cross-border online shopping, and regionally, it was most popular in the Middle East and Asia (Figure 5.6).[47] The PRC remains the most popular online shopping destination for global online shoppers (26% of the total), followed by the United States (21%), the United Kingdom (14%), Germany (10%), and Japan (5%)—together accounting for 76% of global online shoppers.

Data from a survey cited by Research and Markets (2018b) show that more than half of online shoppers in Asia made purchases from abroad, with Singapore and Hong Kong, China leading the way in terms of incidence of cross-border online shopping. However, the incidence of cross-border e-commerce generally varies widely within the region. For instance, over 90% of online purchases in Japan are from domestic sellers in what is a big e-commerce market. On another note, clothing and accessories product categories are benefitting the most from cross-border e-commerce in the region. For instance, in the Republic of Korea, apparel and accessories accounted for more than a third cross-border online purchase. Moreover, while most cross-border online purchases are done by computer, Asian markets are more likely than most to make cross-border purchases on alternative devices, particularly mobile phones (PayPal 2018b; Research and Markets 2018b).

The main incentives to shop across borders include better prices, access to items not available locally, new and interesting products, higher product quality, and more affordable shipping costs. Other impetus may come from lower overall costs, secure payment methods, and the costs shown/

[47] This is an improvement for Asia as cross-border e-commerce was least common in the region in Paypal's Cross-Border Consumer Research Survey in 2016.

Figure 5.6: Incidence of Domestic and Cross-Border Online Shopping, 2017 (% of sales)



ARG = Argentina; AUS = Australia; AUT = Austria; BEL = Belgium; BRA = Brazil; CAN = Canada; CZE = Czech Republic; FRA = France; GER = Germany; GRC = Greece; HKG = Hong Kong, China; HUN = Hungary; IND = India; IRE = Ireland; ISR = Israel; ITA = Italy; JPN = Japan; MEX = Mexico; NET = the Netherlands; NOR = Norway; PHI = Philippines; POL = Poland; PRC = the People's Republic of China; RUS = Russian Federation; SIN = Singapore; SPA = Spain; SWE = Sweden; UAE = United Arab Emirates; UKG = United Kingdom; USA = United States; ZAF = South Africa.

Source: PayPal 2018b.

payments possible in local currency. Barriers include costs and concerns around speed and quality of delivery, customs/duties/fees/taxes, and difficulty returning products (PayPal 2018b).

Trade in ICT and ICT-enabled services is gaining ground

Rapid acceleration of digital technology has transformed the growth and tradability of services. The rise of digital technologies, along with increasing the tradability of traditional services, has helped new services emerge. Information and communication technology (ICT) services have formed the backbone of digital trade by supplying requisite network infrastructure and underpinning the digitization of other services. At the same time, innovative technologies have fostered the proliferation of new digitally-enabled services that build on data-driven solutions such as big data analytics or cloud computing (OECD 2017b).

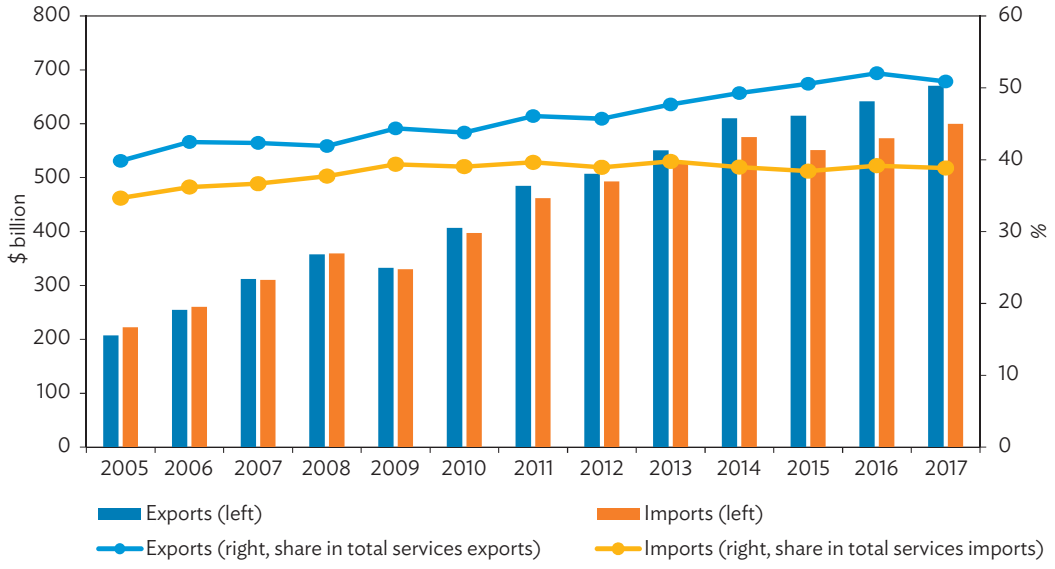
Asia's total trade in ICT and digitally deliverable services (or ICT-enabled services) increased from $429.8 billion in 2005 to $1.3 trillion in 2017. This accounted for over two-fifths of the region's trade in services from 2005 to 2017. Since 2005, Asia has consistently accounted for around a fifth of global trade in such services.[48] Over the past decade, trade in ICT services in the region has grown by 12.4% a year, higher than the average global growth rate of 8%; trade in digitally deliverable services also saw robust growth of 9.2%, slightly below the 9.6% global average.

Further, from being net importers in 2005, Asian economies have also become net exporters of ICT and digitally deliverable services since 2009 (Figure 5.7). Between 2005 and 2017, exports of these services grew by an average of 10.3% a year. A significant contribution to this growth has come from

[48] Trade in digitally deliverable services accounted for a larger share of total services trade at 38.4% over the period 2005-2017, while trade in ICT services comprised a small share at 4.0% during the same period.

Developing Asian economies, whose exports of such services grew 11.2% on average over 2005–2017, faster than the 7.1% rate for advanced Asian economies. Furthermore, exports of ICT and digitally deliverable services grew faster than the 6.2% rate for all other services.[49]

Figure 5.7: Exports and Imports of ICT and Digitally Deliverable Services—Asia and the Pacific



ICT = information and communication technology.

Notes: Digitally deliverable services are an aggregation of insurance and pension services, financial services, charges for the use of intellectual property, telecommunications, computer and information services, other business services and audiovisual and related services. Services trade data unavailable for the Cook Islands, the Marshall Islands, Nauru, Palau, and Turkmenistan.

Source: ADB calculations using data from United Nations Conference on Trade and Development. UNCTADSTAT. https://unctadstat.unctad.org/ (accessed May 2019); and World Trade Organization. Statistics database. http://stat.wto.org/ (accessed January 2019).

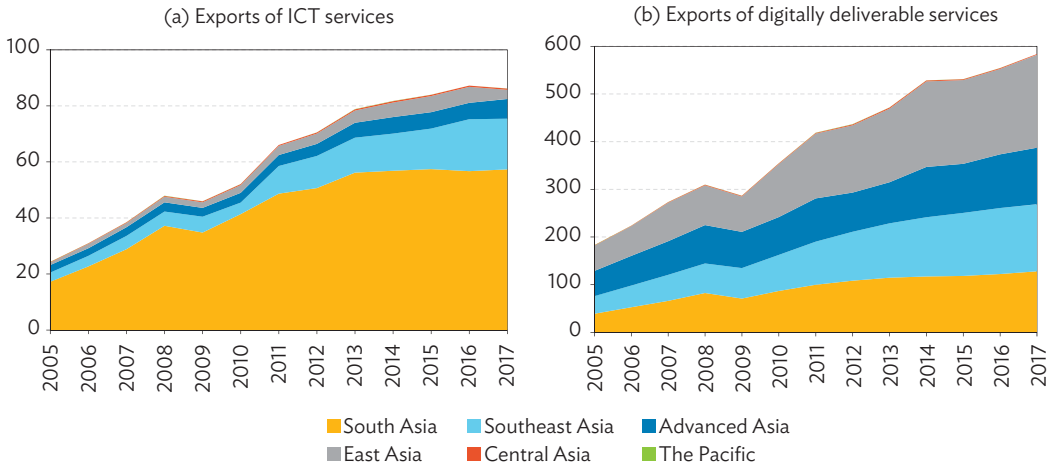
By subregion, East Asia (excluding Japan) and Southeast Asia have been the major traders of ICT and digitally deliverable services (Figure 5.8). Over 2005–2017, East Asia accounted for nearly a third (equivalent to $3.6 trillion), and Southeast Asia nearly a quarter (or $2.8 trillion), of Asian exports and imports of these services. South Asian economies also comprise about one fifth (2.4 trillion). Central Asia and the Pacific had the lowest shares, although growth in their trade of ICT services remained robust. Overall, the top three traders of ICT services in 2005–2017 were India (53.9%), Singapore (11.8%), and Japan (8.7%), while the three largest traders of digitally deliverable services were Japan (18.8%), the PRC (16.9%), and India.

Cuts to digital trade restrictions must be accelerated to leverage high-productivity sectors such as services and promote sustained growth

Notwithstanding remarkable growth of e-commerce in Asia and the region's stellar performance in digitalization, digital trade restrictiveness remains a huge barrier to capitalizing the digital economy and leveraging trade for more inclusive, sustainable development. Figure 5.9 shows the digital trade

[49] Exports of ICT services grew at an annual average of 11.1%, faster than the growth in exports of digitally deliverable services at 10.2%.

Figure 5.8: Exports of ICT and Digitally Deliverable Services, by Subregion ($ billion)

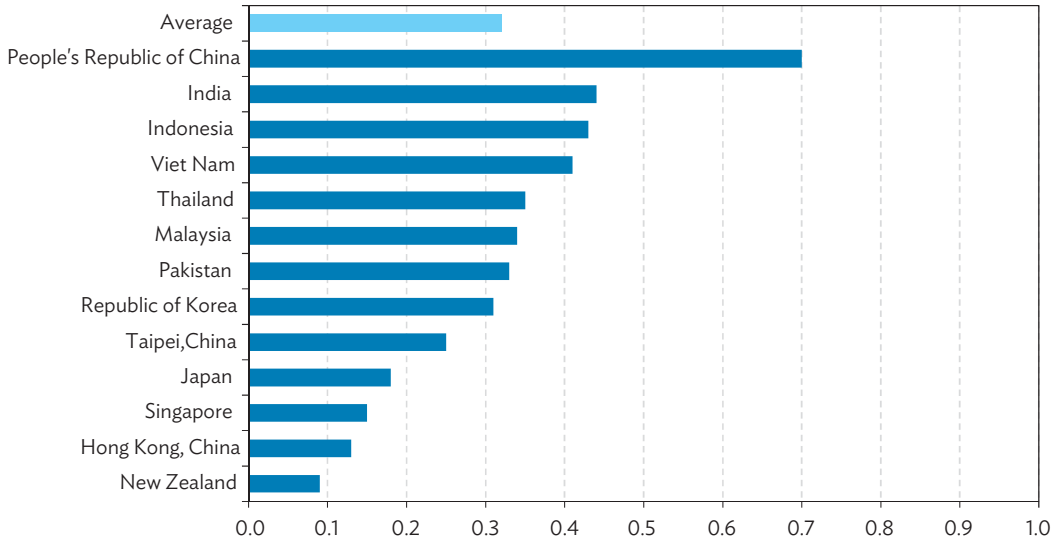


ICT = information and communication technology.

Notes: Digitally deliverable services are an aggregation of insurance and pension services, financial services, charges for the use of intellectual property, telecommunications, computer and information services, other business services and audiovisual and related services. Services trade data unavailable for the Cook Islands, the Marshall Islands, Nauru, Palau, and Turkmenistan.

Source: ADB calculations using data from United Nations Conference on Trade and Development. UNCTADSTAT. https://unctadstat.unctad.org/ (accessed May 2019).

Figure 5.9: Digital Trade Restrictiveness Index in Selected Asian Economies



Note: The Digital Trade Restrictiveness Index ranges from 0 (i.e., completely open) to 1 (i.e., virtually restricted) with increasing values representing higher levels of digital trade costs for businesses.

Source: European Centre for International Political Economy. https://ecipe.org/ (accessed May 2019).

restrictiveness for selected economies with data available in Asia, based on the European Centre for International Political Economy's Digital Trade Restrictiveness Index. The index covers 64 countries and includes many trade policy restrictions in the digital economy, varying from tariffs on digital products, restrictions on digital services and investments, restrictions on the movement of data, and restrictions on e-commerce. The digital trade restrictiveness indexes show wide variation within the region, with some economies among those with most restrictive policy regimes while others have the greatest digital trade openness.

The PRC, India, Indonesia, and Viet Nam—countries that comprise the largest e-commerce markets and/or are have the fastest growing e-commerce markets—ironically belong to the top countries with most restrictive policy regimes on digital trade. Notably, the PRC has the most restrictive policy regime for digital trade, both regionally and globally. The country applies a wide range of restrictive measures in many policy areas covered in the index, including public procurement, foreign investment, intellectual property rights, competition policy, intermediary liability, content access and standards, and quantitative trade and e-commerce restrictions (ECIPE 2018). Moreover, its data policies are considered burdensome for companies. Similarly, India has restrictive policies in public procurement and standard setting; high tariffs on digital goods; and burdensome barriers in policy fields such as taxation and subsidies, foreign investment, and intellectual property rights. India also uses a number of trade defense measures on digital products, yet it remains relatively open in its data policies, which have helped the country become a large exporter of ICT services in recent years.

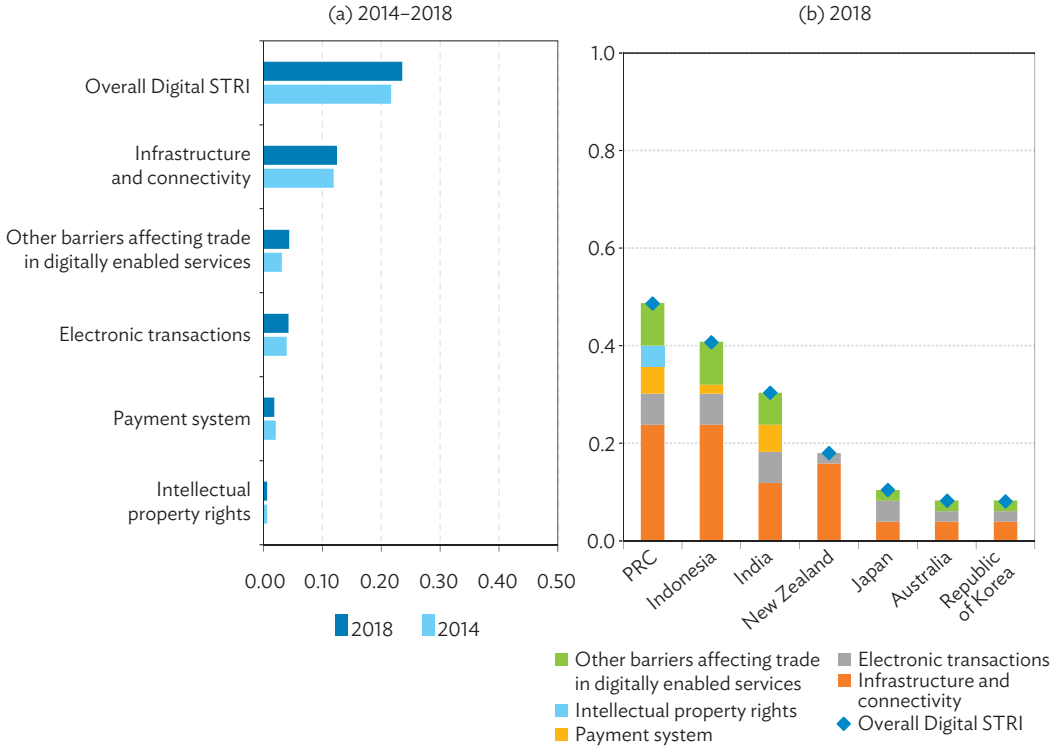
Meanwhile, Indonesia applies highly restrictive measures in areas such as public procurement, intellectual property rights, intermediary liability, content access, quantitative trade restrictions, and standards, and is particularly restrictive in cross border e-commerce. Viet Nam applies restrictive policy measures on foreign investment, competition policy, and movement of data, and has stringent business licensing and registration requirements (ECIPE 2018). Overall, these restrictions may, in part, reflect the predominance of domestic e-commerce over cross-border e-commerce even as overall growth in e-commerce is high.

More advanced Asian economies ranked among those with the least restrictive policy regimes on digital trade, with New Zealand and Hong Kong, China among the top five economies most open to digital trade globally. Generally, they also have more services-oriented economies and traditionally have been most open to international trade and investment.

Trade barriers that may hold back innovation and obstacles to the movement of ICT and ICT-enabled services across borders must also be addressed to fully realize the benefits of digitalization. The OECD's Digital Services Trade Restrictiveness Index provides a further glimpse of the barriers that affect trade in digitally-enabled services. Data from selected Asian economies with available data show an increasingly tightening regulatory environment for digitally-enabled services in recent years (Figure 5.10a). Reflecting on the policy environment of these countries—which are also among the major traders of ICT and digitally deliverable services—the region's landscape for digital trade in services is diverse and intricate, including in regulations across countries (Figure 5.10b). Challenges from this are most pronounced in access to infrastructure and connectivity, differences in electronic transactions such as standards on electronic contracts, and other barriers that hamper trade in digitally-enabled services, such as commercial or local presence requirements and a lack of effective mechanisms of redress against anti-competitive practices online.

In an increasingly ICT-based global economy, it is critical that developing Asian economies harmonize efforts to minimize digital trade restrictions. Reducing inequalities in digital connectivity and developing coherent and inclusive legal and regulatory frameworks is also paramount, especially given the increasing role of digital connectivity, technology and innovation in broad-based economic empowerment and more sustainable economic growth.

Figure 5.10: Digital Services Trade Restrictiveness Index in Selected Asian Economies



PRC = People's Republic of China; R&D = research and development.

Note: STRI, or services trade restrictiveness indexes, take the value from 0 to 1. Complete openness to trade and investment gives a score of zero, while being completely closed to foreign services providers yields a score of one.

Source: OECD. Digital Services Trade Restrictiveness Index Database. https://stats.oecd.org/Index.aspx?DataSetCode=STRI_DIGITAL (accessed May 2019).

Economic Diversification and Empowerment through Digitalization

The role of digitalization as an accelerator of sustainable and more inclusive development is widely and increasingly recognized. ICTs primarily contribute in helping economies to build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation and diversification (Box 5.1). Moreover, ICTs, e-commerce, and other digital platforms can be leveraged to promote entrepreneurship, including the empowerment of women as entrepreneurs and traders. They can also foster productive activities and decent job creation, as well as support the growth and formalization of MSMEs by increasing access to financial services, helping firms integrate into value chains and markets, and the other attributes it offers. Further, digital technologies and e-commerce has (and will increasingly) become more important in helping economies boost exports and increase their trade competitiveness (UNCTAD 2017b).

Beyond its economic benefits, digitalization has important impacts on broader socioeconomic development. Among others, it can foster greater social inclusion by widening access to key public services such as health, education, and financial services and improving their quality, coverage, and delivery. Digitalization itself offers new opportunities for better quality education and skills development and allows consumers to benefit from a greater diversity of products and services, as well as from lower prices. It promotes better governance systems and improved public participation, including through better access to information, which gives rise to increased accountability.

Box 5.1: Exploring Links between Digitalization and Diversification

The reshaping of production processes and business models in the hands of digital technologies has important implications for economic diversification and structural transformation. Businesses, starting with the internet, have embraced 2G and 3G smartphones, then fixed and mobile broadband, and tapped information from the Internet of Things or IoT (collected and transmitted data from sensors outfitted to fridges, watches, thermostats, cars, and shipping containers to computing systems) and big data (sourced from social media, transactions, enterprise content, sensors, and mobile devices). They have adopted fintech and taken to other new digital technologies to collect, store, analyze, and share information digitally. The McKinsey Global Institute (2015) estimates the Internet of Things will generate between $3.9 trillion to $11.1 trillion of revenue in 2025. The upper bound value of this impact—including consumer surplus—would be equivalent to about 11% of the world economy that year.

Use of big data and internet of things (IoT) in agriculture

Big data and the IoT can increase the efficiency of logistics, inventory management, and equipment maintenance, and enable "precision agriculture". This uses data analytics and the IoT to build on geo-coded maps of agricultural fields and real-time monitoring of every activity, from seeding, to watering and fertilizing, and harvesting. Some experts estimate that data analytics can help raise yields by five to ten bushels per acre, or an additional profit of about $100 per acre (Organisation for Economic Co-operation and Development 2014). Reduction in the cost of precision agriculture technology could especially help small farmers in developing countries adopt it to increase yields and save on inputs like fertilizer and water. Apart from improving food security and lowering food prices, precision agriculture contributes to change in the economic landscape as it increases the purchasing power of workers, opens opportunities for rural off-farm enterprises, boosts demand for manufactures, and improves the international competitiveness of domestic manufacturers (United Nations Conference on Trade and Development 2018).

The 'servicification' of manufacturing

Exploitation of data has also created significant value added across many operations, ranging from optimizing the value chain and manufacturing production, to more efficient use of labor, better customer relationships, and the development of new markets. "Servicification," or the increase of purchases, production, sale and export of services is a game-changer for manufacturing. Services create linkages that encourage interaction across different activities and contribute to all stages of production, mainly in back-office services and in different production stages such as quality control, engineering, and security, and pre- and post-production stages too (United Nations Conference on Trade and Development 2017). In Viet Nam, although not exclusively attributed to digitalization, services helped promote industrialization where manufacturing grew rapidly, with more than one third of aggregate productivity growth linked to services (Hoekman and te Velde 2017).

Knowledge and technology-based services in particular have an intermediation function in promoting specialization and are crucial for economic transformation. Use of data analytics in Japan has generated savings of ¥5 trillion in terms of maintenance (which correspond to more than 15% of shipments in 2010) and more than ¥50 billion from power cost. In raising efficiency and effectiveness and reducing production costs and trade barriers, such effects contribute to productivity and export capacity. Empirical studies have estimated 5% to 10% higher productivity from the use of data and analytics, depending on a number of enabling and complementary factors (Organisation for Economic Co-operation and Development 2014).

continued on next page

Box 5.1: continued

Digitalization's potential to fuel productivity growth in services

Digitalization is beginning to play an increasingly large role in services, too. The use of big data in health, albeit considered a slower adopter than the finance and automotive sectors, can reveal unforeseen adverse effects of drugs, enable a better understanding of highly complex health issues such as dementia, and help better plan investment in research and development. In the People's Republic of China, Medtronic, a prominent medical device company, started an online business-to-business platform in 2010 to improve management of more than 500 distributors. This platform covers a range of logistical and financial systems and allows Medtronic to leverage new technology to match local market needs (Sunderland and Chen 2018).

The challenge in digitalization and economic diversification

While digitalization presents an opportunity to improve productivity growth in a range of business processes, it may have contributed to divergence in productivity across firms due to their limited capability or lack of incentive to adopt best practices. Policies promoting successful digital diffusion that can help include industrial extension programs, technology transfers, technology-oriented business services, applied technology centers, research and development centers, and knowledge exchange and demand-based instruments. They are key to unleashing digitalization's promise for increasing productivity and economic diversification.

Sources: Hoekman, B. and Dirk Willem te Velde. eds. 2017. *Trade in Services and Economic Transformation.* London: Supporting Economic Transformation-Overseas Development Institute; McKinsey Global Institute. 2015. *The Internet of Things: Mapping the Value Beyond the Hype.* New York: McKinsey Global Institute; Organisation for Economic Co-operation and Development (OECD). 2014. *Data-driven Innovation for Growth and Well-being.* Interim Synthesis Report. Paris: OECD; Organisation for Economic Co-operation and Development. 2019. *Productivity Growth in the Digital Age.* Paris: OECD; S. Sunderland and H. Chen. 2018. The Digital Revolution in Medtech: Opportunities in Asia. China Business Review. 11 December; United Nations Conference on Trade and Development (UNCTAD). 2017. *The Role of the Services Economy and Trade in Structural Transformation and Inclusive Development.* Geneva: UNCTAD; United Nations Conference on Trade and Development. 2018. *Adapting Industrial Policies to a Digital World for Economic Diversification and Structural Transformation.* Geneva: UNCTAD.

In particular reference to the rural economy, digital technologies can assist governments to achieve the objective of increasing rural incomes, which in developing economies typically lag urban incomes. Increasing rural incomes involves moving farmers out of subsistence and encouraging them to orient toward markets. The role of improved information in achieving this goal is vital. Digital services can update farmers with information about market prices and other market conditions, enable the dissemination of agricultural best practices, improve accessibility to information about food safety and help improve logistics.

Digital connectivity can be leveraged to promote entrepreneurship, including the empowerment of women as entrepreneurs and traders. They can also foster productive activities and decent job creation and support the growth and formalization of MSMEs by increasing access to financial services, helping firms integrate into value chains and markets, and the other attributes it offers. Furthermore, digital technologies and e-commerce has (and will increasingly) become more important in helping economies boost exports and increase their trade competitiveness (UNCTAD 2017b). Beyond its economic benefits, digitalization has important impacts on broader socioeconomic development.

Digital Trade in the Service of MSMEs

Digital trade offers a range of opportunities for MSMEs to better access international markets and play more active roles in global value chains, giving them a leverage to both grow sustainably and contribute to inclusive development.

Digital technologies, and ultimately digital trade, can benefit and empower MSMEs through several channels. Foremost is through the reduction of barriers and costs to trade. Recent studies have shown that internet access can reduce trade barriers and costs for all firms, especially for SMEs in services (Cusolito et al. 2016). Digital technologies can also ease constraints that disproportionally make it difficult for small firms to enter international markets. These include higher relative fixed costs, insufficient research and development (R&D) and skills training, and inadequate knowledge of foreign markets and regulations. Digital technologies can also reduce SME expenditure in a range of areas, from market research to operational support (Ganne and Lundquist 2019). For example, evidence shows that taking advantage of digital tools can reduce export costs for MSMEs by as much as 82%, and foreign market operating costs by up to 59% (AMTC 2018). Similarly, digital tools can have time-saving benefits, with evidence showing up to 29% reduction in time for exporting activities, primarily through more streamlined operational support backend (AMTC 2018). Other cost-reducing benefits relate to distribution services offering digital logistics that help small firms better assess their production schedules and demand (AMTC 2018; WTO 2018) and the value of trade intermediation services, where digital technologies can help cut the cost of logistics and reduce market distortions created by intermediaries (Ganne and Lundquist 2019).

Second, digital technologies and networks can supplement traditional finance for MSMEs. This comes through online and mobile banking (in which e-commerce platforms prove as useful channels for provision), as well as new financing tools such as crowdfunding (Ganne and Lundquist 2019). Blockchain also offers new opportunities for MSMEs to access trade finance by helping small firms build a credit history and by opening up the possibilities for making peer-to-peer transactions rather than go through more expensive intermediaries such as banks (Ganne 2018).

Third, digital technologies can facilitate MSMEs' access to information—and so help them obtain better market information and deal with legal and regulatory compliance requirements. For instance, government services and regulations (such as business and export requirements, tax compliance codes, and the like) can now be accessed online and necessary applications submitted using e-government services. This is particularly important for MSMEs, which typically have more trouble than bigger firms in accessing information, partly because their networks are smaller and likely to have to outsource customs-related regulatory compliance (ITC 2017). Studies also show that services MSMEs can eliminate regulatory compliance costs by leveraging digital tools, while manufacturing MSMEs can cut them by as much as 40% (AMTC 2018).

Fourth, e-commerce platforms can facilitate MSMEs' participation in global value chains. Lendle et al. (2014) shows that more than 80% of eBay sellers are exporters, whereas only 10% of small firms using traditional non-platform methods are exporters. Studies have also shown that SMEs using e-commerce tend to sustain their export markets for longer than those that do not (ITC 2016). Moreover, even while SMEs engaged in e-commerce may not immediately take part in global value chains, they often enter international trade and supply chains as e-commerce importers before becoming exporters and suppliers themselves (as cited in Lanz et al. 2018).

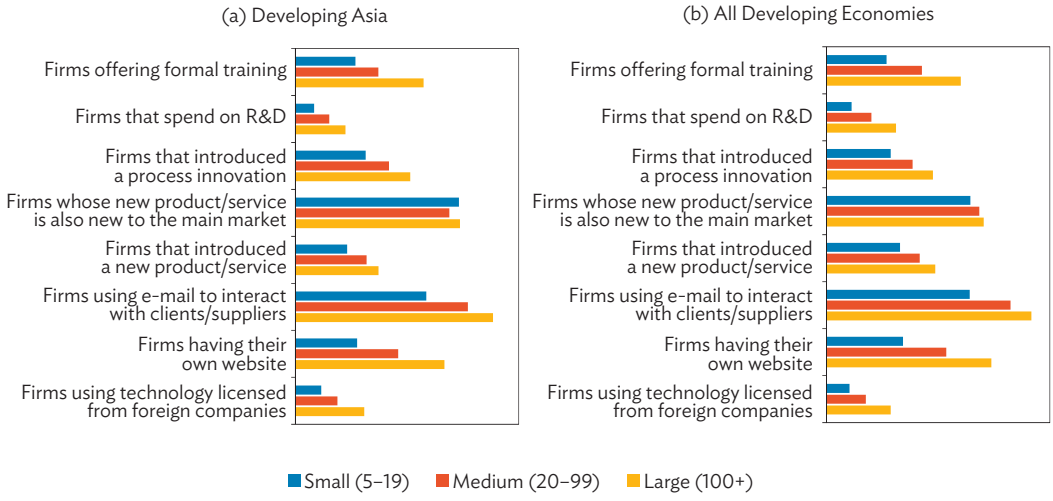
Finally, digital technologies and networks can open new business opportunities for MSMEs—especially in rural areas and for women-owned firms—and promote new business structures that can serve as platforms for the international participation of MSMEs. ICT tools and services have led to the emergence of small and young firms that operate globally from inception, or the so-called micro-multinationals (Cusolito et al. 2016). In particular, Skype for communications, Google and Dropbox

for file sharing, LinkedIn for finding talent, PayPal for transactions, and eBay and Amazon for sales, have helped small and new entrants in global markets. Indeed, in and of themselves, digital tools can be leveraged to open up business opportunities that boost the participation of small producers in international markets. For example, in the PRC, many farmers have become online entrepreneurs, enabled by internet-based tools provided by technology companies, and as of 2013, over 22% of the 7 million stores on Alibaba's Taobao Marketplace and Tmall.com originated in villages and towns. In the example, 16 of these villages created 40,000 jobs and generated more than 5 billion yuan in online sales (Chen 2013).

Ultimately, digital technologies can also promote MSMEs' contribution to inclusive development. Evidence from OECD countries show that the employment share of MSMEs in ICT increased from 3.8% to 4.7% between 2010 and 2016, and their share of value added grew in nearly all member countries, with the most substantial increases in publishing and telecommunications (OECD 2018).

A host of issues still need to be tackled if MSME participation in the digital economy is to catch up with large firms. For one, MSMEs lag in adopting and implementing digital technologies. Experiences from developing countries show that MSMEs, especially women-owned enterprises, find it difficult to use new forms of information technology due to factors such as lack of awareness of its application or access to training on the use of ICT tools (UNCTAD 2014). Moreover, these firms often have limited access to resources such as the finance and the skills they need to learn how to use these tools more effectively. Data show that MSMEs are less innovative and less likely to use technology and offer formal training than large firms, suggesting that a "digital divide" and skills gap has opened up between small and large firms (Figure 5.11). Accompanying digitalization is the increased demand for technological and skills upgrading within firms. The ability to effectively interact with more advanced technologies such as those used in supply chain management techniques has become a precondition of big industries or firms for taking on other firms as suppliers. As a prerequisite for certain types of global value chain participation, this excludes some suppliers (Ganne and Lundquist 2019). Without the requisite capital and skills, MSMEs risk being left behind.

Figure 5.11: Innovation, Use of Technology, and Training in Firms by Firm Size—Developing Economies (% of firms)



R&D = research and development.

Notes: Regional averages are computed by taking a simple average of country point estimates. For each economy, only the latest available year of survey data are used in this computation. Developing Asia does not include Brunei Darussalam; the Cook Islands; Hong Kong, China; Kiribati; the Marshall Islands; Nauru; Palau; the Republic of Korea; Singapore; Turkmenistan; and Tuvalu as data are unavailable.

Source: ADB calculations using data from World Bank. Enterprise Surveys. http://www.enterprisesurveys.org (accessed March 2019).

Digital Trade as a Game-Changer for Women's Empowerment

Digital technologies—and ultimately digital trade—can spur connectivity and help women take advantage of the many opportunities in the digital economy. E-commerce, especially m-commerce and social commerce, has and is proving to be a game-changer for women, as they platforms have allowed many to become entrepreneurs (Box 5.2).

Most importantly, online work platforms can provide women with greater access to labor markets, knowledge, and flexible working arrangements. Given the potential benefit in ameliorating time poverty and mobility constraints, this can lead to higher female employment on digital platforms than in traditional industries.

Second, digital platforms such as e-commerce and related digital solutions can enable women-owned enterprises to engage in entrepreneurial activities and foster business structures that ultimately facilitate growth and participation in international value chains and e-commerce help them to integrate more easily into global markets. In particular, digital solutions can enable entrepreneurial activities among women. It can help them gain greater access to finance (such as through mobile banking and crowdfunding), improve business communication strategies, and secure a degree of anonymity that reduces gender biases. Digital solutions open up access to networks and knowledge sharing, allow women to balance their domestic and entrepreneurial activities by not having to commute, and enable time and cost efficiencies in business management (Hussain 2016; The Sasakawa Peace Foundation and Dalberg Global Development Advisors 2017).

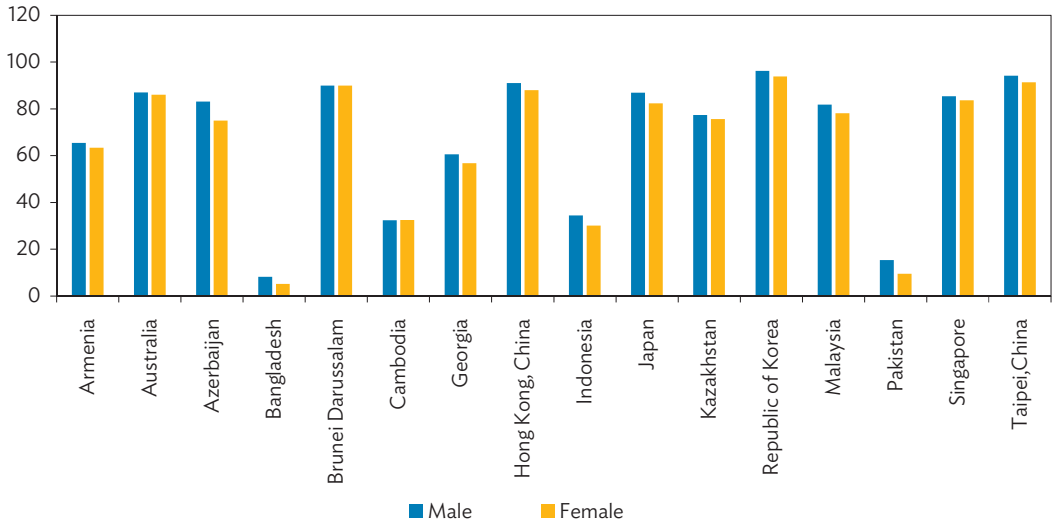
Third, digital tools can accelerate financial inclusion and empowerment. In particular, digital money enables women to take control of their personal finances to an extent not previously possible. Digital money, along with online services and e-commerce, enables women not only to manage personal finances more easily, but to more effectively set up and operate micro businesses, for example by making use of microfinancing facilities.

Fourth, digitalization can expand economic opportunities for women, helping them enter traditionally male-intensive sectors, and along the way to access income-generating opportunities associated with greater skill accumulation and higher productivity. ICT-enabled services, in particular, have made proven contributions in this regard. For example, Asian countries have generally benefited from job creation in the outsourcing industry and other ICT-enabled services. In India, more than 1.3 million of the 3.7 million people employed in the information technology and business process management industries are women, and they outnumber men as entry-level hires (PricewaterhouseCoopers and NASSCOM 2016). In the Philippines, the business process outsourcing industry counts mostly women among its 1.3 million employees (Errighi, Bowedwell, and Khatiwada 2016). Notwithstanding the gender gaps between men and women, ICT-intensive jobs offer promise, as shown by the evidence that women undertaking more ICT-intensive tasks have received pay increases 12% higher than men (OECD 2018).

Finally, digital tools and networks can improve the quality and reach of health and education, among other public services. Where public services are either absent or underdeveloped and resources are limited, digital tools and networks can help improve access, coverage, quality, and delivery. Online courses and digital learning platforms can give women—especially young women and those in rural areas—better access to education and skills development opportunities.

Notwithstanding the potential benefits of the digital economy, a digital gender divide persists. For instance, evidence shows that women are generally less likely than men to own ICT tools such as mobile phones, especially in low- and middle-income countries (GSM Association 2018). Figure 5.12 also shows that across advanced and developing Asian countries, women do not have as much access to the internet as men.

Figure 5.12: Percentage of Individuals Using the Internet by Gender, 2017



Source: ADB calculations using data from International Telecommunication Union. https://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx (accessed March 2019).

Structural factors may also be limiting women's participation in the digital economy and the quality of their interaction.[50] Evidence shows that women are less represented than men in the ICT sector, and that the gender employment gap varies greatly across Asia. International experience suggests that educational disparities and norms around women in STEM largely determine the gender inequalities that exist in ICT (International Telecommunication Union 2004, Tuca 2018).[51] In essence, underrepresentation of women in these fields hinders their entry into higher-value added, technologically advanced, or knowledge-intensive industries—sectors that tend to benefit from greater skill accumulation and higher profit or wage margins. Improving women's access to education and skills development opportunities through reforms and technical and vocational education and training promotion can close gender gaps in these areas.

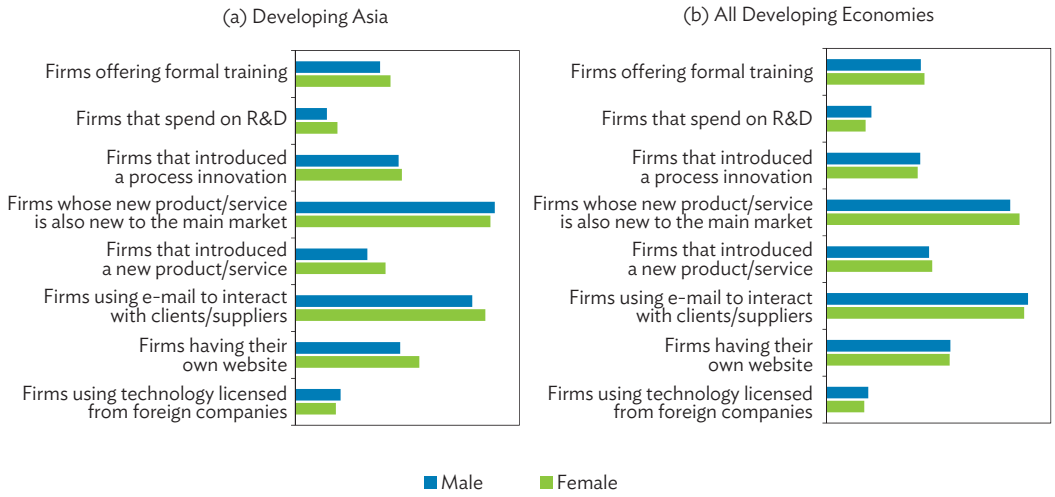
Evidence in the region also reveals that once women gain access to ICT tools and services, they tend to use these as equally as—or in some instances, exceedingly more than—men, as shown in (Figure 5.13a). For certain indicators such as spending on research and development and introducing a process of innovation or new products and services, women-led firms tend to invest more on innovation and/or are more innovative than firms led by men. Results from the 2017 Pacific Exporters Survey similarly show that Pacific firms owned by women were more active online, with their own websites and social media being the most popular channels. Women-led firms in Asia are also more likely to offer formal training than firms led by men. These underscore the significance of giving women access to ICT tools and services and the skills and knowledge needed to leverage their agility to technology and innovation. Indeed, empirical evidence suggests that women benefit more from digital trade than

[50] Moreover, the net impact of liberalization in ICT services is fairly complex, and different segments of the population will be affected in different ways and to varying degrees (e.g., ICT opportunities are mostly concentrated in urban areas).

[51] Learning from the experience of Southeast Asian economies, Tuca (2018) notes that the underlying causes that inhibit women from acquiring skills related to STEM, and so from participating in high-skill industries, include (a) families' education investment leaning more for boys and men than girls and women; (b) limited gender-sensitive content in education and training programs; (c) lack of information among women on the varied nature of work and career trajectories for workers in STEM; (d) social norms, parental expectations, and cultural practices that lead to gender differences in educational preferences; and (e) the evidently male-dominated gender composition of teachers in academic institutions.

men. A 2015 survey of Pacific Island exporters, for instance, showed that firms active online had a greater concentration of female than male executives under 45 years of age (DiCaprio and Suominen 2015). Similarly, ITC (2017) reveals that the share of firms owned by women doubles when traditional offline trade switches to cross-border e-commerce.

Figure 5.13: Innovation, Use of Technology, and Training in Firms by Gender of Top Manager—Developing Economies (% of firms)



R&D = research and development.

Notes: Regional averages are computed by taking a simple average of country point estimates. For each economy, only the latest available year of survey data are used in this computation. Developing Asia does not include Brunei Darussalam; the Cook Islands; Hong Kong, China; Kiribati; the Marshall Islands; Nauru; Palau; the Republic of Korea; Singapore; Turkmenistan; and Tuvalu as data are unavailable.

Source: ADB calculations using data from World Bank. Enterprise Surveys. http://www.enterprisesurveys.org (accessed March 2019).

Box 5.2: How Mobile and Social Commerce Empower Women and MSMEs in Asia

Empowering women-led micro, small, and medium-sized enterprises (MSMEs) to capitalize on services, particularly digital services across borders, offers a powerful tool to tackle issues at borders. E-commerce has enabled women to grow their businesses and bypass many challenges due to gender. A University of Southern California study in 2018 revealed that doing business online helps women create a more flexible work schedule and to start and grow businesses from their homes and expand to international markets. It also removes gender biases as the online medium can place a layer of invisibility over the seller's identity. With e-commerce, women do not need collateral or to meet high overhead costs.

Alibaba's holistic business model

Alibaba is similar to eBay or Amazon as an online retailer, but the company's business model is different from prominent e-commerce businesses in the United States. The Alibaba Group is based in the People's Republic of China and has three core businesses; Alibaba, Taobao, and Tmall. Alibaba is a business-to-business sourcing platform that serves companies including micro, small, and medium-sized enterprises (MSMEs) connecting suppliers with buyers across the world. Taobao is a consumer-to-consumer marketplace similar to eBay where most sellers are individuals or small businesses. Tmall is a business-to-consumer marketplace similar to Amazon, where only authorized businesses can setup a shop and need to work with a so-called Tmall Partner. In addition to its core businesses, the Alibaba Group launched Alipay, a third-party mobile and online payment platform with no transaction fees in 2004.

continued on next page

Box 5.2: continued

While MSMEs thrive in all three marketplaces, the Taobao marketplace in particular connects low -income and remote households to a broad range of goods and services at low wholesale and retail prices. A Taobao village is "a cluster of rural e-tailers within a village where total annual transaction value exceeds 10 million yuan, and where at least 10% of the population is involved, or 100 active shops operate" (China Hands 2018). Villagers themselves lead the charge into the online marketplace. Taobao nurtures MSMES by providing small-scale producers with new sales channels reducing their operational and startup costs.

With women accounting more than 50% of all merchants in Taobao marketplace in 2015, the Alibaba Group launched its first "Global Conference on Women and Entrepreneurship" to help them more become entrepreneurs in the fast-growing field of e-commerce. As of March 2018, the share of female entrepreneurs on AliExpress, a global e-tail platform under Alibaba, is even higher, at about 53%. In 2016, Alibaba Group expanded in Asia when it acquired Lazada, an e-commerce platform operating in six Southeast Asian countries (Indonesia, Malaysia, Thailand, Viet Nam, the Philippines, and Singapore) with more than 155,000 local and international sellers and 3,000 brands. In 2017, it also partnered with the Malaysia Digital Economy Corporation to establish the World Trade Platform (eWTP), a framework for small businesses around the world to participate in e-commerce trade through lower tariffs, free-trade zones, and logistics support.

Etsy's unique pieces

Since its founding in 2015, Etsy has grown to dominate the peer-to-peer e-commerce marketplace. Its business model can be described as somewhat similar to Amazon or eBay, but with slight difference. Etsy helps vendors earn a living selling their handcrafted goods (e.g., jewelry, bags, clothing, home décor and furniture, toys, art, as well as craft supplies and tools) and at the same time gives buyers unique products.

Given the nature of the items sold, Etsy serves as an incubator and champion of women entrepreneurship. Most of Etsy sellers are women; about 90% in Australia, 87% in the United States, Canada, and France, and 86% in Germany. For 53% of current sellers, made their first ever sales by posting on the platform. Furthermore, about 97% of sellers operate the creative business from their homes and 80% are sole proprietorship. Sellers on Etsy are also relatively young, with 60% under the age of 45 and 28% originating in rural areas. Etsy reports that its women sellers are twice as likely as men to have started their business while caring for a family member or being unable to work outside the home. Although Etsy is popular in North America, Europe, and Australia, it is yet to gain momentum in Asia.

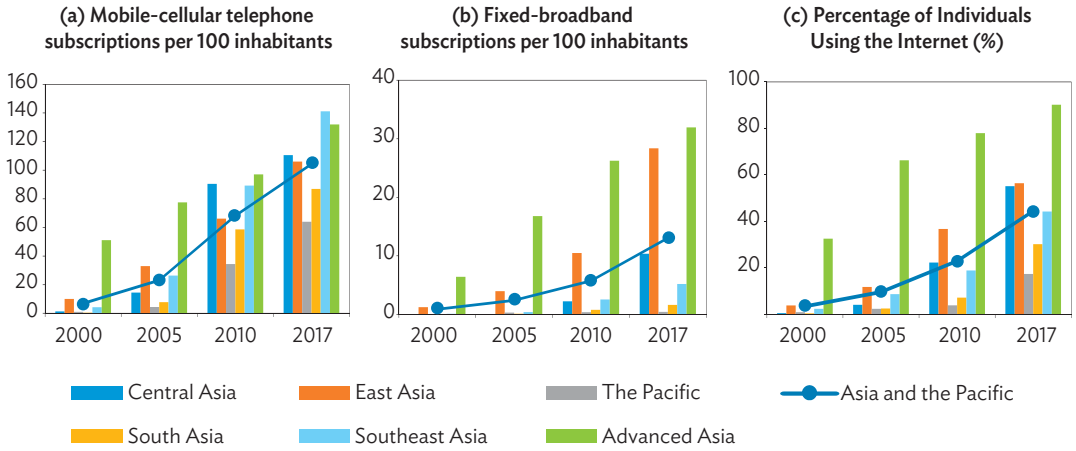
In 2018, Etsy reported 20.4% annual growth in gross merchandise to $3.9 billion and a 36.8% increase in annual revenue to $604 million from 2017.

Sources: Alibaba Group Holding Limited. 2018. *ESG Report 2018.* Hangzhou: Alibaba Group; *China Hands.* 2018. Taobao Villages: Bridging the Rural-Urban Divide. 16 June; Etsy. 2018. Creativity Unleashed. New York; Etsy; L. Shrader. 2013. *Microfinance, E-Commerce, Big Data and China: The Alibaba Story.* Consultative Group to Assist the Poor. 11 October.

Key Policy Interventions and the Role of Aid for Trade

The first building block for leveraging the digital economy—and ultimately digital trade—to promote inclusive development is strengthening the efficiency, reliability, affordability, and accessibility of digital infrastructure and services. In Asia, mobile cellular subscription rates have expanded an average of 7 subscriptions for 100 people in 2000 to 100 subscriptions in 2017 (Figure 5.14). Subscription rates have risen steadily across subregions, although they vary widely. Complementary measures, such as national broadband and e-commerce strategies are also necessary. Ensuring a sound regulatory and business environment is key in this respect.

Figure 5.14: Internet Users and Mobile Cellular and Fixed Broadband Subscriptions—Asia and the Pacific



Notes: For fixed broadband subscriptions, 2002 reported the required (earliest year) data for the largest number of constituent countries in each region. Data are unavailable for the Cook Islands.

Source: ADB calculations using data from International Telecommunication Union. https://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx (accessed March 2019).

Promoting legal, regulatory, and institutional reforms

Establishing a supportive regulatory and legal environment is integral to facilitate digital trade. ICT-enabled trade is not exempt from traditional tariff and nontariff barriers to goods and services trade. For digital trade to occur, the lowering of entry barriers and elimination of market access restrictions to goods and services are crucial. Further, a regulatory framework— particularly in telecommunications— that fosters competition among services providers and an adequate legal framework that encompasses legislations on e-transactions, consumer protection, data protection/privacy, and cybercrime needed. They are essential to promote innovation and expanded access to goods and services, to encourage transparency and reduce online transaction risks, and to help strengthen national e-commerce laws.

Developing and implementing legislation and regulations related to digital trade is not sufficient. Ensuring that the legal and regulatory environment is stable is crucial, as uncertainties and inconsistencies can create difficulties for all firms/groups, but especially smaller firms. A complex regulatory environment with high regulatory costs and administrative burdens can hold back smaller firms and new entrants, including women-owned, from engaging in formal sector activities, thereby also hampering their international expansion.

The experience of many Asian economies demonstrates that well-targeted telecommunications reforms can contribute to making ICT services more available, affordable, and inclusive. These have specifically included expanding ownership of mobile phones, improving transparency in regulations and legal frameworks, and increasing competition among service providers to improve market access and entry. Consumer protection and confidence, the establishment of regulatory bodies, and efforts to improve mobile broadband networks are among other needed reforms (ADB 2017a). Besides reforms in telecommunications, a range of related policies and strategies to promote digital trade have also been undertaken by governments across the region.

Given the increasing importance of digital trade in the economy, most Asian countries have either recently updated or are currently updating their national policies and strategies. India recently

launched its National Digital Telecom Policy 2018 mainly anchored on spurring the economy by increasing the contribution of the digital communications sector to 8% of India's GDP from 6% in 2017 and creating 4 million additional jobs in digital communications, among others. Meanwhile, the Government of Bangladesh's National ICT Policy was due to be published in 2019. Armenia is also preparing a Digital Transformation Agenda of Armenia 2018–2030, which covers reforms in infrastructure, digital management, digital transformation of the private sector, the promotion of digital skills, development of the institutional system, and cyber security.

Nonetheless, government capacity weighs on the reform agenda, while regional initiatives to harmonize regulations can also hampered by disparate legal frameworks and the digital divide between countries. The increasingly cross-border nature of e-commerce and rapid growth of digital trade in services calls for intensified regional efforts to modernize and harmonize regulations. Coordinated regional efforts to devise and enforce related laws can help facilitate e-commerce and digital trade. Ongoing free trade agreement negotiations provide opportunities to develop a more robust digital trade agenda. The e-ASEAN Initiative of the Association of Southeast Asian Nations provides a good example (Box 5.3).

Box 5.3: Regional Initiatives on E-commerce and Digital Trade in Asia and the Pacific

The *e-ASEAN Initiative* aims to strengthen information and communication technology (ICT) infrastructure as an engine of trade, economic growth, innovation and better governance, and to reduce the digital divide within the Association of Southeast Asian Nations (ASEAN). An agreement in 2000 made ASEAN the first developing region to prepare a harmonized e-commerce legal framework across jurisdictions (UNCTAD 2013). Other landmarks included the ASEAN ICT Masterplan 2015 for harmonized e-commerce laws in each member country to create ICT conducive to businesses and to secure transactions throughout the group. UNCTAD (2013) notes that progress toward harmonization has been strongest in electronic transactions laws, with nine member countries having legislation in place and Cambodia now putting a draft law into effect, and progress on laws covering cybercrime, domain names, and dispute resolution.

The ***Transport and Trade Facilitation Action Program in the Greater Mekong Subregion*** aims to tackle "software" challenges of improved connectivity through improvements in transport and trade facilitation, as well as capacity-building and institutional reform.

The ***Central Asia Regional Economic Cooperation (CAREC) Transport and Trade Facilitation Strategy 2020*** provides the blueprint for harmonizing customs procedures and standards. It has included piloting a regional transit regime utilizing a single electronic transit document.

The ***Implementation Blueprint 2012–2016 in the Brunei Darussalam-Indonesia-Malaysia-Philippines East ASEAN Growth Area (BIMP-EAGA)*** highlights ICT facilities and services, and trade facilitation as its priorities. The blueprint also recognizes that ICT plays an important role in modernizing customs facilities, promoting e-commerce, facilitating information and communication exchange and tracking system, and building online systems.

Source: ADB. 2017. Aid for Trade in Asia and the Pacific: Promoting Connectivity for Inclusive Development. Manila. pp.33-34.

Ultimately, strengthening domestic institutional capacity and support by developing and/or improving domestic e-commerce strategies and promoting public–private partnerships is paramount to sustain and scale up progress. National initiatives of select Asian countries prove that more information

infrastructure, equitable allocation of resources, and reliable and secure payment systems can boost the inclusiveness of digital trade. On the other hand, there are three further ways that the public and private sectors can work together to boost digital trade and enhance its inclusiveness (WTO/OECD 2017: pp.284–285):

- First, the private sector can identify the problems, then creates and seeds solutions; whereas the public sector comes in as a provider of growth capital for proven projects.
- Second, both can work together to design and create e-commerce development projects, with the private sector providing guidance, real-time, granular data, and insights to help the public sector optimize its investments.
- Third, through social impact bonds (or the so-called development impact bonds), where social impact investors, and/or e-commerce platforms make the initial investment in e-commerce projects, such as an SME training program, and get compensated at a premium by the government and public development agencies if and when the program meets certain pre-established performance indicators, such as the creation of a target number of e-commerce-related jobs or the generation of an agreed amount of new online exports.

Shoring up digital trade in services

With the increasing role of digitally deliverable services in boosting trade growth and promoting inclusive development, encouragement for digital trade in services is ever more vital. Apart from bridging information and infrastructure gaps by improving ICT infrastructure and establishing a supportive regulatory and legal environment, Asian economies can consider the following policy actions to shore up digital trade in services.

First, the need to advance new services trade rules to address existing and emerging digital trade restrictions. For example, the General Agreement on Trade in Services (GATS) rules already cover some disciplines that support digital trade, including an Annex on Telecommunications Services. However, challenges in digital trade are emerging that require new rules. For instance, government restrictions on the free flow of data—while some are for legitimate reasons such as for protecting data privacy and ensuring cybersecurity—can downgrade the potential of online platforms for international trade.

In this context, ongoing free trade agreement (FTA) negotiations provide opportunities for developing a more robust digital trade agenda. The e-ASEAN Initiative of the Association of Southeast Asian Nations is illustrative. For example, the ASEAN-Australia-New Zealand Free Trade Area (AANZFTA) covers provisions on transparency and online consumer protection. Under the Regional Comprehensive Economic Partnership (RCEP) negotiations, intellectual property rights and other e-commerce areas are also being dealt with. Strengthening regional efforts and individual commitments of governments and participating stakeholders in this regard is vital.

Ultimately, securing policy coherence and the convergence of actions between and among Asia's economies in improving digital regulations and connectivity infrastructure are key to creating an enabling environment for digital trade in services. To this end, the new Framework Agreement on the Facilitation of Cross-Border Paperless Trade in Asia and the Pacific can serve as a valuable tool to facilitate cross-border digital trade and better equip economies to implement the World Trade Organization's Trade Facilitation Agreement. The agreement is expected to benefit the region by providing a multilateral intergovernmental platform, offering a strong capacity building program with emphasis on sharing knowledge, enabling pilot projects on cross-border data exchange, setting action plans based on countries' state of readiness, and fostering recognition among stakeholders to achieve the agreement's goals (UNESCAP 2016).

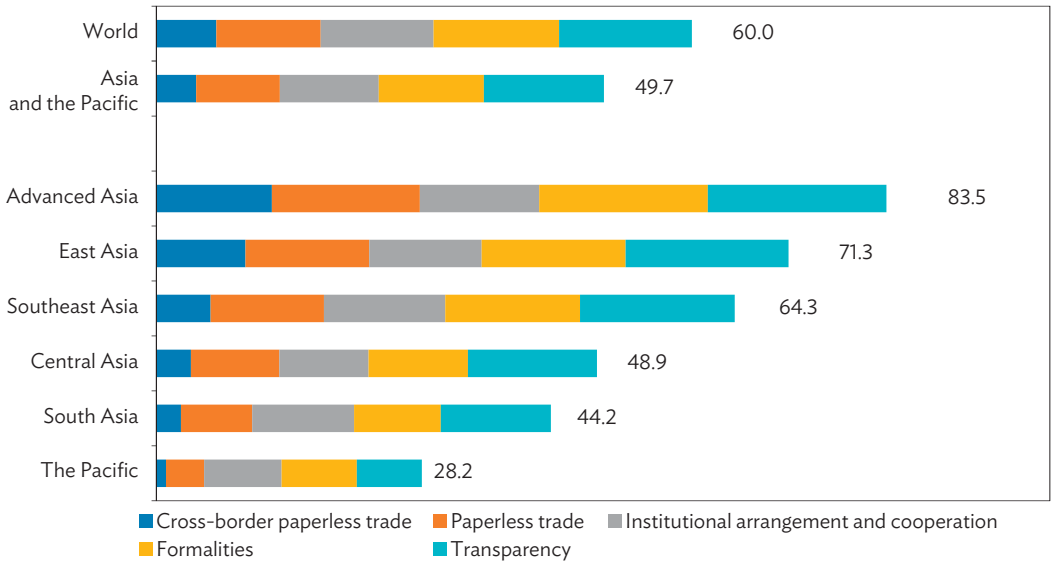
Fostering innovation and digital skills development

As the digital economy evolves further, demand for innovation and skills development will continue to increase. To benefit fully from opportunities linked to digitalization, policies will need to enable complementary investments in knowledge-based capital, including data and organizational process innovation (OECD 2017b), and to equip workers and the general population with the skills needed to use technology more effectively and to perform well in ICT-related/intensive jobs. With risks from automation and industry consolidation due to increased competition in the offing, policies geared toward helping workers and firms (especially smaller firms) adapt to the changes in the labor market and business environment are crucial. Market incentives for small firms to adopt new technologies, as well as incentivizing larger partner firms/trade and business associations/cooperatives to support MSMEs and women-owned firms in using new technologies, could complement these policies.

Better digital trade facilitation promotes inclusiveness

Trade facilitation eases the cross-border movement of goods by cutting costs and simplifying trade procedures (OECD 2005), in the process increasing trade flows and ultimately sustainable and inclusive growth. It lowers direct costs by raising efficiency among interacting businesses and administering agencies. Implementation of measures to simplify and digitize trade procedures in the region, including cross-border paperless trade systems, remains very low (Figure 5.15). This indicates that the scarcity of institutional and legal frameworks to support cross-border paperless trade is a pervasive challenge. More generally, this reflects that "many less advanced countries in the region are at an early stage of development of national paperless systems" and that, on the other hand, their paperless systems are in place yet not fully interoperable (UNESCAP 2017).

Figure 5.15: Trade Facilitation and Paperless Trade Implementation, 2017 (%)



Note: Asia and the Pacific does not include the Cook Islands; Georgia; Hong Kong, China; the Marshall Islands; Taipei,China; and Turkmenistan.
Source: UN Global Survey on Trade Facilitation and Paperless Trade Implementation. https://untfsurvey.org/ (accessed May 2019).

Encouragement for digital trade facilitation measures is essential to accelerate growth and promote the inclusiveness of digital trade. The challenges of limited human resource capacity *and* lack of coordination between government agencies—challenges identified in the UN Global Survey on Trade Facilitation and Paperless Trade Implementation as the most pressing faced by developing Asian countries in implementing trade facilitation measures (UNESCAP 2017)—must also be tackled.

Indeed, trade facilitation is perceived as crucial to unlocking "further gains from international trade" (ADB and UNESCAP 2013). ADB and UNESCAP (2017) estimates that full implementation of facilitation measures could reduce trade costs up to 16%.

In reference to digital trade facilitation systems, evidence from Asia and the Pacific shows that implementation of cross-border paperless trade could reduce costs by 17% to 31% and cut export times by 24% to 44%, increasing the annual export potential of the region by $257 billion (UNESCAP 2014). From an inclusiveness perspective, the potential reduction in trade costs can disproportionately benefit MSMEs, especially those in least developed and geographically challenged economies, including women-owned firms, and those in rural areas. Regional trade facilitation initiatives in Asia, as shown in Box 5.3, illustrate this empowerment potential.

On the whole, governments in Asia can also leverage digital tools and services to improve or re-invent policy design, implementation, and monitoring and evaluation. To enable more evidence-based policies, better measurement and analysis of the digital economy—and digital trade in particular—is urgently needed (Box 5.4).

Box 5.4: Official Statistics Needed in E-Commerce/Digital Trade

Limited data has made it difficult to discuss trends and developments in digital trade and e-commerce or to conduct quantitative analysis. Different working definitions of e-commerce among institutions that track its growth pose challenges to measurement, particularly the valuation of trade. Studies are primarily based on private data sources that offer glimpses of e-commerce trends and patterns, and without internationally consistent and comprehensive official statistics meaningful cross-country analysis is not possible. Issues of variations in working definitions and data collection methods are compounded by difficulties in distinguishing domestic and cross-border digital trade. Inconsistency of e-commerce data across countries presents challenges, especially when assessing the potential economic impact of e-commerce and offering evidence-based policies and practices for trade issues. Proper quantitative assessment of digital trade and e-commerce could contribute significantly to harmonization of trade facilitation and policy instruments in Asia and the Pacific, especially as the region makes progress in paperless trade.

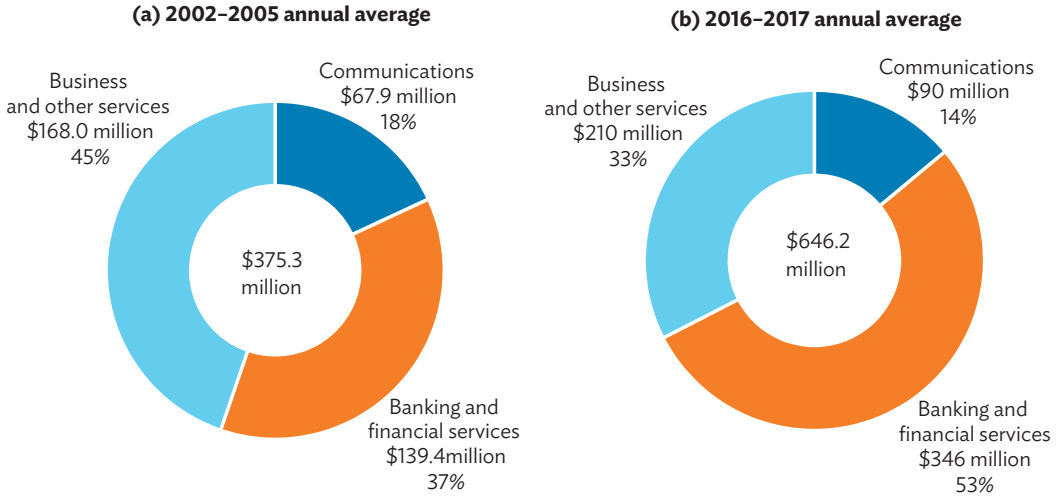
Source: ADB (2017, 38).

Aid for Trade can ease ICT infrastructure challenges

Ultimately, Aid for Trade (AfT) can play a catalytic role in tackling ICT infrastructure and connectivity challenges faced by developing Asian economies, especially the geographically challenged and countries with underdeveloped digital trade. Moreover, AfT can be an instrument to support needed policy actions, especially on digital trade facilitation, and a help to building institutional capacities to implement these policies.

AfT targeted for ICT-enabled services,[52] however, remains low and comprises only a fraction of total AfT. Despite nearly doubling from a baseline average of $375.3 million in 2002–2005 to a $646.2 million average for 2016 and 2017 (Figure 5.16), aid in ICT-enabled services in developing Asia accounted for just 8.5% of total AfT over 2002–2017, when more than half consisting of banking and financial services while ICT accounted for only 3%. Clearly, the need to shore up aid in ICT-enabled services is great, especially given the growing contribution these sectors make to facilitating more inclusive trade.

Figure 5.16: Aid in ICT and ICT-Enabled Services—Developing Asia



ICT = information and communication technology.

Source: ADB calculations using data from OECD. Creditor Reporting System. https://stats.oecd.org/Index.aspx?DataSetCode=crs1# (accessed June 2019).

[52] Aid for ICT-enabled services is hereby defined as aid in communications, banking and financial services, and business and other services. Aid for *ICT* is covered in *communications*.

CHAPTER 6

CONCLUSION: THE RATIONAL FOR TARGETED INTERVENTIONS

Aid for Trade is taking more of official development assistance budgets for good reason. At a time when uncertainty about the global economic environment has reduced trade growth and protectionist tendencies are intensifying, the capacity of Aid for Trade measures to create positive outcomes and contribute to the 2030 Sustainable Development Agenda is increasingly recognized. Indeed, partner countries across Asia and the Pacific see AfT as a crucial part of the aid agenda for achieving the SDGs, most notably in industry, innovation, and infrastructure, decent work and economic growth, gender equality, and poverty eradication.

Greater economic participation and empowerment for women and MSMEs is particularly important for improving development outcomes and achieving the internationally agreed SDGs. While gender equality is a stand-alone goal (SDG 5), it is also widely identified as critical for several other SDGs (ADB 2019a). Closing gender gaps could generate a 30% increase in per capita income of an average economy in Asia in one generation, and 70% in two (ADB 2015). Similarly, given that MSMEs form the backbone of inclusive economic development, supporting their development can bring wide-reaching impacts, including for SDG 1 (ending poverty), SDG 2 (zero hunger), SDG 3 (good health and well-being), SDG 5 (gender equality), SDG 8 (decent work and economic growth), and SDG 9 (fostering sustainable industrialization and innovation) (United Nations 2018).

This report also demonstrates the rationale for trade interventions aimed at promoting diversification and inclusive growth, and it has shown their potential to boost trade in services and digital trade in particular. That services sectors are a potent force for economic growth, poverty eradication, and job creation is increasingly apparent. Besides major contributions to output, employment, and trade and investment, services are key inputs in the production of goods. ICT services, for example, help boost productivity and increase competitiveness. Financial services support capital accumulation for productive investment and innovation, transport and logistics services are vital for better connectivity, and good health and education services improve human capital (ADB 2017). Trade in services complements manufacturing and plays a crucial part in making global value chains more efficient. Similarly, digital technologies and digitalization can assist governments in increasing rural incomes, foster productive activities and decent job creation, and support the growth and formalization of MSMEs. Given technological advances increase productive and export capacity, it promotes structural transformation that supports economic diversification. Harnessed with sound policies and regulatory and institutional frameworks, services trade and digital trade can be leveraged for inclusive development. Geographically challenged economies, MSMEs, marginalized communities, and women stand to be lifted most.

In sum, analysis in this review of Aid for Trade suggests that well-targeted interventions, coordinated among implementing agencies and partnering institutions, can and do make a significant difference to the cost and quality of trade, and to options for boosting inclusive growth.

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Aid for Trade in Asia and the Pacific

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