



TRADE AS A VEHICLE FOR GROWTH IN

AFGHANISTAN: CHALLENGES AND OPPORTUNITIES

NADIA ROCHA



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WORLD BANK GROUP

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ABBREVIATIONS

APTTA	<i>Afghanistan-Pakistan Transit Trade Agreement</i>	MOCAT	<i>Ministry of Transport and Civil Aviation</i>
ASYCUDA	<i>Automated System for Customs Data</i>	MoU	<i>Memorandum of understanding</i>
BASAs	<i>Bilateral Air Services Agreements</i>	MRRD	<i>Ministry of Rural Rehabilitation and Development</i>
CEPII	<i>Center for Prospective Studies and International Information, Centre d'Études Prospectives et d'Informations Internationales</i>	NSW	<i>National Single Window</i>
DAB	<i>Afghanistan Central Bank, Da Afghanistan Bank</i>	NTFC	<i>National Trade Facilitation Committee</i>
EU	<i>European Union</i>	OPGW	<i>Optical Power Ground Wire</i>
FDI	<i>Foreign direct investment</i>	PCGs	<i>Partial Credit Guarantees</i>
FMIC	<i>French Medical Institute for Children</i>	STRD	<i>Services Trade Restrictions Database</i>
GATS	<i>General Agreement of Trade in Services</i>	STRI	<i>Services Trade Restrictions Index</i>
GDP	<i>Gross Domestic Product</i>	TAPI Pipeline	<i>Turkmenistan-Afghanistan-Pakistan-India Pipeline</i>
GVCs	<i>Global Value Chains</i>	TFA	<i>Trade Facilitation Agreement</i>
HCI	<i>High Commission on Investment</i>	TIP	<i>trade information portal</i>
HPPs	<i>Hydropower plants</i>	TUTAP	<i>Turkmenistan-Uzbekistan-Tajikistan-Afghanistan-Pakistan</i>
LPI	<i>Logistics Performance Index</i>	UNODC	<i>United Nations Office on Drugs and Crime</i>
MAIL	<i>Ministry of Agriculture, Irrigation and Livestock</i>	USAID	<i>Agency for International Development</i>
MCIT	<i>Ministry of Communications and Information Technology</i>	VET	<i>Vocational Education and Training</i>
MEW	<i>Ministry of Energy and Water</i>	WTO	<i>World Trade Organization</i>

Why trade matters for Afghanistan

With further declines in international assistance expected over the coming years, the Government of Afghanistan faces a new challenge: enabling new growth drivers. One such driver is trade. Decades of civil war and military occupation that culminated in the fall of the Taliban in 2001, have devastated Afghanistan. High levels of conflict destroyed infrastructure, displaced a significant share of the population, incentivized informal and illicit economic activities, and jeopardized the delivery of public services. After 2001, the country entered a phase of reconstruction where high levels of economic growth have been largely fueled by foreign aid. Since 2014, Afghanistan has once again been in a phase of transition, this one characterized by the withdrawal of the United States and other allied forces and accompanying cuts in military and development spending. As the economic stimulus of reconstruction gradually disappears, Afghanistan must look to alternate avenues for more sustainable growth.

Trade could be an important channel for accelerating growth in Afghanistan. Trade is believed to promote the efficient allocation of resources, allow a country to realize economies of scale and scope, facilitate the diffusion of knowledge, foster technological progress, and encourage competition in both domestic and international markets. Aided by large reductions in trade barriers and technological advancements, developing countries have become the drivers of global trade in recent years. There is now little dispute that, in the long run, economies more open to trade show stronger economic growth and overall development performance.

A plausible trade-driven growth scenario for Afghanistan should promote economic and export diversification. For a while, development of mineral resources has been thought to be the best avenue to improve trade and growth for Afghanistan. However, despite its potential, it is uncertain whether the development of the extractive sector will contribute to the Afghan economy in the short- to medium-term. In addition, reliance on extractive industries can both

exacerbate conflict and governance risks and impede broader economic development. Promoting production and exports of more labor-intensive goods and services might instead reduce the risk and intensity of conflict through increases in real incomes and employment. This report brings new evidence on the opportunities and challenges for development in the areas of trade in goods, trade in services, and transit trade. It also provides recommendations for an appropriate sequencing of policy reforms and strategic infrastructure investment to support potential growth in these sectors.

The main findings of this report suggest that government intervention should focus on two complementary areas: competitiveness and connectivity. First, Afghanistan's largest constraint is insufficient production capacity. Second, lack of economic diversification and high concentration of exports and imports in terms of products and number of destinations has prevented Afghanistan from fully exploiting its trade potential. Third, poor logistics and trade infrastructure, rather than lack of market access, are responsible for Afghanistan's trade underperformance. Improvements in trade facilitation and logistics could therefore have a positive impact on Afghanistan's trade in the short- to medium- term. Fourth, service sector development is constrained because of Afghanistan's small domestic markets, as well as limited endowments of skills and capital. In the long run, these constraints could in principle be alleviated by greater regional and global integration. Fifth, the potential of transit trade in commodities and energy might be modest and slow to materialize. Realizing these benefits requires efficient logistics, well-designed and maintained infrastructure, and a propitious framework of regulation and regional cooperation.

Afghanistan's trade (under) performance

Trade has played a limited role as an engine for growth in Afghanistan. Rather than supporting growth, trade performance has been reflecting the reconstruction process in a country afflicted by conflict. In the last two decades, the country's trade balance has been negative. The structural trade deficit in goods and services has

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remained around 35 percent of GDP in recent years, reaching 42.5 percent in 2015, and official figures indicate exports amounted to only 7.5 percent of gross domestic product (GDP) in 2015. Due to its narrow production base, Afghanistan depends heavily on imports of primary and processed goods.

At present, Afghanistan's trade potential in goods is limited. A gravity analysis suggests that Afghanistan underperforms in trade, even compared to its neighbors and countries at similar levels of development. In addition, Afghan trade underperforms in most of its destination markets, suggesting that there are barriers to export that are common to most of the destinations. Firm-level analysis suggests that low export capabilities are high barriers to trade and that only 6.7 percent of Afghan firms export, compared with averages for the South Asia region (13 percent) and the developed world (36 percent).

High levels of trade concentration render Afghanistan susceptible to external shocks, making trade diversification an important element of the policy agenda. Afghanistan exports a limited number of goods to a restricted list of destinations. The top-10 export products account for more than 70 percent of total exports. The top-five destinations—Pakistan, India, the Islamic Republic of Iran, Turkmenistan, and Germany—account for 87 percent of exports. On the import side, 20 imported goods represented nearly 43 percent of the country's total imports in 2014, and 66 percent of Afghanistan's imports originated from only five partners.

Recent specialization patterns suggest reduced prospects for future export diversification. Afghanistan's specialization has, in the last decade, moved away from products such as carpets and textiles, toward a concentration in agricultural products. Factors explaining a decrease in specialization of Afghan production and exports away from the textile industry include lack of insertion of Afghanistan in related global value chains (GVCs) and increased costs of production due

to reduced domestic supply of inputs (wool supply, dyes, yarn, washing chemicals). Evidence from the private sector also suggests that high levels of conflict were related with reallocation of production of products such as skins and carpets into safer countries. Lack of export diversification is associated with lower levels of labor sophistication—as measured by wage, value added, share of skilled workers, and human capital, for Afghanistan. Afghanistan's export development lags regional performers. Its export basket is associated with products that pay lower wages, generate lower value added, and have low capital intensity.

Insufficient production capacity: Afghanistan's largest constraint for production and trade

Lack of supply is one of the main determinants of export underperformance in Afghanistan. The country's export base is still extremely narrow, reflecting its limited agricultural production and very small manufacturing base. The GDP share of both agriculture and industry is on average 20 percent and has not increased over time. Top exported products such as fruits and nuts represented only one-fourth of agricultural GDP in 2015. Other traded products such as textiles, wood, and paper represented less than 1 percent of manufacturing GDP.

Persistent conflict has prevented Afghanistan from accruing the advantages related with economic diversification. The poor economic environment (including weak rule of law, low levels of education and training, and underdeveloped financial sectors) reduces the incentives to invest in manufacturing and routes. It also limits workers' ability to improve their productivity, both in terms of quantity and quality of their products. Indeed, highly differentiated goods produced by manufacturing sectors are much more sensitive to transaction costs produced by violence. In this context, peace-enhancing policies would be important drivers of diversification toward non-farm and non-primary resources goods.

A heavy regulatory burden and perceived risks to investing and operating in the country and lack of human capital have limited Afghanistan's production capacity.

Afghanistan ranked 183rd out of 189 economies in the World Bank's Doing Business Report 2016. High costs of doing business in Afghanistan are reflective of the regulatory burden and perceived risks to investing and operating in the country. Low levels of local and foreign investment have been driven by the security environment as much as by the business environment, driving up the risk premium and deterring risk-averse investors. Afghanistan's inability to attract high-value foreign direct investment (FDI) has prevented the country from taking advantage of new and better sources of finance, knowledge, and access to markets. With respect to human capital, mediocre education outcomes—whether due to inadequate quality, misalignment with labor demand, or limited access to educational services—have prevented producers from improving the quality of their products and therefore from diversifying production and exports toward higher-quality and more sophisticated products: producers cannot recruit labor with appropriate skills, which in turn dissuades investment in more productive processes and technologies.

Improving the main supply-side challenges is key for Afghanistan to gain from trade.

The first step could be improving the business climate by reforming and streamlining business regulations, increasing transparency of the tax system, and providing better access to main services such as electricity through facilities such as industrial parks. Providing producers and exporters better access to finance is also important and could be done through domestic regulatory reform and risk-sharing schemes (see specific recommendations in the services section). A medium-to-long-term agenda that will support trade and competitiveness more broadly should aim at attracting FDI and human capital improvements. Implementing such policies will not happen in the short-term and would only be feasible in an environment where conflict and political insecurity are significantly reduced.

Increased productivity in the agricultural sector is also fundamental to meet domestic demand, substitute imports, and potentially promote exports in the short -and medium- term. Given the limited government

resources, intervention should focus on the development of selected value chains with the highest potential. These were identified by the forthcoming World Bank Agribusiness study and the Agriculture Sector Review conducted by the World Bank in 2014, as irrigated wheat, horticultural crops, and livestock production. They all enjoy comparative advantage and could be the first movers of the agricultural sector toward substituting imports, which would assist in increased food security and open new export opportunities. Increases in competitiveness should also be coupled with action plans to enhance female participation in agricultural activities, given that they represent a significant source of income for the female population.

Three complementary actions could improve agricultural productivity in the short -to medium- term¹:

- **Improvement of adequate irrigation facilities.** Afghanistan's irrigated lands can be substantially increased with the rehabilitation of traditional irrigation systems. Around one-third of traditional irrigation systems have been rehabilitated so far. Investing in new irrigation systems (canals, dams, and so forth), although more cost-effective, would take more time to benefit the agricultural sector. High-level coordination among line ministries (Ministry of Energy and Water [MEW]; Ministry of Agriculture, Irrigation and Livestock [MAIL]; Ministry of Rural Rehabilitation and Development [MRRD]) and improvement of irrigation water management through definition of a legal and regulatory framework and strengthening irrigation associations are also key.
- **Better access to high-quality inputs.** Efforts should focus on the creation of an effective regulatory system and on strengthening the capacity of the MAIL to enforce certification of seeds and veterinary medicines and vaccines, among others; control banned pesticides; constantly monitor domestic supplies; and prevent imports of low-quality and hazardous agricultural inputs.
- **Better access to technology.** To deliver better technologies for farmers and increase yields and productivity, the capacity of the national research

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system needs to be strengthened, for example, through the rehabilitation and strengthening of the existing network of research stations, and research collaborations with international research centers working in similar agroecological areas. Afghanistan is too small to undertake a wider range of research on all agricultural areas.

Actions to enhance productivity in the textile industry could also reposition Afghanistan as one of the main exporters of carpets. To improve international competitiveness of the carpet industry in Afghanistan, upgrades are needed all along the supply chain. Interventions are needed to increase the access to quality raw materials, facilitate the establishment of sophisticated processing units, and improve the quality of design. Government support in terms of provision of serviced land in industrial parks for carpet weaving and processing would also be helpful. Finally, export promotion and branding activities would help Afghan carpet producers better position their products in international markets.

Improved logistics and trade-related infrastructure are prerequisites for improved Afghan trade

Poor trade facilitation and logistics, rather than lack of market access, are trade barriers that account for Afghanistan's trade underperformance. Afghanistan is a landlocked country with complex topography, underdeveloped road infrastructure, and high transportation costs. At the intensive margin, most of the unexplained underperformance of Afghan exports is associated with export delays. At the extensive margin, the extremely long time it takes to export from Afghanistan is preventing exporters from reaching new markets.

Firm-level surveys suggest that delays at the border, followed by domestic transportation, are the main causes

of export delays. It took Afghan exporters 86 days on average to ship their goods in 2014, compared to 33 days on average for South Asia, 21 days for Pakistan, 25 days for the Islamic Republic of Iran, 21 days for China, and 17 days for India. The estimated cost to export is US\$1,922 per container in South Asia, and US\$5,045 in Afghanistan. The World Bank's Enterprise Surveys suggest that nearly half of surveyed firms see transport as a major or severe obstacle to export. In addition, there is an increasing share of surveyed firms reporting customs and trade regulations as a major or severe obstacle to export. Around 85 percent of total time spent to export is related to documentary compliance, and 15 percent is due to border compliance.

Improvements in trade facilitation could enhance exports in the short-term. A simulation exercise suggests that reducing export times to 25 days could increase overall exports by 20 percent, which corresponds to US\$152 million per year. Reducing export delays coupled with Afghanistan productivity converging to regional levels could lead to a more than six-fold increase in exports. Productivity- and investment-enhancing policies aimed at expanding the scale and quality of agricultural production would increase export performance. Trade facilitation would also improve the accessibility of inputs and thereby increase the competitiveness of manufacturing industries such as processed foods and beverages, which represent almost the totality of manufacturing GDP and around 10 percent of total GDP.

Three complementary methods could improve trade logistics:

- **Improve efficiency of documentation requirements and processes.** The number of documents and authorizing signatures required for trade operations should be reviewed for consistency with international good practice and, where practical, substantially reduced or eliminated. In the medium-term, the Government of Afghanistan should work to automate all trade-related requirements and procedures into a National Single Window (NSW) system. The NSW system should automate the

application, processing, and issuance of all trade-related permits and licenses administered by Afghan government agencies. The NSW system should also link permit-issuing agencies with the Automated System for Customs Data (ASYCUDA) to allow for the seamless integration of all clearance processes, including a collective approach to risk management and inspection activities.

- **Reduce waiting times at the border.** While many delays at the border are the result of actions taken by neighboring countries rather than Afghan authorities, opportunities exist to review and rationalize border operations to eliminate inefficiencies. These include improving cooperation and information sharing among the various government agencies mandated to operate at the border; operationalizing the ASYCUDA World's advance declaration and manifest functionalities to allow prescreening of consignments prior to their arrival at the border; reducing congestion by separating pedestrian and truck traffic; expanding border capacity and related infrastructure (scanners, weighbridges, warehouses, and so forth); and implementing cargo tracking to better manage the risks associated with movement of goods between the border and Inland Clearing Depots.
- **Improve interagency cooperation on trade facilitation matters.** Consistent with the commitments of the World Trade Organization Trade Facilitation Agreement, it is recommended that the Government of Afghanistan formally mandate customs and other key border management agencies to maintain a National Trade Facilitation Committee (NTFC) to provide a formal mechanism for enhanced interagency cooperation and improved dialogue with the private sector. The NTFC would ensure all trade-related agencies work collectively to streamline, harmonize, and simplify trade procedures. It would also assist government agencies to strike a better balance between their control and facilitation objectives. While a focus on revenue collection is understandable given Afghanistan's heavy reliance on trade taxes, evidence from across the globe strongly confirms that efficiency gains achieved through trade facilitation reforms are typically accompanied by improved revenue collection performance.

In regional cooperation, existing trade agreements with regional partners can be deepened and expanded. This would facilitate visa processing and improve transport and logistics, and help with the harmonization and simplification of customs procedures in line with international standards and regional commitments. In the case of Pakistan, the main destination and transit country for Afghanistan's exports, a strengthening of the dialogue between the two countries to accelerate de-bottlenecking of the Afghanistan-Pakistan Transit Trade Agreement (APTTA) would be fundamental to reduce uncertainties related to merchandise transportation and to more broadly ensure gains from trade.

Services trade: a more conflict-resilient strategy worth the long-term pursuit

The evolution of services trade in Afghanistan in recent years has been shaped by conflict-related foreign presence and reconstruction efforts. Until 2012, the balance in services trade was positive, but it has remained negative ever since the beginning of the reduction of international presence in the country. In recent years, services exports have been dominated by construction (over 36 percent of total exports of services in 2015), reflecting the effect of the war and reconstruction efforts involving foreigners. Imports have been dominated by payments for transport services, probably linked to the payment of shipments of imported goods.

If relatively peaceful and secure conditions were established, then services trade and investment could leverage Afghanistan's locational advantages through services exports, and could also boost overall economic performance through services imports. One of Afghanistan's immediate advantages is its central location at a crossroads of vital trade routes between South and

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Central Asia. This makes transit services a natural candidate for services exports from Afghanistan. If challenges in attracting foreign investment were overcome, foreign investment in transport and communication infrastructure and services could boost the domestic economy besides transit exports, especially if it can be directed to exploit synergies among sectors and is coordinated with infrastructure development in neighboring countries. Services imports broadly conceived can eventually play a role in building both the hard and soft infrastructure needed to enhance domestic production, and boost export capability. For example, the consumption by at least some Afghan citizens of foreign health and educational services could boost their human capital in the medium- to long-term and equip them to engage productively in both the domestic and global economy. Trade openness in sectors such as finance would also increase efficiency through competition and enhanced intermediation and risk sharing, and would incentivize innovation that improves access to finance and inclusion.

Trade constraints in health and educational services could be alleviated by greater regional and global integration and cooperation, and by domestic regulatory reform. In health and educational services, there are likely to be gains from deeper cooperation across the region and beyond, for example, via recognition of qualifications, collaboration agreements among institutions, and simplified visa procedures for patients and professionals. Such cooperation can facilitate the development of regional value chains to create human capital. Basic education and training could be provided within Afghanistan, while more advanced education, for example, specialization in areas of medicine and engineering, could be obtained in neighboring countries. Better use of technology should also be considered as a way of consuming imports of services in health and education.

A future work program in this area could be structured around recent initiatives on trade facilitation in services

and should help to identify priorities for action. These priorities could include:

- **Enhanced transparency about opportunities and measures affecting consumption abroad**, through publication of information, and establishment of enquiry or contact points locally and in trading partners.
- **Simplified procedures for consumption of health care and education abroad**, by creating “single windows” that handle all formalities, allow for electronic applications, and fast-track procedures.
- **Lower costs of export-related services provision**, by ensuring that various fees and charges connected to visas and other administrative requirements are not excessively high and are related to the true costs of those services.
- **Working toward recognition (unilateral or mutual)** of technical standards, qualification and licensing requirements, and procedures to reduce the transaction costs of developing human capital value chains starting with some priority countries.
- **An assessment of where it is feasible and desirable to develop intermediate professional categories**, such as non-physician clinicians, who can provide a broad range of basic services at locally affordable prices and are less likely to emigrate abroad or to urban areas.

Constraints around financial services could be addressed through domestic regulatory reform and risk-sharing schemes. Domestic regulatory reform could encourage greater domestic and foreign participation in financial services, leading to greater efficiency and depth, and enhanced access to finance for firms, farms, and households. Setting up a risk-sharing facility (for example, partial credit guarantees) in the short-term would also satisfy the appetite for increased private sector investment to fuel economic growth and job creation.

A reform strategy that leverages the potential role of the financial services sector for the rest of the economy, while

also addressing risks and challenges, should stress the following areas:

- **Improvement of the regulatory framework**, to promote openness while avoiding a pace of innovation in the sector that undermines the regulatory capacity of the central bank.
- **Improvement of the existing deposit insurance scheme**, particularly as openness is furthered.
- **Implementation of partial credit guarantees**, supported by a strong regulatory framework for the operationalization of such a facility, and a public entity with a clear mandate and governance structure for this specific facility.

Transit trade: a high-stakes, high-risk option for development

Commodity transit trade

Transit trade in goods is often emphasized as an obvious opportunity for Afghanistan, but, until recently, it has not been clear how large this potential is. This analysis estimates that US\$5.7 billion of trade in goods could potentially transit through Afghanistan. Gains for the country could grow to an estimated 5 percent of that amount (US\$285 million per year), around 1 percent of GDP. Gains from transit trade are realized through the collection of transit revenues, and through job creation in associated activities, such as rest stops and servicing. There could also be indirect benefits of increased transit trade, through reductions in transport costs for Afghan traders.

Transit trade is highly susceptible to conflict or insecurity that create opportunities for predation and extortion along transport routes. As in the case of natural resources abundance, transit trade could potentially increase the risk of conflict through what is called the rapacity effect: both insurgent groups and the government may fund their activities by taxing goods moving across borders. Increases

in the merchandise transiting the country will therefore increase the ability to sustain conflict. Rent seeking at the border can also be a source of conflict related with transit trade. Cumbersome scanning and goods examination procedures allow for exploitation of traders and the business community.

Potential gains from commodity transit trade may be slow to materialize. Realizing these benefits requires efficient logistics, well-designed and maintained infrastructure, and a propitious framework of regulation and regional cooperation. There are long waiting times at borders and complex customs procedures. Infrastructure is also likely to be a serious constraint: Afghanistan's transportation (road and railroads) network is severely underdeveloped. With its challenging terrain and after decades of internal conflict, globally and within the region, Afghanistan shows nearly the weakest performance in the logistics and transportation category of the World Bank's Logistics Performance Index,² ranking 158th out of 160 countries in 2014.

A sensible approach to transit trade development should also be based on careful prioritization of infrastructure investment. This strategy should:

- **Resolve existing congestion at important trade points** (see trade facilitation recommendations).
- **Meet emerging needs in domestic productive sectors (agriculture and mining).** Implementation of plans to connect all provinces via highways should also aim to connect regional and local roads to the national transportation network. These plans include, for example, the completion of the National Ring Road, which, when finished, will connect resource-rich regions in Afghanistan and neighboring countries more directly.
- **Create partnerships with the private sector.** Public-private initiatives aimed at improving infrastructure would decrease the weight of the infrastructure bill in the government budget.

Transit trade potential is also shaped by sensitive political and geopolitical considerations that are not entirely under Afghanistan's control. Considering recent international and regional developments, Afghanistan should focus its efforts on:

- **Updating the APTTA.** A revised version of the APTTA should assimilate Tajikistan in the agreement and contemplate factors such as the shift to a transport trade regime based on reciprocity. Also, the enforcement of measures aimed at minimizing the incidence of customs fraud and avoidance, and monitoring and curbing informal trades would be key.
- **Deepening and expanding existing agreements with regional partners.** Improvements in visa regimes, harmonization, and simplification of custom procedures would be fundamental to facilitate transit trade.
- **Improving harmonization of transportation standards among countries.** This has been a recurring challenge, for example, in planning new railways, since there are three different gauges in neighboring countries.

Energy transit trade

Afghanistan has a geographic advantage for becoming an energy transit hub that would boost economic growth and revenue. Energy transit trade could add 3.1 percent to export growth annually and contribute US\$530 million to revenue by 2030 (1 percent of GDP). Simulation results also suggest that by prioritizing public investment in hydrogeneration and major transmission infrastructure, Afghanistan could become an exporter of renewable energy by 2026. Building regional connectivity for energy transit trade can deliver important revenues for the country and help meet its own acute domestic shortages. Major regional energy projects, like the Turkmenistan-Afghanistan-Pakistan-India (TAPI) Pipeline³ and Central Asia and South Asia (CASA)-1000⁴, are evidence of the commitment of countries in the region to integrate and will help build regional connectivity.

Full completion and operationalization of large-scale infrastructure projects such as CASA-1000, TAPI pipeline, and Turkmenistan-Uzbekistan-Tajikistan-Afghanistan-Pakistan power project are essential for Afghanistan to fully benefit from energy transit trade. Although Afghanistan is not in the lead on these projects, the government should constantly monitor the developments of the proposed energy transit projects and be prepared to respond positively if action is required. A plan to respond to partner concerns regarding security, location of offtakes, cost sharing, transit tariffs, and other matters should be implemented.

Domestic electrification should be a priority for Afghanistan. Rough estimations suggest that investment in hydrogeneration and major transmission infrastructure could potentially move Afghanistan to become a net energy exporter by 2026. However, large-scale generation plants for renewable energy, such as hydropower, may be difficult to finance under the fragile security conditions prevailing in Afghanistan. A more effective strategy would be to focus on domestic transmission to achieve full electrification of the country in the medium -to long- term. Improved power supply is an important component of developing a modern and efficient infrastructure network that can support increased output of goods and services, employment opportunities, and, potentially, enhanced security.

1

INTRODUCTION

KEY MESSAGES:

- Afghanistan's growth rates have dropped significantly in recent years. During 2013–18, growth rates are predicted to be only around 4 to 6 percent. With further declines in international assistance expected over the coming years, the Government of Afghanistan faces new challenges to enabling new growth drivers such as trade.
- Trade as a growth driver in a fragile country like Afghanistan needs to be compatible with the objective of reducing conflict and supporting political stability. A plausible trade-driven growth strategy should promote economic and export diversification by focusing on two complementary areas: competitiveness and connectivity.
- Despite the potential the extractive sector presents for Afghanistan with respect to trade and development, there are uncertainties going forward, at least in the short run. Current estimates suggest that as of 2015, the country earned only US\$30 million from its mineral sector for a third straight year, far less than earlier projections of US\$1.5 billion.
- Improving trade competitiveness in both goods and services is a fundamental step for Afghanistan to diversify exports away from conflict-enhancing sectors. Increased market access and regional integration in goods and services are also key for trade to be a channel for growth and prosperity in Afghanistan.

1.1 Background and motivation

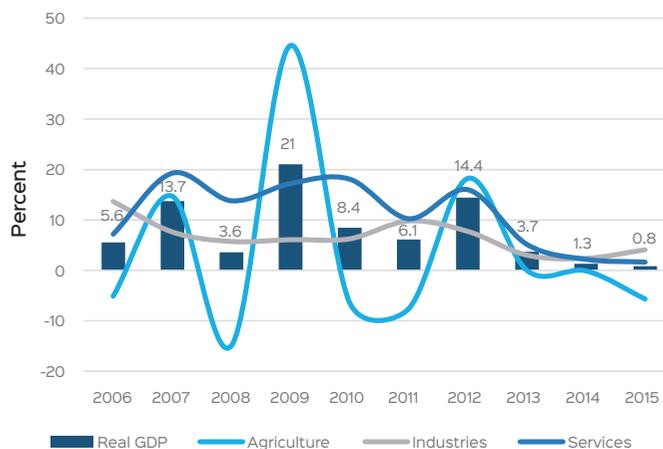
Afghanistan's growth rates have dropped significantly in recent years. The country sustained exceptionally high economic growth, averaging 9 percent per year, from 2003 to 2012. Growth was mainly fueled by large aid flows that drove the demand for and consumption of goods and services, which were mostly imported. Since the end of the reconstruction period, international assistance has been declining. This is reflected in slower growth rates, averaging only around 2 percent per year from 2013 to 2015 (see figure 1.1). During 2013–18, growth rates are predicted to be only around 4 to 6 percent.⁵ With further declines in international assistance expected over the coming years, the Afghan government faces new challenges to enabling new growth drivers such as trade.

Trade could be an important channel for accelerating growth in Afghanistan. In general, trade is believed to promote the efficient allocation of resources; allow a country to realize economies of scale and scope; facilitate the diffusion of knowledge; foster technological progress; and encourage competition in both domestic and international markets,

which leads to an optimization of production processes and the development of new products. Complementary policies—regarding infrastructure, skills, institutions—can enhance the impact of trade on growth and poverty. Aided by large reductions in trade barriers and technological advancements, developing countries have become the drivers of global trade. There is now little dispute that, in the long run, economies more open to trade show stronger economic growth and overall development performance.

But trade as a growth driver in a fragile country like Afghanistan needs to be compatible with the objective of reducing conflict and supporting political stability (Collier and Rohner 2008; del Castillo 2011). A careful assessment of the existing channels through which trade development could impact conflict in Afghanistan is fundamental to assess which trade strategies are better in terms of conflict resilience (see box 1.1). Trade development must also be plausible in the context of high trade costs and continued exposure to conflict risks. Providing realistic scenarios for trade development and regional integration is crucial for an appropriate sequencing of policy reforms and strategic infrastructure investment.

Figure 1.1: Growth of real GDP and output sectors in Afghanistan, 2006–15 (%)



Source: Calculations based on Central Statistics Organization data.

1. INTRODUCTION

Extractive industries are generally recognized as the most important sectors of the Afghan economy, with the potential to drive growth and generate jobs through production and trade. Projections suggest that mineral resource development could eventually generate between US\$700 million and US\$1.5 billion in government revenue by 2020–24, and exports from the sector could reach US\$10 billion to US\$12 billion per

year during the same period (World Bank 2013). Moreover, Afghanistan's reserves of oil and natural gas could be worth more than US\$220 billion. However, the direct impact on job creation may be limited for the extractive sector, where rents are not necessarily appropriated domestically. The sector may create some 10,000 to 20,000 *direct* jobs, which is marginal on the Afghan scale.

Box 1.1: A framework for the relationship between trade and conflict

There are three main mechanisms for how trade-related changes in commodity prices can affect conflict. *The opportunity cost effect* holds that changes in real incomes, for example, driven by trade price fluctuations, alter the incentives for participating in conflict by changing the return on participation in violence compared with more productive activities. The *rapacity effect* refers to the incentive to fight for control of valuable economic resources. And the *resource effect* recognizes that both government and rebels may fund their activities by taxing the production of commodities, so that changes in their value affect the ability to sustain conflict (Cali, 2015)

Recent empirical literature on the impact of economic shocks on conflict suggests that conflict reduces the negative impact of increases in export commodity prices (see, for example, Carter and Bates 2012; Bruckner and Ciccone 2010). This negative relationship supports the opportunity costs hypothesis: that is, the costs for individuals of participating in hostilities or violent acts are equal to the income they should forego. Therefore, the higher the income level, the higher the cost of conflict (Collier and Hoeffler 2004). The negative relationship between income levels and shocks and conflict might also reflect the lack of state deterrence of conflict in low-income countries: when income is low, so is the state's ability to collect fiscal revenues and thus to contain possible rebellions through military force or by buying off rebels (Fearon and Laitin 2003).

Export prices increases can also help rebel groups finance their rebellion if they fight for and win control over these commodities (or a part of them). This "rapacity effect" has found empirical support in recent within-country evidence (Berman et al. 2015; Dube and Vargas 2013; Maystadt et al. 2014). Analysis across countries on exported natural resources, such as oil and mineral commodities, also supports the rapacity effect: an increase in the value of these exports of 10 percent raises the risk of conflict by 2.2 percent on average across countries. The higher the value of resources that can be easily appropriated through fighting, such as minerals and oil, the greater the incentive to fight over them (Cali 2015).

Whether opportunity cost or rapacity effects predominate depends on several factors, including the value of the resources that can be appropriated through fighting, the level of capital intensity, and the geographic concentration of the resources (Dal Bó and Dal Bó 2011). For example, specialization in point-sourced export commodities versus agricultural commodities could lead to different outcomes in terms of conflict. The strength of the effect of commodity exports on conflict also depends on country-specific characteristics. Changes in economic conditions have a much greater potential for generating conflict where there are deep-seated, historical grievances among groups; where economic inequality is high; and where government institutions are weak or corrupt.

Beyond commodity prices, other trade-related shocks may be relevant for conflict as they can determine substantial changes in individual incomes. A few studies suggest that rising demand from neighboring countries reduces the probability of conflict and its intensity (Berman and Couttenier 2015; Bruckner and Ciccone 2010; Chaudion, Peskowitz, and Stanton 2012). This evidence is consistent with the opportunity cost hypothesis.

Some evidence is also emerging on the role of trading partners' trade policy in affecting the intensity of conflict. Specifically, trade is particularly effective in preventing conflict when it occurs under international trade agreements (Berman and Couttenier 2015; Bhavnani and Jha 2011). This result is consistent with the idea that a high volume of trade between two neighbors A and B increases the costs to A of a conflict in B, thus reducing the likelihood that A would intervene to foment civil conflict in B (and vice versa). It also supports the idea that trade may raise the level of trust between the peoples of neighboring countries (Rohner, Thoenig, and Zilibotti 2013).

Reliance on extractive industries can both exacerbate conflict and governance risks and impede broader economic development (Sachs and Warner 1999). Potential revenues from the development of high-value, capital-intensive, and concentrated extractive resources could increase the likelihood of different groups fighting over them (see the rapacity effect in box 1.1). The way in which export revenues are managed is therefore a key factor in determining their effect on conflict risk. Evidence from countries located in unstable regions, with a recent history of conflict and with weak governance, suggests two general approaches for reducing conflicts induced by extractive industries in Afghanistan: (a) effective limitations on the spending of revenues by government, and (b) transfer of revenues into productive sectors. In the first case, transparency of government expenditures would help reduce potential discrimination against some groups, and thus limit the resentments and disputes that can result in civil conflict. Regional integration through international arrangements can help reduce nontransparent government access to resource revenues, thus reducing the incentive to fight for control of these revenues.

In the second case, use of revenues for development of extractive industries should follow a resource corridor approach.⁶ The corridor approach enacts “a sequence of investments and actions to leverage a large extractive industry investment in infrastructure, goods and services, into viable economic development and diversification along a specific geographic area” (World Bank 2013). Exploiting synergies between the extractive sector and other economic activities can be a significant source of inclusive growth from a sector that otherwise might be an enclave of isolated activities. The resource corridor approach will be even more valuable if it complements interventions in agriculture and agribusiness, the other drivers of growth in the coming decade.

Despite the potential the extractive sector presents for Afghanistan with respect to trade and development, there are uncertainties going forward, at least in the short run. Current

estimates suggest that, as of 2015, the country earned only US\$30 million from its mineral sector for a third straight year, far less than earlier projections of US\$1.5 billion. The shortage in revenue from mining is due to disputed contracts, lack of governance, and political uncertainty. In contrast, illegal mining seems to have become a source of political patronage and conflict in Afghanistan. Reports indicate that up to 10,000 natural wealth deposits fall outside government control and may face looting (Najafizada 2015).

A more plausible trade-driven growth scenario should promote economic and export diversification. Promoting production and exports of labor-intensive goods and services might reduce the risk and intensity of conflict through increases in real incomes and employment (see the opportunity cost hypothesis in box 1.1). Additional revenues from trade in goods and services might also circumvent and partially compensate for the negative effects of conflicts. As shown by Anderson (2015) and Mirza and Verdier (2008), if trade could enable countries to specialize toward formal activities (and thus away from informal ones), then labor may well switch to the better-remunerated formal sector. However, changes in relative prices because of trade can also destroy opportunities and jobs in declining sectors, and the people affected by these losses may, under certain conditions, turn to violence as a source of income. Further analysis of the production structure and trade opportunities for Afghanistan should help identify a set of products with export potential that are less prone to conflict because the opportunity cost channel appears more predominant.

Improving trade competitiveness in both goods and services is a fundamental step for Afghanistan to diversify exports away from conflict-enhancing sectors. Afghanistan's export base is still extremely narrow, reflecting the country's limited agricultural production and small manufacturing base. Not surprisingly, ongoing conflict and lack of governance are major reasons for the country's stalled development. Afghanistan trade has also historically been modest. Over the last two decades, the trade balance of the country has been negative,

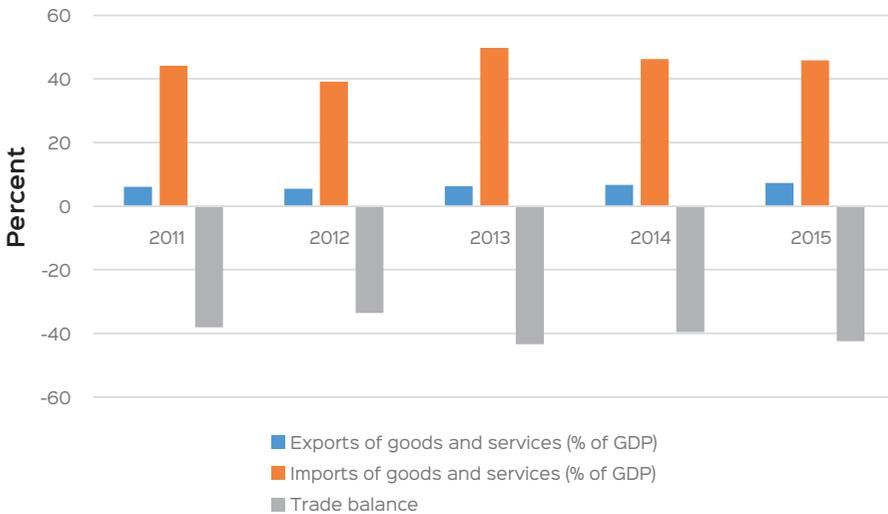
1. INTRODUCTION

with an average structural trade deficit in goods and services of 35 percent of GDP. In 2015, the trade deficit grew to 42.5 percent (figure 1.2) and official exports were only 7.15 percent of GDP (see box 1.2 on opium trade in Afghanistan). There is also the large, unrecorded export of opium, estimated at 7 to 8 percent of GDP in 2015. However, even factoring in illicit exports, Afghanistan underperforms in exports.⁷ The import-heavy trade balance reflects large aid inflows for the country's reconstruction and recovery efforts. The relatively high import level has been driven by the demand for goods in donor-funded projects—particularly oil, machinery, household items, and food (World Bank 2012).

Increased market access and regional integration in goods and services is also key for trade to be a channel for growth and prosperity in Afghanistan. Several important initiatives to promote trade and regional integration are underway. Afghanistan has been pursuing a set of multilateral trade

and transit agreements with countries from Central Asia, the Islamic Republic of Iran, and Pakistan,⁸ aimed at granting unrestricted transit for goods within the territories of the contracting countries. Afghanistan also joined the World Trade Organization (WTO) in December 2015. An existing tariff structure characterized by low rates reflects Afghanistan's intention to strengthen its trade profile through WTO accession. Its membership will also provide the landlocked country with the right to transit.⁹ Prospects for transit trade have also motivated Afghanistan to participate in several important infrastructure initiatives. One example is the World Bank-supported CASA-1000 project, which will connect Afghanistan, Pakistan, Tajikistan, and the Kyrgyz Republic with an electricity transmission system.¹⁰ However, the process of regional integration has been slowed and shaped by sensitive political and geopolitical considerations that are not entirely under Afghanistan's control.

Figure 1.2: Trade-to-GDP ratio in Afghanistan, 2011-15(%)



Source: Calculations based on the World Bank's World Integrated Trade Solutions (WITS) database.

Box 1.2: The opium trade—Afghanistan's leading economic activity and illicit export commodity

Afghanistan is the world's largest source of opiate production, accounting for 80 percent of the world's illicit opiates and heroin in the last decade (UNODC 2016a). For much of the rural population, the opium poppy economy is an essential source of basic livelihoods and human security (Felbab-Brown 2016). In a 2016 survey by the United Nations Office on Drugs and Crime (UNODC 2016b), 71 percent of opium growers gave an economic reason for growing opium, and 28 percent identified income-related reasons but framed their answers under agronomic and ecological reasons.

Opiates produced in Afghanistan are mainly intended for export.^a In 2013, for instance, 96.3 percent of the total net value of opiates was exported and only about 3.97 percent of opiates was consumed domestically. The value of exported opiates corresponded to 14.4 percent of GDP that year (Ministry of Counterterrorism 2014). The net value of opiates was equivalent to 12.6 percent and 10 percent of GDP in 2014 and 2015, respectively (UNODC 2015).

The primary transit routes for Afghan opiates have been Pakistan, the Islamic Republic of Iran, and Central Asia. However, the so-called "southern route" via the Islamic Republic of Iran and Pakistan is expanding. Heroin is being smuggled through the area south of Afghanistan, via the Near and Middle East and Africa, as well as directly from Pakistan (UNODC 2014). Subsequently, Afghan opiates reach the main destination markets, which are West and Central Europe, and the Russian Federation. Afghan heroin, in contrast, is trafficked to every region of the world except Latin America (UNODC 2016b). Between 2002 and 2008, a yearly average of 150 tons of Afghan heroin was transited through Pakistan, 105 tons through the Islamic Republic of Iran, and 95 tons through Central Asia (UNODC 2010).

In terms of production and share of GDP, opium's importance has been declining since 2007, when it reached a record production of 8,200 tons. Currently, production is closer to 3,700 tons (UNODC 2012), or 3.3 percent of GDP in farm-gate value, compared to 13 percent of GDP by farm-gate value in 2007. Average opium GDP growth has been only slightly higher than non opium GDP growth in recent years, suggesting that opium has not been an important driver of economic growth. However, opium is still Afghanistan's most important cash crop and, therefore, has significant implications for income and consumption patterns of rural, poor households.

Studies such as by Katzman and Rosen (2014) suggest that Afghanistan's drug trade is unlikely to slow drastically in the foreseeable future, and the country will remain the primary source of opium poppy cultivation and production of opiates for years to come. Many organizations have tried to tackle the issue of opium poppy cultivation, for example, by offering "alternative livelihood" programs. However, there is little agreement on the effectiveness of these measures. In Helmand province, where 47 percent of total opium poppy cultivation occurred in 2015, the alternative livelihood programs significantly reduced poppy cultivation, results that persisted after the programs ended (UNODC 2016a). However, it is also argued that reduced poppy cultivation in Helmand has been mainly due to the falling price of opium. The alternative livelihood programs, it is argued, are poorly designed, ineffective, and rarely generate sustainable income. Finally, the alternative livelihood programs are sometimes criticized for not reaching out to all poppy farmers and for benefiting only growers living close to cities (Felbab-Brown 2016).

a. "Opiates" is the generic name given to a group of naturally occurring drugs derived from the opium poppy (*Papaver somniferum*) such as opium, morphine, and codeine; semisynthetic substances such as heroin (which are opiates in the strict definition); and opioids, which are "opiate-like," wholly synthetic products such as methadone, pethidine, and fentanyl (see UNODC, <https://www.unodc.org/unodc/en/illicit-drugs/definitions/>).

Given Afghanistan's limited resources for development, it is essential to provide realistic scenarios for trade development and regional integration. Such scenarios are the foundation

for an appropriate sequencing of policy reforms and strategic infrastructure investment that will improve trade connectivity and firms' productivity in the country.

1. INTRODUCTION

1.2 Scope of the report

This report explores different avenues for trade development and regional integration in Afghanistan. The report analyzes opportunities and challenges for growth in the areas of trade in goods and commodities, services trade, and transit trade. The policy implications deriving from the analysis will be presented and discussed in terms of actions that the Government of Afghanistan could take or prioritize to improve trade in areas with greater trade potential. Finally, the report draws on the existing literature to try to evaluate the conflict and governance risks associated with the different types of specialization that Afghanistan could choose for its development.

Chapter 2 assesses the potential for trade in goods. It uses a standard gravity model to estimate the determinants of export and import development at the intensive and extensive margins for merchandise and commodity trade. The chapter also provides some simulations on the potential impact of border and beyond-the-border trade barriers on exports, and discusses the role of factors such as conflict on export development. The results provided in this chapter are based on standard statistics on formal economic activity. Evidence¹¹ suggests, however, that around 40 percent of Afghanistan's total trade takes place informally across the border among small merchants and traders (PAJCCI 2012). These transactions are not recorded in standard trade statistics and therefore are not reflected in the analysis in chapter 2.

Chapter 3 illustrates how international cooperation on services could help Afghanistan alleviate the problem of skills deficiency in the country. The chapter begins with a discussion of the current regime and patterns of trade in services. The information on Afghanistan's services trade policies is primarily drawn from Afghanistan's WTO Accession General Agreement on Trade in Services schedules, given the lack of information on domestic services regulations. The chapter then focuses on the long-term potential and challenges for services sectors, such as education, health,

and finance. These sectors, although still underdeveloped, might be an important driver of growth, not just through services exports, but through their role in building both the hard and soft infrastructure needed to facilitate accumulation of human capital and enhance competitiveness.

Chapter 4 investigates the extent to which the government can turn the disadvantages of being landlocked and having a limited agricultural output into a comparative advantage by developing the potential of transit trade in goods and energy. The potential gains from transit trade are estimated using data on international trade statistics under a set of assumptions regarding the amount of trade flows that most likely could cross Afghanistan before reaching their destination. The discussion on energy transit potential is mainly based on information regarding cross-border, large-scale infrastructure projects for transit of energy that are underway in the region. The chapter also provides insights on developing connectivity across services infrastructure, especially transport, energy, and communications.

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2

AFGHANISTAN'S TRADE IN GOODS (UNDER) PERFORMANCE: DETERMINANTS, CHALLENGES, AND FUTURE OPPORTUNITIES

2. AFGHANISTAN'S TRADE IN GOODS (UNDER) PERFORMANCE: DETERMINANTS, CHALLENGES, AND FUTURE OPPORTUNITIES

KEY MESSAGES:

- Lack of supply is the main cause of Afghanistan's export underperformance. The high concentration of production (and exports) in primary products and low levels of competitiveness reflect the economy of a fragile country with high levels of ongoing conflict.
- After controlling for supply constraints and conflict, most of the underperformance of Afghan exports is associated with poor logistics and trade-related infrastructure rather than lack of market access.
- Even with existent infrastructure, export flows could be improved by 20 percent in the short-term by tackling export delays related to customs and border procedures or high risks during transportation.
- In the long-term, reducing export delays, coupled with Afghanistan's productivity converging to regional levels, could lead to a more than six-fold increase in exports.

2. AFGHANISTAN'S TRADE IN GOODS (UNDER) PERFORMANCE: DETERMINANTS, CHALLENGES, AND FUTURE OPPORTUNITIES

Can trade in goods be an engine of growth for Afghanistan? Current patterns of trade suggest that Afghanistan has little to offer the world. Afghan exports (and imports) are highly concentrated in a handful of primary products with low value and sophistication. Ongoing conflict and lack of governance, by limiting agricultural output and generating structural constraints to industry and manufacturing, have been the main reasons for low levels of competitiveness and the lack of diversification of the Afghan economy.

Although improving trade competitiveness is a long-term objective, solutions exist for Afghanistan to improve its trade performance and, therefore, gain from exports of existing products in the short-term. Which policies would allow Afghanistan to improve its trade potential in the short-term? Where should the Government of Afghanistan invest to start realizing the benefits from trade while improving its overall competitiveness? Does the government need to continue investing in (hard) infrastructure to benefit from export development?

This chapter assesses the determinants of Afghanistan's underperformance in trade. The chapter uses stylized facts on current patterns of Afghanistan's production and trade to assess

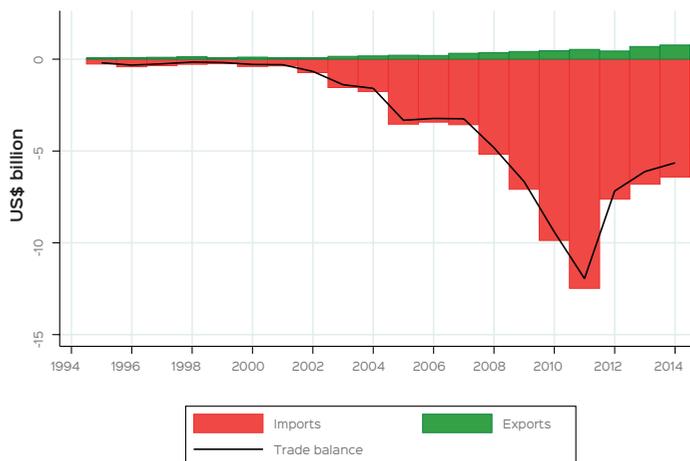
how supply-side constraints, conflict, and lack of governance have played a significant role in trade underperformance; empirically assesses which trade barriers are currently preventing Afghan exporters from reaching international markets and how the removal of such barriers could improve trade in the short run; discusses the different avenues to address trade barriers; and considers the long-term policies needed for Afghanistan's trade potential to fully materialize.

2.1 Current patterns of Afghanistan's trade¹²

Trade balance

Over the period 1995–2014, the trade balance in goods of Afghanistan was in deficit (see figure 2.1). Statistical evidence suggests that aid channeled to the country has mainly been used to import a variety of consumption goods (and equipment), without playing its usual role of fostering firm competitiveness. An examination of the evolution of the export and import patterns of Afghanistan over time suggests that the usual channels through which trade is fostering productivity have not been working.

Figure 2.1: Afghan trade balance in goods, 1994–2014



Source: Calculations using BACI data from CEPII.

2. AFGHANISTAN'S TRADE IN GOODS (UNDER) PERFORMANCE: DETERMINANTS, CHALLENGES, AND FUTURE OPPORTUNITIES

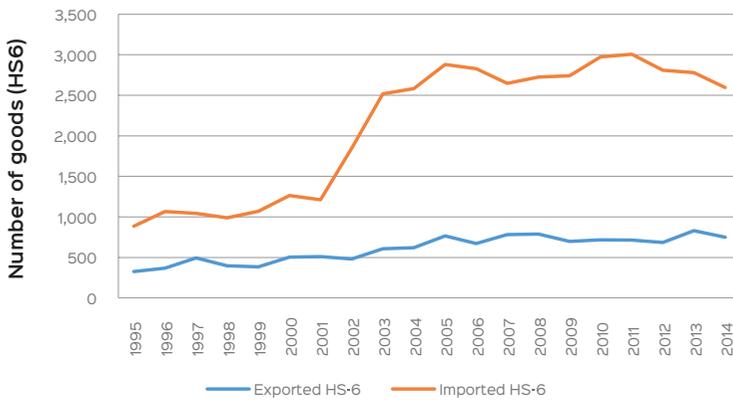
During the period 1995–2001, both import and export values of goods were very low, suggesting a weak integration of Afghanistan in the international market for goods. The evolution of the trade balance between 2002 and 2011 characterizes an economy opening to trade and having access to a larger variety of consumption, intermediate, and investment goods. Significant increases in imports (from less than US\$1 billion in 2002 to more than US\$12 billion in 2011) included a marked expansion of the number of imported product categories (figure 2.2). These categories almost tripled in a decade, up to 3,000 in 2011 before stabilizing at around 2,600 in 2014.¹³ The number of countries from which goods originated also increased significantly, from 60 partner countries in 2001 to 100 in 2011. In principle, beyond matching the needs of the final consumer, the import of new varieties

(their 2009 level) while exports reached their highest level during 1995–2014 at more than US\$0.7 billion. Still, the trade imbalance is extremely large. It can be sustained only by inflows of aid or foreign capital channeled to activities with a limited revealed comparative advantage for the country.

Export and import concentration

Afghanistan exports a limited number of goods to a restricted list of destinations. Data on exports and imports by partner and product¹⁴ between 1995 and 2014 show that in 2014, exports were concentrated in a handful of products such as dried fruits and nuts, coal, and cotton, representing 25.5 percent, 11.4 percent, and 10 percent of total exports,

Figure 2.2: Diversification of exported and imported products in Afghanistan, 1995–2014



Source: Calculations using BACI data from CEPII.

of goods leads to productivity gains through decreases in the costs of inputs and access to new technologies. Since imported inputs enhance firm productivity, they can also play a critical role for firm export performance, and eventually help increase exports.

A sharp decrease in imports has been recorded from 2011 onward. In 2014, imports amounted to almost US\$6.5 billion

respectively. The top-10 exported product categories represented more than 70 percent of Afghanistan's total exports (figure 2.3). This compares to 5.31 percent for low- and middle-income countries and 12.72 percent for the South Asia Region. For comparator countries such as Pakistan, Kazakhstan, Azerbaijan, and Rwanda, the top-10 exported products represent, respectively, 31 percent, 78 percent, 95 percent, and 75 percent of total exports.

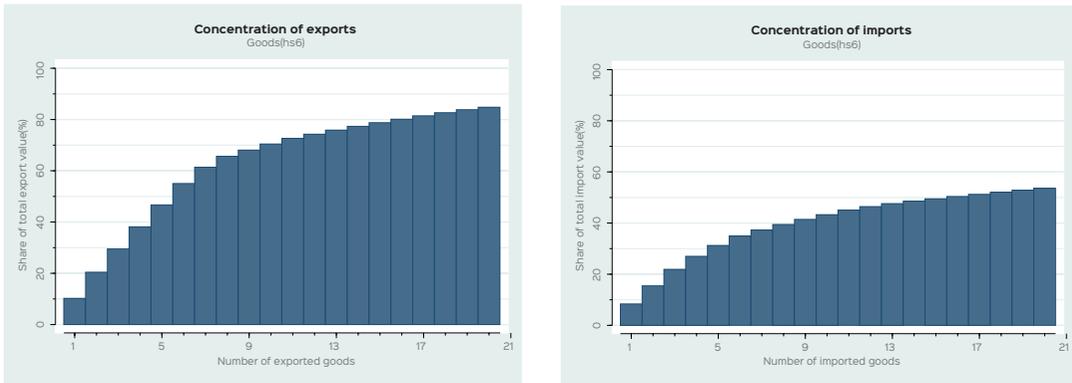
2. AFGHANISTAN'S TRADE IN GOODS (UNDER) PERFORMANCE: DETERMINANTS, CHALLENGES, AND FUTURE OPPORTUNITIES

With respect to export destinations, the top-five destinations (Pakistan, India, China, the Islamic Republic of Iran, and Turkey) account for 87 percent of total Afghan exports. For low- and middle-income countries and South Asia, the top-five destinations represent, respectively, 40 percent and 38 percent of exports (figure 2.4). The top-five destinations in Pakistan, Kazakhstan, Azerbaijan, and Rwanda represent, respectively, 43 percent, 48 percent, 56 percent, and 61 percent of exports.¹⁵

Imports are also concentrated in a small number of products and come from a limited number of countries. Top imported products

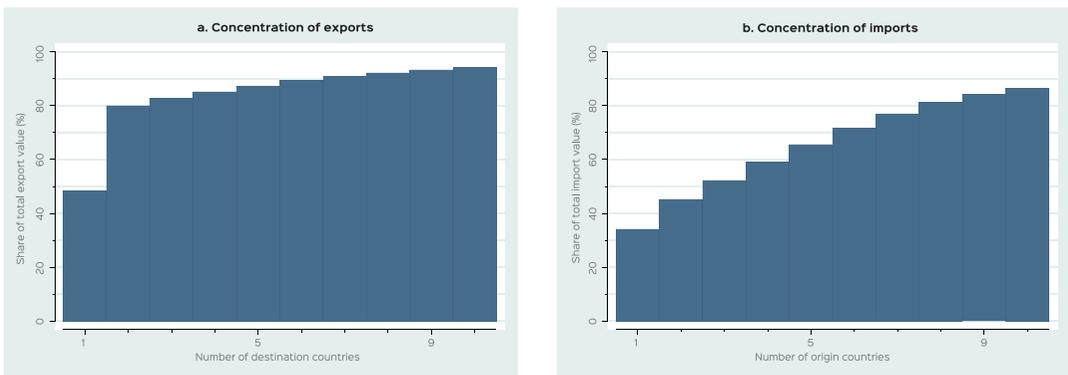
include mineral fuels and oils, wheat, and sugar, representing, respectively, 15 percent, 6.4 percent, and 5 percent of total imports in 2014. Just 20 imported goods represented 43 percent of total Afghan imports. This share for the top-20 imports is lower for comparator countries: Pakistan at 40 percent, Kazakhstan at 17 percent, Azerbaijan at 19 percent, and Rwanda at 26 percent. The share for the top-20 imports is, on average 11, percent for low- and middle-income countries and 22 percent for the South Asian region. In addition, 66 percent of Afghanistan's imports originated from only 5 partners. For both low- and middle-income countries and the South Asia region, 59 percent of imports came from 5

Figure 2.3: Cumulative distribution of Afghan-traded product categories, 2014



Source: Calculations using BACI data from CEPII.

Figure 2.4: Cumulative distribution of Afghan export destinations and import origins, 2014



Source: Calculations using BACI data from CEPII.

Note: Product categories are defined using the 6 digits Harmonized System classification.

2. AFGHANISTAN'S TRADE IN GOODS (UNDER) PERFORMANCE: DETERMINANTS, CHALLENGES, AND FUTURE OPPORTUNITIES

partners. These shares are slightly lower for comparator countries: Pakistan 54 percent, Kazakhstan 63 percent, Azerbaijan 52 percent, and Rwanda 55 percent.

Afghanistan's biggest trading partners are mostly neighbors and/or war-involved partners. Table 2.1 presents the value of Afghan exports (in US\$ thousands) during 1995, 2005, and 2014 to the top-20 destinations. Pakistan and India are the most important destinations of Afghan products. Exports to these partners have been increasing and represented around 80 percent (50 percent and 32 percent, respectively) of Afghan exports in 2014. Between 1995 and 2005, a large share of Afghan exports went to the United

States and European countries. Since then, a dramatic increase has been observed both in absolute and relative terms of the share of Afghan exports to China, the Islamic Republic of Iran, and Turkey. These countries received around 8 percent of total Afghan exports in 2014. The rise of China as a trade partner has been driven by the dramatic expansion of the Chinese market for imports.

In 2005, the United States represented the third most important destination of Afghan exports. However, exports to the United States decreased by almost 70 percent between 2005 and 2014. Trade flows recorded as exports to the United States reflect goods and services provided to

TABLE 2.1: Exports from Afghanistan to its 20 largest destination markets, 2014

Destination	Exports (US\$ thousand)			Share of total 2014 (%)
	1995	2005	2014	
Pakistan	0	50,462	373,585	0.501
India	8,064	53,695	242,814	0.326
China	72	1,510	21,346	0.029
Iran, Islamic Rep.	0	5,971	18,072	0.024
Turkey	63	8,118	16,387	0.022
Germany	8,046	3,664	15,759	0.021
Russian Federation	0	3,773	12,416	0.017
Finland	2,163	10,706	10,076	0.014
United States	5,100	24,060	7,869	0.011
Italy	594	1,965	6,636	0.009
France	1,495	744	4,768	0.006
Spain	248	1,313	4,011	0.005
United Kingdom	1,748	720	3,529	0.005
Jordan	197	768	2,609	0.003
Netherlands	193	84	1,840	0.002
Belgium	17,086	7,343	981	0.001
Egypt, Arab Rep.	269	3,021	657	0.001
Denmark	3,686	3,322	205	0.000

Source: Calculations using BACI data from CEPII.

2. AFGHANISTAN'S TRADE IN GOODS (UNDER) PERFORMANCE: DETERMINANTS, CHALLENGES, AND FUTURE OPPORTUNITIES

U.S. troops stationed in Afghanistan,¹⁶ rather than exports to North America. Indeed, table 2A.1 in Annex 2A shows that 9 of the 10 top products exported to the United States by Afghanistan are war related. These are concentrated mainly in the machinery and mechanical appliances category. Most of these products do not show up in 2014 exports, highlighting the withdrawal of U.S. troops from the country. In 2014, export flows to the United States reflected Afghanistan's comparative advantage and were mainly constituted by products such as carpets and other vegetable-related products.

Similarly, Afghan imports are also very dependent upon close and/or war-involved partners. In 2014, Pakistan was the main source of imports (Afghanistan mostly imported cement, sugar, and wheat flour from Pakistan) followed by China (fabrics and rubber). The Islamic Republic of Iran (peat), India (fabrics and pharmaceutical products), the Russian Federation (petroleum oils), and the United States (telephone sets and meat and edible meat offal) comprised another 30 percent of Afghanistan total imports in 2014 (see table 2.2).

TABLE 2.2: Afghan imports from the 20 most important origin markets, 1995–2014

Origin	Imports (US\$ thousand)			Share of total
	1995	2005	2014	2014
Pakistan	0	1,064,648	2,200,224	0.378
China	11,268	51,166	709,143	0.122
Iran, Islamic Rep.	0	482,254	450,364	0.077
India	18,034	146,586	438,716	0.075
Russian Federation	0	104,393	407,567	0.070
United States	2,692	251,076	399,205	0.069
Kazakhstan	0	163,900	333,499	0.057
Azerbaijan	0	11,677	275,990	0.047
Turkey	489	111,157	186,219	0.032
Germany	15,995	140,134	150,912	0.026
Netherlands	1,653	79,295	64,525	0.011
Korea, Rep.	20,439	59,621	58,724	0.010
Thailand	12,204	57,925	47,028	0.008
United Kingdom	11,271	25,800	43,468	0.007
Japan	84,383	76,291	31,938	0.005
France	13,155	30,455	22,413	0.004
Uzbekistan	0			0.000
United Arab Emirates	0	464,864		0.000
Kenya	0	19,425		0.000

Source: Calculations using BACI data from CEPII.

2. AFGHANISTAN'S TRADE IN GOODS (UNDER) PERFORMANCE: DETERMINANTS, CHALLENGES, AND FUTURE OPPORTUNITIES

Specialization patterns

In the last decade, Afghanistan's specialization has moved away from products such as carpets and textiles and toward a concentration in agricultural products. In 1995, there was strong export specialization in textiles and textile articles, especially wool and carpets: the corresponding top-three HS-6 product categories represented more than 30 percent of total Afghan exports. In contrast, textile items were no longer present among the top-five exported sectors in 2014 (see table 2.3). In 2014, agricultural products represented 50 percent of total Afghan exports. Mineral fuels and oils also represented a significant share of Afghan exports in 2014 (10 percent). Conflict and fragility have played an important role in the specialization patterns of the Afghan economy. Civil war and lack of security have been responsible for too much concentration in subsistence products (products with a market demand and that can be consumed rapidly and locally), which appear to be the only rewarding types of investment activities remaining during war.

production and export dependence in primary commodities leaves the country exposed to price- and partner-specific shocks.

A decrease in the specialization of Afghan exports away from the textile industry might have been affected by the lack of insertion of Afghanistan in related global value chains (GVCs). Reduced domestic supply of inputs (wool supply, dyes, yarn, washing chemicals) has also resulted in increased costs of production due to heavy reliance on imports from Pakistani suppliers (Pain and Ali 2004). Evidence from the private sector also suggests that high levels of conflict were related to the reallocation of the production of products such as skins and carpets to safer countries. The textile and textile product industry has repeatedly been identified as the first step on the development ladder, conducive to more complex industries or tasks, such as assembly or production of simple electric or electronic appliances. By withdrawing from the textile industry and returning to agriculture, Afghanistan has reduced the prospects for future export diversification (for a more comprehensive analysis of the carpet industry see section 2.4).

TABLE 2.3: Top-five export sectors in Afghanistan, 1995–2014 (HS-2)

Rank	1995	2005	2014
1	Wool and fine or coarse animal hair	Edible fruits and nuts	Edible fruits and nuts
2	Carpets and rugs	Iron and steel (waste and scrap)	Iron and steel (waste and scrap)
3	Edible fruits and nuts	Furskins and artificial fur	Mineral fuels, oils, waxes
4	Furskins and artificial fur	Oil seeds and oleaginous fruits	Cotton
5	Sugars and sugar confectionery	Coffee, tea, mate, and spices	Lac, gums, resins

Source: Calculations using BACI data from CEPII.

An improvement in the ranking of agricultural products since 1995, (mainly fruits and nuts and oils and seeds) points to the exploitation of certain comparative advantages. However, these goods usually have low value added and weak backward and forward links with other sectors, and thus little technological spillover. In general,

Import development reflects the post-reconstruction process more than GVC participation. Import patterns reflect a change in the nature of products from low to high value over time. Specifically, a dramatic change in imported product content has been observed over the last two decades (table 2.4). In

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1995, much of the imports of electrical equipment probably reflected a change in household preferences. In 2005, just after the war and in a period of increasing openness for Afghanistan, other types of manufactured products seemed to enter the country (cars and components, as well as route, train, or airport infrastructures and related goods). In contrast, by 2014, a net change in imports can be observed, with products of first necessity (energy, pharmaceuticals, and commodities) dominating the ranking. This shift mirrors the precarious state of the economy in the later period. In addition, the limited value of intermediary imported inputs suggests weak integration in GVCs and confirms that increasing imports might not translate into productivity gains.

skilled workforce. Afghanistan is, however, exporting greater volumes of products associated with lower levels of human capital (years of schooling) and greater levels of physical capital per worker.

Figure 2.5 illustrates some positive shifts in the product distribution for physical capital per worker and negative shifts for human capital (years of schooling). Exports of products associated with greater levels of physical capital per worker are not in line with the country's comparative advantage, and are very possibly related to re-exports, for example, the data show exports of video recording apparatus and bulldozers or levelling tools. The lower levels of human capital per worker can be

TABLE 2.4: Top-five import sectors in Afghanistan measured at the HS 2-digit level, 1995–2014 (HS-2)

Rank	1995	2005	2014
1	Rubbers and articles of rubber	Mineral fuels, oils, waxes, etc.	Mineral fuels, oils, waxes, etc.
2	Electrical machinery and equipment	Vehicles other than railway	Sugars and sugar confectionery
3	Man-made filaments	Electrical machinery and equipment	Milling industry products
4	Tobacco	Plastics and plastic articles	Vehicles other than railway
5	Animal or vegetable fats	Articles of iron or steel	Electrical machinery and equipment

Source: Calculations using BACI data from CEPII.

Labor sophistication of Afghan exports

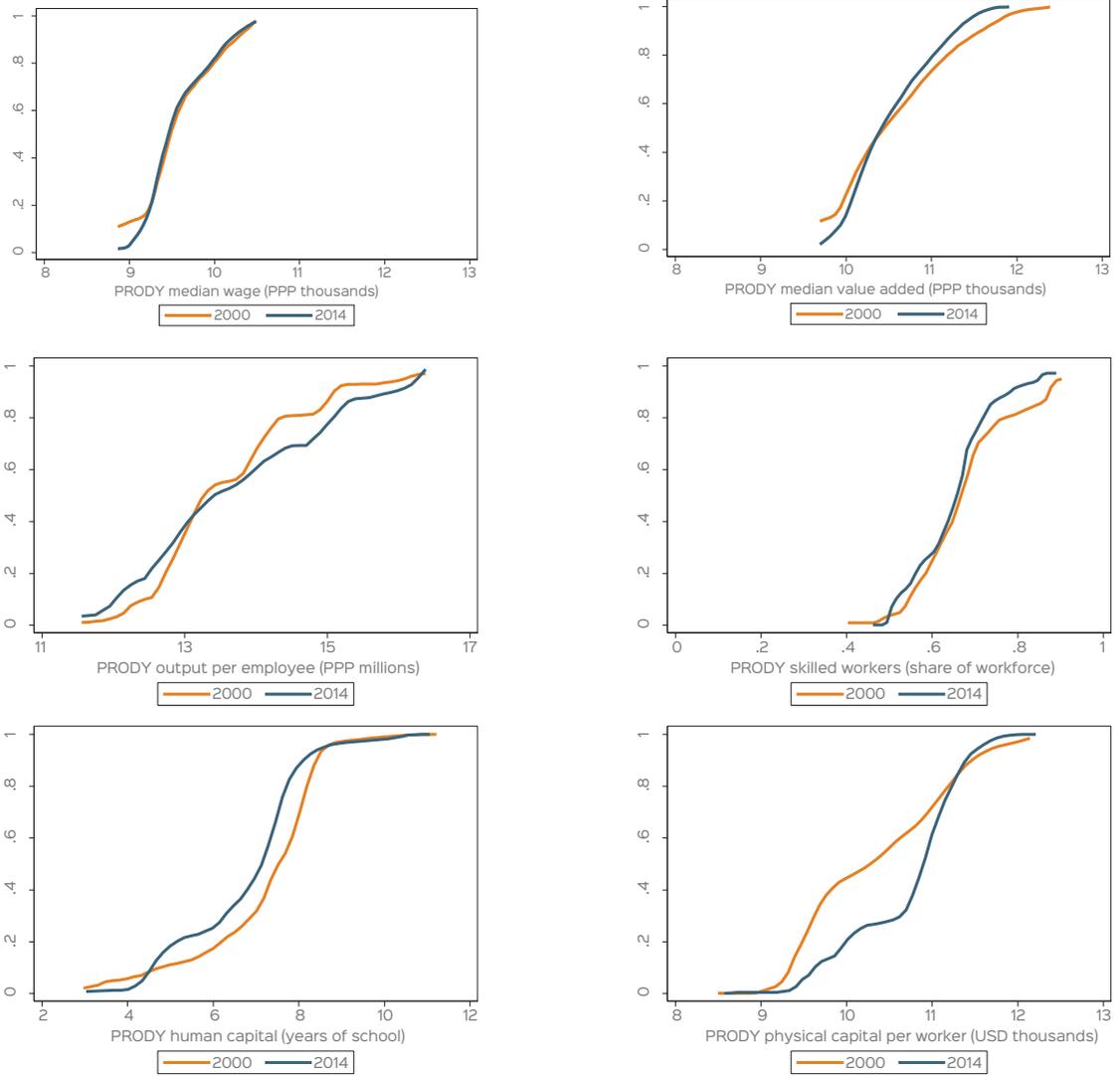
Empirical studies show that what a country exports and where it exports affect the level and composition of labor demand in the exporting country and its economic growth performance.¹⁷ The trends in figure 2.5 indicate that the level of labor sophistication¹⁸—as measured by the wages, value added, share of skilled workers, and human capital—embedded in Afghan exports to the world has changed little since 2000. Few notable shifts have occurred across the distribution of export products between 2000 and 2014 for median value added, median wage, output per employee, and share of

attributed most notably to increases in exports of agricultural products and foodstuffs, such as vegetables, fruits and nuts, and vegetable oils. The greater levels of physical capital per worker are associated with greater exports of mineral products as well as stones and glass, including steatite, coal products, and ferrous and copper waste and scraps.

Lack of export diversification in terms of destination markets is related to lower levels of labor sophistication for Afghanistan. Exports to South Asia are heavily concentrated in primary products (vegetables, fuels, metals, and minerals). Stone and glass exports are more important to the United States than the European Union (EU) and South Asia, as are agricultural

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Figure 2.5: Cumulative distribution of Afghanistan's export basket to the world, 2000 and 2014 (PRODY index)



Sources: Calculations based on mirror data from UN Comtrade, World Bank Business Environment and Enterprise Performance Surveys, and Shirotori, Tumurchudur, and Cadot (2010).

Note: The PRODY index is the global trade-weighted average labor-market outcome covering all countries in the world that export the product.

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products and textiles. Exports to the EU-28, in contrast, which in 2000 were concentrated in textiles and leather, showed more diversity in 2014. These exports included vegetable products, hides and skins, machinery and electricals, textiles, metals, and chemicals (figure 2.6). Thus, the EU exports reflect higher wages, skill, human capital, and physical capital content. Also in this

case however, some of the products such as machinery and electricals might be related to re-exports of goods previously imported into Afghanistan. Government policies should therefore promote diversification of Afghanistan's export basket to export destinations such as the EU, which are associated with greater levels of labor sophistication.

Box 2.1: How to measure the labor sophistication of Afghanistan's exports

The Sophistication of Products (EXPY) index of labor sophistication can be used to measure trade-weighted average labor-market outcomes of the goods and services that appear in Afghanistan's export basket. These measures extract information from labor market conditions and other characteristics of economies that specialize in certain products exported to certain markets. Based on these observations, it is possible to draw inferences about how products and regional trade patterns can impact employment, wages, and skill demand in Afghanistan.

A country's EXPY is calculated in two steps for each of the six labor-market outcomes (wage, value added, skill ratio, output per employee, human capital, and physical capital), following Hausmann, Hwang, and Rodrick (2007). The first step calculates for each product a PRODY value, or the global trade-weighted average labor-market outcome covering all countries in the world that export the product. For example, we can calculate a wage PRODY reflecting the average international wage of countries that export the product, a skill PRODY reflecting the average share of skilled workers of countries that export the product, and so on. The second step then weights the PRODYs appearing in Afghanistan's export basket by the share of each product in Afghanistan's total exports, denoted EXPY. The formulas are:

$$PRODY_j = \sum_i \frac{x_{i,j} / X_i}{\sum_i x_{i,j} / X_i} Y_i$$

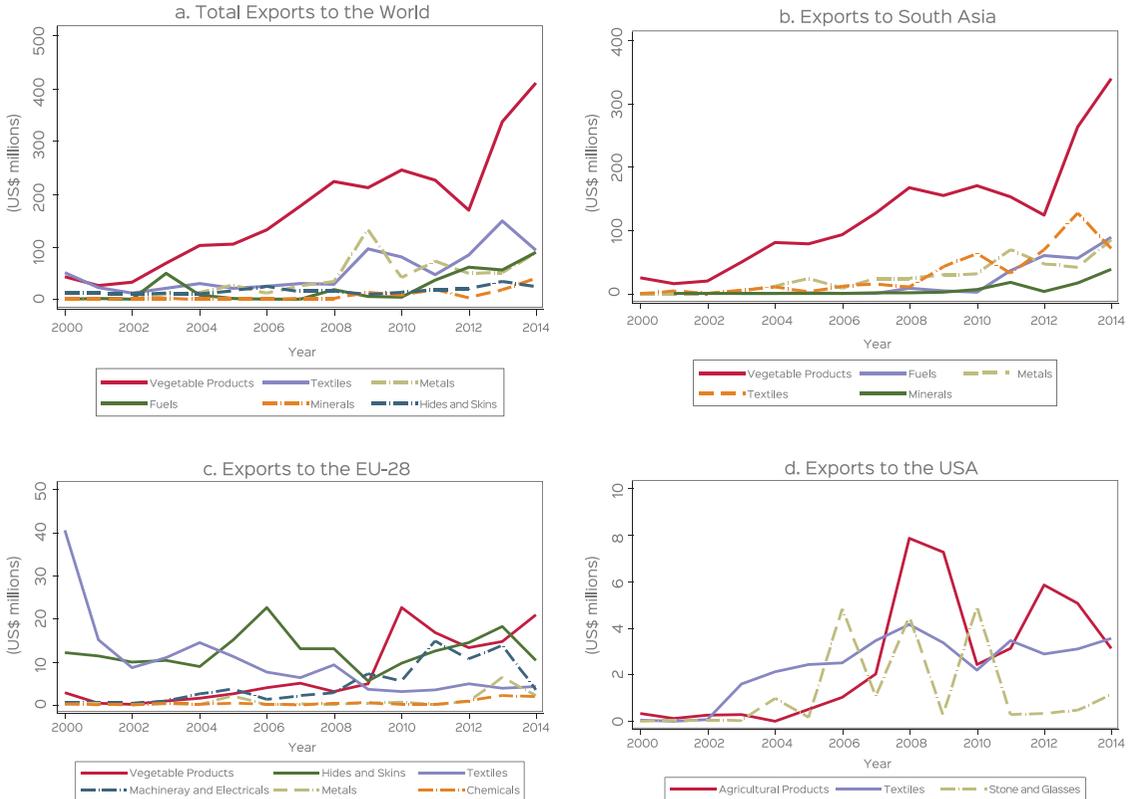
$$EXPY_i = \sum_j \frac{x_{i,j}}{X_i} PRODY_j$$

where $x_{i,j}$ is exports from country i in sector j , X_i is total exports of i , and Y_i is the labor-market outcome. These resulting EXPYs reflect the global average labor-market outcome of goods that appear in Afghanistan's export basket. The PRODYs and EXPYs are calculated using mirror data from United Nations Comtrade database; the World Bank's World Business Environment Survey and Enterprise Surveys; and Shirotori, Tumurchudur, and Cadot (2010).

For each of these labor-related EXPYs for Afghanistan, we (a) look at how their levels have evolved over time since 2000; (b) consider variations in labor sophistication across different destination markets, comparing the average for all Afghan exports (that is, destined to the "world") to those destined to the European Union-28, the United States, and South Asia; (c) make bilateral comparisons of labor sophistication with a range of regional exporters, including Pakistan, Kazakhstan, Azerbaijan, Niger, Turkey, and the Russian Federation; and (d) repeat each of the above analyses across the entire distribution to see which products are driving the observed differences.

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Figure 2.6: Sectoral composition of Afghanistan's export basket over time and by destination market, 2000–14



Source: World Bank calculations based on mirror data from United Nations Comtrade.

2.2 Assessing Afghanistan's trade performance

Afghanistan's trade performance can be assessed by comparing the country's observed export (or import) flows with an expected norm (also called trade potential).¹⁹ Potential exports for Afghanistan (and other countries) can be represented by a measure that accounts for the capability of a country and its market access (see box 2.2 for more details). Exports from a given country are more likely when the capabilities of the exporting country are high and foreign demand strong and accessible (market access).

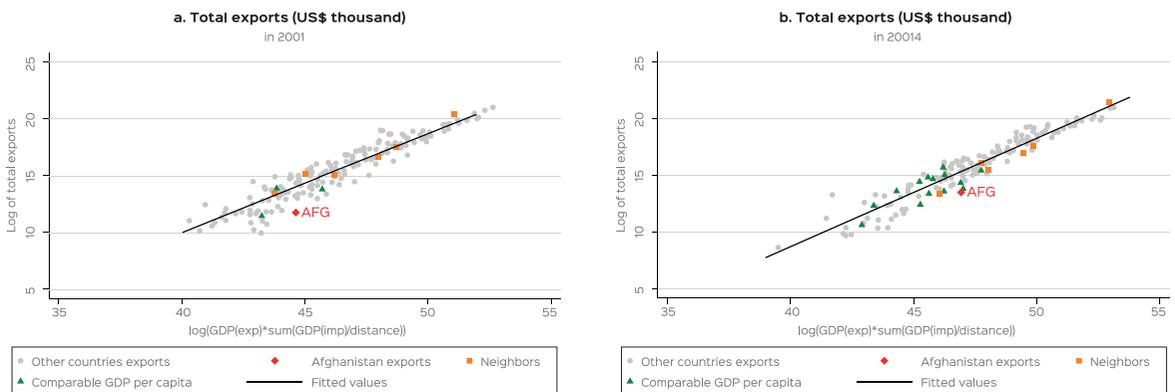
Export potentials are presented in figure 2.7, which plots each export flow of a country against its corresponding measure of capabilities and market access (that is, the sum of its GDP and that of all partners weighted by the inverse of the distance to the country).²⁰ Afghanistan's neighbors are (orange) squares and countries comparable in terms of GDP per capita are (green) triangles.²¹ Other countries are represented by dots. The fitted line provides a benchmark against the actual performance of Afghanistan. Any deviation from the fitted line points to a residual, which is a variance that cannot be explained by the controls used. Deviations below the line suggest trade underperformance, and deviations above the line suggest trade overperformance.²²

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Figure 2.7 shows that Afghanistan underperforms, even compared to its neighbors and to countries at similar levels of development. Trade underperformance is persistent after controlling for the presence of war-related trade and informal trade.²³ Similar figures are also obtained when classifying products by type of use:²⁴ except for primary products, where Afghanistan's performance is in line with expectations, a clear underperformance shows up when considering capital goods, intermediary goods, and consumer final goods (see

gravity forces (that is, importing country demand and capabilities of exporting countries adjusted for transport costs). In general, Afghan exports are still much below their potential, compared to countries of similar size, level of development, and remoteness from trade partners. However, Afghan imports converge to their natural prediction over time. This is an important result, suggesting that specific obstacles to imports are relatively mild compared to exports. A more detailed analysis of the

Figure 2.7: Afghanistan's export potential, 2001 and 2014



Note: Regression fit: $R^2=0.86$
 AFG Share in Sum of square residuals: 0.031.
 Residuals rank of AFG: 177/190

Note: Regression fit: $R^2=0.92$
 AFG Share in Sum of square residuals: 0.033.
 Residuals rank of AFG: 170/190

Source: Calculations using BACI data from CEPII.

Annex 2A, figure 2A.1). Afghanistan's trade underperformance is more severe than presented in figure 2.7, because the estimations do not consider that a significant share of Afghan exports are not locally produced but are simply transiting the country.²⁵

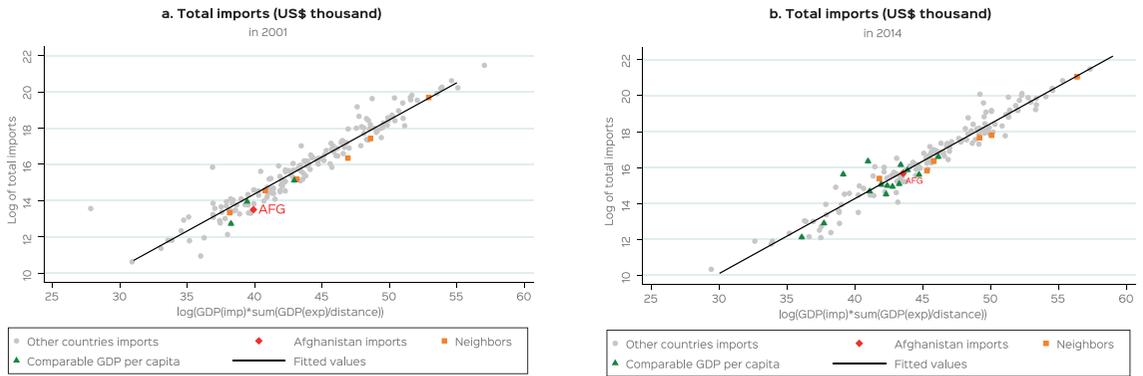
Figure 2.8 plots trade potentials for import values by comparing actual imports with potential imports, the latter being simply defined as the outcome of simple

potential of import flows of intermediary products and capital goods used by Afghan producers plots an "inverse U-shape" over time of Afghanistan's import performance for such products. This suggests that Afghanistan is not importing enough for production and exporting and that instead import flows reflect foreign presence due to war (see Annex 2A, figure 2A.2).

At the firm level, the low proportion of exporters of all Afghan

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Figure 2.8: Afghanistan's import potential, 2001 and 2014



Source: Calculations using BACI data CEPII.

Box 2.2: Estimating Afghanistan's trade potential with gravity equations

In its general version (here adapted from Head and Mayer [2014]), the gravity equation⁹ represents trade flows between two countries i and j by the following relation:

$$X_{ij} = A_i \varphi_{ij} M_j \quad (\text{B2.2.1})$$

where X_{ij} represents the export value from i to j , A_i captures the *capability of country i to export to all destinations*, and φ_{ij} expresses bilateral accessibility between i and j . The M_j variable expresses the characteristics of the destination market j that affect imports from all sources. It can be shown further that $M_j = E_j / \varphi_j$, where E_j is the total expenditure of country j and φ_j measures the average accessibility of consumers in j to supplies the rest of the world (also referred to as the degree of competition in country j).

Equation B2.2.1 can be aggregated to express total exports of a given country, like Afghanistan, to the world. Summing over all destinations j and rearranging, the following expression is obtained for total exports (X_i):

$$X_i = A_i x M A_i \quad (\text{B2.2.2})$$

where $M A_i = \sum_j (\frac{\varphi_{ij}}{\varphi_j} \cdot E_j)$ is the market access of country i to the world, as it represents the sum of expenditures addressed to i , weighted by the relative bilateral access between country i and j , compared to all other exporters to j (that is, $\frac{\varphi_{ij}}{\varphi_j}$). It is interesting to see that two elements determine total exports of a *country i* : its capability (A_i), and its market access to the world.

From theory to the data

To predict *total exports* of a country (that is, to estimate its potential exports), the capabilities of that country and its access to world markets are proxied by the multiplication of the GDP of the exporter and the sum of GDPs of importers, respectively, weighted by the inverse of their distance to the exporter.

In the same manner, another simple prediction can be obtained of *bilateral exports* by multiplying the GDP of an exporter with that of the importer and dividing by the distance between them. By comparing predicted (bilateral) values to actual (bilateral) flows, one could deduce a country's over- or underperformance.

Note: a. The gravity model has been used extensively in international trade due to its intuitive empirical and theoretical appeal. Anderson and van Wincoop (2003), Feenstra (2004), and Baldwin and Taglioni (2006), among others, present exhaustive literature reviews on the gravity equation as applied to international trade.

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companies, and their poor performance in export markets, suggest low export capabilities and high barriers to trade. According to the World Bank's Enterprise Surveys,²⁶ only 6.7 percent of the 410 surveyed Afghan firms were exporters in 2014 (table 2.5). This share is low compared with averages for the South Asia region (13 percent) and Organisation for Economic Co-operation and Development countries (36 percent). In addition, data from Afghan customs' authorities show that on average a firm exported only two to three products to one or two destinations at most²⁷ (table 2.6). Low export performance is consistent with low foreign investment, which can provide an important conduit for acquiring knowledge and technology. Foreign direct investment (FDI) flows into Afghanistan—mostly originating from the United Arab Emirates and China—were less than 1 percent of GDP in recent years.

In figure 2.9, bilateral exports are plotted using a simple gravity benchmark, defined as the capability and market access of each exporting country (see box 2.2 for further details). Each dot is a bilateral trade value and the darker

(red) dots are bilateral trade values for Afghanistan. The fit represents the bilateral trade predicted by the gravity variables. Most of the red Afghan dots happen to be under the prediction, especially in 2014. This result confirms that Afghanistan underperformance is present in most of the destination markets. Notice that most of the top 20 main destinations of Afghanistan's exports are below the predicted line (see green triangles), suggesting that Afghanistan has not been able to fully exploit these markets. The fact that barriers to export faced by Afghan producers are affecting most of the destinations similarly suggests that lack of market access is not responsible for Afghanistan's trade underperformance. Indeed, Afghanistan does not appear to be facing high tariffs from the rest of the world. In fact, table 2.5 shows that it faces relatively lower tariffs than its neighbors do. Besides, Afghanistan has important tariff preferences from the EU and the United States, two of the largest markets outside its neighbors (respectively, 0.012 percent and 1.7 percent average tariffs). The only two important markets for Afghanistan where it still faces high tariffs are Pakistan (13 percent) and the Islamic Republic of Iran (26 percent).

TABLE 2.5: Share of firms exporting at least 1 percent of sales directly or indirectly, Afghanistan and comparators, 2013–14

Export destination	Share of firms (%)
Pakistan	18.60
Afghanistan	6.70
Kazakhstan	5.00
Azerbaijan	1.90
High income: OECD	35.70
South Asia	12.90

Source: World Bank Enterprise Surveys.

Note: Shares for Afghanistan are from 2014. Shares for Pakistan, Kazakhstan, and Azerbaijan are from 2013. A total of 410 enterprises were surveyed in Afghanistan in 2014. The sectors covered are manufacturing (40 percent), retail (20 percent), and services (40 percent). OECD = Organisation for Economic Co-operation and Development.

2. AFGHANISTAN'S TRADE IN GOODS (UNDER) PERFORMANCE: DETERMINANTS, CHALLENGES, AND FUTURE OPPORTUNITIES

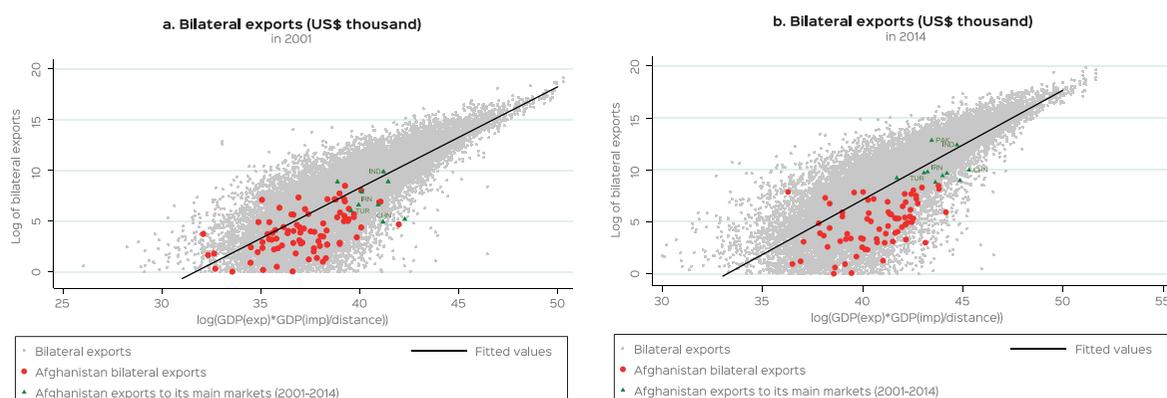
TABLE 2.6: Overview of customs data on Afghan exports, 2013-14

Year	Number of companies	Number of destinations	Number of goods (HS-8)	Total value of exports (US\$ thousand)	Number of goods per firm	Number of destinations per firm
2013	686	55	303	364,178	2.92	1.40
2014	943	56	303	449,196	2.54	1.38

Source: Afghan custom authorities.

Note: Goods are classified using the 8 digit Harmonized system classification (HS8)

Figure 2.9: Bilateral exports and market access in Afghanistan, 2001 and 2014



Source: Calculations using BACI data from CEPII.

2.3 Supply-side factors limiting trade performance

Lack of supply is one of the main determinants of export underperformance in Afghanistan. The country's export base is still extremely narrow, reflecting its limited agricultural production and small manufacturing base. The combined GDP share of agriculture and industry has been on average 20 percent during 2006–15. And although agriculture remains central to the Afghan economy,²⁸

the agricultural (and industrial) share of total output and contribution to GDP growth has been decreasing over the years (see figure 2.10). Top exported products such as fruits and nuts represented only one-fourth of agricultural GDP in 2015. Other traded products such as textiles, carpets, wood, and paper represented less than 1 percent of manufacturing GDP. These figures suggest that Afghanistan has very little to offer to international markets and that supply-side constraints need to be addressed for Afghanistan's trade potential to materialize.

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Persistent conflict has prevented Afghanistan from accruing the advantages derived from economic diversification. The poor economic environment (including weak rule of law, low levels of education and training, and underdeveloped financial sectors) reduces the incentives to invest in manufacturing and routes (Brück 2004; Deininger 2003). It also limits workers' ability to improve their productivity, both in terms of quantity and quality of their products. Indeed, highly differentiated goods produced by manufacturing sectors are much more sensitive to transaction costs produced by violence (see Mirza and Verdier 2014). In this context, peace-enhancing policies would be important drivers of diversification towards non-farm and non-primary resources goods.

A heavy regulatory burden and perceived risks to investing and operating in the country and lack of human capital have also limited Afghanistan's production capacity. Afghanistan ranked 183rd out of 189 economies in the World Bank's Doing Business Report 2016. High costs of doing business in Afghanistan are reflective of the regulatory burden and perceived risks to investing and operating in the country. Low levels of local and foreign investment have been driven by the security environment as much as by the business environment, driving up the risk premium and deterring risk-averse investors. The inability of Afghanistan to attract high-value FDI has prevented the country from taking advantage of new and better sources of finance, knowledge, and access to markets.

With respect to human capital, mediocre education outcomes—whether due to inadequate quality, misalignment with labor demand, or limited access to educational services—have prevented Afghan producers from improving the quality of their products and therefore from diversifying production and exports toward higher-quality, more sophisticated products. That is, producers cannot recruit labor with appropriate skills, which in turn dissuades investment in more productive processes and technologies.

Policy actions aimed at improving Afghanistan's production capacity include improving the business climate by reforming and streamlining business regulations, increasing transparency of the tax system, and providing better access to main services such as electricity through facilities such as industrial parks. Producers and exporters will also need better access to finance through domestic regulatory reform and risk-sharing schemes (see specific recommendations in chapter 3). A medium-to-long-term agenda aimed at improving economic diversification should support FDI attraction and human capital improvements. Implementing such policies will take time. This is particularly true in an environment of conflict and political insecurity. Rather, Afghanistan should view these actions as a medium-to-long-term policy agenda that will support trade and competitiveness more broadly (see box 2.3).

In the short -to medium- term, policies aimed at improving economic diversification and competitiveness should focus on sectors where Afghanistan has a comparative advantage. The analysis below focuses on the supply-side constraints and potential solutions for the agricultural sector and the carpet industry. These sectors are important for Afghanistan's economy in terms of production and potential trade. Increased competitiveness in these sectors would not only help to substitute imports and improve potential exports, but could also have a positive impact on conflict, given their relatively high labor intensity and therefore their positive impact on employment and wages as production increases (see box 1.1 for more details on the links between conflict and trade). Increased productivity in the agricultural sector and the carpet industry will also lead to higher diversification in terms of export destination markets, and therefore would decrease Afghanistan's vulnerability to demand shocks in neighboring countries.

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Box 2.3: Medium-to-long-term policy agenda to support trade and competitiveness

Foreign Direct Investment

Attracting foreign direct investment (FDI) and capital investment in tradable sectors, through favorable (but non distortionary) investment incentives, could help Afghanistan expand its product offerings up the value chain. Afghanistan's fragility and ongoing conflict could negatively impact investment prospects and longer-term strategy. FDI can bring essential knowledge and technology and access to new markets, but high levels of conflict and lack of security can make attracting investment in Afghanistan more difficult. Conflict weakens governance, undermines economic development, and threatens both national and regional stability. Investors must consider the return on their investment relative to the risks they are taking, especially political risks such as expropriation, currency convertibility and transfer restrictions, breach of contract by the sovereign, and war and civil disturbance.

Despite deteriorating security situations, there are still investors seeking business opportunities in fragile and conflicted countries, so long as the investment yields a sufficiently high rate of return, plus a risk premium. Investors appear more focused on unexpected and arbitrary changes in government policies against their investments, rather than the security issue itself. There is concern, for example, about cumbersome processes for renewal of licenses and permits, paying taxes, and various contracts signed with the government. The government should encourage and facilitate foreign investments by mitigating the risks related to regulatory and policy uncertainty.

Human Capital

Afghanistan has dramatically increased investment in human capital since 2001, but much still needs to be achieved. For example, the number of primary school students has increased from 770,000 in 2001 to more than 6 million today. As described in chapter 4, limitations in the provision of education and health services constrains the country's human capital accumulation. Only around 50 percent of children attend secondary school, and literacy rates are among the lowest in the world. Reduced access to health and educational services has been especially pronounced in conflict-affected areas.

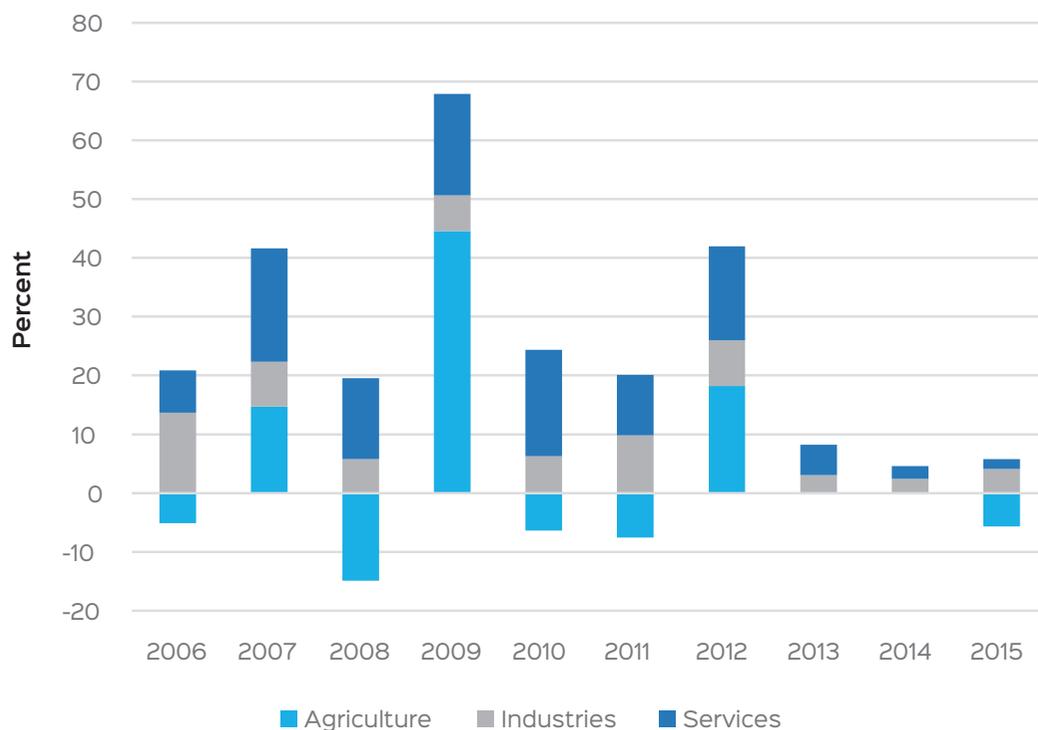
Policies that target education can improve economic diversification and labor sophistication. Skills mismatches can be a significant constraint on firms, and increasing productivity and innovation requires enhancing the quality of the labor force. In Afghanistan, there are important concerns regarding education quality and perceived mismatches between investment in skills and labor market demands. Unmet demand for qualified labor in manufacturing could keep wages relatively high, reducing firms' competitiveness and diversification. A large pool of skilled and competitive labor is also an essential component both for attracting investment in higher-value activities, and for enabling firms to upgrade the quality of their goods and services. Increased demand for educational services, particularly in higher education, has outpaced supply. The Afghan Ministry of Higher Education and the United States Agency for International Development estimated that in 2012 approximately 75,000 high school graduates did not gain admission to an institution of higher learning because of insufficient places. In addition, there are few MA and PhD programs in the country, and there is a shortage of qualified faculty.

A strong emphasis on general education allows workers to better adapt, which is critical in a world where technologies come and go quickly. Supporting these goals requires policies to increase educational attainment; more support for basic education; curriculum reform as necessary to meet market demand, including soft and entrepreneurial skills; and aligning vocational training to private sector demand, particularly export-oriented private sector demand. A good example is the educational reforms in the country of Georgia. They have a long-term plan (2014–24) to develop a consolidated education sector strategy, spanning from early childhood education to higher education. This consolidated sector promotes the notion of lifelong learning and quality education for all. Similar efforts in Afghanistan could over time reduce the country's skills gaps and mismatches.

Enhancing management capacity and staff training could also help address the skills and education gap. Policies could address challenges such as firm incentives to invest in training, strengthening vocational education and training (VET) quality, and stronger engagement of the private sector on VET and life long-learning needs. Investment in adult education is also limited in Afghanistan. In response, the government could expand second-chance vocational training, and adult education programs to improve labor productivity.

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Figure 2.10: Sector contribution to growth in Afghanistan, 2006–15



Source: Calculations based on Central Statistics Organization data.

Agricultural sector

Agriculture plays a significant role in the lives of poor people, 90 percent of whom are living in rural areas of Afghanistan. It is the primary or secondary income source of approximately 50 percent of Afghan households and employs about 40

percent of the national workforce, including women and landless farmers. Although only 12 percent of Afghan land is arable (much of which was restored after being damaged by decades of conflicts), the agricultural sector has the greatest potential to drive economic growth, increase government revenue, and create jobs.

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Agricultural production growth is constrained by lack of adequate facilities, limited access to high-quality inputs, and insufficient use of research and technology, among other factors. Currently, Afghan on-farm production is mainly rainfed. Agricultural yields are usually higher (two to three times) on irrigated land compared with rainfed areas; hence, irrigation is extremely important for the country. In addition, agricultural inputs (such as fertilizers, seeds, pesticides, breeding materials, and veterinary medicines) are both imported and supplied domestically by the private sector. However, most of the supplied inputs are of low quality, resulting in lower yields and productivity. Compared to other South Asian countries, Afghanistan's crop and livestock yields are low, as is the general productivity of agricultural land. This is again caused by the absence of agricultural research and technology in the country.

Private sector businesses have limited access to serviced land, credit, and quality electricity. Thus, businesses lack some elements of a supportive environment for their operations, new investments, and expansion. This situation needs to be improved for agrobusiness to grow and contribute to exports and import substitution. In addition, government regulation and tax rates and administration are constraints to most businesses in Afghanistan. In 2014, senior management reportedly spent 10 percent or more of their time dealing with government regulations, compared to an average of 7 percent in other South Asian countries. Similarly, nearly 46 percent of business owners surveyed reported that tax rates were a major constraint to doing business, while 39 percent reported that tax administration was a major constraint.²⁹

Lack of connectivity at rural levels and among tertiary roads, unavailability of cold storage facilities, and

extortion practices along the highways increase the cost of agricultural products for domestic markets and exports. In the 2014 World Bank Enterprise Surveys, 42 percent of surveyed firms highlighted these problems as impeding factors. These costs can be reduced by improving road infrastructure and increased security on highways. In addition, investing in refrigerated trucks and air cargo capability may increase initial transportation costs, but such facilities are fast and reliable means of transporting exportable commodities to end markets.

To meet domestic demand, substitute imports, and potentially promote exports, policies should focus on enhancing productivity and promoting investment to expand the scale and quality of agricultural production. Given that government resources is limited, intervention should prioritize development of selected value chains such as irrigated wheat, horticultural crops, and livestock production. The Agriculture Sector Review conducted by the World Bank in 2014 identified these value chains as having the highest potential for development. They all enjoy comparative advantage and could be the first movers of the agricultural sector toward substituting imports with improvement in productivity, which would assist in increasing food security for the rest of the population in the agricultural sector.

Complementary actions to enhance productivity in the short -to medium- term include enhancement of crop irrigation facilities, better access to high-quality inputs and technologies, and improvement of business climate (see box 2.4 for specific policy recommendations in these areas). Given that female workers represent around 40 percent of the workforce in the agricultural sector, steps to increase agricultural sector competitiveness should include action plans to enhance women's participation in agricultural activities (World Bank 2011).

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Box 2.4: Policy actions to improve competitiveness of the agricultural sector in Afghanistan^a

Production-side recommendations:

1. Irrigation facilities (The World Bank is currently involved through the On-Farm Water Management Project)

Afghanistan's irrigated lands can potentially be increased to more than 4 million hectares in the next 10 years through:

- Rehabilitation of irrigation systems. Ninety percent of irrigation systems in the country are traditional and are badly damaged due to conflicts. Only one-third of the traditional irrigation systems have been rehabilitated so far.
- Investing in new irrigation systems (canals, dams, and so forth). This strategy, although less costly compared to rehabilitation, will require more time to benefit the agricultural sector. It will also require high-level coordination among line ministries (including the Ministry of Energy and Water; the Ministry of Agriculture, Irrigation and Livestock [MAIL]; and the Ministry of Rural Rehabilitation and Development).
- Investing in strong institutions and policies to improve irrigation water management. These include defining a legal and regulatory framework, strengthening irrigation associations, and strengthening the irrigation department of the MAIL to manage the irrigation network.

2. Agricultural research and technology (Some of these recommendations are being addressed under the World Bank Agriculture portfolio in Afghanistan)

To deliver better technologies for farmers and increase yields and productivity, the capacity of the national research system needs to be improved in the short -and medium- term through:

- Rehabilitation and strengthening of the existing network of research stations; and outsourcing research to international and national research centers working in similar agro-ecological areas.

3. Access to high-quality inputs (Some of these recommendations have been addressed under the World Bank's Agriculture Portfolio in Afghanistan)

- Efforts should focus on the creation of an effective regulatory system and on strengthening the capacity of the MAIL to (a) enforce certification of seeds, veterinary medicines, vaccines, and so forth; (b) control banned pesticides; (c) constantly monitor domestic supplies; and (d) prevent imports of low-quality and hazardous agricultural inputs.

4. Business climate:

- Reforming the regulatory framework: Streamlining licensing processes, documentation, and customs procedures requested for exporting. The goal is to expand the domestic agroprocessing industry and reduce the time and cost of exporting commodities.
- Serviced land facilities in industrial parks, greater access to electricity: Food manufacturing and processing businesses lack adequate access to serviced land facilities such as industrial parks. Access to quality, uninterrupted electricity will help boost private sector investments and expand business operations.
- Access to credit: Implementation of risk-sharing practices, particularly partial credit guarantees, would increase access to finance for the real economy by improving the information available on borrowers and by building the credit origination and risk management capacity of participating lenders (see chapter 3).

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Box 2.4: continued

Trade and markets recommendations:

- Post-harvest handling: Poor post harvest handling (packing, processing, cleaning, storage, and so forth) of agricultural products is a constraint to businesses and results in the loss of at least 30 to 35 percent of crops. To increase crops' shelf life, prevent losses, and increase supply of products to domestic and international markets, it is important to improve post-harvest activities.
- Building storage and warehouse facilities: Incentivize private sector investment in cold storage and warehousing facilities in provinces and at customs ports for exporters, so that the shelf life of perishable exportable commodities is increased.
- Provision of grading and processing facilities: Extensive grading and processing facilities for all exportable agricultural products are lacking in the country. Grading and processing facilities are extremely important for promotion of exports from Afghanistan and yielding maximum profit. Building of standard grading and processing facilities would help export promotion and import substitution.
- Provision of standard and quality certifications: The private sector should be incentivized to invest in well-equipped quality control and testing laboratories that issue standard-quality certificates of agricultural exportable commodities. Strengthening institutional and legal frameworks governing certification is also vital for export promotion.
- Functional market intelligence: Establish online platforms for gathering and disseminating market information for Afghan exporters.
- Marketing for promotion of exports: Marketing campaigns in the form of trade fairs, agricultural exhibitions, and business-to-business matchmaking in and out of the country are vital. They facilitate promotion of domestic sales, exports, and the flow of information regarding processed agricultural products. Marketing campaigns will help Afghan exporters meet end buyers and promote their exports to high-value markets by complying with their quality requirements.

Sources: World Bank (2014); World Bank, forthcoming.

The carpet industry

Afghan carpets are famous and in high demand in world markets for their quality and for being handmade. The top-10 export destinations for Afghan carpets include the United States, the United Kingdom, Ukraine, Turkey, the United Arab Emirates, Sweden, India, Saudi Arabia, the Russian Federation, and Pakistan. Fully 99 percent of Afghan carpet production is exported, mostly in semi finished form. Since 2001, Afghanistan has been exporting, on average, approximately US\$93 million worth of carpets every year. As mentioned in section 2.2, Afghanistan recently decreased its specialization in the carpet industry. After reaching a peak (US\$215 million) in 2005–06, the value of carpet exports consistently declined until 2012–13. In 2015–16, they constituted 16 percent of total exports (Central Statistics Organization Statistical Yearbooks 2001–16³⁰).

The carpet sector provides direct and indirect employment—at different levels of its value chain—to millions of workers, who are mostly women. With the influx of returnees from Pakistan and the Islamic Republic of Iran, it is assumed that many carpet weavers will return to the country, and that they can immediately be employed in the sector and potentially intensify carpet production. However, partly due to falling demand for Afghan carpets domestically and in the world markets recently, many carpet businesses witnessed contraction and subsequently went out of business.

Three main factors have contributed to falling international and domestic demand for Afghan carpets in recent years. First, low-quality raw materials and inadequate processing facilities have damaged the quality of Afghan carpets and hence the competitiveness of the industry. Although Afghanistan produces

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high-quality wool (an essential raw material for carpets), domestic production only satisfies 40 percent of demand. The other 60 percent of raw materials (usually of low quality) are mostly imported from Pakistan, the Islamic Republic of Iran, and China. Carpet processing facilities (cutting, washing, dyeing, drying, scissoring, and so forth) are also limited in Afghanistan and fall short of local processing demands. As a result, more than 80 percent of semi-finished carpets are exported to Pakistan for final processing and re-exporting.

Second, the industry has suffered from inconsistency of design. Because Afghan carpets are mostly hand-made, they generally lack consistency of design and color, and therefore do not meet international bulk demands by consumers. Furthermore, innovative producers fear their designs will be copied by other producers and/or processors, due to low enforcement of and lack of awareness about copyright laws. Such producers avoid processing their carpets in Afghanistan and prefer sending them to Pakistan for finishing.

Third, there is only weak government support for carpet producers and exporters in terms of serviced land, marketing, technical assistance, transportation, and other factors necessary to a thriving carpet industry. Lack of an enabling environment adversely affects production of Afghan carpets and hence their exports.

In terms of exports, factors such as lack of branding and inadequate information about international market demand and product standards prevent carpet producers from fully reaping the benefits of trade. More than 80 percent of carpets produced in Afghanistan are exported as intermediate goods for processing, at low prices. After processing, they are re-exported to high-end markets with labels other than “made in Afghanistan” and at higher prices. Furthermore, carpets that make it to international markets directly from Afghanistan face severe competition from rivals (Pakistan, the Islamic Republic of Iran, Turkey, India, Nepal, and China). Afghanistan's carpet rivals display innovation in design and color combination, use superior technology and machinery for weaving and processing, and maintain consistency of designs that are preferred by consumers.

To improve international competitiveness of the carpet industry in Afghanistan, upgrades are needed all along the supply chain. Interventions are needed to increase the access to quality raw materials, facilitate the establishment of sophisticated processing units, and improve the quality of design. Government support in terms of provision of serviced land in industrial parks for carpet weaving and processing would also be helpful. Finally, export promotion and branding activities would help Afghan carpet producers to better position their products in international markets (for a more detailed description of policy actions for the carpet industry see box 2.5).

Box 2.5: Suggested interventions for Afghanistan's carpet industry

1. Production and processing:

- Improve the supply of raw materials, through facilitating investments in local production of chemicals that are used as raw materials for carpet production as well as production of dyes from natural materials that are produced locally.
- Establish sophisticated processing units the inadequate availability of which increases production costs and adversely affects direct exports from Afghanistan.
- Provide serviced land in industrial parks for carpet weaving and processing, which will reduce costs for carpet producers and hence increase their competitiveness in local and international markets.

2. Design quality:

- Incentivize the private sector to invest in carpet weaving and processing machinery, which will improve design consistency and reduce production costs and time.
- Enforce copyright laws to safeguard innovations of the private sector in carpet production and help expand private sector businesses.

3. Export promotion:

- Establish online platforms to increase market information and awareness, which are essential for Afghan carpet exporters and export promotion.

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TABLE 2.7: Time to export distribution across countries, 2005–14)

Quartiles	Number of days to export		
	2005	2010	2014
1st decile	10	9	9
1st quartile	17	13	12
2nd quartile	23	19	17.1
3rd quartile	34	26	25
9th decile	52	41	40
Min	6	4	6
Max	102	80	86
Afghanistan	67	74	86

Source: Calculations using BACI data from CEPII.

2.4 The role of export delays in explaining Afghanistan's underperformance

For this report, an analysis³¹ was performed on the role played by different trade determinants (geographic location, institutions, markets access, and export time delays) in explaining the gap between predicted trade (that is, if Afghanistan behaved like the mean of countries at the same level of development and exhibiting the same trade costs) and observed trade. The analysis suggests that, once controlling for supply constraints and conflict, most of the unexplained underperformance of Afghan exports is associated with time export delays.

The estimation of bilateral exports toward markets already served by Afghan exporters (intensive margin of trade) shows that the predicted-observed trade gap is considerably reduced when controlling for export delays.³² This means that the across-destination variations in time to export is the factor that better explains Afghanistan's underperformance in export markets.

Afghanistan's export delays are mainly due to poor logistics and trade-related infrastructure. These have increased

over the years and are the highest across all comparator countries in this report (see table 2.7). In 2014, it took Afghan exporters 86 days on average to ship their goods, compared to 33 days on average for South Asia, 21 days for Pakistan, 25 days for the Islamic Republic of Iran, 21 days for China, and 17 days for India. The estimated cost to export in 2014 was US\$1,922 per container in South Asia compared to US\$5,045 in Afghanistan. The country's export delays have worsened over time, from 67 days in 2005 to 86 days in 2014.

The World Bank's Enterprise Surveys shed some light on the problems affecting trade logistics in Afghanistan. Nearly half of surveyed firms highlighted transport as a major or very severe obstacle to export in both 2008 and in 2014 (see table 2.8). High transportation costs may be caused by factors such as lack of competition among the truck companies, which cannot be internalized by small producers. Another obstacle is illegal taxes paid by truck drivers along transport routes, which increase costs of transportation for exporters, rather than lack of infrastructure. For example, melon exporters take less than one day (14 hours) to get from Kabul to the Torkham border crossing, a distance of 235 kilometers.³³ Improvements in infrastructure would have a limited impact on export delays. In contrast, a reduction in the blockages of

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TABLE 2.8: Obstacles to Afghanistan's exports, 2008 and 2014

Type of obstacle	Transport, %		Customs and trade regulations, %	
	2008	2014	2008	2014
Minor	26	24	32	20
Moderate	26	29	34	28
Major	29	27	24	28
Very severe	20	20	10	24

Source: Calculations from the World Bank's Enterprise Surveys.

Afghan merchandise in neighboring countries (for weeks and sometimes months) would significantly reduce transportation costs and delays (as highlighted in a private sector roundtable that took place in August 2016).

Information from the World Bank's Doing Business database for 2015 suggests that in documentation procedures, around 85 percent of total time spent to export is related to documentary compliance (time for obtaining, preparing, processing, and submitting documents) and 15 percent is due to border compliance (documents strictly related to customs clearings). An increasing share of surveyed firms are reporting customs and trade regulations as a major or very severe obstacle to export (53 percent in 2014 compared to 34 percent in 2008) (table 2.8).

The negative impact of export delays on Afghan trade also captures the existence of high-intensity conflict in the country. Violence and insecurity increase the premium that producers must pay to insure their merchandise against conflict risks along the transportation routes. In addition, uncertainty regarding customs and borders operations also increases the costs of exporting. Recent empirical literature suggests that in areas of high conflict, the economic and social benefits of improving the quality of routes and trade-related infrastructure might be negated, and in some cases reversed (Ali and others 2015). Peace-enhancing policies should accompany trade facilitation efforts to improve logistics and infrastructure to ensure a positive impact on exports (and imports) in Afghanistan.

How do poor logistics and infrastructure translate into export losses? The estimated relation between export time and trade values points to striking results. A simple calculation based on the previous regressions suggests that, at the intensive margin, a decrease in time to export to levels comparable to the region (25 days) would lead to a 20 percent increase in exports—US\$152 million additional exports per year for Afghanistan. These results are based on current productivity levels of Afghan exporters and therefore do not take into consideration supply-side constraints that Afghan producers are currently facing. More significant improvements in exports will be obtained through reductions in export delays if supply constraints are also tackled. The combination of enhanced competitiveness in the exporting sector and reduced time to trade will make it possible to grow Afghanistan's untapped trade potential. Our estimation results suggest that improvements in export times and productivity of Afghanistan toward averages similar to neighboring countries³⁴ would lead to a more than six-fold increase in exports.³⁵ Such an immense change suggests that dealing with supply-side constraints and improving trade competitiveness is imperative for Afghanistan to benefit from trade.

Results at the extensive margin, defined as the ability to export new products or reach new destinations, suggest that extremely long export delays are preventing exporters from reaching new markets. Enormously high export times prevent non-star products³⁶—usually horticultural goods exported mainly to neighboring countries and in very low quantities—from

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entering new export markets. The associated trade costs are taking an important toll on the participation of less-advantaged businesses, which are hardly coping with these delays. Given the present export delays, the most difficult markets will be reached only by the producers of star products. These are products for which Afghanistan has a comparative advantage, and which represent 80 percent of Afghan exports (in value terms). They include fruits and nuts—grapes and figs (dried and fresh), and pistachios—and onions.

2.5 What would it take to reduce export delays?

Three complementary methods for improving logistics and trade-related infrastructure could be envisaged. First are improved documentary requirements and import, export, and transit procedures and processes. The number of documents and authorizing signatures required for trade operations should be reviewed for consistency with international good practice and, where practical, eliminated or substantially reduced. In the short -to medium- term, the Afghani government should work to automate all trade-related requirements and procedures into a national single window (NSW) system. The NSW system should automate the application, processing, and issuance of all trade-related permits and licenses administered by Afghan government agencies. The NSW system should also link permit-issuing agencies with the worldwide Automated System for Customs Data (ASYCUDA)³⁷ to allow for the seamless integration of all clearance processes, including a collective approach to risk management and inspection activities.

A collective approach to risk management would deliver a significant reduction in trade transaction costs, eliminate the need for numerous time-consuming visits to various government agencies, and reduce opportunities for rent seeking associated with face-to-face contact between officials and the private sector. As a first step, attention should be paid to improving information dissemination through the introduction of a trade information portal (TIP). Through user-friendly and easy-to-search website, the TIP

would provide traders with up-to-date information on all relevant rules, regulations, fees, forms, procedures, and so forth associated with import, export, and transit activities. Implementation of the proposed NSW and TIP would help at both the intensive margin, for existing exporters or destinations, and at the extensive margin, for potential new exporters and destinations. Both initiatives are consistent with the WTO Trade Facilitation Agreement (TFA) that came into force in February 2017.

Second are improved waiting times at the border. While many border delays result from actions taken by neighboring countries rather than Afghan authorities, opportunities exist to review and rationalize border operations to eliminate inefficiencies. These include improving cooperation and information sharing among the various government agencies mandated to operate at the border; operationalizing the ASYCUDA World's advance declaration and manifest functionalities to allow prescreening of consignments prior to their arrival at the border; reducing congestion by separating pedestrian and truck traffic; expanding border capacity and related infrastructure (scanners, weighbridges, warehouses, and so forth); and implementing cargo tracking to better manage the risks associated with under-bond movement of goods between the border and inland container depots.

Third is improving interagency cooperation on trade facilitation matters. Consistent with WTO TFA commitments, the government of Afghanistan should mandate customs and key border management agencies to maintain a National Trade Facilitation Committee (NTFC) as a formal mechanism for enhanced interagency cooperation and improved dialogue with the private sector. The NTFC would ensure that all trade-related agencies work collectively to streamline, harmonize, and simplify trade procedures based on a priority list identified jointly with the private sector. The establishment of a fully functioning NTFC, supported by an NTFC Secretariat, would also help government agencies strike a better balance between their control and facilitation objectives. Currently, customs and other trade-related agencies focus almost exclusively on their revenue collection and community protection and border control objectives at the expense of equally important trade facilitation objectives.

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While a focus on revenue collection is understandable given that Afghanistan relies heavily on trade taxes, evidence from across the globe strongly confirms that efficiency gains achieved through trade facilitation reforms are typically accompanied by improved revenue collection performance. This is due to better targeting of high-risk consignments, thus allowing low-risk consignments to be cleared more rapidly; more efficient administration of concessions and exemptions; improved incentives for voluntary compliance given to the private sector; improved interagency cooperation and information sharing; more effective post-clearance audit procedures; and reduced opportunities for corruption.³⁸

Existing trade agreements with regional partners can be deepened and expanded to enhance regional cooperation. This would facilitate visa processing and improve transport

and logistics, and help with the harmonization and simplification of customs procedures in line with international standards and regional commitments. In the case of Pakistan, the main destination and transit country for Afghanistan's exports, a strengthening of the dialogue between the two countries to accelerate de-bottlenecking of the Afghanistan-Pakistan Transit Trade Agreement would be fundamental to reduce uncertainties related to merchandise transportation, and to more broadly ensure gains from trade (see chapter 4).

How long would it take to reduce export delays? Experience from least-developed and other developing countries over the last decade suggests that benefits from a reduction in export times can take at least five years to materialize. It took from 1 to 7 years for these comparator countries to reduce their time to export (in days) by more than 50 percent (see table 2.9).

TABLE 2.9: Time needed to reduce export delays by more than 50 percent compared to 2005, selected countries

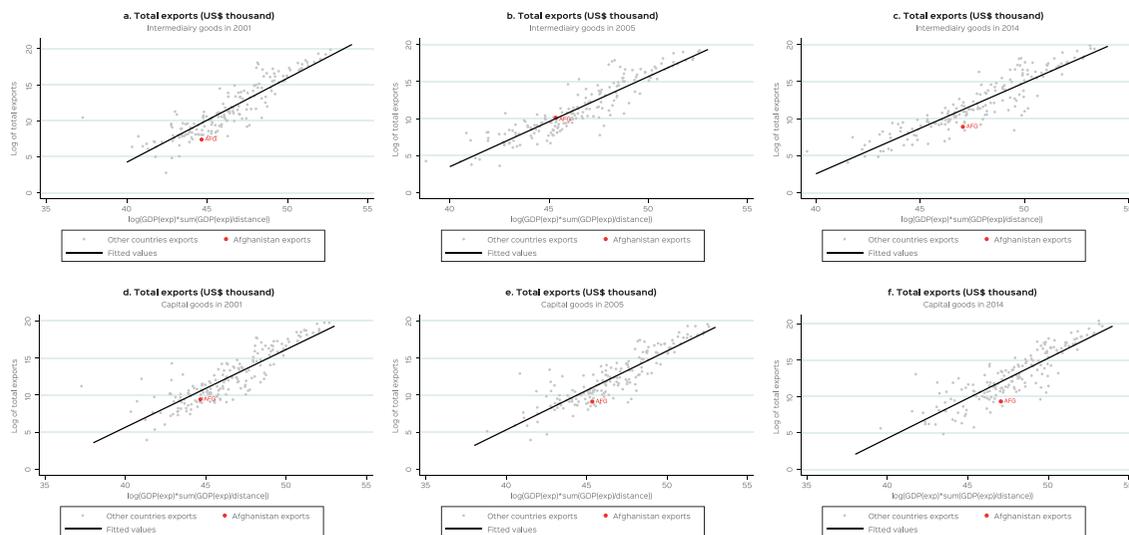
Country	Time to export in 2005 (days)	Reduction in export delays (%)	Reduction in export delays (days)	Time it took (years)
Armenia	37	51.3	19	5
Colombia	34	58.8	20	3
Costa Rica	36	61.1	22	4
Dominican Republic	17	52.9	9	6
Egypt, Arab Rep.	27	55.6	15	5
Georgia	54	77.8	42	1
Ghana	47	55.3	26	1
Grenada	19	52.6	10	7
Jordan	28	53.6	15	6
Lao People's Dem. Rep.	55	54.5	30	7
Madagascar	49	51	25	3
Rwanda	60	51.7	31	5

Source: Calculations based on World Bank's World Integrated Trade Solutions database.

2. AFGHANISTAN'S TRADE IN GOODS (UNDER) PERFORMANCE: DETERMINANTS, CHALLENGES, AND FUTURE OPPORTUNITIES

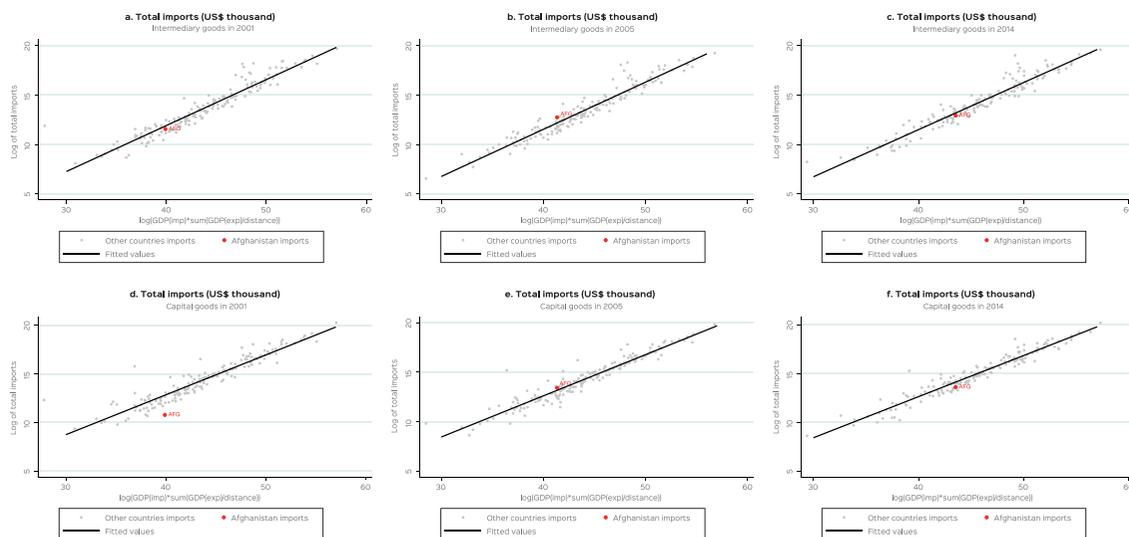
Annex 2A

Figure 2A.1: Afghanistan's export potential: intermediate and capital goods (2001, 2005 and 2014)



Source: Calculations using BACI data from CEPII.

Figure 2A.2: Multilateral imports of intermediate and capital goods to Afghanistan, 2001, 2005, and 2014



Source: Calculations using BACI data from CEPII.

2. AFGHANISTAN'S TRADE IN GOODS (UNDER) PERFORMANCE: DETERMINANTS, CHALLENGES, AND FUTURE OPPORTUNITIES

TABLE 2A.1: Top -10 HS-6 exports from Afghanistan to the United States, 2005 and 2014

Rank	2005		2014	
	HS-6 code	Export value	HS-6 code	Export value
1	845490	7,476.212	570110	3,210.435
2	848330	5,870.413	121190	2,555.62
3	848180	2,123.402	830249	456.076
4	570110	2,008.625	80620	152.2508
5	853710	1,682.063	401699	135.942
6	844250	912.428	300210	125
7	852910	856.731	870850	113.864
8	842839	810.796	91020	104.199
9	901832	715.955	170490	91.211
10	852520	523.735	401693	89.632

Source: Calculations using BACI data from CEPII.

Note: Products are defined using the 6-digit Harmonized System product classification. The products very likely related to expenses by the U.S. Army and related logistics are *in red*.

TABLE 2A.2: Top-10 HS-6 products codes exported from Afghanistan to the United States, by sector, 2014

HS-6 code	HS-2 code	Description
845490, 848330, 848180, 853810, 844250, 842910, 842839, 852520	84, 85	Machinery and mechanical appliances, electrical equipment, etc.
570110	57	Carpets
901832	90	Optical, photographic, medical or surgical instruments, etc.
300210	30	Pharmaceutical products
870850	87	Vehicles, aircraft, vessels and associated transport equipment
121190, 080620,	08, 09, 12	Vegetable products
401699, 401693	40	Rubber and plastics
170490	17	Prepared foodstuffs

Source: Calculations using BACI data from CEPII.

Note: Products very likely related to expenses of the U.S. Army and related logistics are *in red*.

2.AFGHANISTAN'S TRADE IN GOODS (UNDER) PERFORMANCE: DETERMINANTS, CHALLENGES, AND FUTURE OPPORTUNITIES

TABLE 2A.3: Distribution of the regressions residuals

Distribution of residuals			
Regression without time to export		Regression with time to export	
Distribution of the Afghan residuals within the total residuals distribution		Distribution of the Afghan residuals within the total residuals distribution	
	%		%
1st quartile	49.79	1st quartile	36.10
2nd quartile	24.69	2nd quartile	26.97
3rd quartile	13.99	3rd quartile	18.68
4th quartile	11.52	4th quartile	18.26
Share of negative residuals for Afghanistan		Share of negative residuals for Afghanistan	
72%		62%	
Mean value of residuals for Afghanistan		Mean value of residuals for Afghanistan	
-1.18		-0.52	

Source: Calculations using BACI data from CEPII.

2. AFGHANISTAN'S TRADE IN GOODS (UNDER) PERFORMANCE: DETERMINANTS, CHALLENGES, AND FUTURE OPPORTUNITIES

Box 2A.1: Afghanistan's trade performance determinants

To assess the obstacles that might curb trade of one country with another, after accounting for size and geography the following specification is estimated:

$$\log X_{ijt} = \alpha_1 \log A_{it} + \alpha_2 \log M_{jt} + \alpha_3 \log \varphi_{ij} + \gamma_i + \gamma_j + \gamma_t + \varepsilon_{ijt}$$

where $\log X_{ijt}$ represents the log of bilateral exports between country i and country j . A_i represents exporter i capabilities such as size and level of development, which are proxied by the $\log(\text{Population})$ and the $\log(\text{GDP per capita})$. M_i is related to the importer's characteristics in terms of its propensity to import, and in a symmetrical manner is proxied by the size of its demand, again through the $\log(\text{Population})$, and the level of development via GDP per capita.

Other unobserved determinants that can also affect an exporter's capability to export to the rest of the world and an importer's capability to import from the rest of the world are captured by a set of *exports and import fixed effects* ($\gamma_i + \gamma_j$). Time fixed effects (γ_t) are also included to control for time-varying characteristics affecting equally all the countries equally.

The φ_{ij} variable measures by how much trade could be distorted between two countries due to transaction costs. Here three types of transaction costs are considered.

1. Cost specific to the bilateral relation. This is represented by the extent of transport costs between countries, the difficulties to communicating, conflicts or disputes between them, or simply due to bilateral commercial policies set by either of the parties toward the other. These variables are approximated by the $\log(\text{Distance})$, a dummy equal to 1 if both partners share a same frontier (contiguity) or share a same common official language (comlang_off), and zero otherwise; a dichotomic variable of Military Interstate Dispute (MID); and a bilateral tariff variable ($\log(\text{tariffs})$).

2. Costs deriving from specific characteristics of the exporter, independently from the importer. First, some variables related to the quality of institutions of the country are introduced. These include the rule of law variable (rol), to which we also add variables describing the existence or intensity of internal conflicts (variables $civil\ war$, or the log of deaths per capita from civil war, $ldeathspc$). Other variables specific to the export activity by itself are also introduced. A first proxy introduced is a dummy variable indicating whether the exporter is landlocked. Another important variable specific to the exporting activity is the length of *time to export*. Time to exports encompasses the duration of time related to documentary and border compliance.

3. Transaction costs variables uniquely associated to the importer. Here the same variables as above apply, except to characterize the obstacles with which the importer is now faced.

2. AFGHANISTAN'S TRADE IN GOODS (UNDER) PERFORMANCE: DETERMINANTS, CHALLENGES, AND FUTURE OPPORTUNITIES

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3

AFGHANISTAN'S SERVICES TRADE: NATIONAL REFORM AND INTERNATIONAL COOPERATION

3. AFGHANISTAN'S SERVICES TRADE: NATIONAL REFORM AND INTERNATIONAL COOPERATION

KEY MESSAGES:

- Afghanistan's services trade patterns reflect the conflict and reconstruction efforts (for example, a large share of exports of construction services) and the recent reduction in international presence (leading to a net deficit in services exports). More generally, the development of services trade has been inhibited by the low human capital endowments and the challenges in attracting foreign direct investments.
- If relatively peaceful and secure conditions were established, then services trade and investment could help build both the hard and soft infrastructure needed to enhance domestic production, boost export capability, and facilitate the accumulation of human capital. Services trade in three key areas could be particularly important for Afghanistan: connectivity, and health and educational services.
 - Foreign investment in transport and communications infrastructure and services could enhance connectivity both domestically and internationally. Such investment would facilitate not just trade in goods, services, and ideas, but could also create the basis for Afghanistan to become an exporter of transit services to its neighboring countries (as discussed in chapter 4). But it may only be feasible to attract significant foreign investment if security conditions improve.
 - The consumption by at least some Afghan citizens of foreign health and educational services could help boost domestic human capital accumulation in the long run. International cooperation and improvements in the technologies of digital delivery could facilitate these services imports. A future work program in this area could be structured around recent initiatives on trade facilitation in services.
- Underdeveloped local financial institutions form a bottleneck for local business development. Domestic regulatory reform could encourage greater domestic and foreign participation in financial services, leading to enhanced access to finance. Key reforms in this direction are the improvement of the deposit insurance scheme, implementation of partial credit guarantees, and continued work on a regulatory framework that balances openness and the regulatory capacity of the central bank.

3. AFGHANISTAN'S SERVICES TRADE: NATIONAL REFORM AND INTERNATIONAL COOPERATION

Services and services trade are clearly important for Afghanistan's economy, comprising in 2015 nearly 60 percent of its GDP and 55 percent of its exports.³⁹ But can services trade become a driver of development for Afghanistan? This chapter reviews the state of services trade and policy in Afghanistan. It finds that, if relatively peaceful and secure conditions were established, greater foreign participation in Afghanistan's services sectors could eventually create a basis for the country's engagement in the global economy as an exporter of both goods and services.

Services include sectors of vital economic significance like communications, transport, finance, distribution, health, and education, and tourism. Services "trade" has a far-reaching definition that encompasses the four modes through which international transactions can take place:⁴⁰

- Cross-border trade in road, rail, and air transport, which are lifelines for a landlocked country like Afghanistan;
- *Consumption abroad* of health and educational services by Afghan citizens, as well as consumption by foreigners of tourism services—which today takes the form of sales of services to foreign security and aid providers but could one day take a more conventional form of tourism;
- *Commercial presence* through foreign direct investment (FDI) in banking, communication, transport infrastructure, and distribution—which are key backbone sectors for the economy; and
- *Temporary migration* both inward and outward of individual service providers, like construction workers, doctors, and teachers.

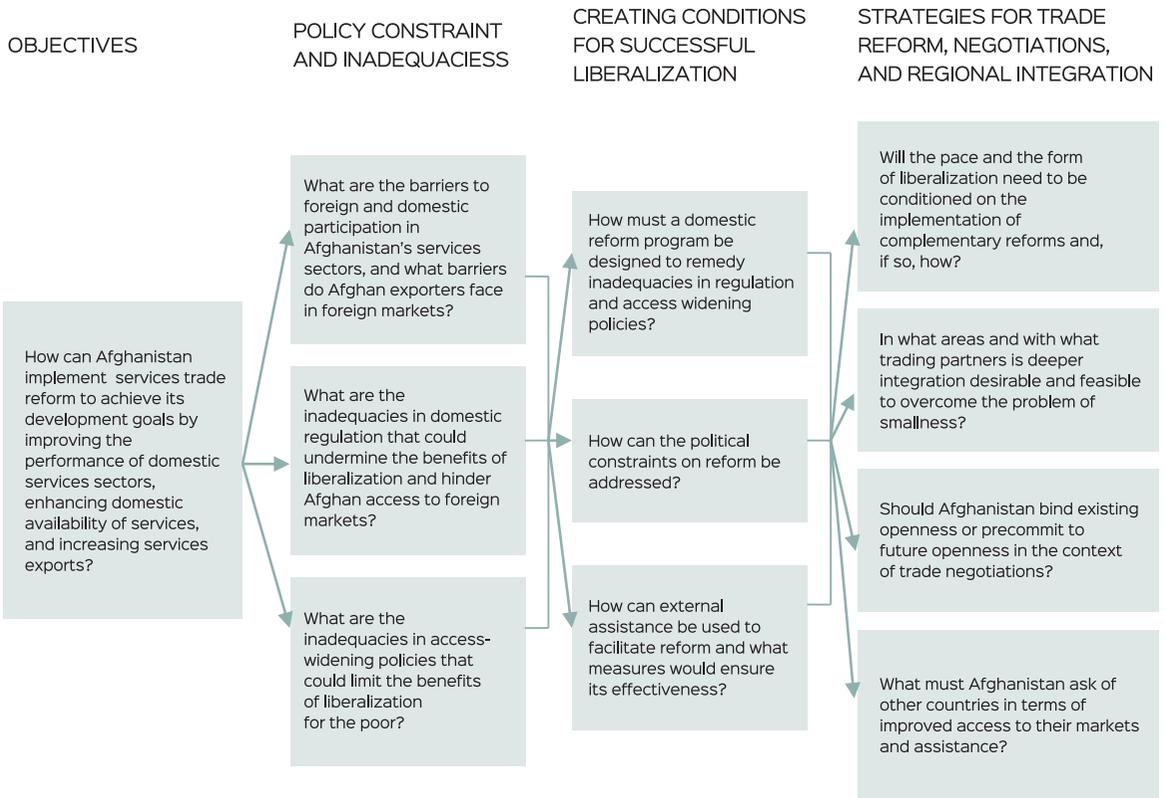
It should be evident, therefore, that services are critical to Afghanistan's overall economic performance and the well-being of its people, and that constraints on service sector development because of small markets and limited endowments could be alleviated by greater regional and global integration. In particular, if conflict-

related uncertainty was eradicated, foreign investment in transport and communications infrastructure and services could enhance connectivity both domestically and internationally. Such investment would facilitate not just trade in goods, services, and ideas, but could also create the basis for Afghanistan to become an exporter of transit services to its neighboring countries (as discussed in chapter 4). The consumption by Afghan citizens of foreign health and educational services through each of the modes could boost their human capital in the long run and eventually equip them to engage productively in both the domestic and global economy. Greater foreign participation in financial services could also lend greater efficiency, depth, and resilience to financial intermediation, and is likely to enhance access to finance for firms, farms, and households.

Given the deep reach of international integration in services, it is difficult to draw a line between services "trade" policy and other areas of services policy. Such a distinction may be unnecessary because the gains from services trade liberalization often depend on how it is combined and sequenced with domestic policy reform. It may be convenient to think of three broad goals of services reform: efficiency (static and dynamic), stability, and improved access. Three broad instruments of services reform can be defined: liberalization (of domestic and foreign participation), improved regulation (prudential and pro-competitive), and policies to enhance access. A large part of a reform program in services is necessarily national and unilateral. But international engagement can help in three ways: reciprocal liberalization of access to markets (for example, in transport); enhanced credibility of policy (through binding commitments); and regulatory cooperation and infrastructural coordination (for example, in communications and transport). This chapter explores only a few dimensions for Afghanistan, but the flow chart shown in figure 3.1 illustrates how a full-fledged strategy for national reform and international cooperation could be developed.

3. AFGHANISTAN'S SERVICES TRADE: NATIONAL REFORM AND INTERNATIONAL COOPERATION

Figure 3.1: Developing a long-term strategy for national reform and international cooperation in services in Afghanistan



Source: Based on Mattoo and Payton (2007).

3.1 Services trade regime

The potential gains from trade in services reform are large and widespread for most countries.⁴¹ Even exploiting the opportunities arising from goods trade liberalization requires better services. But policy makers, negotiators, researchers, and the private sector have regularly encountered difficulties in identifying and comparing services policies and regulation across sectors and countries. To facilitate this analysis, the World Bank has published the Services Trade Restrictions

Database (STRD),⁴² which contains information on the services regimes of over 100 countries in 18 sectors. The STRD also contains a simple and transparent Services Trade Restrictions Index (STRI) that ranges from 0 (completely open) to 100 (completely closed) to summarize policy information (see Annex 3A for additional details).

While Afghanistan has not yet been surveyed in the STRD, the available evidence suggests that it is already fairly open in services trade.⁴³ The main services sectors covered by

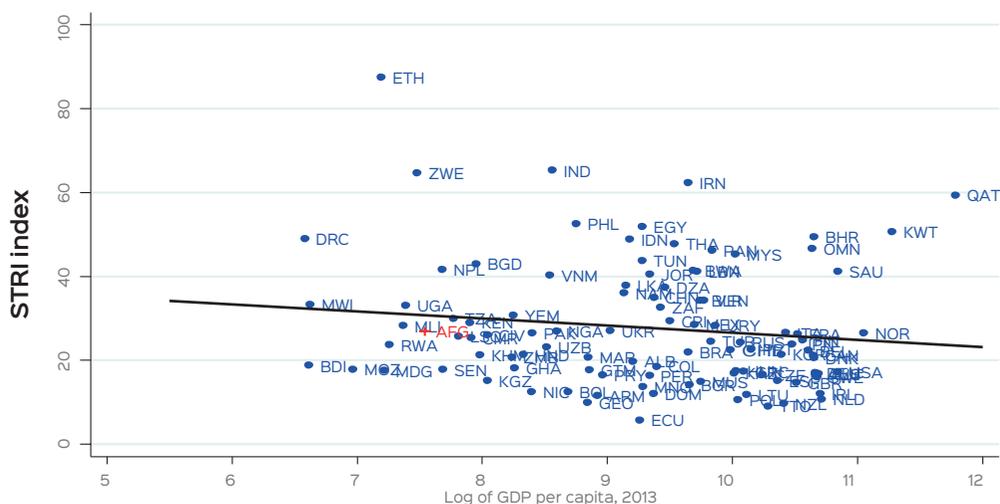
3. AFGHANISTAN'S SERVICES TRADE: NATIONAL REFORM AND INTERNATIONAL COOPERATION

the STRD are examined: financial, telecom, retail distribution, transport, and professional services. Afghanistan's STRI of 26.9 was close to the "world" average STRI for 107 countries of 27.1, and below what would be expected given its GDP per capita (figure 3.2). Afghanistan has much more open policies than other countries in the South Asia region—with a regional average STRI of 40.1—except for Pakistan, which also has relatively open policies (figure 3.3).

insurance services. In banking via commercial presence, Afghanistan merely requires that banks that seek to receive deposits be internationally reputable. There are no restrictions on foreign investment, but investment in insurance activities is subject to approval by the High Commission on Investment (HCI), in consultation with respective government ministries.⁴⁴

- *Telecommunications*: The Private Investment Law of 2005

Figure 3.2: Overall STRI for Afghanistan in a global context of 107 countries



Sources: World Development Indicators and STRI where available.

Note: The figure references 2013 GDP per capita (constant 2005 international US\$). The STRI ranges from 0 (completely open) to 100 (completely closed). The STRI for all countries other than Afghanistan is based on World Bank surveys collected between 2008 and 2011. Afghanistan's overall STRI is indicated in red in this figure. Information on Afghan services trade policies is primarily drawn from Afghanistan's WTO Accession Schedule of November 2015 (WTO 2015), the Private Investment Law of 2005 (AISA 2005), and the Law of Civil Aviation (AISA 2014).

Sector commitments under the General Agreement of Trade in Services

Afghanistan is remarkably open in financial services and telecommunications, but remains restrictive in transport (see figure 3.4). The main reservations listed in Afghanistan's accession schedule are the following:

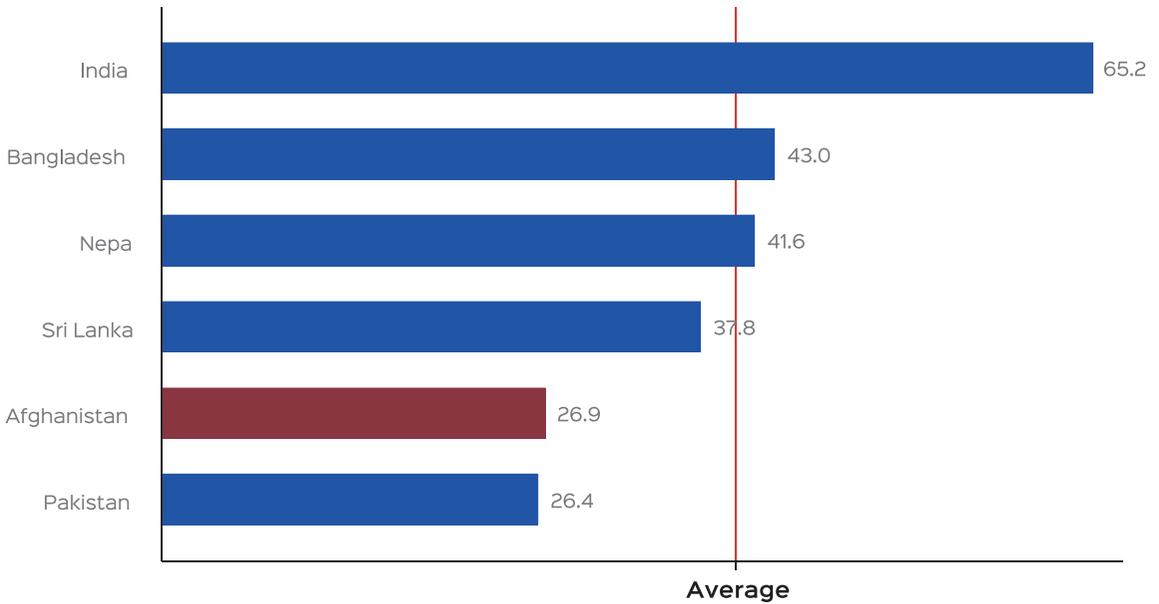
- *Financial services*: Like many other countries, Afghanistan has made no commitment to allow cross-border supply of lending services by retail banks or cross-border supply of life and nonlife

(AISA 2005) allows foreign investment in telecommunications without any limits on foreign equity participation. But investment in telecommunications infrastructure and facilities is subject to approval by the HCI, in consultation with respective government ministries.

- *Transport*: Given that it is landlocked, the country would particularly benefit from policies that allow FDI and competition in the transportation sector. Figure 3.5 shows, that for some transport modes, there is room for the following improvements⁴⁵:
- *Air transport*: Afghanistan's air transport sector has

3. AFGHANISTAN'S SERVICES TRADE: NATIONAL REFORM AND INTERNATIONAL COOPERATION

Figure 3.3: Services Trade Restrictiveness Index, Afghanistan and selected South Asian countries



Source: World Bank STRD where available.

Note: IND = India, BGD = Bangladesh, NPL = Nepal, LKA = Sri Lanka, AFG = Afghanistan, PAK = Pakistan. Policy information for all countries except Afghanistan is from the World Bank survey on services trade integration of 2008. Information on Afghan services trade policies is primarily drawn from Afghanistan's WTO Accession Schedule of November 2015 (WTO 2015), the Private Investment Law of 2005 (AISA 2005), and the Law of Civil Aviation (AISA 2014).

a relatively restrictive STRI of 67.5, mainly due to restrictive Bilateral Air Services Agreements (BASAs) with its trading partners. The profile of cross-border air passenger services shows the country currently has 16 BASAs. According to the WTO's Air Services Agreements Projector database, the average restrictiveness scores of the BASAs is quite high, equivalent to an STRI of 75.⁴⁶ For commercial presence, the current policy allows foreign investment in air transport services, but licensing and specific requirements related to ownership and operation are subject to the approval of the Ministry of Civil Aviation and Tourism.⁴⁷

- Afghanistan did not make any commitment for the road and rail sectors in its Accession Schedule (WTO 2015)—

thus retaining the right to impose restrictions. However, the Private Investment Law of 2005 allows foreign investment in the road and railroad sectors, even though specific conditions are imposed on a case-by-case basis and subject to HCI approval.

- *Professional services:* To conduct audits, firms and natural persons are required to be locally established and present. With respect to domestic law, foreign lawyers can only represent foreign natural persons and legal entities that are headed by foreign nationals. For individual presence (mode 4), intra-corporate transfers can stay for up to one year and stays can be extended without limitations. There is no commitment for contractual service suppliers

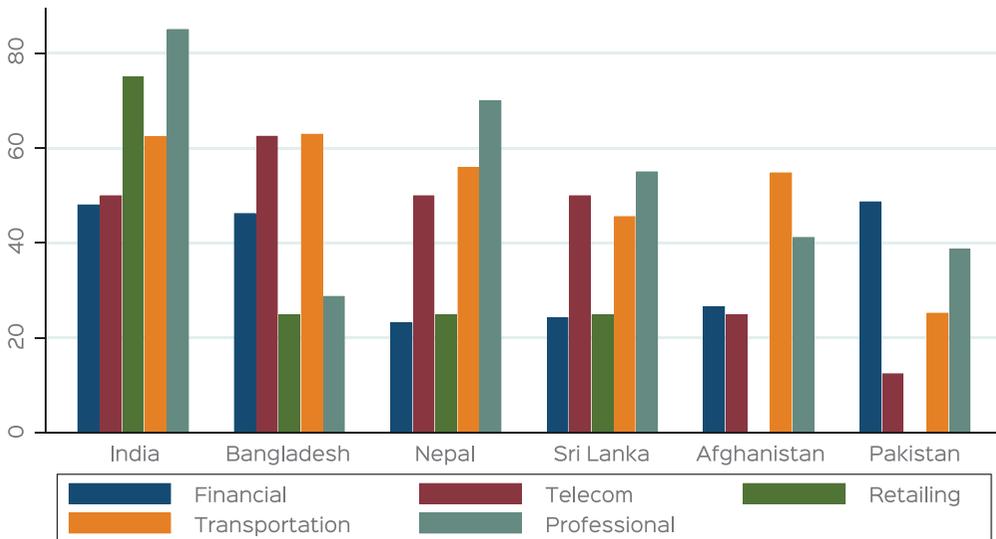
3. AFGHANISTAN'S SERVICES TRADE: NATIONAL REFORM AND INTERNATIONAL COOPERATION

and independent professionals, and the commitment for persons, who provide direct services and service sellers, stipulates that these persons can stay up to 180 days during a one-year period.

As noted, Afghanistan is relatively open in most sectors. The STRI score penalizes Afghanistan in sectors like financial services, telecommunications, and road transport—not for the existence of explicit restrictions but because it chooses to retain discretion in allowing new entry. In each sector, entry requires approval of the HCl, in consultation with respective government ministries. It would be desirable to ensure that such approval is based on transparent, objective, and predictable criteria.

In professional services, Afghanistan requires a local presence to perform audits, but that may be on prudential grounds. The requirement that foreign lawyers can only represent foreign natural persons and legal entities may be more restrictive, as is the stipulation that persons who provide direct services can stay only up to 180 days during a one-year period. Given the country's limited depth in domestic professional services, allowing greater ease of entry for foreign professionals may enhance the competitiveness of domestic firms and the welfare of households. Furthermore, the local presence of foreign professionals may have positive spillovers for domestic professionals and accelerate the development of indigenous capacity.

Figure 3.4: Services Trade Restrictiveness Index, by sector, Afghanistan and selected South Asian countries

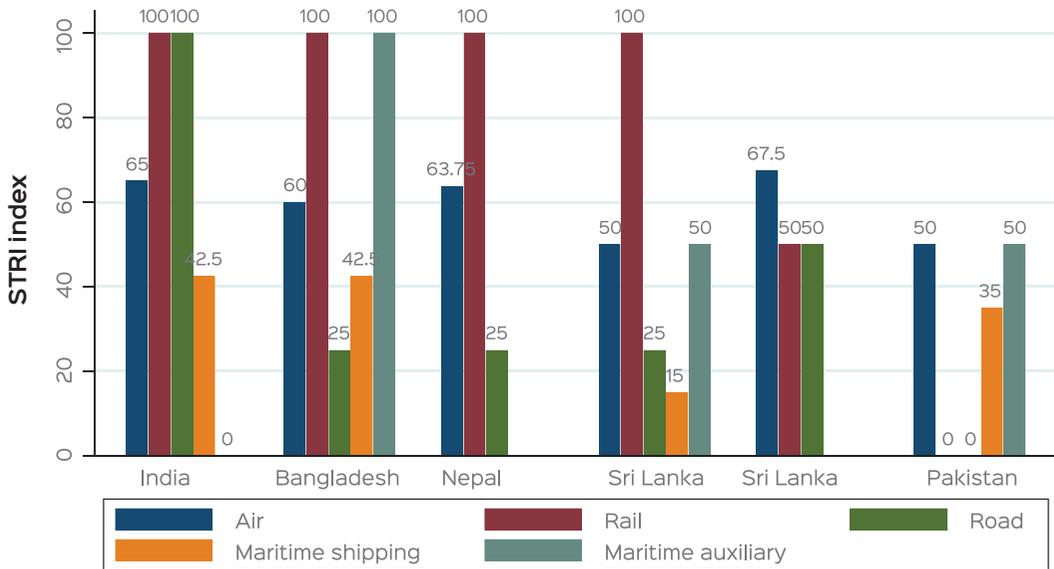


Source: World Bank STRD where available.

Notes: Absence of a bar indicates the STRI is zero; financial services include banking, insurance, and reinsurance sectors. Telecom includes fixed and mobile telecom, and transportation includes maritime shipping, rail, road, and maritime auxiliary services. The professional services sector includes accounting, auditing, and legal advisory services in foreign law and domestic law. Policy information for all countries except Afghanistan is from the World Bank survey on services trade integration of 2008. Information on Afghan services trade policies is primarily drawn from Afghanistan's WTO Accession Schedule of November 2015 (WTO 2015), the Private Investment Law of 2005 (AISA 2005), and the Law of Civil Aviation (AISA 2014).

3. AFGHANISTAN'S SERVICES TRADE: NATIONAL REFORM AND INTERNATIONAL COOPERATION

Figure 3.5: Services Trade Restrictiveness Index: transportation sector, Afghanistan and selected South Asian countries



Source: World Bank STRD where available.

Notes: AFG and NPL are landlocked; there are no STRI for maritime transport. Policy information for all countries except Afghanistan is from the World Bank survey on services trade integration of 2008. Information on Afghan services trade policies is primarily drawn from Afghanistan's WTO Accession Schedule of November 2015 (WTO 2015), the Private Investment Law of 2005 (AISA 2005), and the Law of Civil Aviation (AISA 2014).

In air transport, Afghanistan's bilateral air service agreements are relatively restrictive, but the country has allowed fairly open access to foreign airlines. However, it is possible that the government faces similar pressures as in road transport to secure greater openness to foreign markets for its own service providers. This is again an area where regional cooperation could help secure wider and more durable openness.

In road transport, Afghanistan has been remarkably open and negotiated relatively open agreements. However, some of these agreements are asymmetric. For example, the proposed Afghanistan-Pakistan Transit Trade Agreement allows Afghan trucks to transport exports up to the Indian border, but it does not allow them to return through Pakistan carrying Indian

goods and it does not cover road transport vehicles from third countries. Afghanistan has recently made efforts to secure more broad-based openness as a condition for maintaining openness. This shift to a transport trade regime based on reciprocity could lead to a cooperative outcome that would help secure greater openness for Afghan services providers to neighboring markets as well as enhanced competition on bilateral routes.

3.2 Services trade patterns

Even though services trade is important for Afghanistan, as for other countries, Afghan trade patterns in services are

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harder to describe and analyze than those of goods. This is because of the nature of services and the different modes through which international transactions in services take place. In addition, for most countries, the information on trade in services is obtained from their balance of payments and does not include bilateral trade data or trade through commercial presence (including FDI). Afghanistan faces some additional challenges in this sense, because detailed, disaggregated data on trade in services are only available from 2008 onward.⁴⁸

Figure 3.6 presents the evolution of services exports, imports, and the corresponding balance of services trade for Afghanistan since 2008. Until 2012, the net balance in total services trade was positive, and even though it has

remained negative since then, the deficit does not seem to be increasing. This reversal in the balance of trade in services roughly coincides with the beginning of the reduction of the international presence in Afghanistan.

Analyzing the breakdown of this evolution sheds some light on whether there are certain sectors in which Afghanistan is beginning to specialize. Figure 3.6 shows the evolution of services trade, including a broad sectoral breakdown. Imports are dominated by payments for “transport” services by Afghan residents to nonresident transporters, probably linked to the payment of shipments of imported goods. Recall that the item transport of goods is often partially estimated based on cost, insurance, and freight imports.

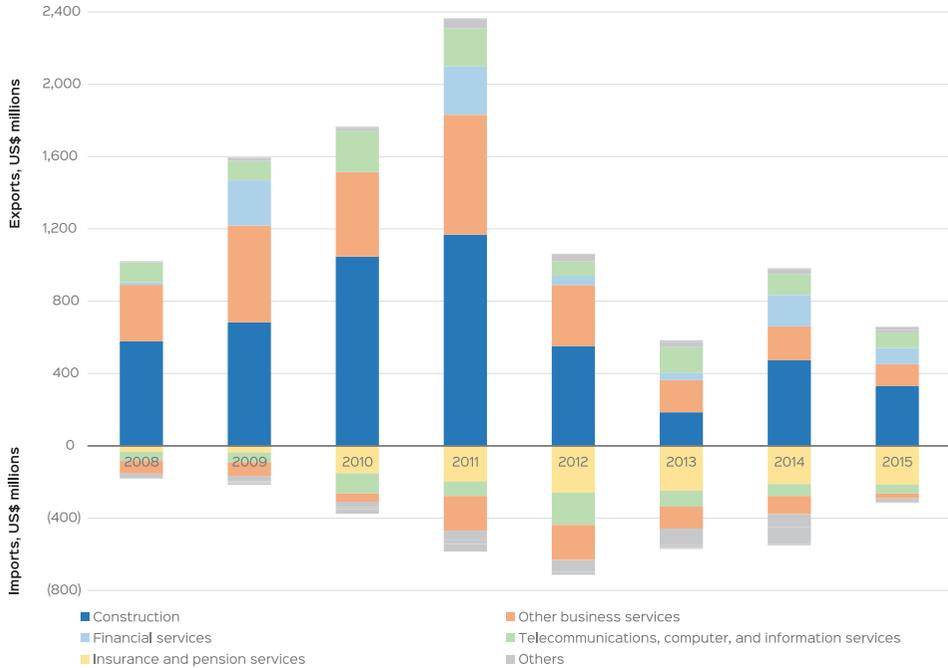
Figure 3.6: Trade in commercial services in Afghanistan, 2008–15



Source: Trade Map—International Trade Statistics (ITC 2016).

3. AFGHANISTAN'S SERVICES TRADE: NATIONAL REFORM AND INTERNATIONAL COOPERATION

Figure 3.7: Breakdown of trade in other commercial services in Afghanistan, 2008–15



Source: Trade Map—International Trade Statistics (ITC 2016).

Figure 3.7 takes a closer look at the elements of “other commercial services.” Exports are dominated by “construction,” with over 36 percent of total exports of services in 2015. This category most likely reflects the payment by nonresidents of services that are provided by residents in the construction sector, and could be due to the war and reconstruction efforts involving foreigners. The importance of conflict-related foreign presence in the evolution of services exports seems apparent then, not only in its timing, but also in its composition. “Other business services,” “financial services,” and “telecommunications” each accounted for between 13 percent and 9 percent of total exports of commercial services in 2015.

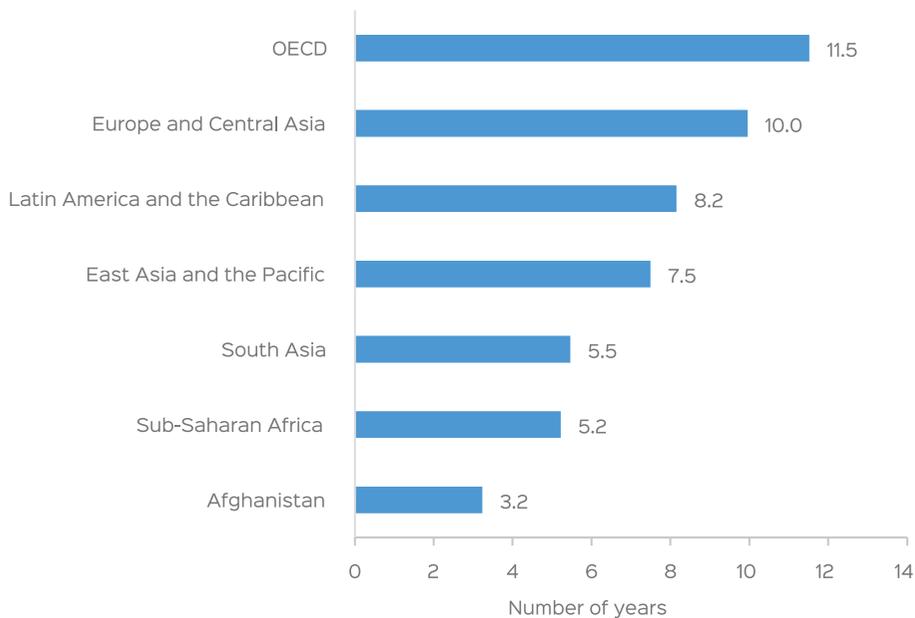
From the existing patterns of Afghanistan's exports in services, it is hard to infer which services could be a significant driver of growth. The trends observed seem to be a byproduct of the temporary presence of foreigners associated with the conflict and reconstruction efforts. Such trends are hard to sustain unless these or other sectors are further developed.

3.3 Realizing Afghanistan's services trade potential

When considering services exports as a potential driver for Afghanistan's development, note that many countries with a

3. AFGHANISTAN'S SERVICES TRADE: NATIONAL REFORM AND INTERNATIONAL COOPERATION

Figure 3.8: Mean years of schooling, Afghanistan and comparator countries, 2014



Source: Adapted from the United Nations Development Programme's Human Development Index.

revealed comparative advantage in services are also relatively well endowed with human capital (Goswami, Mattoo, and Sáez 2012). As can be seen in figure 3.8, Afghanistan is not well endowed in this respect today, suggesting that exports of human-capital-intensive services may not be an obvious potential driver of growth for Afghanistan in the short run.

Similarly, when considering services imports as a potential driver for Afghanistan's development, note that in many instances services imports depend crucially on FDI. As documented in the literature, FDI is not likely to flow to conflict and post-conflict territories (Arbatli 2011), and, when it does, it is mostly associated with the extraction of resources (Driffield,

Jones, and Crotty 2013). Evidence for Afghanistan shows very limited FDI over recent years, with average inflows of 0.4 percent of GDP between 2012 and 2015 compared to 1 percent for the rest of South Asia.⁴⁹ Both the low human capital endowment in Afghanistan and the challenges the country currently faces in attracting FDI severely limit the potential of services trade in the short -and medium- term. Keeping these limitations in mind, the following sections explore some examples of potential candidates for services exports and imports.

One of Afghanistan's immediate advantages is its central location at a crossroads of vital trade routes between

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South and Central Asia. This makes transit services a natural candidate for services exports from Afghanistan, provided there is the required domestic (public and private) and foreign investment in the creation of the needed infrastructure. While many of the current national and regional infrastructure initiatives would appear to be paving the way for Afghanistan to become a transit hub, this path is not without challenges. These include susceptibility to conflict, the need for accompanying national regulation and international cooperation, and large investment requirements when compared to the potential gains. These challenges are analyzed in detail in chapter 4.

Despite remarkable progress since 2002, inadequacies in the provision of services such as education and health still limit the country's human capital accumulation. International cooperation could help, as discussed below. Our final example relates to financial services. This chapter illustrates how domestic regulatory reform is desirable in itself, and could also encourage the entry of more domestic and foreign services providers, thus improving access to finance.

Education

Even though literacy and primary and secondary participation and completion rates are still very low in Afghanistan, progress in education since 2002 has been remarkable. For example, enrollment in general schools increased from an initial 1 million students to 9 million in 2015. As of 2015, there were 30 times as many high school graduates as in 2002 and over 30 times as many students enrolled in public universities.

While this explosive growth was accompanied by a large increase in the supply of educational services (particularly in the private sector), they are still limited compared to the increased demand, particularly in

higher education. For example, the Ministry of Higher Education and the USAID estimated that in 2012 approximately 75,000 high school graduates did not gain admission to an institution of higher learning because of insufficient places. In addition, there are few MA and PhD programs in the country, and, consequently, there is a shortage of qualified faculty. This means that students at higher education levels often pursue graduate and post-graduate degree programs abroad. In 2014, over 17,000 students were enrolled in higher education abroad, mainly in the Islamic Republic of Iran (53 percent), India (14 percent), Turkey (8 percent), Saudi Arabia (7 percent), and the United States (3 percent).

To bridge this gap, some universities have started to collaborate with institutions in Sweden, Germany, the United States, and the United Kingdom to establish MA programs. International agencies have also started to target the issue, through, for example, the Higher Education Development Project by the World Bank that funds post-graduate and PhD programs for faculty members. Other promising initiatives in this direction seek to leverage new technologies and regional cooperation to address shortages in post-high school education opportunities.

An example of the former is the Afghan German Management College, which offers business and entrepreneurship education via an internet learning platform with contents produced by lecturers in Germany, effectively tackling faculty and infrastructure shortages. An example of the latter is the memorandum of understanding (MoU) signed by the Islamic Republic of Iran, Afghanistan, and Germany earlier this year, through which German and Iranian partner institutions will assist Afghan universities in modernizing their existing mining-related study programs. This MoU will also allow Afghan mining professionals and students to participate in courses and exercises in several Iranian institutions. Initiatives of this sort can help overcome

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Box 3.1: The SILK-Afghanistan Program

Between 2002 and 2009, the Virtual Silk Highway Project provided high-speed internet access via satellite to teaching and research establishments in Afghanistan, Armenia, Azerbaijan, Georgia, Kazakhstan, Tajikistan, the Kyrgyz Republic, Turkmenistan, and Uzbekistan. The aim of the project was to facilitate local, regional, and international communication between academic institutions, and to encourage collaboration in research and education. Between 2009 and 2010, the project was handed over to the European Union for sponsorship in some Central Asian countries under the Central Asian Research and Education Network.^a It remained with the North Atlantic Treaty Organization and the United States Department of State in the case of Afghanistan as the SILK-Afghanistan Program.

Throughout 2015, the SILK-Afghanistan Program continued to cover about 90 percent of the bandwidth costs of the 34 Afghan universities that joined, now connected via fiber optic cable instead of satellite. Member institutions continued to increase their regional and global links as Afghanistan joined the Trans-Eurasia Information Network in 2014. This initiative enables Afghan scholars to gain qualifications through multimedia-based distance learning, and allows researchers to work on international projects. The initiative encourages collaborative research and diminishes incentives for skilled workers to leave. It also allows universities to widen the scope of their online library services, electronic learning environments, and supercomputing facilities.

Source: NATO 2015.

a. <http://caren.geant.org/Pages/Home.aspx>.

shortages not only in qualified faculty and higher education, but also in technical skills that may be more immediately needed by firms (see box 3.1).

Health

In the case of health care services, even with new health facilities built in Kabul in recent years, much of the population

lacks access to medical care. Medical supplies are insufficient, there are infrastructural deficiencies, and there is a marked shortage of health care workers, particularly female ones.

This has led Afghans to seek medical care abroad, mostly in India and Pakistan. While there are no official estimates of the size of this group, informal accounts indicate that as many as 2,000 people traveled abroad daily for medical treatment in 2015, and that a total of US\$300 million was spent this way annually.

Box 3.2: The potential of telemedicine in Afghanistan

Telemedicine involves the use of broadband technology that provides real-time, high-speed access for the transfer of medical imaging, video, data, and voice. Applications include the ability to send real-time X-rays, ultrasounds, and computerized axial tomography scans for evaluation. This sort of technology also enables e-learning and learning through video conferencing. Some initiatives in this direction have been started in Afghanistan to address shortcomings in the supply of health care services.

The Afghan Telemedicine Project started in 2007, only in Kabul, as a partnership between Roshan (a mobile phone provider), the French Medical Institute for Children (FMIC, a health facility in Kabul), the Aga Khan University Hospital in Karachi, and the American technology company Cisco. In 2009, the project expanded beyond Kabul to provincial hospitals. This initiative allowed FMIC, and later other hospitals, to offer advanced diagnostic services in radiology and ultrasound by providing real-time access to specialists and training expertise from abroad.

More recently, several international firms have started to provide medical consultations in dermatology, infectious diseases, neurology, and orthopedics, as well as diagnostics of medical imaging, via telemedicine services and in collaboration with professionals and institutions around the globe.

Source: Aga Khan Development Network (2016)

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This sort of “medical tourism” is fraught with difficulties for patients. They face high costs, visa requirements, language constraints, and must travel long distances to get health care. There have been some initial attempts to alleviate the situation through cooperation, for example, from Indian hospitals offering training programs for Afghan doctors.

Even when the challenges of post-conflict reconstruction are overcome, it may not be possible or even desirable for Afghanistan to aim to develop all aspects of education and health services, considering the scale of economies in both fields and the limited size of the country's market. Both for health and educational services, much stands to be gained from deeper cooperation across the region and beyond. Such cooperation can facilitate, first, the development of regional value chains to create human capital. Thus, in some areas, individuals may acquire the earlier, more basic qualifications in Afghanistan and travel to other countries to obtain more advanced qualifications. International recognition of qualifications at each stage of study would greatly facilitate mobility and reduce transaction costs of moving from one educational institution to another.

Cooperation could also facilitate the development of value chains in professional services, such as those related to health care. Thus, simpler treatments could be provided locally in rural areas by professionals with basic qualifications—such as nurse practitioners—while more sophisticated treatment could be provided in urban centers or neighboring countries. The development of intermediate professional categories and the mutual recognition of credentials, as well as formal collaboration agreements between institutions, would all help. Simplified visa procedures for patients and professionals, as well as students and professors, would reduce transaction costs. In addition, the availability of affordable, high-speed, cross-border internet links, coupled with widely available domestic access to broadband internet, could widen the scope for opportunities, such as the ones described in boxes 3.1 and 3.2.

Developing a strategy for policy reform and cooperation

To develop precise policy recommendations, both for unilateral reform in Afghanistan and cooperative initiatives in the region and beyond, it is necessary to identify the precise impediments to trade in education and health services, and to assess how they increase transactions costs for Afghanistan. A future work program in this area could be structured around recent initiatives on trade facilitation in services, such as the recent submission by India to the WTO (WTO 2016). The interest of countries like India and Pakistan in enhancing exports of services may coincide with Afghanistan's interest in reducing impediments to such trade.

Facilitating trade in health and education will require actions in the following areas:

- Enhanced transparency about opportunities in the areas of health and education services, for example, by ensuring publication and availability of information, including by establishing enquiry or contact points locally and in trading partners.
- Simplifying procedures for consumption of health care and education abroad, for example by creating, locally or in trading partners, “single windows” that handle all formalities, allow for electronic applications, and fast-track procedures.
- Ensuring that various fees and charges connected to visas and other administrative requirements are not excessively high and are related to the true costs of those services.
- An assessment of where it is feasible and desirable to develop intermediate professional categories, such as nonphysical clinicians, who can provide a broad range of basic services at locally affordable prices and are less likely to emigrate abroad or to urban areas. It may be more feasible to develop such qualifications in collaboration with neighboring countries, like India,

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which are also looking for ways to promote universal basic health care and education.

- Working toward recognition (unilateral or mutual) of technical standards, qualification and licensing requirements, and procedures. Such recognition at various stages of the licensing and qualification of professionals is critical to reducing the transaction costs of developing human capital value chains, where individuals can acquire the relevant human capital in different locations in a cost-effective manner.

Financial services: Remedying the consequences of regulatory failure

The banking sector in Afghanistan is currently composed of three state-owned banks, nine private full-fledged banks, and three branches of foreign commercial banks. Arguably, because of the Kabul Bank crisis (see box 3.3), the financial sector has remained fragile and plays a limited intermediation role. Asset quality of the banking system remains a concern, with increasing nonperforming loans (7.8 percent of gross loans in 2014, rising to 12.1 percent in 2015 and 15.2 percent in 2016). Given the volatile operating environment, banks have tended to be very liquid (71 percent of total assets were liquid in 2015) and highly capitalized (10.4 percent capital-to-assets ratio in 2016, compared to 7.5 percent in India and Pakistan), limiting lending to the private sector (World Bank 2016g).

In 2015, domestic credit to the Afghan private sector was 4 percent of GDP (figure 3.9), compared to 15 percent in Pakistan and 21 percent in Tajikistan, and far below the region's average. Only 44 percent of all Afghan manufacturing firms had a bank account in 2014, far below the shares of neighboring countries (figure 3.10). Less than 5 percent of manufacturing firms had access to loans (since most loans require collateral that

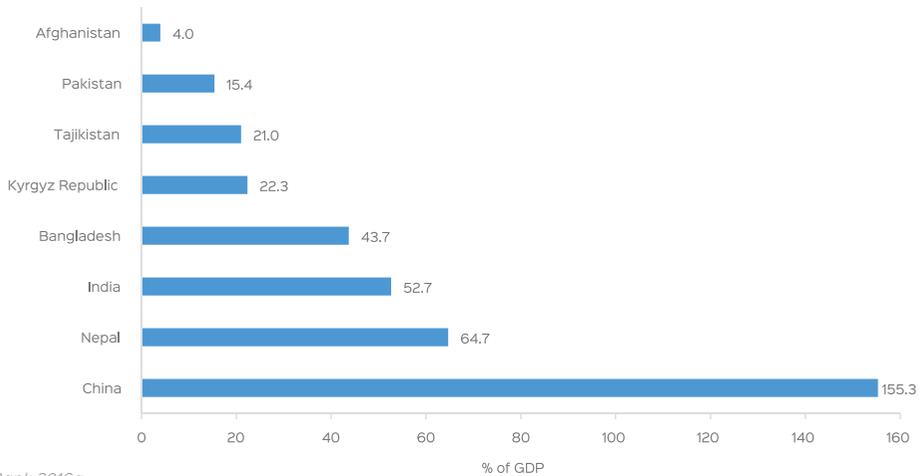
firms do not generally have), and only 3 percent of them used banks to finance investments.

The limited access to bank financing is coupled with underdeveloped local institutions, domestic savings that are lower than the demand for capital, and lack of diversification in financing sources, forming a bottleneck for local business development. In many instances, the void left by the formal financial system is filled by traditional informal money service providers, the *hawalas*. They have lower transaction costs, can leverage informal networks, are less sensitive to the security situation than formal financial institutions, and were not affected by the Kabul Bank crisis, since they are not regulated or supervised. There are multiple risks and costs associated to the informal status of *hawalas*, such as higher rates than formal lenders, consumer protection issues, and money laundering concerns, among others.

The crisis demonstrated that appropriate regulation and institutional capacity are vital in leveraging the gains of liberalization. Since the crisis, the Afghanistan Central Bank (Da Afghanistan Bank [DAB] and the Ministry of Finance have worked, with support from the World Bank, to carry out audits of commercial banks to assess their financial position and develop action plans to deal with any weaknesses. In addition, the DAB has worked to modernize its payment system, which will contribute to the safety and efficiency of the financial sector and facilitate efficient government payments. More recent efforts have focused on upgrading the DAB's capacity for financial supervision and strengthening the country's financial infrastructure. Banks are being encouraged to institute stronger internal controls and risk management. There is a recognition that, for the Afghan banking sector to play a meaningful role in financing the country's growth, it is necessary to create a strong regulatory framework and institute reforms to ensure financial stability.

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Figure 3.9: Domestic credit to the private sector by banks in Afghanistan and comparator countries, 2015 (percent of GDP)



Source: World Bank 2016g.

Box 3.3: The Kabul Bank Crisis

Modern banking and the credit culture that accompanies it is new to Afghanistan. For centuries, and to this day, the population has relied on informal money service providers to transfer cash and provide limited lending and deposit services.

Starting in 2002, the government and the international community promoted the formalization of financial services. This encouraged rapid growth of the formal banking sector, from two state-owned commercial banks and four state-owned development banks in 2003 to 10 privately owned commercial banks, two state-owned commercial banks, and five branches of foreign commercial banks in 2009. But banks struggled to develop normal banking practices and skills. The legal and accounting infrastructure to support non-relationship lending was nonexistent, weak, or untested. An ineffective judiciary and corruption hampered establishing or recovering collateral and enforcing contracts. As the banking system in Afghanistan grew, asset quality and governance suffered. While there were considerable efforts to build the financial sector in terms of its institutional and legal framework, the supervisory capacity struggled to catch up, exposing the banking sector to systemic risks.

Concerns over soundness caused a run on Kabul Bank in early September 2010, during which the bank lost about half of its US\$1.3 billion in deposits. With one-third of the banking system's assets in Kabul Bank, the crisis threatened the stability of the financial system. The rapid initial intervention of the central bank prevented a full-blown crisis, but to end the crisis, the government had to provide US\$825 million to cover the deposit guarantee (about 5 percent of GDP). Subsequent crisis management was slow in tackling difficult issues such as asset recovery and the privatization of the resulting bank, the New Kabul Bank.

The evidence of fraud and money laundering uncovered in this scandal highlighted the relevance of the diligent implementation of prudential regulation, the importance of the development of local capabilities alongside reforms, and the risks of rapid banking sector growth with inexperienced supervision or weak rule of law. Besides the immediate fiscal costs, the Kabul Bank crisis had far-reaching negative effects on intermediation, as it had by far the largest and most effective branch network in the country. The crisis also called into question the central bank's supervisory capabilities. Moreover, it undermined confidence in the banking sector (preference for cash increased and deposit growth came to a halt), and further overburdened banking supervision.

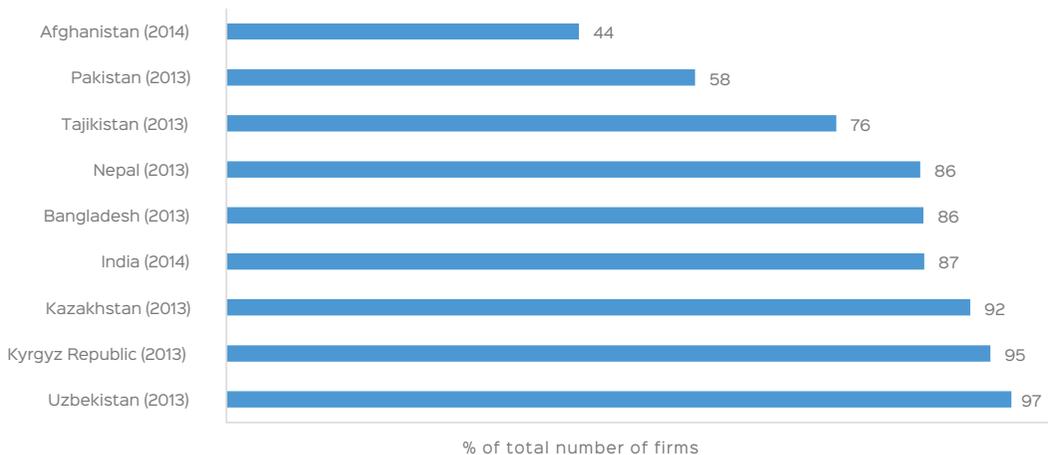
Sources: Adapted from IMF (2011) and World Bank (2015b).

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It is also acknowledged that openness in this sector has the potential to increase efficiency through competition, enhanced intermediation, and risk sharing, and to incentivize innovation that improves access to finance and inclusion. But openness can also pose additional challenges to stability and increased risks. A future work program for financial services that leverages the potential role of the sector for the rest of the economy, while also addressing risks and challenges, should stress the following areas:

- Continued work on a regulatory framework that supports openness, and also emphasizes the need to avoid a pace of innovation in the sector that undermines the regulatory capacity of the central bank. Such a framework should also guard the sector against agents looking for arbitrage opportunities,⁵⁰ questionable funds, or predatory behavior, that are likely to be attracted to the context of conflict and uncertainty in the country.
- Improvement of the existing deposit insurance scheme, particularly as openness is furthered. A well-functioning deposit insurance scheme has multiple advantages in a context such as Afghanistan's. It can increase public confidence in banks, leading to more deposits, which can enable more lending. This is particularly relevant considering the long-lasting trust issues generated by the Kabul Bank crisis. In addition, a deposit insurance scheme can cushion the banking sector and depositors against unforeseen risks inherent to openness, such as speculative or predatory strategies by foreign banks.
- Increasing access to finance for the real economy through risk-sharing practices, particularly partial credit guarantee (PCG) schemes. A PCG scheme provides third-party credit risk mitigation to lenders with the objective of increasing access to credit for small and medium enterprises or other target groups. This is accomplished through the absorption of a portion of the lender's losses on the loans made to the target group in case of default, in return for a guarantee fee. The popularity of PCGs is due partly to the fact that they are typically market-based arrangements that facilitate credit allocation, therefore involving less room for distortions in credit markets than more direct forms of intervention such as state-owned banks or directed lending.

Figure 3.10: Share of manufacturing firms with a checking or savings account in Afghanistan and comparator countries, 2013–14 (percent of total)



Source: World Bank 2016g.

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PCGs can potentially play an important role, especially in countries with weak institutional environments, by improving the information available on borrowers (in coordination with credit registries). PCGs can also help build the credit origination and risk management capacity of participating lenders (for example, through technical assistance to set up dedicated units).

In Afghanistan, due to the high level of risks and uncertainty that hamper private sector investments into productive activities, the existence of a risk-sharing facility (or PCG fund) would allow the government to gradually and cautiously allow banks to lend to the economy, while building their capacity (in credit appraisal, risk management, loan recovery, and so forth). Given the currently limited intermediation role of banks, setting up such a facility would help increase outreach to smaller enterprises with high job-creation potential, rather than large businesses.

Setting up a risk-sharing facility in the short-term would help address several of the market failures identified in this report, and satisfy the appetite for increased private sector investment to fuel economic growth and job creation. Concrete next steps in this direction would be (a) updating relevant regulations to provide a legal and regulatory framework for the operationalization of a risk-sharing facility; (b) setting up a public entity with a clear mandate, governance structure, and management for this specific facility at the early stage of its operations, with the option to scale it up with private funding in the future; and (c) building institutional capacity for the management of the facility. The World Bank is already providing support for these steps, drawing upon previous successful experiences such as the Jordan Loan Guarantee Corporation, among others.

Annex 3A

The STRI survey focuses mainly on policies that would affect the entry and operations of foreign services suppliers differentially. In each sector, the survey covers the most relevant modes of supplying that service. Examples include cross-border trade in financial, transportation, and professional services; commercial presence or FDI in each services sector; and the presence of service-supplying individuals in professional services. A specific set of measures was determined to evaluate each sector-mode combination.

For each of these sets, each country's policy regime is mapped onto five (numbered) categories: completely open (0)—no restrictions at all; completely closed (100)—no entry allowed at all; virtually open but with minor restrictions (25); virtually closed but with very limited opportunities to enter and operate (75); and a final residual "middle" category of regimes that allow entry and operations but impose restrictions that are neither trivial nor virtually prohibitive (50). The results for each sector are aggregated across modes of supply using weights that reflect their relative importance. For each country, sector restrictiveness indexes are aggregated using sector GDP shares as weights. Finally, the regional STRIs are computed as simple averages of the country indexes within respective regions. For a detailed explanation of how the STRI was constructed and data collected, see Borchert, Gootiiz, and Mattoo (2012a).

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4

TRANSIT TRADE: LEVERAGING LOCATION INTO A COMPARATIVE ADVANTAGE

4. TRANSIT TRADE: LEVERAGING LOCATION INTO A COMPARATIVE ADVANTAGE

KEY MESSAGES:

- Roughly estimated, the gains for Afghanistan's transit trade in goods may rise to US\$287 million per year (around 5 percent of total transit trade). However, gains from commodity transit trade may be difficult to materialize.
- First, transit trade will require large investments in transportation and border infrastructure. Policies to improve transit trade should resolve existing congestion at important trade points, meet emerging needs in local productive sectors (agriculture and mining), and involve partnering with the private sector.
- Second, transit trade potential is also shaped by sensitive geopolitical considerations that are not entirely under Afghanistan's control.
- Building regional connectivity for energy transit trade could provide Afghanistan with electricity to meet its own acute domestic shortages and could add 3.1 percent to export growth annually and contribute US\$530 million to revenue by 2030 (1 percent of GDP).
- Full completion and operationalization of large-scale infrastructure projects such as CASA-1000 (Central Asia-South Asia, electricity), TAPI (Turkmenistan-Afghanistan-Pakistan-India, natural gas), and TUTAP (Turkmenistan-Uzbekistan-Tajikistan-Afghanistan-Pakistan, electricity, under negotiation) are essential for Afghanistan to fully benefit from energy transit trade.
- In the medium -to long- term, factors such as lack of synchronization of power systems across countries, potential decreased demand for energy from neighboring countries, and concerns over political instability may decrease Afghanistan's attractiveness as an energy route.
- With respect to renewable energy, rough estimations suggest that investment in hydro generation and major transmission infrastructure could propel Afghanistan to become a net energy exporter by 2026. In practice, large-scale generation plants for renewable energy such as hydropower plants may be difficult to finance under the fragile security conditions prevailing in Afghanistan. A more effective strategy would be to focus on domestic transmission to achieve full electrification of the country in the medium -to long- term.

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Transit trade in goods is often emphasized as an obvious economic opportunity for Afghanistan, but the scope of the potential is still unclear. Afghanistan has many locational disadvantages, but being landlocked may be turned into an advantage if routes of commerce transit through the country. Due to its geographic situation, a substantial part of imports or exports from Central Asian countries might transit through Afghanistan.

Afghanistan also has a geographic advantage for becoming an energy transit hub that would boost economic growth, jobs, and revenue, considering the increasing energy needs of South Asia and the resources available in Central Asia.

How far is Afghanistan in terms of its logistics and connectivity from being a hub for transit trade in goods? What challenges does the country face to materialize its energy transit trade potential?

This chapter will assess the potential for transit trade in goods and energy. It discusses the feasibility of each of these strategies in terms of necessary investments in infrastructure, as well as governance and security conditions. It also provides policy recommendations related to cooperation and regional integration in support of transit trade.

4.1 Transit trade in goods: Potential benefits and related challenges

To estimate the international trade flows that could potentially transit through Afghanistan, flows of exports (to third countries) and imports (from third countries) are examined for the set of Central Asian countries neighboring Afghanistan (Tajikistan, Turkmenistan, Uzbekistan, and the Kyrgyz Republic). Trade flows are excluded for all the partner countries for which import and export flows are highly unlikely to transit through Afghanistan, since for these countries better routes are available. The countries

that are removed (together with the criteria used for the removal) are the following:

- Contiguous countries: China, the Islamic Republic of Iran, and Kazakhstan.
- Countries that have borders with these contiguous countries: the Russian Federation, Iraq, and Turkey.
- Southeast and East Asian countries that can transit through China: Mongolia, the Republic of Korea, Japan, Myanmar, the Lao People's Democratic Republic, Cambodia, Vietnam, Thailand, Malaysia, and Indonesia.
- Countries that can access Tajikistan, Turkmenistan, Uzbekistan, or the Kyrgyz Republic through the Caspian Sea: Azerbaijan, Georgia, and Armenia.

Finally, to account for the fact that some merchandise is shipped by air, trade flows with unit values belonging to the top 20 percent of the distribution are excluded from the transit trade computation. Here the assumption is that high unit value (US\$ per ton) products are shipped by air, therefore, bypassing the necessity of transiting through Afghanistan (Hummels 2007; Hummels, and Schaur 2013).

The above computations lead to a subset of trade flows from and to the original group of selected countries (Tajikistan, Turkmenistan, Uzbekistan, and the Kyrgyz Republic) composed of goods transported to their final destination by road or by boat. In the latter case, the merchandise might transit by road through Afghanistan to get to (or from) an international port.

The previous calculations estimate that US\$5.7 billion of trade could potentially transit via Afghanistan. This figure may seem high, especially compared to total Afghan exports of US\$700 million that same year (2014). Although the value added generated domestically by this commerce might be limited compared to the value of the goods shipped, being on a route of commerce could be a source of income. The growth of transit transport through the country could yield direct economic benefits, for example, via the collection of transit revenues, and

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job creation in associated activities, such as rest stops and servicing. There could also be indirect benefits of increased transit trade, through reductions in transport costs for Afghan traders (because transport costs typically decline as trade volumes increase), or through higher productivity of local producers that benefit from improved connectivity.

Gains from commodity transit trade may be modest. Rough estimates⁵¹ suggest that the gains for Afghanistan (deriving from duties and tariff at the borders, catering for truck drivers, margins on refueling, and so forth) may be up to 5 percent of the total transit trade value, meaning, in this case, US\$285 million per year. Moreover, additional costs of transit trade due to extra use of road infrastructure, for instance, need to be calculated and considered.⁵²

Of all modalities of trade, commodity transit is the most vulnerable to the ongoing context of insecurity, as it provides opportunities for predation and extortion along transport routes. As in the case of natural resources abundance, transit trade could potentially increase the risk of conflict through what is called the rapacity effect: both rebel groups and the government may fund their activities by taxing goods moving across borders. Increases in the merchandise transiting the country will therefore increase the ability to sustain conflict (Cali 2015).

Rent seeking at the border can also be a source of conflict related to transit trade. Cumbersome scanning and goods examination procedures allow for exploitation of traders and the business community. According to a recent survey, transit goods are being repeatedly examined at various stages, and only 15 percent of the firms surveyed could file any complaints under the Afghanistan-Pakistan Transit Trade Agreement (APTTA) due to difficult grievance redressal mechanisms that entail high transaction costs. There also appears to be a communication gap between the business community

and the relevant authorities, as 80 percent of the complaints were never acknowledged and addressed by the relevant authorities (Ahmed and Shabbir 2016).

Recent empirical literature also shows that infrastructure improvements may not produce a net benefit. Although rebuilding conflict-damaged infrastructure, or even constructing new infrastructure, to improve transit trade could induce economic and social benefits, these may be negated or in some cases reversed (Ali and others, 2015). Therefore, the multiple transit infrastructure improvements that are being designed should plan for unintended consequences. Combining such investments with a commitment to enhanced security is desirable. In addition, both in Afghanistan and in the region, internal conflict needs to be resolved and a framework for broader cooperation needs to prevail over geopolitical tensions between countries, so that Afghanistan can leverage the potential gains of transit trade.⁵⁴

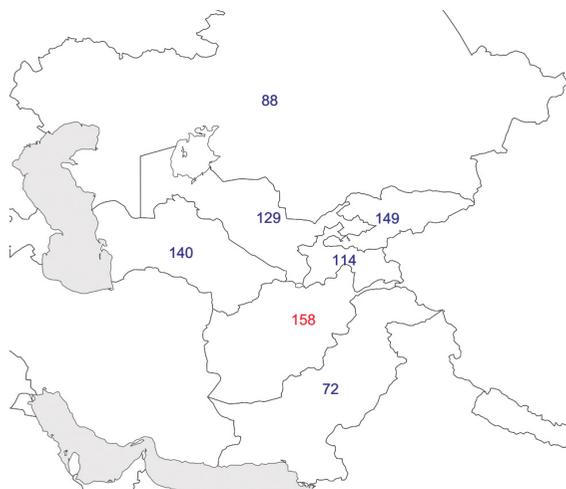
The prerequisites

Potential gains from merchandise transit trade may be slow to materialize. Realizing these benefits requires efficient logistics, well-designed and maintained infrastructure, and a propitious framework of regulation and regional cooperation. Globally and within the region, Afghanistan shows the weakest performance in the logistics and transportation category of the World Bank's Logistics Performance Index (LPI),⁵⁵ ranking 158th out of 160 countries in 2014 (see figure 4.1).

Logistics efficiency in Afghanistan is challenged by long waiting times at borders and complex customs procedures (see chapter 2). Infrastructure is also likely to be a serious constraint, as Afghanistan's transportation (roads and railroads) network is currently very underdeveloped. With its challenging terrain and

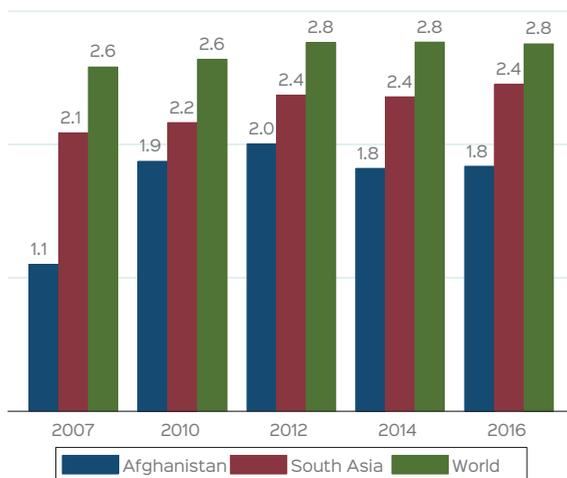
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Figure 4.1: Logistics Performance Index: logistics and transportation rank, Afghanistan and neighboring countries, 2014



Source: Derived from the World Bank Logistics Performance Index.

Figure 4.2: Logistics Performance Index: infrastructure, Afghanistan and comparator countries, 2014



Source: Derived from World Bank Logistics Performance Index.

Note: The infrastructure index is one of the components of the LPI. This index scores the quality of trade and transport infrastructure of countries on a scale of 1 to 5, with 5 representing the best quality.

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after decades of internal conflict, Afghanistan has consistently ranked in the lowest group of the LPI infrastructure index, well below South Asia and the world average (see figure 4.2). In addition, achieving a competitive edge in transportation and logistics will require large investments in transportation and border infrastructure, which will compete with infrastructure demands in productive sectors.

A sensible approach to transit trade development could be based on the following prioritization of infrastructure investment: (a) resolve existing congestion at important trade points, (b) meet emerging needs in productive sectors (agriculture and mining), and (c) partner with the private sector.

Several promising initiatives in this respect have been launched in recent years. Afghanistan has designed and started implementing plans to connect all provinces via highways, which will also connect regional and local roads to the national transportation network. These plans include, for example, the completion of the National Ring Road, which, when finished, will connect resource-rich regions in Afghanistan and neighboring countries more directly. Rail and air transport have also shown signs of improvement.⁵⁶

These internal developments in the road, rail, and aviation networks will not only improve transportation within Afghanistan, but will also allow the country to better leverage the major infrastructure initiatives being implemented in the region. These include the Lapis Lazuli Corridor and the One Belt One Road Initiative, as well as the developments in and around the Chabahar (the Islamic Republic of Iran) and Gwadar (Pakistan) ports.

Regional cooperation and transit trade

For these infrastructure initiatives to be successful in furthering transit trade in Afghanistan, they need to

be complemented by increased regional cooperation and supporting agreements. Afghanistan participates in a trilateral transit agreement with India and the Islamic Republic of Iran that is organized around Chabahar and its road and rail links to the Afghan border. In addition, the APTTA has been in place in its current form since 2010. This agreement allows for the use of airports, railways, and ports for transit trade along specific routes, but it faces barriers to full implementation, for example, in the form of expensive bank guarantees and border delays. In addition, this agreement has certain limitations: it allows Afghan trucks to transport exports up to the Indian border, but does not allow them to return through Pakistan carrying Indian goods, and does not cover road transport vehicles from third countries.

Increased geopolitical uncertainties in the region have slowed the pace of transit-related reforms and regional cooperation. Accelerating the resolution of the APTTA and completing the assimilation of Tajikistan in the agreement are needed. A revised version of the APTTA should contemplate factors such as the shift to a transport trade regime based on reciprocity, which could help secure greater access for Afghan services providers to neighboring markets as well as enhanced competition on bilateral routes. Measures to minimize the incidence of customs fraud and avoidance, and monitor and curb informal trade, should also be enforced.

Finally, deepening and expanding existing agreements⁵⁷ with regional partners to improve visa regimes, harmonization, and simplification of custom procedures would be fundamental to facilitating transit trade. Another aspect of cooperation necessary for transit trade to succeed is the harmonization of transportation standards among countries. This has been a recurring challenge, for example, in planning new railways, since there are three different gauges in neighboring countries.

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4.2 Afghanistan as a transit hub in the regional energy market

Located between resource-rich Central Asia and fast-growing South Asia, Afghanistan has a geographic advantage for becoming an energy transit hub. This would boost economic growth, jobs, and revenue, considering the increasing energy needs of South Asia and the resources available in Central Asia. Building regional connectivity for energy transit trade can facilitate Afghanistan's development as a "bridge" linking the energy reserves of Central Asia with the growing demand of South Asia. Energy transit connectivity can also provide Afghanistan with electricity to meet its own acute domestic shortages. Simulation results suggest that energy transit trade

could add 3.1 percent to export growth annually and contribute US\$530 million to revenue by 2030 (1 percent of GDP).

There are already several cross-border, large-scale infrastructure projects for transit of energy underway in the region (see box 4.1). They include the CASA-1000 (Central Asia-South Asia, electricity), TAPI (Turkmenistan-Afghanistan-Pakistan-India, natural gas), and TUTAP (Turkmenistan-Uzbekistan-Tajikistan-Afghanistan-Pakistan, electricity, under negotiation). Although these ground-breaking agreements are evidence of the commitment of countries in the region to integrate, there are still some uncertainties and challenges that need to be addressed for Afghanistan to fully benefit from energy transit trade. Poor infrastructure, geopolitical tension among countries, and security issues are some of the prominent issues.

Box 4.1: Main infrastructure projects for energy transit in Afghanistan

CASA-1000

In 2015, the Kyrgyz Republic, Tajikistan, Afghanistan, and Pakistan signed the historic Central Asia-South Asia (CASA)-1000 agreement. With an estimated cost of US\$953 million, the CASA-1000 project aims to transmit 1,300 megawatts of electricity from the Kyrgyz Republic and Tajikistan, via Afghanistan, into Pakistan, of which Afghanistan will utilize 300 megawatts for domestic use. The remaining 1,000 megawatts of electricity will eventually reach Pakistan to remedy the severe shortage of power the country faces during summers. The Kyrgyz Republic and Tajikistan have substantial amounts of surplus power in the summer that would remain idle if not used. The CASA-1000 will bring the surplus power to Pakistan, generating transit fees for Afghanistan and enhancing its growth prospects, in addition to addressing its domestic electricity shortage. The project provides access to clean energy and creates jobs, and will also bring approximately US\$45 million in annual transit fees to Afghanistan (Kabul Times 2014).

TAPI

The ambitious Turkmenistan-Afghanistan-Pakistan-India (TAPI) project was first signed by the governments of Turkmenistan and Pakistan in March 1995. However, the project stalled due to unrest in Afghanistan and tensions between India and Pakistan. Negotiations restarted in 2010 and the four countries finally signed the agreement for construction of the pipeline in early 2016.

The TAPI pipeline is expected to cost US\$10 billion. It will transport natural gas from the Yolotan gas field in Turkmenistan, via Afghanistan and Pakistan, to India, over a distance of 1,735 kilometers, 735 kilometers of which would be on Afghan soil. The project will transport 33 billion cubic meters of gas per year for 30 years. The project not only benefits Pakistan and India, but will also help Turkmenistan diversify its export of natural gas. Afghanistan will receive US\$400 million annually in transit fees. The project is expected to create approximately 12,000 jobs in the country.

TUTAP

The Turkmenistan-Uzbekistan-Tajikistan-Afghanistan-Pakistan (TUTAP) project aims to transmit 2,600 megawatts of power (Kabul Times 2014) from Turkmenistan, Uzbekistan, and Tajikistan to Afghanistan and Pakistan. Although TUTAP is in its initial stages of negotiation, it is expected to unlock Afghanistan's potential as the transit hub in the region, bringing in jobs and contributing to growth.

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In the medium -to long- term, the following factors can affect the attractiveness of Afghanistan as an energy transit route. First, importing power from Central Asia incurs significant costs because power systems are not synchronized within Central Asia and with Afghanistan. Second, although Pakistan currently has acute energy needs, the country is now redoubling efforts to build its own large hydropower projects.⁵⁸ Moreover, gas sector reforms are underway in Pakistan, which, if successful, may result in more gas being available for power generation. In addition, Pakistan is actively exploring imports from the Islamic Republic of Iran, in addition to pursuing the TAPI pipeline. Third, cost, feasibility, and concerns over political instability may result in financing difficulties, which in turn could significantly affect investment decisions (World Bank 2016).

Full completion and operationalization of the different infrastructure initiatives is essential for Afghanistan to fully benefit from energy transit trade. Although Afghanistan is not in the lead on these projects, the government should constantly monitor the developments of the proposed energy transit projects (CASA-1000, TUTAP, TAPI) and be prepared to respond positively if action is required. A plan to respond to partner concerns regarding security, location of offtakes, cost sharing, transit tariffs, and other matters should be put in place.

Renewable energy as a longer-term opportunity for Afghanistan

Afghanistan is rich in solar, wind, biomass, and hydro. The most likely large-scale developments would build on the country's substantial hydroelectric capacity. Simulation results suggest that investment in hydro generation and major transmission infrastructure could move Afghanistan from being a net energy importer to an exporter by 2026⁵⁹ (ADB 2013). While technically feasible, pursuing such a strategy would involve considerable costs and risks. Large-scale generation plants for renewable energy such as hydropower plants (HPPs) may be difficult to finance under the fragile security conditions prevailing in Afghanistan. Insecurity may make infrastructure projects (such as dam construction) more

prone to rent-seeking activities and extortion. In addition, lack of human capital and fiscal resources would impede progress on energy generation and transmission projects.

While development of large-scale HPPs may appear to offer significant economic benefits, the reality is that their economic benefits in terms of expenditures in either construction or operation are limited. Also, potential savings from foregone electricity imports are moderated by the seasonality of the HPPs' output, particularly their inability to cover electricity demand during the winter months. Assessment of the potential revenue benefits from hydro exports must account for the fact that hydro needs to be supplemented by additional domestic thermal generation or imports. Therefore, the capital needed to develop the HPPs should not displace investments in other domestic supply. Potential benefits would also depend on the decisions of other countries, such as Pakistan's steps regarding energy generation and transmission (see box 4.2 on hydroelectricity and trade).

Given the possibly limited benefits of HPPs, a more effective strategy would be to focus on domestic transmission to achieve full electrification of the country in the medium -to long- term. Indeed, a key aspect of Afghanistan's development is continuing to extend electricity supply to unserved and underserved parts of the country, through a combination of grid extension, mini-grids, and stand-alone generation. Improved power supply is an important component of developing a modern and efficient infrastructure network that can support increased output of goods and services, employment opportunities, and potentially enhanced security.

The government's primary policy focus now is the expansion of import capacity from Turkmenistan and interconnection of the Northern Electric Power System and Southern Electric Power System, both of which are donor financed. Given that implementation has been slow, the government should investigate whether any of its agencies represent a barrier to these projects moving forward, and if so, take corrective action. Mini-grids and stand-alone generation are largely donor financed under the auspices of the Ministry of Rural

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Box 4.2: Hydroelectricity and trade in Afghanistan

With its mountainous terrain and extensive river system, Afghanistan is estimated to have recoverable hydroelectric potential of more than 23,000 megawatts (MW). The clear majority of this potential (roughly 20,000 MW) is in the northeast on the Amu Darya, Panj, and Kokcha Rivers. A further 1,900 MW are located to the east of Kabul, with over half of this on the Kunar River near the border with Pakistan. The Balkh and Jowzan regions in the northwest have approximately 800 MW of potential, and the remaining 500 MW of Afghanistan's hydroelectric potential lies in the west-central region.

Current plans for development of Afghanistan's power generation capacity include a significant role for hydroelectricity. The Power Sector Master Plan has proposed adding seven new hydropower plants (HPPs) totaling approximately 1,550 MW by 2032. Domestic hydro would represent 41 percent of total supply and 67 percent of domestic supply. The largest plants are at two sites on the Kunar River (Kunar A and B), with a planned combined capacity of 1,089 MW at an estimated capital cost of US\$2.7 billion. Together, the plants would generate 6,260 gigawatt-hours of energy each year.

Integrating potential hydroelectric generation into Afghanistan's supply system poses challenges. Proposed plants, including Kunar, do not include significant storage, and hence their output over the course of the year varies with the flow in the rivers, typically highest during the early summer. The Kunar cascade, for example, would operate at only 22 to 24 percent of capacity during the winter months, which is also the country's period of peak demand. To make up the winter supply shortfall, additional thermal and import transmission capacity will be needed, which in turn will sit idle during the summer months.

Using hydro resources to provide electricity for export has also been suggested as an option, with Kunar as the primary candidate. Afghanistan badly needs revenue, and several arguments can be put forward in favor of building one or more projects either exclusively or partially for export. Among other benefits, the projects will attract financing, create job and skill development opportunities, and possibly show profitability. Every premium of 1 cent per kilowatt-hour in the export price over the cost of alternative sources of supply would generate almost US\$63 million per year in net incremental revenue. The reality, however, is likely to be less than expectations. A large HPP such as Kunar would be among the costliest private-sector-financed electricity projects in recent years, and it would be a departure for international finance institutions to allocate such large sums to a single project in a low-income country. Many of the physical risks are unknown because no geotechnical studies have been conducted, although a comprehensive feasibility study could address some of these uncertainties. Security risks are high not only within that region of Afghanistan, but also in the adjacent Khyber Pakhtunkhwa Province of Pakistan, and community engagement would be a priority.

Local impacts of the project are not likely to be substantial. Construction contractors in Afghanistan will not have the heavy equipment needed to work on the plant, and skilled labor is also in short supply. It is more likely that an international contractor would be engaged on an "engineer, procure, construct" basis, and the successful bidder will likely contract both heavy equipment and skilled labor from elsewhere. Technical components like turbines, generators, and controls will also be imported, leaving very little of the project's acquisitions available to domestic suppliers. Impacts after construction are also likely to be minimal, as HPPs require little in the way of operational staff.

Finding an export market for such a project looks promising since Pakistan, whose highest demand falls during the summer months, is short of peaking capacity. At present, Pakistan's average supply cost is reported to be US\$0.13 per kilowatt-hour, although ongoing capacity additions will help reduce this average. But there are alternative sources of peaking energy available to Pakistan apart from hydro imports from Afghanistan. Intraregional transmission projects (CASA-1000 and TUTAP) will provide access to electricity from Tajikistan, Uzbekistan, and Turkmenistan. Pakistan could also build gas turbines to provide its own peaking energy using domestic gas, or imports from Turkmenistan and the Islamic Republic of Iran. While hydro exports from Afghanistan could likely compete with these options, there are questions as to whether the return would justify the risks. For example, there is a risk that neighboring countries will object to Afghanistan's use of power imports to serve domestic demand while exporting hydro at an attractive price.

Source: World Bank (2017)

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Rehabilitation and Development. However, a new agency called the Ministry of Energy and Water is being set up to deal with investments in renewable energy. The government should ensure that the actions of these agencies are coordinated to facilitate continued smooth implementation of these community-level programs.

In addition, feasibility studies for major hydropower projects should be upgraded. These studies should focus on increasing the share of domestic resources (and renewable energy) in the national power supply, rather than studying high-risk export markets. Feasibility studies will be costly, especially for sites with incomplete data. Given its limited fiscal resources, the government of Afghanistan should pursue grant or concessionary financing from bilateral and multilateral donors.

4.3 Exploiting synergies to create the infrastructure for transit services

Afghanistan has a potentially important role to play in improving the regional connectivity of high-capacity, domestic, fiber optic networks. The country's telecommunications infrastructure

and sector have experienced tremendous growth in the last 15 years, with fiber optic, wireless, and satellite infrastructure projects being undertaken, as well as a large deployment of mobile services. For example, the construction of the domestic optical fiber network (Backbone Ring Project) started in 2007 and currently connects 20 of the country's 34 provincial capitals, with five more connections under way and five additional ones planned. Regulation has kept up; the Open Access Policy for the optical fiber network was enacted in 2012, aiming to achieve nondiscrimination in access for providers, transparency, and cost-based pricing.

Despite this progress, there are still significant obstacles, particularly in terms of international connectivity and low broadband internet penetration rates, for both mobile and fixed access. Estimates indicate that there are currently only between 30,000 and 50,000 fixed high-speed internet subscribers, and 1.9 million 3G mobile internet subscribers (compared to 408,000 fixed-line and 19.7 million active GSM mobile subscribers). Fixed internet service is priced at US\$73 per month (compared to the country's average annual GDP per capita of US\$624 in 2015), while mobile 3G data offers more affordable options (for example, US\$8.7 for 5GB with Afghan Wireless, Etisalat, and Salaam).

TABLE 4.1: Afghan Telecom published wholesale IP transit pricing, December 2015

Description	Price per Mbps per month for ISPs and GSM operators (US\$)	Price per Mbps month for per individual customers (US\$)
Unprotected capacity via Pakistan, terminated at Kabul	96	120
Unprotected capacity via the Islamic Republic of Iran	153	180
Unprotected capacity via Uzbekistan	320	336
Protected capacity (if available)	240	256
Europe or United States	as low as US\$1	

Source: Terabit Consulting 2016.

Note: Other sources mention costs of US\$20 for Pakistan and US\$169 for Uzbekistan. GSM = Global System for Mobile Communication; IP = internet protocol; ISP = internet service provider; Mbps = megabits per second.

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One of the reasons broadband penetration and connectivity remains a challenge for Afghanistan is that international access to the internet usually occurs via undersea fiber optic, with limited to no competition in international transit provision. Afghanistan, being a landlocked country, must pay high international transit prices through its terrestrial cross-border links to the Islamic Republic of Iran, Turkmenistan, Uzbekistan, Tajikistan, and Pakistan (see table 4.1). This translates into high prices for consumers, resulting in low internet penetration rates, even as mobile penetration is high. Political instability and security issues have also constrained use and investments in the broadband market (for example, some network segments between Ghor Mach and Karukh are out of service due to security concerns).

Addressing these shortcomings would complement other development policies and, as the literature has found for other countries, better broadband could boost local output, employment, productivity, and trade.⁶⁰ In addition, better broadband could position Afghanistan as a competitive data transfer provider for its neighbors. This could benefit the region by lowering data transmission time between Europe and Asia by over 30 milliseconds (from its current 130 milliseconds).

A cost-effective and efficient means of rapidly improving international connectivity in Afghanistan would be the commercialization of the optical fiber installed along the planned infrastructure projects mentioned in the previous section. Electricity

Box 4.3: Infrastructure sharing for optical fiber networks

Traditionally, electricity networks are equipped with an optical power ground wire (OPGW), which is a high-voltage distribution cable with optical fibers in its center (see figure B4.3.1). These fibers connect the electricity provider's facilities for internal communications purposes, including measuring the volume of electricity being transferred. This information can be transmitted through one single fiber strand. Cables have at least six fiber strands, leaving a significant fraction of the installed fiber optic capacity idle.

Together with OPGW, similar, newer cable technologies can also be installed on low- and medium-voltage polls. These include all dielectric self-supporting cable, independent fiber optic cables, and mixed phase or optical conductors such as an optical phase conductor. These new cable technologies have made it possible for broadband operators to lease capacity from electricity companies and provide fiber to homes over power lines at a much cheaper cost than deploying underground cables.

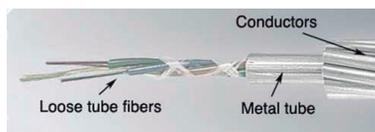
Unlike buried fiber, these aerial cables are exposed to the environment and are vulnerable to extreme weather. Furthermore, their metal coating is designed to attract lightning strikes to avoid damage to the power transmission lines. However, power transmission infrastructure provides greater security than traditional buried fiber optic lines; it is much less likely to be subjected to accidental cable cuts, vandalism, or deliberate destruction.

Similarly, pipelines and transport infrastructure, such as railway lines and highways, can be equipped with optical fiber cables for internal communications purposes (for example, tolls and train stations). Other purposes include managing signaling devices to control the transit of vehicles. Again, unused capacity in these installations can be leased out.

Systematizing the installation of ducts in energy and transport infrastructure is a low-cost strategy for expanding fiber optic networks. For example, the estimated cost of bridging a 23-kilometer gap in the fiber optic network on the border between Kazakhstan and the Russian Federation (see figure B3.2.2) varies under different scenarios: (a) the cost of rolling out stand-alone fiber is US\$425,000, (b) the cost of rolling out fiber if ducts were installed when building the road or railway is US\$250,000, and (c) the cost of "liberating" existing fiber if already installed in ducts when building the road or railway is US\$115,000.

Source: Gabarro, Mattoo, and Singh 2016.

Figure B3.2.1:
Optical Power Ground Wire (OPGW)



Source: The Fiber Optic Association
<http://www.thefoa.org/tech/ref/OSP/cable.html>.

Figure B3.2.2:
Gap in commercial fiber (Kazakhstan-Russia)



Source: Puig Gabarro, Mattoo and Singh (2016).

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transmission lines, oil and gas pipelines, and railways typically install optical fiber networks for their own telecommunications requirements, thus allowing any surplus capacity to be used on a commercial basis by telecom operators (see box 4.3).

Infrastructure sharing is already being implemented in some of the major infrastructure projects, such as TAPI and CASA-1000, via the project Digital CASA.⁶¹ Such projects will facilitate the installation of fiber optic cable and other network equipment in provinces currently not connected, and will also establish additional cross-border links. In terms of domestic impact, estimates suggest that an additional eight million inhabitants can be connected. Regionally, it would improve transborder connectivity among all CASA-1000 members, and, inter-regionally this could eventually, be a component of an alternative Europe-to-Asia terrestrial connection.

These examples illustrate the importance of encouraging cross-sector infrastructure sharing to accommodate duct and/or fiber installation. To this end, it will be critical for the Ministry of Communications and Information Technology to coordinate with the Ministry of Public Works, the Ministry of Transport and Civil Aviation, and the Afghanistan Railway Authority (where applicable), as well as with regional authorities. Coordination will help avoid retrofitted installation of fiber along new infrastructure projects, which can create significant costs, logistical challenges, and delays.

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NOTES

¹ The World Bank is currently collaborating with the Government of Afghanistan in some of these areas through programs such as the Water Management Project and the Agriculture Portfolio of Afghanistan.

² <http://ipi.worldbank.org/international/global/2014>.

³ <https://www.adb.org/projects/44463-013/main>.

⁴ <http://www.casa-1000.org/>.

⁵ Forecast done under the "baseline" scenario included in World Bank, (2016).

⁶ The government has recognized the importance of such an approach in the National and Regional Resource Corridor Program, a National Priority Program.

⁷ See box 1.2 on the opium economy.

⁸ A new Transit Trade Agreement was signed in 2010 with Pakistan, replacing the 1965 Agreement.

⁹ Afghanistan would provide transit conditions as established under Article V of the GATT 1994 to WTO members on a most favored nation basis.

¹⁰ TAPI, agreed in 2015, will connect the Turkmenistan-Afghanistan-Pakistan-India Pipeline with a natural gas pipeline. In addition, agreements have recently been signed on three transport infrastructure projects; the Chabahar port development agreement (which will connect India and Afghanistan via the Islamic Republic of Iran); the Lapis Lazuli Route (which will connect Afghanistan, Turkmenistan, Azerbaijan, Georgia, and Turkey); and the Five Nations Railway Corridor (linking China and the Islamic Republic of Iran via Afghanistan, Tajikistan, and the Kyrgyz Republic).

¹¹ A survey from the Pakistan-Afghanistan Joint Chamber of Commerce and Industry in 2012 suggests that Afghanistan's business community considers informal trade to be around US\$1.5 billion per year. Pakistan's business community claims that the volume of the informal trade between the two countries is at least 40 to 50 percent of the formal trade.

¹² Data used for this section comes from the BACI world trade dataset (provided by the CEPII and based on UN-COMTRADE files).

¹³ The total number of product categories is 5,000+.

¹⁴ Products are classified at the HS-6 level.

¹⁵ Figures are available upon request.

¹⁶ The presence of U.S. residents in a foreign country (such as Afghanistan) corresponds to a situation of extraterritoriality in terms of balance of payments. Internal sales to U.S. agents are a priori considered as exports to the United States.

¹⁷ The export structure tends to vary by destination market. Exporting to high-income countries, where consumers have a relatively high preference for quality, stimulates the production of high-quality goods, and increases the demand for skilled labor (Brambilla, Lederman, and Porto 2012). Hausmann, Hwang, and Rodrik (2007) provide evidence that the types of products countries export matter for economic growth. Finally, Verhoogen (2008) shows that more productive plants produce and export higher-quality goods than less productive plants, and they pay higher wages to maintain a higher-quality workforce.

¹⁸ For an illustration on how to compute labor sophistication, see box 2.1.

¹⁹ All the presented estimations use mirror data to partially address the problem of unrecorded trade: exports that are not recorded in Afghanistan but are recorded in the receiving country will be included in the analysis. In addition, estimations are run including figures from informal trade. Results still confirm Afghanistan underperformance, both at the aggregated and at the bilateral level.

²⁰ The fit corresponds to the norm of flows predicted by the market access and appears to explain between 86 and 92 percent of the changes in flows across countries.

²¹ Comparing countries in terms of GDP per capita helps control for the diversification of the economy, while comparing countries in terms of geographic location helps control for natural disadvantages (for example, climate).

²² The presented methodology is based on existing data on trade flows and therefore cannot be used to assess the potential of extractive products such as coal, oil, and gas for the country, given that these minerals are still in the discovery phase or are at a very early stage of extraction. In addition, these products have a different dynamic in terms of trade flows determinants compared with the rest of the goods. A more extensive analysis on the potential of the extractive industries can be found in Report No: ACS1205 (World Bank 2013).

²³ If one drops goods that may be traded because of the war, for which we observed a steep growth after 2001 (for example, aircraft, vehicles, and pharmaceutical goods), then we obtain similar figures (not shown for the sake of simplicity). Also, figures do not significantly change once we include potential informal trade between Afghanistan and Pakistan.

- ²⁴ The different types of use are taken from the Broad Economic Categories classification.
- ²⁵ Data from Afghan customs suggest that transit trade represented around 8 percent of Afghan exports in 2014.
- ²⁶ www.enterprisesurveys.org/.
- ²⁷ Export value figures appear to be much lower than those obtained from UN Comtrade (see the subsection under section 2.1 on trade balance). This “missing” registration of 40 percent might reflect underreporting by Afghan customs authorities. A more plausible explanation of this difference, however, is that the “missing” trade value is goods in transit that might not be reported by customs in the files that were provided to us. Finally, sales to the UN and other nonresident firms and organizations present in Afghanistan might not be reported as exports by customs either, since products do not cross the border.
- ²⁸ Thirty percent of households still depend on agriculture as their main income source, and 96 percent of the manufacturing sector is reliant on agricultural inputs.
- ²⁹ World Bank Business Enterprise Survey 2014; <http://www.enterprisesurveys.org/>.
- ³⁰ <http://cso.gov.af/en>.
- ³¹ Box 2A.1 in Annex 2A presents the augmented gravity equation used to estimate the role played by each of the trade determinants in explaining the trade residuals (the gap between predicted and observed trade).
- ³² Table 2A.4 in Annex 2A shows that the share of negative residuals for Afghanistan and their mean value are considerably reduced (from 50 percent to 36 percent) when controlling for export time delays. Ultimately, the mean value of negative residuals is halved, meaning that time to export is alone accounting for a large part of the problems faced by Afghan exporters.
- ³³ Doing Business database, 2015; <http://www.doingbusiness.org/>.
- ³⁴ Here productivity is proxied by income per capita.
- ³⁵ Productivity and income per capita are closely related in an open economy. Given that the Afghan GDP per capita is very low, and with an elasticity of total exports to GDP per capita that is estimated above unity (1.2), moving from US\$633 per capita to US\$3,200 on average leads mechanically to a six-fold increase in Afghanistan's trade ($1.2 * 3200 / 633$), even without reductions in trade costs.
- ³⁶ They include melons and watermelons, beans, and lentils, and represented less than 1 percent of Afghan exports in 2014.
- ³⁷ <http://www.asycuda.org/>.
- ³⁸ Supporting evidence is available from numerous World Bank-financed customs and trade facilitation projects in countries as diverse as the Russian Federation, Vietnam, the Philippines, Cambodia, the Lao PDR, and Kazakhstan. All achieved improved customs revenue performance while simultaneously reducing clearance time.
- ³⁹ World Bank World Development Indicators, 2015 (databank.worldbank.org/wdi), and International Monetary Fund Balance of Payments Statistics, 2015 (<http://www.imf.org/en/Data>), respectively.
- ⁴⁰ This definition of services trade that includes four modes of delivery was formalized in the WTO's General Agreement on Trade in Services (GATS).
- ⁴¹ For an example of the far-reaching gains of reform in the services sector, see Arnold et al. (2016), who present an analysis of how the reform in services in India has had a positive effect on manufacturing productivity.
- ⁴² <http://iresearch.worldbank.org/servicetrade/home.htm>.
- ⁴³ This conclusion is based on the following sources: Afghanistan's Private Investment Law of 2005 (AISA 2005), the Law of Civil Aviation (AISA 2014), and Afghanistan's Accession Schedule (WTO November 13, 2015; https://www.wto.org/english/thewto_e/acc_e/a1_afghanistan_e.htm, accessed on October 4, 2016).
- ⁴⁴ This is based on Afghanistan's Private Investment Law of 2005, Article 5, provision 4 (<http://www.aisa.org.af/Content/Media/Documents/New-Investment-Law112014171155607553325325.pdf>).
- ⁴⁵ Note that, although landlocked, Afghanistan included maritime sectors in its Accession Schedule. For maritime shipping, it committed to completely open trade through cross-border supply and commercial presence. For maritime auxiliary services, the commitment to openness includes cargo handling, storage, and freight agency services.
- ⁴⁶ This information for cross-border air services agreements is based on WTO's Air Services Agreements Projector database (<https://www.wto.org/asap/index.html>, accessed on October 30, 2016).
- ⁴⁷ This information is based on the Law of Civil Aviation (AISA 2014), Articles 5 and 7 (<http://www.aisa.org.af/Content/Media/Documents/809CivilAviationLaw13825112014192636277553325325.pdf>).
- ⁴⁸ This constraint reflects limitations of the most commonly used data sources: IMF BOPS (IMF 2016a), the International Trade Center (ITC) Trade in Services database, and the WTO. There are some databases that have estimated data for previous years (for example, the CEPII CHELEM).

NOTES

⁴⁹Based on the series Foreign Direct Investment, Net Inflows (percent of GDP) from World Development Indicators (World Bank 2016g).

⁵⁰The inflow of foreign currency from the aid, and the short-term balance-of-payments stability brought by it, coupled with a stable, managed, fixed exchange rate, creates some opportunities for arbitrage for foreign banks.

⁵¹Hummels (2007) shows that freight rates per dollar of merchandise transported in industrialized countries are on average around 5 percent. UNCTAD (2015) gives a figure between 9 percent (Asia) and 11 percent (Africa). In this report, it is assumed that freight rates for Afghanistan are around 10 percent (average between Asia and Africa). Revenues from transportation freight rates in Afghanistan will range between 3 percent and 5 percent, depending on how much of such revenues will go to the government.

⁵²A proper cost-benefit analysis will provide a more accurate value of the benefits of transit trade for Afghanistan.

⁵³The survey includes firms and traders from Pakistan that are currently trading with Afghanistan and Central Asia.

⁵⁴Evidence suggests that regional trade agreements lower the risk of conflict when trading with neighbors (Cali 2015). Also, deeper agreements are more peace enhancing; financial integration and monetary interdependence may play a more important role in promoting peace than trade alone (Gartzke et al. 2001).

⁵⁵<http://pi.worldbank.org/international/global/2014>.

⁵⁶In rail: an independent national Afghanistan Railway Authority (AfRA) was established in 2012 and the Afghanistan National Railway Plan was designed (over 5,000 kilometers of railways by 2030). In air: only the airports in Kabul and Herat are up to international standards, but updates to airports in Mazar-e-Sharif, Jalalabad, and Kandahar are already planned. In addition, in 2015, the air space and traffic control was transferred to the Afghanistan Civil Aviation Authority, created in 2014).

⁵⁷Examples include the Chabahar agreements with the Islamic Republic of Iran and India; and the Ashgabat transport agreement between Oman, the Islamic Republic of Iran, Turkmenistan, Uzbekistan, and Kazakhstan.

⁵⁸For example, the 1,320 MW Tarbela 4 extension is now under construction and a further 1,320 MW for Tarbela 5 is under consideration. The much larger 4,350 MW Dasu hydropower project is also nearing construction start, with financing in place for the 2,160 MW Phase I project nearing close, and preliminary work now underway.

⁵⁹In the model, the export surplus arises because of a large HPP (Kunar) coming online, and disappears within a few years as domestic demand grows to absorb it.

⁶⁰See, for example, Fernandes et al. (2015) for China; Bankole, Osei-Bryson, and Brown (2015) for Africa; and Bertschek et al. (2016) for an updated survey.

⁶¹Given the availability of OPGW fiber with a relatively high fiber count, the construction of new fiber along the CASA-1000 route is not expected to be necessary.

With further declines in international assistance expected over the coming years, the Government of Afghanistan faces a new challenge: enabling new growth drivers such as trade. The potential of the extractive sector is uncertain in the short to medium term, and with possible reliance on extractive industries exacerbating conflict and governance risks and impeding broader economic development, a plausible trade-driven growth scenario for Afghanistan should promote economic and export diversification.

This report brings new evidence on the opportunities and challenges for development in the areas of trade in goods, trade in services, and transit trade. It also provides recommendations for appropriate actions on policy reforms and strategic infrastructure investment to support potential growth in these sectors.

The main findings of this report suggest that government intervention should focus on two complementary areas: competitiveness and connectivity.

- Afghanistan's largest constraint is insufficient production capacity. Lack of economic diversification and high concentration of exports and imports has also prevented Afghanistan from fully exploiting its trade potential. Increased productivity in the agricultural sector is fundamental to meet domestic demand, substitute imports, and potentially promote exports in the short and medium term.
- Poor logistics and trade infrastructure, rather than lack of market access, are also responsible for Afghanistan's trade underperformance. In the short term, exports could be improved by 20 percent by tackling export delays related to customs and border procedures or high risks during transportation. In the long run, improvements in trade facilitation and logistics coupled with Afghanistan's productivity converging to regional levels could lead to a more than six-fold increase in exports.
- Service sector development is constrained because of Afghanistan's small domestic markets, as well as limited endowments of skills and capital. In the long run, these constraints could in principle be alleviated by greater regional and global integration.
- The potential of transit trade in commodities and energy might be modest and slow to materialize. Realizing these benefits requires efficient logistics, well-designed and maintained infrastructure, and a propitious framework of regulation and regional cooperation.

“Trade as a vehicle for growth in Afghanistan: challenges and opportunities” includes a series of specific reforms and recommendations in the areas of trade facilitation, agriculture, services and energy trade to be implemented by the government with the support of development partners.

