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CREATING MARKETS IN BANGLADESH

Unleashing the Private Sector to Sustain Development Success

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2121 Pennsylvania Avenue, N.W.
Washington, D.C. 20433
www.ifc.org

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The CPSD has made extensive use of analytical and policy works prepared by the World Bank Group in Bangladesh over the past several years, including (a) Bangladesh Policy Notes; (b) Bangladesh Infrastructure Assessment Program (InfraSAP); (c) Bangladesh Financial Sector Assessment Program (FSAP); (d) Bangladesh Capital Market Assessment Program (J-CAP); (e) Moving Forward: Connectivity and Logistics to Sustain Bangladesh's Success; (f) Bangladesh: Gearing up for the Future of Manufacturing; and (g) Bangladesh Jobs Diagnostic

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ABBREVIATIONS AND ACRONYMS

3PL	third-party logistics
BB	Bangladesh Bank
BEPZA	Bangladesh Economic Processing Zones Authority
BEZA	Bangladesh Economic Zones Authority
BGMEA	Bangladesh Garment Manufacturers and Exporters Association
BHTPA	Bangladesh Hi-Tech Park Authority
BIDA	Bangladesh Investment Development Agency
BTRC	Bangladesh Telecommunication Regulatory Commission
CAGR	compound annual growth rate
CPSD	Country Private Sector Diagnostic
DFI	development finance institution
EU	European Union
FCB	foreign commercial bank
FCCL	fiscal commitment and contingent liability
FDI	foreign direct investment
FERA	Foreign Exchange Regulation Act 1947
fintech	financial technology
FY	fiscal year
G2G	government-to-government
GDP	gross domestic product
GNI	gross national income
GoB	Government of Bangladesh
GVC	global value chain
GW/MW/kw	gigawatt /megawatt/kilowatt
HFO	heavy fuel oil
HS	harmonized system (code)
ICT	information and communication technology
LDC	least-developed country
LIBOR	London interbank offered rate
LIC	low-income country
MFI	microfinance institution
MFN	most-favored nation
NBR	National Bureau of Revenue

NEET	not in employment, education, or training
NGO	nongovernmental organization
NPL	nonperforming loan
NPR	nominal protection rate
NSC	national savings certificate
NSS	national savings scheme
OSS	one-stop service
PCB	private commercial bank
PPP	public-private partnership
PPPA	Public-Private Partnership Authority
PPPU	public-private partnership unit
PTA	preferential trade agreement
R&D	research and development
RMG	ready-made garments
SCB	state-owned commercial bank
SEZ	special economic zone
SME	small and medium enterprise
SOE	state-owned enterprise
TEU	twenty-foot equivalent unit
TVET	technical and vocational education
USP	unsolicited proposal
VAT	value added tax
WTO	World Trade Organization

EXECUTIVE SUMMARY

This Country Private Sector Diagnostic (CPSD) assesses opportunities and requirements for expanding the private sector's contribution to sustainable economic growth in Bangladesh. It evaluates the chief constraints to realizing private sector potential and identifies strategic entry points for private investment. The CPSD will be used to craft the IFC Country Strategy and the World Bank Group's new Country Partnership Framework with the government of Bangladesh, paving the way for joint programming to create markets and unlock private sector potential. This executive summary starts by briefly setting out the development context, highlighting opportunities for the future, and discussing the main constraints hindering the private sector from addressing Bangladesh's development challenges and then sets out recommendations for reform priorities.

Bangladesh at an Inflection Point: Development Success, New Ambitions, and Persistent Challenges

Bangladesh has been one of the biggest development success stories of recent decades. Despite high poverty levels at the moment of independence in 1971, Bangladesh is on course to graduate from the United Nations least-developed countries list in 2026. Annual gross domestic product (GDP) growth has accelerated in every decade, reaching over 8 percent in 2019. At the same time, the rate of extreme poverty has fallen from 43.5 percent in 1991 to just 14.3 percent in 2016, an extraordinary rate of progress in social development. Child mortality has fallen by nearly 90 percent since 1990, life expectancy has increased from 58 to 72 years, and secondary school enrollment for girls has increased from just 14 percent in 1990 to nearly 80 percent today.

Sustained growth has been made possible by prudent government policy choices, along with the successful development of the ready-made garment (RMG) sector and the strong inflow of remittances. First-order policy reforms introduced by the government of Bangladesh in the 1980s and 1990s and solid macroeconomic management—which ensured a prudent fiscal approach, a competitive exchange rate, and low inflation, along with investments in basic health, education, and infrastructure—unleashed a response from the private sector, which leveraged the country's comparative advantage in low-cost labor to exploit global market opportunities. Exports of RMG, which alone created more than 4 million jobs, along with remittances from Bangladeshis working abroad, have been the key growth engines of Bangladesh's economy. Private investment overall grew from close to 15 percent of GDP in 2000 to more than 23 percent by 2019.

Bangladesh has nonetheless reached the limit of its current development model. Moving to the next stage of development will require a new round of reforms to strengthen and modernize the private sector, which faces an economic policy environment that increasingly undermines its potential to drive diversified, export-led growth. The government of Bangladesh's *Perspective Plan 2021–41* sets the objective of becoming an upper-middle-income country by 2031, along with reaching full employment and eliminating extreme poverty. Nearly half the population is vulnerable to falling back into poverty. It is therefore critical to boost development of a broad-based private sector that can grow, export, and create quality jobs at scale. Bangladesh's private

sector faces one of the most burdensome business environments in the world. The financial sector lacks the capacity to efficiently channel domestic savings into productive investment because of an elevated ratio of nonperforming loans (NPLs) and weak capital buffers, underscored by inadequate corporate governance, weak supervision, and a lack of breadth. High import tariffs and the discretionary use of regulations protect well-established businesses and sectors at the expense of the rest, and this impedes innovation. Limited progress in opening the infrastructure sector for competitive private participation—with the exception of power generation—holds back investment and modernization. As a result, Bangladesh's private sector has not moved beyond its initial success and is becoming increasingly concentrated and inward looking, seeking to maximize rents from existing markets instead of embracing openness and competitiveness.

Large investments are needed to overcome development gaps and continue growth (figure ES.1). Despite improvements, human capital gaps reduce the productivity of Bangladesh's future workforce by more than half, according to the World Bank Human Capital Index. Meanwhile, half the country lacks sufficient access to health care.

FIGURE ES.1 A SUMMARY OF KEY DEVELOPMENT GAPS

Sources: Farole and others 2017; Hill and Genoni 2019; World Bank Human Capital Index; World Development Indicators.

Note: GDP = gross domestic product; RMG = ready-made garments; WB = World Bank.

Although infrastructure has improved, large investments are needed to manage the rapid urbanization that increasingly hampers the quality of life and drains productivity; to strengthen rural connectivity for the expansion of economic opportunity to all parts of the country; and to mitigate the impacts of climate change, which represents a large and growing threat to Bangladesh's development trajectory. The government of Bangladesh estimates that it will need to increase investment to 35 percent of GDP (an additional US$10 billion per year from current levels) and that public spending on health and education—currently among the lowest in the world—will need to rise sharply. These development gaps will need to be addressed at a time when Bangladesh's traditional growth model—leveraging low-cost labor in international markets—faces multiple threats, such as wage pressure, technological change, environmental and social compliance, and eroding trade preferences.

COVID-19 Amplifies the Challenges Facing Bangladesh and Its Private Sector

Although Bangladesh has managed the pandemic relatively well, the economic fallout was significant. The pandemic has hit RMG exports, the main source of foreign exchange. More than US$3 billion worth of existing RMG export orders were cancelled during the first months of the pandemic, and new orders in June 2020 were down 45 percent from the previous year. Many cancelled orders have been reinstated since then, supporting export recovery. Official remittances also surged in 2020 and were reportedly driven by a shift in flows from informal to formal channels facilitated by tax incentives. Facing enormous pressure to address the public health crisis and to mitigate the impact on poor and vulnerable people, the government of Bangladesh's initial COVID-19 economic response program has cost about US$11.6 billion, equivalent to 3.7 percent of FY20 GDP. The World Bank projects that, after moderating to estimated 2.4 percent in fiscal year (FY) 2020, GDP growth will accelerate to a range between 2.6 and 5.6 percent in FY21 and 5–6 percent in FY22–FY23, well below 8 percent per year in FY18 and FY19.[1] The pace of the recovery is highly uncertain and depends on the severity of the second wave of the pandemic, which unfolded in April 2021, the country's vaccination campaign, and the strength of the of the global economy.

The pandemic may destabilize the financial sector, which entered the pandemic with elevated level of stressed assets and low capital buffers. Despite accelerating economic growth, credit provision to the private sector declined to its lowest level in more than a decade even before the COVID-19 crisis began. This resulted, at least partly, from insufficient bank capitalization, unresolved nonperforming loans (NPLs), and the government's imposition of an interest rate cap. The COVID-19 crisis has exposed even the better-managed private banks to risk, whereas expanding regulatory forbearance and a large increase in subsidized lending exacerbate governance shortfalls, which may contribute to lower profitability and weaker asset quality.

Bangladesh's post–COVID-19 recovery will force a reimagining of the country's developmental model, accentuating the importance of the private sector and making the reform agenda even more urgent. In the short term, deficits and government debt are likely to rise from moderate levels, and the government will almost certainly be

1 The real GDP growth estimate for FY20 and projections for FY21–FY23 are based on the World Bank Spring Economic Focus (March 2021).

forced to shift its spending priorities. In the medium term, the COVID-19 crisis will probably hasten structural changes in the manufacturing sector, which may limit the scale of its recovery. With weaker demand from migrant-receiving countries such as the oil-producing Gulf states, remittances growth is expected to be moderate. Finding new sources of revenue and growth, therefore, will be an urgent priority. In this context, the private sector, which already accounts for more than 70 percent of all investment in Bangladesh, will need to play a central role. Facilitating rapid economic recovery, returning growth to above 8 percent, and closing the growing infrastructure investment gap will require a financial sector and a macroeconomic and regulatory environment that can support significant further expansion of private investment in infrastructure, in services, and in diversified, competitive sectors.

Looking to the Future: A Diversified, Increasingly Sophisticated, and Resilient Private Sector

Development success stories highlight the importance of having a diversified and sophisticated private sector to sustain development progress, which will become even more relevant in the post–COVID-19 recovery phase when public resources will be prioritized in the social sectors. In the absence of natural resource riches, the path to becoming an upper-middle-income country runs through increasing the value added in existing sectors and diversifying to create new ones. The experience of Bangladesh's aspirational peers demonstrates the importance of unleashing a diversified private sector at precisely the development stage where Bangladesh is today. As Malaysia and Turkey have done in the recent past, Vietnam has undertaken policy reform to reorient domestic high performers to focus on global markets, promote foreign direct investment (FDI), upgrade the quality of local production, and strengthen small- and medium-enterprise (SME) supply chains. Turkey's achievements in the 1990s and 2000s, which brought it to the cusp of high-income status, provide a noteworthy example for Bangladesh. Following the 2001 crisis, comprehensive financial and commercial reforms facilitated private sector job creation in services and manufacturing along with the rapid modernization of agriculture. A number of measures helped push leading domestic conglomerates to become major global players across a range of sectors, including the adoption of a more free-floating exchange-rate regime and the full liberalization of trade and investment (which included the abolition of trade licenses and the elimination of subsidies), supported by effective commercial diplomacy and public-private investment in transport, logistics, and energy infrastructure.

The CPSD highlights opportunities for Bangladesh to take concrete steps toward future change. This entails increasingly sophisticated, innovative, and diversified manufacturing and agribusiness sectors, as well as an emerging value-added services sector supported by modern infrastructure. This vision of the medium-term future for the Bangladeshi economy could include the following:

- **A modernized RMG sector** could surpass the US$50 billion export target and become increasingly characterized by market diversification, greater inflows of FDI and technology transfers, production of higher-value products, progress on design and branding, and the development of upstream and downstream industries to help offset job losses resulting from automation, restructuring, and COVID-19 impacts in RMG global value chains (GVCs).

- **Growing, diversified non-RMG manufacturing sectors** reaching at least US$10 billion in exports in the medium term and taking advantage of rapidly expanding domestic markets. Large opportunities exist in sectors such as footwear, leather, and electrical goods, which could leverage the same instruments available to RMG, such as bonded warehouses and access to innovative trade finance. A more sophisticated plastics sector could create backward links to RMG and respond to critical needs for plastic recycling and circularity. Further development of the pharmaceuticals sector, including backward linkages with active pharmaceutical ingredients and production of biosimilars, could signify the increasing sophistication of the industry and enable the scaling-up of exports of affordable quality medicines.
- **A more dynamic, diversified, and sustainable agribusiness sector** that takes advantage of rapidly expanding domestic and export demand by scaling up the production of high-value-added products such as horticulture, animal protein, and dairy, as well as aquaculture where Bangladesh has a strong comparative advantage This opportunity would be supported by rising on-farm productivity, development of competitive value chains, a robust agri-logistics network, and a strong regulatory environment that includes reliable food safety standards.
- **A more stable, efficient, and diverse financial sector** that offers competitively priced financing and a broad range of instruments to support the short-term, long-term, and venture capital needs of the private sector. This would include targeted financial access to SMEs and women-owned businesses; well-developed markets for corporate equity and bonds; access to foreign capital; a diverse range of products for markets like project finance, green finance, and housing finance; and a dynamic financial technology ecosystem.
- **A modern transport and logistics sector** supported by an integrated multimodal master plan, three or four well-functioning modern ports, an efficient trade facilitation environment, supported by domestic and foreign private investment in infrastructure and services. This would facilitate export expansion and diversification.
- **A recalibrated energy sector** that builds on successful private investment in generation to further increase power supply from cheap, clean energy sources and strengthen transmission and distribution capacity. This would drive the shift toward a cleaner energy mix while improving cost-effectiveness and reliability.
- **An expanded, inclusive, and well-managed health care system.** This could leverage private sector participation to expand access to high-quality, integrated health care provision and specialized treatment, supported by disruptive technologies such as telemedicine and e-pharma.

Unleashing the Potential of the Private Sector: Growing the "Missing Middle," Promoting Export Diversification and Expanding FDI

Bangladesh's private sector has expanded rapidly, although in a segmented manner with a distinct "missing middle" that struggles to grow. The number of firms in Bangladesh has more than doubled in the past decade to nearly 8 million. Ninety-eight percent of these are microenterprises, but the other 2 percent account for 35 percent of all nonagricultural jobs, a large proportion of which exist in firms with more than 500 workers. In between, there is a "missing middle." Small and medium enterprises fail to grow, and Bangladesh currently lacks a strong cohort of dynamic, young firms. Key constraints facing the private sector—notably a lack of access to finance and land, plus excessive regulation—hit SMEs considerably harder than microenterprises, which operate "below the radar," and large firms, which have capital and relationships that

enable them to find workarounds. This is particularly prominent in the manufacturing sector, in which weak productivity growth (less than 2 percent annual growth since 2000) is linked to poor performance of mid-sized firms, and rates of technology adoption are low across firm size categories and subsectors.

Exports have been at the heart of Bangladesh's past success, but diversification must now become an imperative, especially in the post–COVID-19 world. Since 2000, Bangladesh's exports have grown at a rate more than twice the global average, and its export share of GDP has tripled, but exports remain highly concentrated. RMG, along with textiles, accounts for more than 90 percent of goods exports. This is about five times more concentration than in export-driven economies such as China, Thailand, and Vietnam. Moreover, exports are not only concentrated in the RMG trade, they are also concentrated within it—that is, they are reliant on a small set of exporters producing a narrow range of products going to a few main markets. Such extreme concentration makes Bangladesh vulnerable to shocks. Such a shock occurred in the initial phases of the COVID-19 pandemic, during which RMG exports collapsed virtually overnight, threatening millions of jobs. Overcoming these vulnerabilities requires diversifying the export base while also upgrading to higher-value-added activities in RMG.

Taking greater advantage of foreign investment will be critical to supporting export diversification, upgrading domestic supply chains, and closing infrastructure gaps. Over the past two decades, FDI flows into Bangladesh averaged less than 1 percent of GDP, and at 6 percent of GDP, the stock of FDI is far below the low-income-country average of 25 percent. FDI brings not only links to GVCs but also technology and knowledge to help upgrade standards and productivity in domestic supply chains, a key channel for SME growth. Moreover, given Bangladesh's large infrastructure needs, the increasingly constrained financing capacity of its government, and the shortage of long-term financing from the domestic financial sector, foreign investment can help bridge the financing gap and foster deeper integration into the global economy.

Addressing Constraints to the Private Sector: Significant Structural Reforms and Investments Are Needed

Bangladesh's private sector faces one of the world's most burdensome business environments, underpinned by a regulatory governance regime that is unpredictable, nontransparent, and discretionary. Over the past five years, Bangladesh was consistently placed in the bottom 10th percentile of the World Bank Group's Doing Business report. One reason is that Bangladesh is the second-worst country in the world for contract enforcement. It takes on average four years to seize collateral from distressed debtors with a recovery rate of just 20 cents on the dollar. Similarly, resolving a contract dispute through the courts takes almost four years, with costs eating up two-thirds of the value of the claim. For getting electricity, registering property, and trading across borders, Bangladesh is also in the bottom 10th percentile of the Doing Business rankings. This performance can be explained partly by the many outdated laws governing economic issues like foreign exchange, land, and company formation—laws that predate independence. In addition, regulatory rules often overlap or contradict one another, whereas administrative processes are opaque and poorly enforced, resulting in a high degree of discretion in the regulatory process. These regulatory weaknesses have pervasive effects across the private sector, undermining corporate governance, blocking market entry, stifling growth, preventing the emergence of SME supply chains, and hindering investment in new technologies, new sectors, and new firms.

The trade and investment policy regime creates an anti-export bias and undermines domestic competitiveness. Despite tariff reductions over the past 25 years, average tariffs in Bangladesh are still twice the South Asia average and three times that of export-oriented Asian peers. Para-tariffs such as regulatory and supplementary duties, which have risen since 2000, double the average tariff rate and sharply increase the protection of domestic sectors like transportation, textiles and RMG, footwear, and agribusiness. As a result, domestic producers lack incentives to reduce costs, innovate, and internationalize. Moreover, inflated costs of imports mean that producers may be unable to access the highest-quality and most cost-effective inputs, lowering their competitiveness. Investment promotion policies also feature a domestic bias. Although investment promotion institutions are being strengthened and the investment policy regime contains few statutory restrictions, FDI in key growth sectors like financial services, telecommunications, transport, and infrastructure is often blocked by requirements for permission from line ministries. Moreover, sectoral equity caps, approval prerequisites, and mandatory public listing on entry are imposed in various sectors, and foreign companies report significantly greater harassment by tax authorities. Whereas many development success stories, including the Republic of Korea and Turkey, have protected domestic industries in the past, their development success has hinged on second-generation reforms that have driven export orientation by liberalizing trade and focusing on a search for new markets.

Increasing vulnerability of the banking sector contributes to declining private sector investment and threatens macroeconomic stability. Although Bangladesh has many high-performing private banks, rising NPLs and deteriorating capital adequacy are cause for concern. As of early 2020, NPLs account for 10.4 percent of outstanding loans, with NPLs in state-owned banks accounting for well over 20 percent. There has been a wave of defaults by influential firms, along with loan rescheduling and restructuring. The actual size of bad loans may be significantly higher than the officially recognized figure (IMF 2019). The high level of stressed assets limits the ability of banks to engage in new lending: private credit growth has fallen sharply from 17 percent of GDP in FY18 to below 10 percent in FY20. Vulnerability of the banking sector may be further aggravated by the decision to impose interest caps and by the effects of the COVID-19 crisis, including additional forbearance measures adopted by the Bangladesh Bank. Addressing the problem of NPLs will require strengthening governance in the sector, including dealing with "willful defaulters" and putting in place a modern resolution framework for managing distressed assets, along with a modernized insolvency framework.

Underdeveloped domestic markets for long-term capital and restrictions on foreign currency borrowing hamper investment and outbound FDI. Heavy dependence on short term-deposits (roughly 75 percent are for less than one year) creates asset-liability mismatches that limit the ability of commercial banks to lend over long terms. Moreover, this leaves businesses that seek long-term capital few alternatives because local equity and bond markets are still nascent. In this context, foreign currency borrowing could help close gaps in long-term financing, but Bangladesh's foreign exchange policy regime—governed by the 1947 Foreign Exchange Regulation Act (FERA)—places legal and administrative restrictions that virtually preclude foreign borrowing. Restrictions not only limit access to finance but also hinder foreign investors from repatriating capital and domestic businesses from investing abroad. Foreign borrowing amounted to less than 1.5 percent of gross national income in Bangladesh in 2019 compared with 9 percent in India, 11.4 percent in Thailand, and 12.6 percent in Vietnam. Whereas FERA plays a role in protecting foreign exchange, partial

liberalization of the exchange control regime is needed to support a modern trade and investment environment.

On top of policy barriers, the private sector faces an onerous trade infrastructure and trade facilitation environment. Bangladesh stands at the bottom 6th percentile for trading across borders in the 2020 *Doing Business* report covering 190 countries and is ranked 123rd out of 136 countries in the most recent *Global Enabling Trade Report*—by far the worst in South Asia. The logistics system is characterized by congestion (roads and ports), lack of reliability (ports), red tape (facilitation payments), limited sophistication (weak intermodal connectivity, limited use of information and communication technology, inadequately qualified personnel), and informality across logistics services providers (Herrera Dappe and others 2019). Border and documentary compliance take on average 315 hours for exporting and 360 hours for importing, around three times as long as in Vietnam. Whereas physical investments in infrastructure and technology are needed to keep pace with growing demand (such as in ports), weak sector governance is the underlying factor driving poor performance, and it includes (a) an outdated, complex regulatory landscape combined with weak enforcement; (b) the lack of an integrated policy framework and a fragmentation in sectoral governance; and (c) dominant public sector management characterized by inadequate implementation and the impeding of efficiency improvements and sector modernization that result from the inadequate financial capacity of state-owned enterprises. Ongoing reforms such as the enactment of a new customs act, the adoption of risk management, and the development of a national single window may significantly improve the trade facilitation environment.

Land scarcity and costly development amplified by a weak land administration system severely restricts greenfield investment and domestic expansion. With extreme population density, tidal inundation, rapid urbanization, farmland depletion, and a history of land grabbing, the cost of developable land and of land development in Bangladesh is among the highest in the world. Foreign greenfield investors and medium and large local investors often cannot secure a sufficiently large plot of serviced land at a reasonable price, and few SMEs can afford new land or facilities for expansion. Meanwhile, it typically takes more than 400 days to register land ownership in Dhaka and another eight months or more for developers to get land-use clearance certificates and necessary approvals. The weaknesses and opacity in the land administration system present significant room for discretionary practices, making land access dependent on influence. In order to stimulate industrialization and promote industrial clusters, Bangladesh plans to massively expand its use of public and private economic zones that encourage increased private sector participation and FDI involvement. Its recent approval of more than 35 zones and its strong courting of investors during the pandemic testify to the government's commitment. Although many hurdles remain, the soliciting of more than US$20 billion in domestic and private investment proposals for the zones as of August 2020 (including from international investors such as Sumitomo and Honda) suggests that the zones offer significant potential.

The persistent challenge to ensure a reliable and cost-effective electricity supply calls for a greater focus on clean energy imports and strengthened transmission and distribution systems. Despite Bangladesh's efforts to quadruple energy-generating capacity between 2009 and 2020, transmission capacity has not kept pace, contributing to a low utilization of power generation capacity. Reliance on so-called rental plants that use expensive, heavy fuel oil–based (HFO) generators raises questions over financial and environmental sustainability. As the effects of COVID-19 relax the pressure for massive

expansion of generating capacity in the short term, the government of Bangladesh may take the opportunity to recalibrate its energy sector strategy, emphasizing efficiency improvements in existing power plants, decommissioning expensive HFO generators, strengthening transmission and distribution (T&D) systems, and rebalancing the energy mix toward a cheaper, low-carbon power supply that focuses particularly on clean energy imports. This could be supported through continued improvements in policy frameworks and infrastructure for cross-border energy trade, an increase in various forms of private participation in T&D infrastructure, and an optimization of the subsidy regime at the retail and producer levels (retail tariffs are below production cost; natural gas prices are below cost). In the medium to long term, reforms of public utilities that increase operational efficiency and, by extension, increase financial sustainability and the creditworthiness of utilities as off-takers should be a critical part of sector strategy in Bangladesh.

Finally, a more assertive expansion of digital infrastructure will be critical for meeting the needs of the modern economy, particularly in the COVID-19 context. Despite significant progress over the past decade, large capital investments are needed to build up high-quality digital infrastructure, including fiber-optic backbone infrastructure, 4G capacity expansion, and telecom towers. To extend connectivity and meet data usage growth as users transition from 2G and 3G to 4G, Bangladesh will also need a combination of efficient spectrum management, a deployment of small cells for improved indoor connectivity, a deployment of additional towers, and both passive and active infrastructure sharing. To facilitate these developments, the government needs to reduce regulatory risks for the private sector by eliminating discretion and undue influence in the issuance of licenses, the imposition of fees, and the introduction of ad hoc rules. It will be particularly important to establish a constructive dialogue between public and private sector stakeholders to ensure that there is a common understanding between policy makers and market participants, and that the effect of the policy changes on the industry is adequately accessed and communicated.

Unleashing Private Sector Growth for Development: Policy Recommendations

Bangladesh urgently needs to engage in a new round of reforms to strengthen and modernize the private sector in order to reach its full potential for broad-based investment and service delivery. Bangladesh is at a critical inflection point in its development path. Despite its success to date, the current growth model is reaching its limits, accelerated by the COVID-19 crisis. Recent successful experiences in developing countries show that moving to the upper-middle-income stage requires an absolute commitment to delivering the export-led growth path through an economic policy environment that supports a competitive, diversified, and outward-oriented private sector.

Within the comprehensive program of reforms that are needed, three priority areas stand out. Table ES.1 provides an overview of the three key reform areas based on the analysis presented in the CPSD. For each, the table highlights a set of high-priority reforms, distinguishing between short-term actions ("low-hanging fruit") and more difficult but ultimately critical structural reforms ("game changers"). Appendix A of the report contains the full set of reform recommendations. Removing the main constraints to the private sector will not be possible without addressing the "game changers." The high-priority recommendations include (a) creating a level playing field for business, with a focus on facilitating exports and investment; (b) restructuring and modernizing the financial sector; and (c) removing infrastructure constraints through regulatory reform and private participation. It is important to note that this CPSD focuses on a

set of selected, high-priority constraints. Even beyond the full set of reforms covered in Appendix A, additional reforms in education, water, housing, business services, and other areas are needed to support specific sectors or the private sector more broadly.

A significant, comprehensive strengthening of governance will be the prerequisite to delivering these reforms. Moving to the next stage of development requires changing the way the government approaches its role relative to the private sector. This role needs to shift away from present relationship-based approaches that rely on discretion and that perpetuate gaps between insiders and outsiders toward a system-based facilitating and regulating role supported by transparent, predictable, modern institutions and an efficient, capable bureaucracy. Again, the experience of successful East Asian economies shows the path forward for Bangladesh in committing to a comprehensive reform program underpinned by improved governance and institutional modernization.

TABLE ES.1 KEY PRIORITY CONSTRAINTS AND POLICY REFORM RECOMMENDATIONS FROM THE CPSD

Policy Interventions		covid-19 Response		
"Game changers"	**"Low-hanging fruit"**	**(1)**	**(2)**	**(3)**
Reform Priority I: Create a level playing field for businesses and focus on facilitating exports and investment				
• Introduce a new ***Companies Act*** to modernize the processes of starting and running a business. • Overhaul the ***1947 Foreign Exchange Act*** to ease access to foreign capital for trade and investment. • Implement ***tariff rationalization*** for inputs in key export sectors, focusing on the ***removal of supplementary duties.*** • Fully implement the ***Customs Modernization Strategic Action Plan 2019–22.***	• Fully operationalize the ***One-Stop Service*** created by the Bangladesh Investment Development Agency. • Amend ***external commercial borrowing guidelines*** to shift from "blanket" to risk-based approval and introduce market-based ceiling by including the LIBOR. • Streamline processes and expand the ***bonded warehouse regime*** for non-RMG sectors. • Make the ***National Trade and Transport Facilitation Committee*** effective and operational. • Strengthen domestic ***testing and certification*** capacity.	✓	✓	✓
Reform Priority II: Restructure and modernize the financial sector				
• Establish an ***independent banking commission*** to review stability issues (NPLs, capital adequacy, liquidity, interest rate ceilings on bank credit) and adopt a ***reform road map*** in line with international standards. • Comprehensively address NPLs by introducing full ***asset quality review; NPL resolution and insolvency frameworks; a well-governed asset management company; and corporate governance standards.*** • Strengthen ***Bangladesh Securities and Exchange Commission (BSEC) capacity and oversight,*** including by introducing streamlined ***guidelines for corporate bond issuance and increased disclosure requirements for listed companies.***	• Amend the ***Money Loan Courts Ac***t to minimize lengthy stay orders and allow ***out-of-court workouts***. • Adopt the ***Secured Transaction Bil***l and establish a ***movable collateral registry.*** • Introduce ***regulatory frameworks for Fintech*** and guidelines for ***interoperability*** between mobile financial services, agent banking, and banks. • Revise ***private equity and venture capital rules and introduce a regulation for private provident funds***.		✓	✓

Policy Interventions		covid-19 Response		
"Game changers"	**"Low-hanging fruit"**	**(1)**	**(2)**	**(3)**
Reform Priority III: Remove infrastructure impediments through regulatory reform and private participation				
Transport • Develop and implement an ***integrated multimodal transport and logistics master plan.*** • ***Separate port oversight and operation*** and open port development to ***private participation*** and FDI. • Relax ***restrictions on foreign ownership in logistics.***	• Increase ***demurrage fees*** and allow more products for ***clearance in off-docks*** to decongest Chittagong port. • Establish and enforce ***performance criteria*** for port and logistics service providers.		✓	✓
Energy • Adopt a ***power sector master plan*** based on sound demand projections, least-cost power supply, and a special focus on imports. • Maintain active dialogue with neighbor countries on ***cross-border energy trade*** to further ***align regulations*** and mobilize required ***investment from various sources in cross-border transmission***. • Prepare to move to a ***cost-reflective tariff structure and gradually corporatize public utilities.***	• Develop and enact a ***private sector power transmission policy*** and implement a ***pilot PPP*** in the transmission and distribution sector. • Prepare an ***exit strategy from emergency power.*** • Ensure ***competitive procurement of all sources of power generation.***		✓ ✓	✓ ✓
Digital Infrastructure • Ensure the de facto ***independence of the Bangladesh Telecommunication Regulatory Commission*** by eliminating discretionary directives. • Introduce a ***formal platform for public-private dialogu***e to improve communication between the policy makers and market participants.	• Revisit the ***spectrum allocation framework.*** • Ensure that ***regulations for infrastructure sharing support market mechanisms,*** including free choice of providers, equal access to existing infrastructure, and operators' right-of-way to build their own towers and lay cables.	✓	✓	✓
Industrial Land • Adopt the ***National Master Plan for the economic zones program*** with phased land development. • ***Develop the market for climate-resilient infrastructure*** through PPPs in economic zones.				

Note: FDI = foreign direct investment; fintech = financial technology; LIBOR = London interbank offered rate; NPLs = nonperforming loans; PPPs = public-private partnerships; RMG = ready-made garments.
Key to COVID-19 response: (1) Minimizing destruction; (2) Restructuring and recovery; (3) Creating markets.

PART 1: OVERVIEW

01. CONTEXT: BANGLADESH AT AN INFLECTION POINT

Main message: *Bangladesh is at an inflection point in its development path as it graduates from least-developed country (LDC) status and turns toward its goal of becoming an upper-middle-income country. If Bangladesh can maintain its trajectory and make the best use of its demographic advantages, it will meet its ambitious objectives and go down as one of the world's biggest development success stories. This next stage of development brings qualitatively new challenges, though, and overcoming them will require significantly increased investments to close development gaps and sustain growth momentum. The objective will be even more challenging to achieve in an increasingly difficult global environment in which, among other things, the COVID-19 crisis is likely to have long-lasting effects.*

1.1. BANGLADESH'S DEVELOPMENT PROGRESS AND ITS EVEN BIGGER AMBITIONS FOR THE FUTURE

Sustained growth and exceptional progress in human development have made Bangladesh one of the development success stories of recent decades. Despite the extreme poverty and vulnerability to natural disasters that existed when Bangladesh achieved its independence in 1971, the country stands on the verge of graduating from the United Nation's LDC list in 2026. Since 1990, real gross domestic product (GDP) has grown five-fold, more than 2.5 times faster than the global average. Annual GDP growth has accelerated in every decade since independence, reaching over 8 percent in 2019 (figure 1.1), and it was on track to maintain this momentum until the COVID-19 pandemic struck. The rate of extreme poverty (based on the international US$1.90 per capita per day poverty line) fell from 43.5 percent in 1991 to 14.3 percent in 2016 (figure 1.2). Bangladesh's progress in social development has been extraordinary: child mortality has fallen by nearly 90 percent since 1990; life expectancy has increased from 58 to 72 years; educational outcomes have also improved markedly, especially for females; secondary school enrollment for girls has increased from just 14 percent in 1990 (half the rate for boys) to nearly 80 percent today (17 percent above the rate for boys).[2]

2 World Bank World Development Indicators database

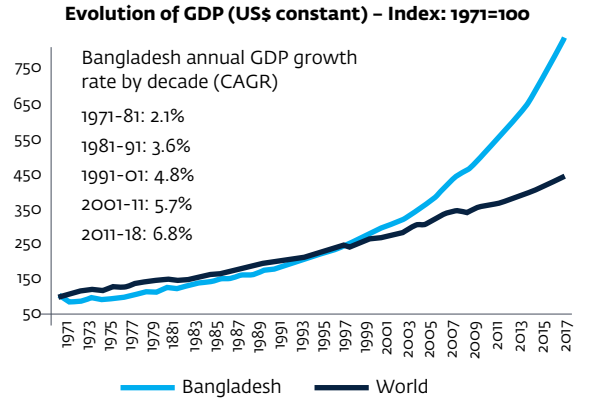
Economic transformation and the creation of good jobs through global trade integration have stood at the heart of Bangladesh's growth and poverty reduction story. Bangladesh's agricultural sector achieved large increases in productivity during the 1990s as a result of policy reforms, along with expanded irrigation, the introduction of new seed varieties, mechanization, and improved access to markets. These improvements allowed millions of agricultural workers to move into manufacturing and services in the cities,[3] which in turn helped sustain agricultural productivity growth through increased demand and higher prices. Manufacturers, most notably ready-made garments (RMG) exporters, tapped into this growing urban labor force. Jobs in RMG expanded from just a few hundred thousand in the late 1990s to more than 4 million today, providing regular wage earnings and bringing millions of women into the labor force (figure 1.3). The "pull effect" of RMG jobs also created substantial additional employment opportunities in construction, transport, retail, and other sectors.

Bangladesh also benefited from international migration. Bangladesh leveraged its comparative advantage in low-cost labor not just through trade in manufactured goods but also through temporary migration. Over the past two decades, each year around half a million Bangladeshis have migrated abroad for work, equivalent to one in every four Bangladeshis of working age, and remittances have grown by 14 percent annually. Consumption and investment from these remittances—which have averaged over 8 percent of GDP during the past decade (12 times the global average)—have played an important role in increasing domestic demand in both urban and rural areas.

Economic growth and job creation were made possible by first-order reforms, opportune policy support, and prudent macroeconomic management, which triggered a dynamic private sector response. The government of Bangladesh initiated significant macroeconomic and monetary policy reforms during the 1980s, followed in the 1990s by trade liberalization, all of which paved the way for Bangladesh's global integration. The combination of exports and migrant remittances allowed the government to accumulate substantial international reserves that could serve as a buffer against external shocks and help alleviate the risk of volatile capital flows. By keeping inflation in check and maintaining exchange rate stability, the government and the Bangladesh Bank established an environment conducive for investment, while fiscal prudence helped avoid the crowding-out of bank lending to the private sector. At the same time, the government provided active support to the development of the emerging RMG sector through such innovations as bonded warehouses and back-to-back letters of credit to overcome financing constraints. The supply response of the private sector to these early reforms underscores its vibrancy. Not only did major exporters emerge in RMG, but the broad private sector investment also expanded rapidly to become the central driver of economic growth. After 1995, private sector fixed investment grew by 12 percent a year in real terms and averaged 20 percent of GDP, compared with just 11 percent over the 15 years before 1995 (figure 1.4).

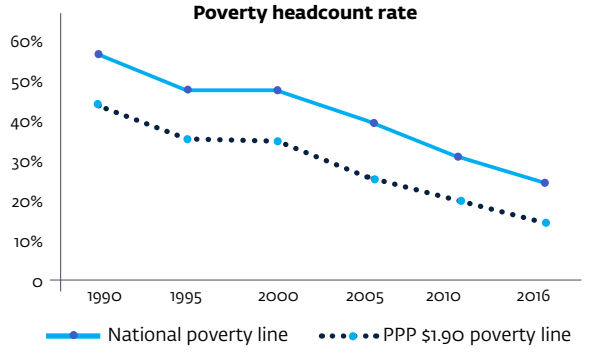
3 The urban share of Bangladesh's population has almost doubled since the 1990s

FIGURE 1.1 GDP GROWTH HAS ACCELERATED OVER TIME



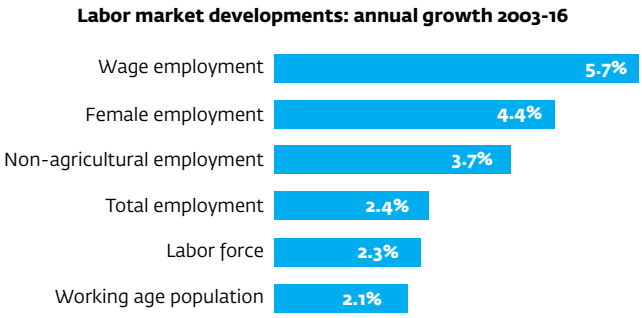
Source: World Development Indicators.
Note: CAGR = compound annual growth rate; GDP = gross domestic product.

FIGURE 1.2 POVERTY HAS DROPPED OVER THE PAST TWO DECADES



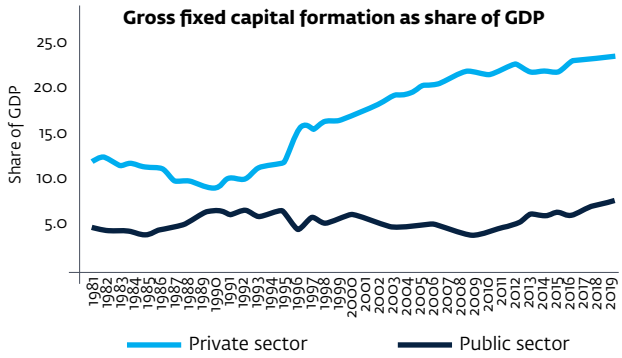
Source: World Development Indicators based on Bangladesh Bureau of Statistics data and World Bank staff calculations.

FIGURE 1.3 BANGLADESH CREATED GOOD JOBS ON A LARGE SCALE



Source: Farole and others 2017.

FIGURE 1.4 THE PRIVATE SECTOR HAS INCREASINGLY LED INVESTMENT



Source: World Development Indicators.
Note: GDP = gross domestic product.

Major gains in human development were also the result of complementary actions between the government and a dynamic nongovernment sector. Despite the government's low level of spending on social sectors, it has actively targeted social development, particularly in rural areas, and been quick to pilot innovative solutions, such as oral rehydration treatments, vaccinations, cash-for-work programs, and human capital–linked conditional cash transfers. Critically, the government actively supported the role of nongovernmental organizations (NGOs) to deliver critical social services, to scale up pilot programs, and to create new markets such as microfinance programs for women.

Before the onset of the COVID-19 crisis, Bangladesh set ambitious targets for development that mark an acceleration of past performance. The government recently finalized its long-term development plan—*The Perspective Plan 2021–41*—and the eighth Five-Year Plan (2021–26). These set out the government's objective to reach upper-middle-income status by 2031, along with full employment and the elimination of

extreme poverty. Achieving these targets would place Bangladesh among the ranks of only China and the Republic of Korea in terms of the scale and pace of developmental success. The government recognizes that this will require not just maintaining but accelerating GDP growth to 9 percent per annum by 2031, while also ensuring that growth generates larger numbers of better-quality jobs that are accessible to all Bangladeshis.

1.2. SIGNIFICANT DEVELOPMENT GAPS AND LARGE INVESTMENT NEEDS REMAIN, WHILE NEW RISKS EMERGE

Meeting Bangladesh's development objectives requires a growth model that takes full advantage of the demographic dividend. As a small country with no appreciable oil or mineral wealth, Bangladesh has limited sources of comparative advantage. What it does have is people—170 million of them—and the population is young. Nearly 2.5 million Bangladeshis will reach working age each year for the next 15 years. To date, growth has been driven by the sheer volume of workers entering the labor force, along with steady capital accumulation (box 1.1). To reap the demographic dividend, however, Bangladesh will need to raise human capital and deliver faster productivity growth. It will also require an economic environment that continues to generate good jobs that can absorb these workers and sustain increased earnings.

At the same time, Bangladesh must still address its high levels of poverty and vulnerability, a challenge aggravated by a slowdown in job creation that began before the COVID-19 crisis. Around 40 million Bangladeshis still live below the national poverty line, and another 80 million (half the population) remain vulnerable to falling into poverty (Hill and Genoni 2019) (figure 1.1). Despite recent progress, more than 90 percent of jobs are still informal and characterized by unpaid work, underemployment, and poor working conditions. Moreover, despite faster economic growth, the pace of poverty reduction has slowed down. This has coincided with a major slowdown in job creation, particularly in the RMG sector, in which employment growth halted in 2013. Women and youth—precisely the groups needed to realize the demographic dividend and stimulate the country's move toward the next stage of development—have borne the brunt of weakening labor market conditions. After a decade of steady growth, female labor force participation has stagnated at just 35 percent, and nearly 30 percent of the youth are not in employment, education, or training (NEET).

Human development gaps remain significant. Although enrollments continue to rise, the quality of educational outcomes are increasingly binding. Moreover, around 80 million Bangladeshis lack sufficient access to health care. Public investment in social services falls far short of what will be needed, with public spending on health and education combined constituting less than 2.5 percent of GDP in Bangladesh—among the lowest in the world—compared with around 10 percent in upper-middle-income countries (UMICs).

Transitioning to upper-middle-income levels will require large investments in infrastructure and service delivery. Access to electricity has doubled since 2000, but Bangladesh still trails significantly behind its peers. Only half of the population has access to basic sanitation, compared with over 90 percent in UMICs. Rapid and haphazard urbanization is creating new challenges and is increasing social infrastructure gaps and congestion, which reduces productivity and the quality of life. Dhaka is ranked the second-worst city to live in globally,[4] and recent studies estimate that

4 EIU City Livability Index.

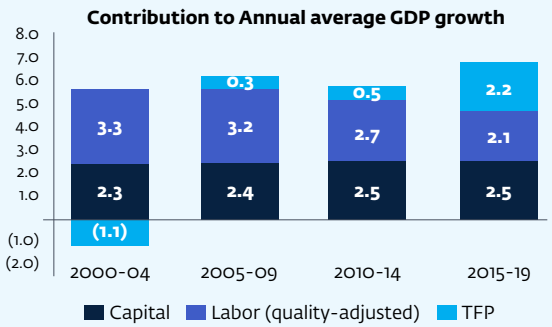
BOX 1.1 DRIVERS OF GROWTH: PAST TRENDS AND FUTURE PRIORITIES

Bangladesh's growth over recent decades (figure B.1.1.1) has been driven significantly by an expanding labor force that has resulted from a demographic transition, improving educational levels, and increasing female labor force participation. Investment levels have risen steadily over the past two decades, with capital accumulation consistently contributing between 2.3 and 2.5 percentage points in growth. The contribution of total factor productivity, though, has been almost nonexistent over most of this period, meaning that Bangladesh did not manage to fully exploit the growth potential of its demographic dividend. Since 2015, productivity appears to be making a much more robust contribution to growth.

On the demand side, growth has been driven strongly by private consumption, which has accounted for 90 percent or more of total consumption in most years, along with steady growth in investment, two-thirds of which comes from the private sector (figure B1.1.2). Although exports have been an important contributor to growth, and more importantly, to foreign exchange, they have played a much smaller role than domestic consumption and investment in most years. Moreover, because of continued growth in imports, net trade has been an overall drag on growth over the past decade, although the situation varies year to year.

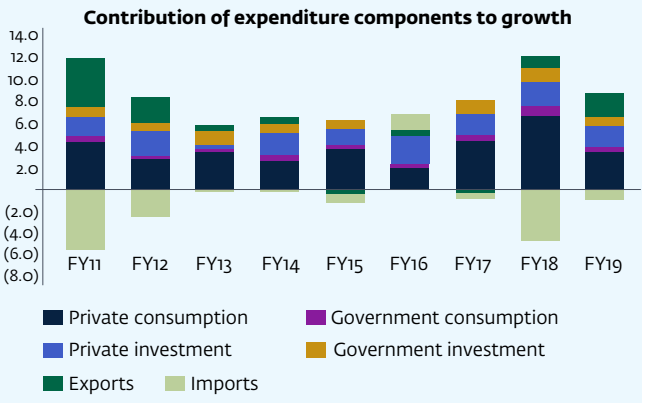
In the future, reenergizing the pre–COVID-19 economic growth trajectory will require both accelerating productivity growth and raising investment toward 35 percent of GDP. In the context of a very low revenue-to-GDP ratio, rising debt, and substantially increased demand for short-term spending in response to the COVID-19 crisis, it is unlikely that the government will be able to significantly increase its contribution toward investment, which is already at an historical high of around 8 percent of GDP. Most of the investment gap, then—approximately US$10 billion a year—will need to come from the private sector after removing barriers to private investment and developing the domestic capital market. Moreover, although domestic saving has increased by about 10 percent over the past decade, it remains well short of what is needed to deliver on this level of investment, highlighting the importance of FDI. From the demand side, exports will be a key lever to sustain faster growth and, in turn, fuel domestic demand.

FIGURE B1.1.1 CONTRIBUTIONS OF PRODUCTIVITY TO ANNUAL AVERAGE GDP GROWTH, 2000–19



Source: World Bank staff calculations based on 40/60 capital-to-labor ratio.
Note: TFP = total factor productivity.

FIGURE B1.1.2 CONTRIBUTIONS OF EXPENDITURE COMPONENTS TO GROWTH, 2011–19



Source: Bangladesh Development Update, various years.
Note: FY = fiscal year.

traffic congestion costs the economy up to 7 percent of GDP (BRAC 2016). By 2050, the population of Greater Dhaka is expected to double again to 40 million and this, together with the difficulties brought by the COVID-19 pandemic, is creating tremendous pressure on the government to improve the infrastructure and management of Bangladesh's cities. Additionally, whereas government allocation for public infrastructure has more than tripled over the past decade, the government estimates that public financing can support only around US$400 billion of needed investment through 2040, leaving a gap of around US$8 billion a year.[5] Private investment will need to play a significant role in closing this gap. Indeed, the role of the private sector in closing the financing gap for infrastructure is likely to be even more critical as government spending on social services, notably on health care and social safety nets, is likely to rise sharply as a result of the COVID-19 crisis.

FIGURE 1.1 A SUMMARY OF KEY DEVELOPMENT GAPS

Sources: Farole and others 2017; Hill and Genoni 2019; World Bank Human Capital Index; World Development Indicators.

Note: GDP = gross domestic product; RMG = ready-made garments; WB = World Bank.

5 Based on analysis from the Global Information Hub's G-20 Global Infrastructure Outlook.

COVID-19 threatens to disrupt Bangladesh's growth momentum and reshape spending priorities. Although Bangladesh has managed the pandemic relatively well, the economic fallout has been notable. On a positive note, the country benefited from the resilient inflow of remittances. A shift in flows from informal to formal channels facilitated by tax incentives was an important driver for the steady inflow of formally reported remittances. On the export side, according to the Bangladesh Garment Manufacturers and Exporters Association (BGMEA), more than US$3 billion of RMG export orders were cancelled in March 2020, and new orders in June 2020 were down 45 percent from the previous year. The leather sector showed similar declines, with export revenues in April down almost 80 percent from the previous year.[6] Total exports declined by 65 percent in nominal terms in April–May 2020 compared to the same period of 2019. While by December 2020, exports had almost recovered to the pre-COVID-19 level, there are reasons to believe the COVID-19 crisis will hasten longer-term structural changes in the manufacturing sector (box 1.2). The World Bank projects that after moderating to an estimated 2.4 percent in fiscal year (FY) 2020, GDP growth will accelerate to a range between 2.6 and 5.6 percent in FY21 and to around 5-6 percent in FY22–FY23, notably below 8 percent per year in FY18 and FY19.[7] The pace of recovery is highly uncertain and depends on the severity of the second wave of the pandemic that unfolded in April 2021, the country's vaccination campaign, and the strength of the global economy. Facing enormous pressure to address the public health crisis and mitigate the effects on the poor and vulnerable, the government's initial COVID-19 economic response program will end up costing an estimated US$11.6 billion, equivalent to 3.7 percent of FY20 GDP.[8] Deficits and government debt are projected to widen from low bases, and the government will almost certainly be forced to shift its spending priorities, potentially facilitating a much-needed increase in public investment in human capital, including in health and education as well as social safety nets. At the same time, it will further aggravate the already large infrastructure investment gap (box 1.1).

Beyond COVID-19, climate change looms as a fundamental risk to Bangladesh's development trajectory, requiring large investments in mitigation and adaptation. The 2019 Global Climate Risk Index ranks Bangladesh as the world's ninth-most affected country. Rising sea levels are expected to accelerate the erosion and salinization of land in coastal areas, reducing land surface by 17 percent[9] and creating as many as 13.3 million internal climate migrants by 2050 (Rigaud and others 2018). Such massive rural-urban migration will aggravate existing air and water pollution and the unsustainable consumption of natural resources, while putting huge pressure on urban labor markets, infrastructure, and social services. The government's Delta Plan 2100 sets out a long-term plan for sustainable development in the Ganges-Brahmaputra-Meghna Delta. The plan calls for investments of US$38 billion through 2030, with at least 20 percent coming from the private sector. Along with planning for adaptation, Bangladesh's public and private sectors must also take urgent steps to mitigate environmental degradation that results from current growth patterns such as increased air pollution, industrial and residential waste, and inefficient agricultural practices.

6 Data from Leather Goods and Footwear Manufacturers and Exporters Association of Bangladesh.
7 The real GDP growth estimate for FY20 and projections for FY21–FY23 are based on the World Bank Spring Economic Focus (March 2021).
8 Direct fiscal cost is estimated by the WB at 1 percent of GDP
9 Data from United Nations Intergovernmental Panel on Climate Change.

1.3. GROWING MACROECONOMIC, FISCAL, AND FINANCING CHALLENGES

Bangladesh's approach to macroeconomic management has been effective, but it will need to adjust for the challenges ahead. In an environment where delivering strong economic growth while maintaining macroeconomic stability has been paramount, the use of top-down measures like foreign exchange restrictions and rate caps has proved effective in meeting stability objectives. As Bangladesh's growth drivers change in the next stage of development, though (box 1.1), so too may its policy approach. Increasing investment to the level of the government's target of 35 percent of GDP—an additional US$10 billion or more each year—will require a macroeconomic environment and a financial sector that can support greatly expanded private investment, including through increased bank lending to the domestic private sector, development of local capital markets, and increasing international financial flows (box 1.1). This effort will require that authorities are able to manage balances through measures less restrictive to financial and trade flows such as shifting from the micromanagement of individual foreign exchange transactions to a macromanagement of overall foreign exchange flows.

There are signs of deterioration of economic management at precisely the time when Bangladesh must raise its effectiveness. The current account has been in deficit in two of the past three years, making a large deficit likely in FY20. Although foreign exchange reserves remain adequate (equivalent to six months of goods and nonfactor services imports in FY19), Bangladesh Bank (BB) regularly intervenes to prevent the taka from depreciating,[10] even though real effective exchange rate has been appreciating. To offset the resulting erosion of price competitiveness, the government regularly provides cash subsidies to exporters. This negatively impacts government finances already challenged by one of the world's lowest levels of tax collection and undermines incentives for the private sector to raise competitiveness.

The COVID-19 crisis will make macroeconomic, fiscal, and debt management more challenging. Like most economies, Bangladesh is facing a notable growth slowdown that has significant macroeconomic and fiscal implications. Lower revenues and higher spending on the COVID-19 response will increase budget pressures in the coming years. Bangladesh's low level of public debt (33.7 percent of GDP at the end of FY19) provides fiscal space for countercyclical measures, but the management of public debt will require increasing attention and sophistication.

Deteriorating management of the financial sector represents the most significant threat to increasing investment. The financial sector includes many high-performing domestic and foreign private banks, but recent developments have given cause for concern. Despite the rapidly expanding economy prior to the COVID-19 pandemic, private sector credit growth has slowed, dipping below 10 percent per annum in early 2020, the lowest level in a decade. Credit provision to small and medium enterprises (SMEs) has been particularly limited—one reason being that the government continues to finance its deficits and investments through short-term instruments that are lucrative for domestic banks, crowding out access for the private sector. A second reason is the increasing problem of nonperforming loans (NPLs), which averaged nearly 12 percent in 2019,[11]

10 BB sold more than US$2.3 billion in foreign exchange in FY19 (Haver database).

11 In the latest quarter (October–December 2019), NPLs declined to 9.3 percent from 12 percent in the previous quarter, but much of this decline comes from loan rescheduling as a result of a more accommodating policy adopted by Bangladesh Bank.

and above 20 percent in state-owned banks. In the past year, BB has responded to the NPL problem by introducing numerous concessions in loan classification rules, rescheduling, and write-off policies, which mask underlying problems and further undermine governance in the sector. A third reason for the decrease in domestic credit may be BB's response to the private sector's call for more plentiful, cheaper credit. Rather than removing restrictions on foreign borrowing, for example, the BB has instead placed caps on interest rates ("single-digit rate"). The COVID-19 crisis risks—exacerbating banking sector weaknesses due to expanded regulatory forbearance measures and a large increase in subsidized lending—may contribute to lower profitability and weaker asset quality.

BOX 1.2 OPENNESS, DIVERSIFICATION, AND COMPETITIVENESS IN THE FACE OF AN INCREASINGLY CHALLENGING EXTERNAL CONTEXT

As Bangladesh graduates from least-developed country (LDC) status, its critical export sector faces an increasingly challenging external environment. Graduation from LDC status will mean that Bangladesh's exporters—particularly in ready-made garments (RMG) but also in other key sectors like leather, footwear, and pharmaceuticals—will no longer have access to duty-free regimes and simplified rules of origin in key global markets by 2027. Simulations suggest that the loss of preferences in key markets could lead to an annual reduction in exports by as much as 11 percent, or around US$6 billion (Government of Bangladesh 2018). Meanwhile, changing technology and the emergence of "Industry 4.0" will increasingly erode the benefits of low-wage labor. These factors will fundamentally challenge Bangladesh's position in global markets, which has been reliant on low-wage-driven price competitiveness for decades.

The response to the COVID-19 crisis of trade, and particularly of global value chains, may also create challenges for Bangladesh. Even when "normal" trade resumes, investors may seek to restructure supply chains to reduce supply-chain risks and strengthen resilience. This change may mean that "reshoring" or "near-shoring" of tasks, a trend that was emerging before COVID-19, may accelerate rapidly as firms seek to optimize resilience in supply chains instead of just optimizing costs. Similarly, the response to COVID-19 is also likely to accelerate the pace of technology adoption, shifting to much less labor-intensive models of production.

These developments carry significant risks but also present opportunities for Bangladesh's private sector. Global buyers may seek to diversify away from China. The rebalancing toward resilient supply chains may help promote Bangladesh's shift toward quality over cost-based competition. Digital technologies will help sectors like agriculture and RMG to move to higher-value-added segments. Digital development will also open opportunities particularly suited to Bangladesh's increasingly educated youth and so may help close emerging labor market gaps between youth and adults. Bangladesh has become the second-largest supplier of online labor in the world (behind India), with 650,000 registered freelancers (Oxford Internet Institute). Similarly, climate change adaptation will create new categories of industries and jobs.

1.4. EXPANSION OF THE PRIVATE SECTOR'S CONTRIBUTION TO DEVELOPMENT: THE ROLE OF THE COUNTRY PRIVATE SECTOR DIAGNOSTIC

An open, diversified, and competitive private sector that drives export-led growth—and that is enabled by transparent and modern government institutions—will need to constitute the heart of Bangladesh's development approach in the coming years. This chapter sets out a context whereby Bangladesh's acknowledged successes of the past are no longer guaranteed, given the challenges of the future. The COVID-19 crisis only makes the situation more acute. Tackling these challenges will require leveraging the country's sources of comparative advantage and incorporating lessons from its past success. Bangladesh has an opportunity to take much greater advantage of its dynamic private sector to support development, but this will require changes to the way that both government and the private sector operate and the ways in which they interact. Most importantly, this will involve the principles of openness, diversification, and competitiveness—themes that will recur throughout this report.

The Country Private Sector Diagnostic (CPSD) assesses opportunities and requirements for expanding the private sector's contribution to sustainable economic growth. The CPSD evaluates cross-cutting and sector-specific challenges to private sector development. It highlights the chief constraints to realizing private sector potential and identifies strategic entry points for diversification and growth. The CPSD will supply insights and data for the IFC Country Strategy and the World Bank Group's new Country Partnership Framework with the government of Bangladesh, paving the way for joint programming to create markets and unlock private sector potential.

The report is organized into two parts. The first part will present the overall CPSD analysis and is structured as follows. Chapter 1 describes the evolving economic context in Bangladesh and the rationale for conducting a diagnostic of the private sector. Chapter 2 describes the current state of the private sector, its opportunities for the future, and the key challenges it will face in the next stage of development. Chapter 3 describes the main constraints on the private sector to expand investment and support development. It focuses on cross-cutting policy issues and enabling sectors and covers business regulation, finance, trade and investment, infrastructure, and human capital. Chapter 4 provides policy recommendations. The second part includes a more detailed analysis of opportunities for private investment in a number of sectors, particularly transport and logistics, energy, the financial sector, health care, RMG and value-added manufacturing, and agribusiness.

02. STATE OF THE PRIVATE SECTOR

Main message: *Bangladesh has a large, entrepreneurial private sector, but it remains highly segmented and concentrated and relies on too few firms, sectors, and markets to drive growth and job creation. Significant opportunities exist for Bangladesh's private sector to expand to new sectors and upgrade itself in existing ones. Taking advantage of the opportunities requires an environment that promotes export orientation, helps foreign and domestic investors establish themselves and operate across a wide range of sectors, and provides incentives for firms to invest in competitiveness rather than to focus on exploiting rents.*

2.1. LARGE, HIGHLY SEGMENTED PRIVATE SECTOR WITH MANY CONGLOMERATES AND A "MISSING MIDDLE"

Structural transformation has resulted in a major expansion of the nonagricultural private sector. Between 2003 and 2013 (the latest year available), the number of registered economic units in Bangladesh more than doubled from 3.7 million to nearly 8 million. Much of this growth came in household enterprises, but permanent nonagricultural enterprises increased to more than 4.5 million (Figure 2.1). Growth of the nonagricultural private sector was particularly strong in rural areas, which accounts for 65 percent of all permanent firms despite an increasing concentration of firms and jobs around Dhaka.[12]

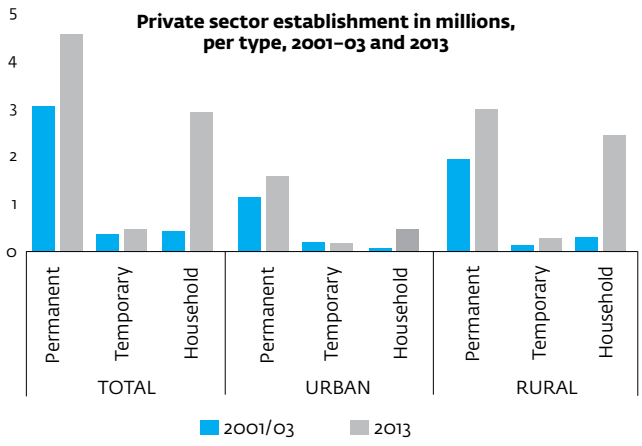
Bangladesh's private sector is segmented between microenterprises and very large enterprises. Ninety-eight percent of all nonagricultural firms in Bangladesh are microenterprises (employing less than 10 workers) or temporary firms (figure 2.2),[13] but the 2 percent of non-microenterprises (around 1,500 firms) account for 35 percent of all nonagricultural jobs. Very large firms (those employing more than 500 workers) account for just 0.04 percent of the enterprises but 15 percent of jobs. In between, there is a "missing middle." Moreover, all the contribution to job creation over the period 2003 to 2013 came from either microenterprises or large ones. All size categories of firms in between were either stagnant or in decline. Data from the recent Survey of Manufacturing Industries (Bangladesh Bureau of Statistics 2019) show that the number of medium enterprises in the manufacturing sector fell by more than 50 percent between 2012 and 2019.

12 Note that large parts of the urban periphery in Dhaka are classified as "rural" by Bangladesh Bureau of Statistics; these include many of the locations where large manufacturing firms are based.

13 According to FAO, another 12 million smallholder families live on farms with an average size of 0.24 hectares

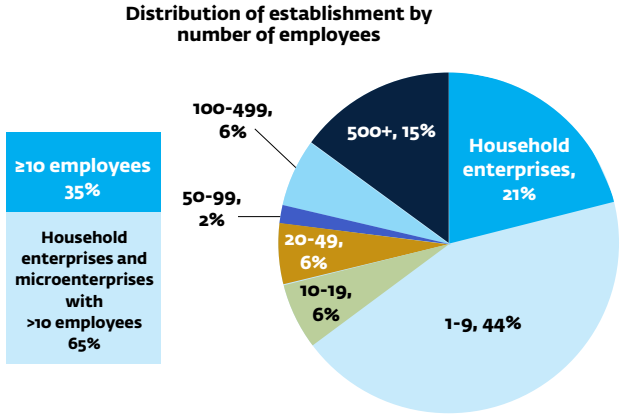
The "missing middle" highlights a growth problem, particularly for young firms. A well-functioning private sector displays a steady flow of new firm entry but also an efficient process of churn, whereby the market allocates capital and labor to the most efficient firms. In Bangladesh, young firms account for a relatively high share of total firms, but this share has declined sharply over time, while the median age of firms has increased (figure 2.3). Even in the manufacturing sector, the average firm in Bangladesh exhibits almost no growth during its life cycle (Farole and others 2017). Moreover, "high-growth" start-ups—midsize firms that are less than five years old and are particularly critical sources of growth and dynamism (Grover, Medvedev, and Olafsen 2019)—account for just 0.7 percent of firms and 4 percent of employment in Bangladesh. In comparison, start-ups in Vietnam account for 17 percent of firms and 12 percent of employment.

FIGURE 2.1 RAPID EXPANSION OF THE BANGLADESHI PRIVATE SECTOR



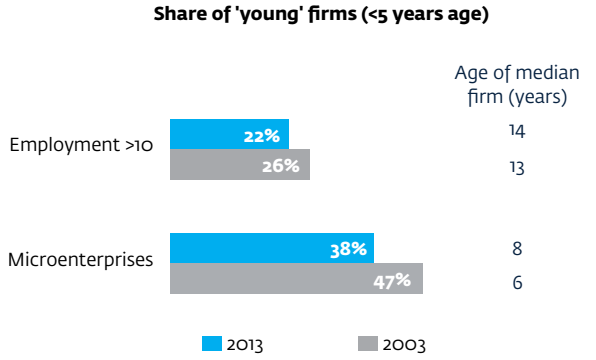
Source: Bangladesh Bureau of Statistics, Economic Census 2013.

FIGURE 2.2 MICROENTERPRISES DOMINATE IN NUMBER; LARGE FIRMS DOMINATE EMPLOYMENT



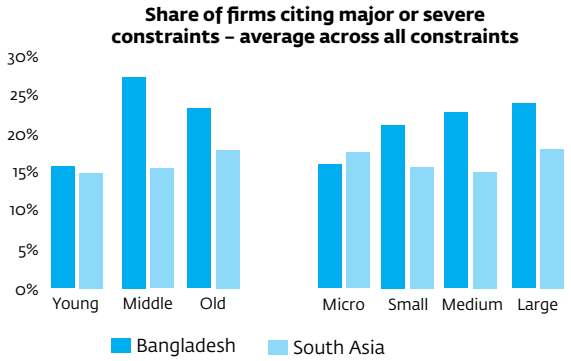
Source: Economic Census 2013 and various country-specific sources in Farole and others 2017.

FIGURE 2.3 DECLINE OF NEW FIRMS IN BANGLADESH, 2003–13



Source: Farole and others 2017.

FIGURE 2.4 PERCEIVED BUSINESS ENVIRONMENT CONSTRAINTS, BY FIRM AGE AND SIZE



Source: Farole and others 2017.

Small and especially mid-sized firms face greater barriers to growth. Data from World Bank Enterprise Surveys show that not only do firms in Bangladesh perceive greater constraints compared with peers in South Asia, but also the gap increases significantly as firms get larger and move from being new to older, and then it declines again for the largest and oldest firms (figure 2.4). The government has put in place various strategies and policies to support SMEs—for example, through its industrial policy (2016) and SME policy (2019). Institutional capacity and resources, however, are inadequate, and little support is available to SMEs beyond limited programs providing credit lines through commercial banks, which often go undisbursed and may be ineffective in the presence of other constraints. Moreover, SME initiatives tend to be focused on supporting firm entry and less on targeted support for small and mid-sized enterprises with high growth potential.

Bangladesh's large conglomerates are diversified, but ineffective governance is a growing concern. Conglomerates started to emerge in the early 1980s, mostly as former traders became manufacturers. Today, Bangladesh has more than 100 large conglomerates, with at least 15 valued above US$1 billion. They have driven Bangladesh's industrial development in the past and have the potential to lead the shift of the country's private sector toward greater openness, export diversification, and competitiveness. Most, though, are still run as family-owned businesses by first- and second-generation entrepreneurs. Although the persistence of family-owned conglomerates is a common feature throughout the region, Bangladeshi conglomerates are much less likely to be publicly listed (less than 10 percent). This circumstance may constrain growth prospects and contributes to shortcomings in corporate governance. Several of the largest conglomerates have established banks within their groups or have cross-financed between companies of their conglomerates. Restrictions to related party transactions do exist on paper, but few barriers to self-dealing actually exist in practice. Moreover, there is an increasing codependency between politics and business. Reportedly, "61 percent of members of Parliament are businessmen."[14] In addition, prominent political actors currently sit on the boards of many companies.

State-owned enterprises are playing a declining role in the economy, but they remain significant in key enabling sectors. Bangladesh formerly had a sprawling network of SOEs that touched all parts of the economy. These have diminished over time, the value of SOE assets having fallen from 10 percent of GDP two decades ago to below 2 percent of GDP today. Although only 17 SOEs remain (only six of them in industry), they are active in sugar, paper, textile, and jute production, as well as motor vehicle assembly, tourism, and media. The SOEs also remain involved in key infrastructure sectors (shipping, ports, inland waterways, telecommunications, energy) and in banking. Governance and the financial management of infrastructure and banking SOEs have had significant fiscal and service delivery implications. Moreover, weak competition in these sectors raises prices and hinders the productivity of the private sector.

The COVID-19 crisis is hitting all parts of the private sector, but small and mid-sized firms are most adversely affected. The collapse in export demand and mobility restrictions resulting from COVID-19 shut thousands of factories across Bangladesh. RMG factories were allowed to reopen in early May 2020, but conditions still remain highly tenuous. The virus is also affecting other manufacturing sectors and agriculture, as well as transport, hotels and restaurants, retail and wholesale trade, and domestic

14 Shushasoner Jonno Nagorik (Shujan); see https://www.thedailystar.net/tags/shushashoner-jonno-nagorik-shujan

tourism. Although the impacts of the crisis are widespread, mid-sized and growth-oriented small firms are likely to be harmed more than large firms because they lack liquidity to survive a long downturn and restart operations, whereas microenterprises are more likely to receive support through household-targeted safety net programs. The government has made subsidized lending programs available to most parts of the private sector through the COVID-19 stimulus package. The programs include trade finance support for exporters; working capital loan programs for agriculture and microenterprises, as well as medium and large manufacturing and services firms; and working capital to cover worker salaries in the RMG sector. Questions remain, though, regarding to which extent firms have been able to access these loans.

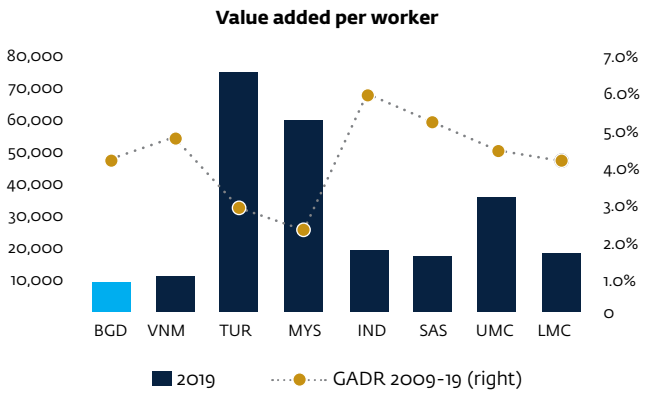
2.2. SUBSTANTIAL PRODUCTIVITY GAPS ACROSS THE PRIVATE SECTOR

Economywide productivity is low and growing slowly. Delivering accelerated growth and earnings for workers depends on expanding productivity, particularly as the demographic dividend diminishes over the next 20 years[15] and investment levels converge on their targets. Empirical evidence (IMF 2013) shows that sustainable growth spurts in low-income countries (LICs) over the past two decades have been associated not only with strong investment but also with a faster pace of productivity-enhancing reforms and strong export growth. In Bangladesh, although the value added per worker has increased over the past two decades, it remains low by international standards. Overall labor productivity, for example, is only 80 percent of the level in Vietnam, half the level in India, and one-quarter the UMIC average (figure 2.5). Moreover, growth rates over the past decade have actually been trailing those of Bangladesh's peers.

Productivity performance has been particularly weak in agriculture and manufacturing. Increasing agricultural productivity is critical to supporting the growth of the rural economy and maintaining the pace of structural transformation in the economy. Agricultural productivity is indeed growing, but it is not converging with the rest of the economy and remains at just one-fourth of productivity in other sectors. A number of factors appear to be limiting agricultural productivity growth, including climate change, weak transport and storage systems (leading to high wastage and poor connectivity to markets), and the limited expansion of more diverse, higher-value-added activities. Raising manufacturing productivity is another priority, as global trends in technology reduce Bangladesh's scope for competing purely on the basis of low wages. Productivity growth in manufacturing has consistently trailed all other sectors in the economy (figure 2.6). Evidence indicates a high level of productivity dispersion across firms, with medium-sized firms in particular experiencing low productivity. Along with a wide range of business climate constraints—including regulatory barriers, lack of access to finance, and lack of reliable electricity—congestions costs, particularly in Dhaka, undermine the potential productivity gains from agglomeration.

15 The UN population projections indicate that the share of the working-age population will continue to grow until 2041, but the pace of growth is already slowing.

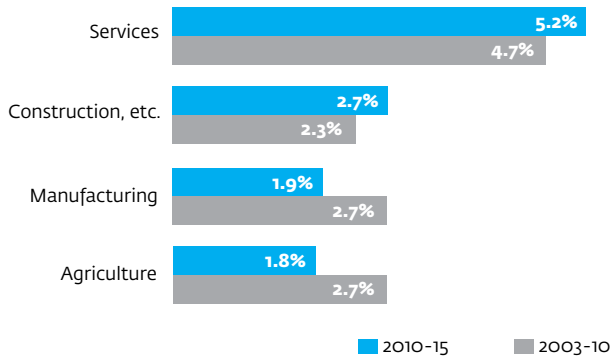
FIGURE 2.5 LABOR PRODUCTIVITY GROWTH, BANGLADESH AND PEERS



Source: World Development Indicators.

Note: CAGR = compound annual growth rate. Countries are BGD = Bangladesh; VNM = Vietnam; TUR = Turkey; MYS = Malaysia; IND = India; UMC = upper-middle-income country; LMC = lower-middle-income country.

FIGURE 2.6 ANNUAL PRODUCTIVITY GROWTH, BY SECTOR, 2003–16



Source: National accounts and Labor Force Surveys in Farole and others 2017.

Note: Productivity gap is calculated in taka per worker.

A weak innovation environment and low levels of technology adoption contribute to poor productivity performance. Even in the RMG sector, only a few large apparel exporters are taking advantage of modern technologies, while the rest are using basic to semiautomatic technologies. Evidence from the World Bank Enterprise Survey (2013) indicates that just 17 percent of firms used technology licensed from foreign companies, and just 17 percent reported spending on research and development (R&D). Notably, these figures are two to three times higher for exporters and foreign direct investment (FDI), underscoring the importance of trade and investment integration for innovation and technology adoption. Firms that do adopt technology show markedly higher levels of productivity (World Bank, forthcoming).

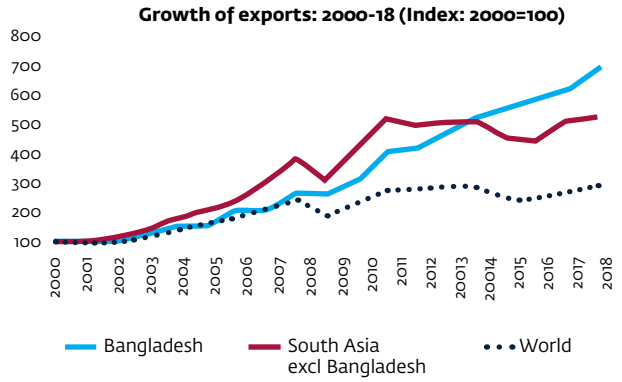
2.3. SUCCESSFUL, BUT OVERLY CONCENTRATED AND UNDERDEVELOPED, EXPORT SECTOR

Exports expanded rapidly over the past two decades. The value of exports grew more than 14 percent annually between 2000 and 2018, contributing to a tripling of the export share of GDP. Since 2008, annual export growth in U.S. dollar terms has been over 10 percent in Bangladesh compared to just 1.6 percent globally and 3.3 percent in the rest of South Asia (figure 2.7), but Bangladesh's export success is really just the story of one sector: RMG.

Exports are highly concentrated across products and markets. Export concentration has risen steadily over the past two decades, with RMG and textiles accounting for almost 91 percent of merchandise exports by 2018 (figure 2.8).[16] Bangladesh's only large non-RMG export products are shellfish (mainly prawns) and leather. Specialization is not unusual for developing countries, but Bangladesh's level of export concentration[17] is approximately five times that of other export-driven economies such as China, Thailand, and Vietnam. Exports are not only concentrated in RMG, they are also concentrated within it. Around 85 percent of textile and clothing exports are destined for the United States and Europe, while more than 40 percent of exports are concentrated in six narrow product lines.[18]

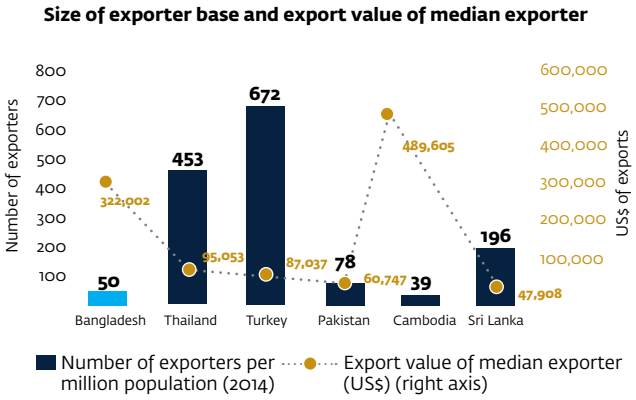
Exports are also concentrated in a small number of enterprises. In 2014, there were fewer than 7,700 exporters in Bangladesh compared with more than 30,000 in Thailand and more than 50,000 in Turkey (Fernandes, Freund, and Pierola 2016). The median exporter shipped more than US$300,000 in exports that year, more than in most peer countries and indicative of a successful but narrow export base. With large gaps in profitability between domestic and export markets and a rapidly growing domestic market,[19] it is not surprising that the private sector outside RMG pays little attention

FIGURE 2.7 EXPANSION OF EXPORTS, BANGLADESH AND OTHERS, 2000–18



Source: World Integrated Trade Solution (WITS) data.

FIGURE 2.8 CONCENTRATION OF EXPORTS, BANGLADESH AND PEERS, 2014



Source: World Bank, Exporter Dynamics database.

16 Data from the World Integrated Trade Solution database, based on data in current US$ on reported imports from all countries, using HS1998 classification.
17 Using the Herfindahl-Hirschmann Index of Concentration
18 Nonknit men's suits, knit T-shirts, knit sweaters, nonknit women's suits, nonknit men's shirts, and knit women's suits (Hausmann and others 2014).
19 One footwear exporter indicated that its profit margin on exports is 3 percent versus 15 percent on domestic sales.

to export markets. But this attitude misses big opportunities. To put it in perspective: global trade in pharmaceuticals is more than 200 times the size of Bangladesh's domestic market and, similarly, trade in plastics and footwear are, respectively, 160 and 125 times the size of the domestic market. If Bangladeshi exporters could capture even 1 percent of these markets, the profits that could be earned would be much higher than what is available at home, even with lower margins.

The temporary collapse of exports during the COVID-19 crisis highlights the drawbacks to overconcentration in Bangladesh. Although the shock from COVID-19 is broad, it appears to have hit RMG earlier and more deeply than many other sectors. Reports from industry associations indicate that RMG exports plunged by 85 percent in April 2020 compared to the same period in 2019. This loss has affected current accounts but, more importantly, given the outsized importance of the sector, it has also affected jobs, livelihoods, and even social stability. Beyond shocks like COVID-19, even well-anticipated factors like Bangladesh's graduation from LDC status have larger negative consequences because of the concentration in narrow, price-competitive product markets.

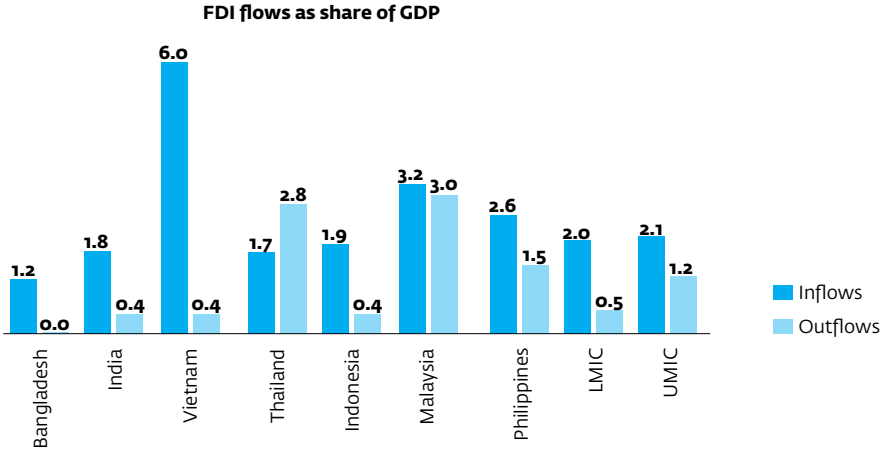
2.4. INSUFFICIENT FDI AND INADEQUATE DOMESTIC SUPPLY CHAINS

FDI is a critical tool for taking advantage of the potential of global value chains (GVCs), strengthening domestic competitiveness, and closing infrastructure gaps. Daewoo's investment with Desh in 1978 was the first of many foreign investments, mainly through joint ventures with local entrepreneurs, that helped establish Bangladesh's globally successful RMG sector. As Bangladesh looks to upgrade in the RMG GVC and diversify in sectors like leather, electronics, and business process outsourcing, FDI will play a critical role in connecting Bangladesh to global markets. FDI in domestic markets can help raise productivity by strengthening domestic competition and integrating domestic suppliers into their value chains. Similarly, outward-bound FDI by Bangladeshi investors allows firms to grow larger, become more competitive through exposure to foreign competition, and acquire new knowledge and technology. The COVID-19 crisis will lower FDI flows in the short term, but foreign investment will arguably be even more important for Bangladesh's ability to leverage exports in its recovery from the crisis. Finally, although half or more of recent FDI in Bangladesh has gone into developing the resources of sectors like telecommunications, energy, and banking, the scale and scope of these investments will need to increase further, given Bangladesh's large infrastructure needs, the increasingly constrained financing capacity of Bangladesh's government, and the lack of capability for long-term financing from the domestic financial sector.

Bangladesh has struggled to attract FDI or to promote it. Over the past two decades, FDI inflows averaged less than 1 percent of GDP, and they have increased only marginally recently. This trails far behind peers (figure 2.9). FDI flows into Vietnam, for example, have averaged almost 6 percent of GDP annually over the past five years. At 6 percent of GDP, Bangladesh's stock of FDI is far below the LIC average of 25 percent, Bangladesh's outward-bound FDI lags even further behind that of its peers. Over the period 2014–18, outward-bound FDI from Bangladesh averaged just 0.03 percent of GDP, compared with 0.4 percent in India and Vietnam, a 1.2 percent average in UMICs, and close to 3 percent in Malaysia and Thailand (figure 2.9). There are nonetheless some reasons for optimism. FDI inflows increased to a high of US$3.6 billion in 2019, and more than US$20 billion in investment proposals for Bangladesh's upcoming special economic zones (SEZs) have been received.

Weak domestic supply chains are both a cause and consequence of insufficient FDI. Maximizing the potential gains from GVCs depends on building links between lead firms and domestic suppliers. In Bangladesh, these remain limited. Even in well-established sectors like RMG, half or more of all cotton fabric is imported. The highly integrated nature of most of Bangladesh's large firms, which produce many inputs through related firms and handle most services in-house, points to weaknesses in domestic supply chains. These weaknesses stem largely from low levels of enterprise capacity and a lack of adherence to international quality standards. Data from the World Bank Enterprise Surveys (2013), for example, show that only 14 percent of surveyed firms in Bangladesh had an internationally recognized quality certification. Large firms also integrate rather than outsource because of the weak contracting environment. Lack of access to quality suppliers is a barrier for foreign investors, who are not in the same position as large, local firms to integrate operations. On the other hand, the low level of foreign investment also hinders the development of stronger supply networks by limiting the opportunities for technology transfer, as well as the use of foreign demand to scale up domestic production and meet international quality standards.

FIGURE 2.9 FDI INFLOWS AND OUTFLOWS, BANGLADESH AND PEERS, AVERAGE 2014–18



Source: World Development Indicators.

Note: GDP = gross domestic product; FDI = foreign direct investment; LMIC = lower-middle-income country; UMIC = upper-middle-income country.

2.5. LOOKING TO THE FUTURE: SECTOR DIVERSIFICATION AND UPGRADING

A more diversified and sophisticated private sector is fundamental to Bangladesh's achieving its upper-middle-income development goals. Empirical evidence (Imbs and Wacziarg 2003) and development success stories highlight the importance of having an increasingly diversified, sophisticated private sector to sustain rapid development progress. In the absence of natural resource riches, the path to becoming an upper-middle-income country runs through increasing the value added in existing sectors and diversifying into new ones. The experience of Bangladesh's aspirational peers demonstrates the importance of unleashing a diversified private sector at precisely the development stage where Bangladesh is today. Turkey and Vietnam (box 2.1), and Malaysia before them (and Korea even before them), undertook policy reforms such as reorienting domestic champions toward focusing on global markets, promoting FDI, upgrading the quality and sophistication of local production, and strengthening SME supply chains.

Diversification will need to balance Bangladesh's existing capabilities and needs with the opportunities for increasing complexity. IFC's *Complexity and Economic Fitness Toolkit* identified priority sectors that could (a) contribute to a "complexity gain," or, in other words, help Bangladesh build the capabilities to move into increasingly complex activities over time, and (b) contribute to job creation, particularly through high-employment multipliers (including through domestic supply chain integration). It also

BOX 2.1 TURKEY'S EXPERIENCES MAY POINT THE WAY FORWARD FOR BANGLADESH

As a country with majority-Muslim population on the cusp of achieving high-income status without relying on natural resources, Turkey has made achievements in economic and social development that provide noteworthy insights for Bangladesh. During the 1980s and 1990s, Turkey liberalized trade through reforms such as the abolition of trade licenses and elimination of subsidies for exporters. All reforms were supported by conscious commercial diplomacy and provided incentives for businesses to aim for international competitiveness. This, in turn, promoted an expansion of the global footprint of leading Turkish conglomerates, which have become top players across many sectors such as transport and logistics, telecommunication, energy, construction, and consumer goods.

After the 2001 crisis, painful but successful restructuring of the banking sector, which was in dire shape, allowed finance to flow into the business sector. Together with more business-friendly regulations, it facilitated job creation in the services and manufacturing sectors and a rapid modernization of agriculture. Meanwhile, the global financial crisis of 2008 pushed Turkey to diversify economic interests away from European Union markets toward Asia, Africa, and Latin America. Public and private investments in infrastructure, particularly in transport and logistics, earned Turkey a spot among the top 30 countries with the best logistics globally and turned it into an international hub. Rapid urbanization, particularly in the secondary cities, created an attractive production base for investors, and an economically efficient urban system emerged. Other enablers of success included the removal of energy subsidies, which supported private participation and sector modernization, primary health care reform, the expansion of secondary education, and the deregulation of telecom sector.

considers size of the current market (domestic and export), market growth prospects,[20] and Bangladesh's current capabilities ("feasibility"). Table 2.1 provides an assessment of broad priority sectors (such as manufacturing and other sectors). While Bangladesh's narrow capabilities are a significant barrier to diversification, sectors that stand out in the short term are leather and light engineering. More sophisticated sectors with promise for the medium term include automotive and medical equipment.

Significant opportunities exist for diversification and some "green shoots" are already emerging. Diversification opportunities exist across a number of key sectors, including

- **Value-added manufacturing.** Bangladesh can use its position in RMG to expand its presence in relatively low-complexity value chains in which it already has a presence. Leather, for example, is already Bangladesh's second-biggest export and, increasingly, leather products are taking over from raw leather exports. Footwear exports have grown from just US$80 million in 2002 to more than US$1 billion in 2017. Light engineering (including electronics) and pharmaceuticals have each increased exports by 15 percent annually since 2010. There is also significant scope to develop the plastics recycling sector, which offers potential gains in terms of environmental benefits, job creation, and improvements in the quality of existing jobs in the sector.

TABLE 2.1 IDENTIFYING PRIORITY SECTORS: COMPLEXITY SECTOR MAP THROUGH 2025

	Jobs/ $ mil	People, (000)	$ bn	$ bn	%	Y/N	Y/N	0-25	0-1
Sectors	Multi-plier	Labor	Current Domestic Market	Current Export Market	GAGR to 2025	Priority	Domestic Backward Integrated	Sector Complexity Average	Average Feasibility
Agriculture	591	26,000	3.60	0.60	14%	Y	Y	0.38	0.08
Aquaculture	272	800	0.40	0.45	9%	Y	N	0.11	0.10
Automotive	250	210	2.50	0.00	67%	Y	N	0.76	0.02
Ceramic	230	50	0.67	0.05	17%	N	N	0.58	0.06
Health	163	770	5.90	-	15%	Y			
ICT	276	900	1.10	0.60	48%	Y	Y	0.70	0.07
Leather & Leather Goods	212	93	1.90	1.00	11%	Y	Y	0.25	0.18
Machinery	933	800	3.10	0.40	28%	Y	N	0.79	0.02
Medical Equipment	233	400	0.35	0.00	16%	N	N	0.83	0.02
Pharmaceuticals	306	173	2.40	0.10	25%	Y	N	0.65	0.02
Plastics	265	1,200	1.80	0.99	20%	Y	N	0.87	0.04
Renewable Energy	103	1	0.50	-	49%	Y	N	1.40	0.01
Tourism	487	892	5.30	0.20	6%	Y	N	0.38	0.08

Sources: Asian Development Bank, UN Economic Commission for Africa, Domestic Business Associations, IFC Corporate Governance Review.

Note: CAGR = compound average growth rate; ICT = information and communication technology; N = no; Y = yes; feasibility ranges from 0 to 1 (from lower to higher); sector complexity – higher value indicates a more complex product/sector

20 This market assessment was conducted before the onset of COVID-19.

- **Agribusiness.** Rapid urbanization and growing incomes create large opportunities for investment in the higher-value-added segments of agribusiness, such as horticultural crops (fruit exports have risen rapidly), livestock (meat and poultry), and agriprocessing. Investments to strengthen standards and improve sustainability could open significant additional opportunities in existing export sectors, notably crustaceans and fish.
- **Information and communication technology (ICT), health care, and financial technology (fintech) services.** Services exports more than doubled between 2010 and 2018, reaching more than US$5 billion and scoring particular successes with exports of ICT-enabled services such as business process outsourcing. While the private sector already has a strong position in Bangladesh's health care sector, significant growth opportunities exist in the domestic market, especially because health care spending in areas like health care technology start-ups, hospital and integrated health care providers, specialized treatment and care for chronic illnesses, and COVID-19 testing, treatment, and data reporting is likely to ramp up significantly as a result of the COVID-19 pandemic. Bangladesh's rapidly emerging fintech sector is also poised for dramatic growth in the areas of digital payments, wealth management, and alternative financing, a trend accelerated by the effects of COVID-19.

Finally, there remain significant opportunities for Bangladesh to expand its position in RMG. Rising wages in China and supply chain diversification strategies in response to the COVID-19 crisis may shift production to new markets. A recent World Bank study (Ali, Brava, and Reaz 2019) estimates that a 1 percent price increase of China's RMG exports would create 1.4 percent additional demand for Bangladeshi products in the U.S. market. Bangladesh could also expand exports while increasing profits by moving to higher-value-added activities. Analysis of the "quality ladder," which compares the relative unit prices of various countries' exports of a typical RMG product (cotton T-shirts, for instance) shows, though, that Bangladesh's export prices are in the bottom 20th percentile and that their relative position has declined over the past decade (World Bank, forthcoming).

Detailed discussions on these sectors can be found in the second part of this report.

Taking advantage of opportunities to diversify and upgrade will require a comprehensive approach that addresses the macro-incentive environment while removing cross-cutting and sector-specific constraints. National strategic plans[21] identify a large number of priority sectors (around 30) which have been supported by tax incentives, export subsidies, tariff protection, and economic zones. Some of these incentives have, however, created distortions and undermined the competitiveness of the very sectors they have sought to promote. Finally, despite the existence of incentives for promoting emerging sectors, established sectors (notably RMG) receive far greater incentives and policy support than emerging ones. Beyond creating a more level playing field for new sectors to emerge, the government of Bangladesh must also look beyond targeted incentives and consider how having more coordinated macro, trade, investment, and industrial policies could contribute to supporting the diversification agenda. Box 2.2 provides some examples of how other countries with characteristics similar to Bangladesh have successfully diversified beyond RMG.

21 For example, the Industrial Policy (2016), the Export Policy (2018–21), and the Seventh Five-Year Plan.

BOX 2.2 POLICIES FOR EXPORT DIVERSIFICATION: LESSONS FROM SUCCESSFUL DIVERSIFIERS

How have other countries managed to diversify beyond RMG? In reviewing the experiences of these countries, a number of common characteristics and policy features emerge that may be useful for Bangladesh:

- GVC integration and targeted FDI strategies. Export diversification strategies have often been closely linked to an FDI strategy targeting "anchor investors." Vietnam, for example, relied heavily on this targeted approach to attract Samsung. Ten years ago, Vietnam barely had any exports in the electronics sector. Today, it is the second-largest smartphone exporter in the world, producing 40 percent of Samsung's global mobile phone products and employing 35 percent of its global staff. Similarly, Costa Rica's shift from RMG into high-value-added electronics was made possible by bringing Intel into the country. The Republic of Korea's and Turkey's successes were also linked to an aggressive outward-focused FDI strategy.
- Trade preferences with an increasing focus on deep trade agreements. Successful diversifiers have leveraged trade agreements to expand the scope of export products and markets. Turkey's aggressive strategy in signing preferential trade agreements (PTAs), for example, enabled it to leverage its success in the European Union (EU) market (also under a PTA) to open up new product and market opportunities across the Middle East and Africa. Vietnam has combined an extensive, global set of agreements that provide it preferential access to critical consumer markets like the United States and EU with deep free trade agreements linking it to key regional partners that open up access to FDI and services.
- Strong trade facilitation and logistics. Research highlights the critical importance of trade facilitation in export diversification (Shepherd 2011) and GVC integration (Farole and Pathikonda 2016). Starting in the early 1990s, Korea initiated what was to be a two-decade-long, continuously evolving "paperless trade" system, now a single national window known as the U-Trade Hub. Today, time to complete import and export documentary procedures takes only one hour.
- Supplier development programs and links. Successful diversifiers have made active efforts to broaden and deepen domestic supply chains, including through formal supplier development programs. Korea, one of the pioneers in local supply chain development, used a variety of instruments, such as directed lending and cluster-based innovation programs, to develop strong local supply chains across a variety of export sectors. Costa Rica's Provee program has combined direct link facilitation with technical assistance to help domestic SMEs become suppliers to foreign investors in high technology sectors. With support from IFC, Vietnam has launched a supplier development program in cooperation with multinational enterprises in the automotive, electronics, energy, and household appliance industries.
- Leveraging outward-oriented conglomerates. Korea's chaebols, which started out as national industries, quickly become the bulwarks for the country's export expansion in sectors like steel, electronics, and cars through now-global brands such as Samsung, Hyundai, and LG. As Turkey's economy has become more globally integrated in the 2000s, family-owned, domestically oriented conglomerates have also led the export expansion. Every one of the 13 largest Turkey-based consumer companies operating internationally is either fully or partially owned by a family (Bigan, Degan, and Korkmaz 2017).
- Partnership with the private sector. Successful diversifiers provided direct government support, but only in response to market signals communicated by the private sector, and typically through coordinated interventions. One example is Turkey's success in moving up the value chain in the RMG GVC. The Istanbul Textile and Apparel Exporter Association partnered with the private sector and several government agencies to promote vocational training in fashion design, while the Small and Medium Industry Development Association, a quasi-governmental organization, has also been involved in workforce development. The sector's movement into branding has also been supported by government incentives, including reimbursement of up to 60 percent of the cost of personnel expenses for a maximum of three years (this includes costs for training and recruiting highly qualified personnel), machinery, equipment and software, consultancy, and R&D–related materials.

03. CROSS-CUTTING AND ENABLING SECTOR CONSTRAINTS

Main message: *Constraints in the policy environment and enabling infrastructure are holding back investments that would expand Bangladesh's private sector and move the country to the next stage of development. First, the challenging regulatory environment is compounded by ambiguity and a lack of transparency, giving rise to regulatory capture and undermining competitiveness. Second, an overly restrictive and outdated foreign exchange control regime impedes inbound and outbound investment and restricts opportunities to take advantage of international capital, while governance failures in the banking sector exacerbate the lack of access to finance for SMEs. Third, the trade and investment policy regime is increasingly inappropriate to the support of Bangladesh's global integration and prevents the emergence of a broad-based, competitive private sector. Fourth, despite significant progress, human capital gaps that are at risk of increasing because of COVID-19 restrict access to the skills required by employers. Finally, gaps in transport, energy, and digital infrastructure, along with access to serviced land, hinder expansion and productivity in the private sector. Overcoming these barriers will require significant policy and governance reforms, alongside new investments.*

3.1. BUSINESS ENVIRONMENT AND GOVERNANCE

One of the World's Most Difficult Business Environments

Bangladesh's private sector faces one of the world's most challenging business environments. Although Bangladesh slightly improved its standing in the latest Doing Business report, still almost 90 percent of other countries covered in the report score better than Bangladesh. It is in the bottom 10th percentile of countries in 5 out of 10 categories, scoring particularly poorly on contract enforcement, registering property, getting electricity, and trading across borders (table 3.1). Bangladesh's performance in Doing Business is mirrored in other indexes that measure aspects of the regulatory environment. For example, Bangladesh ranks 109th out of 141 countries on the "institutions" pillar in the 2019 World Economic Forum's Global Competitiveness Index. Such an environment favors entrenched firms and sectors and places barriers on SMEs and investors trying to operate in less-established sectors.

TABLE 3.1 DOING BUSINESS INDICATORS PERCENTILE RANKS AND SCORES FOR BANGLADESH, 2015 AND 2019

Indicators	Doing Business score (distance to frontier)		Doing Business percentile rank		Trend relatively to other countries
	2015	2019	2015	2019	
Overall	**40.9**	**45.0**	**9**	**11**	**marginally improved**
Starting a business	81.7	82.4	48	32	worsened
Dealing with construction permits	60.0	61.1	34	27	worsened
Getting electricity	18.6	34.9	1	5	marginally improved
Registering property	27.2	29.0	1	2	marginally improved
Getting credit	25.0	45.0	11	29	improved
Protecting minority investors	60.0	60.0	64	57	improved
Paying taxes	56.3	56.1	25	21	worsened
Trading across borders	31.8	31.8	8	6	worsened
Enforcing contracts	22.2	22.2	1	1	no changes
Resolving insolvency	26.4	28.1	9	8	worsened

Source: World Bank Doing Business data, 2015 and 2020.
Note: 100th percentile rank indicates best performance

Starting a business is hard. Closing one is even harder. The archaic Companies Act, the main body of which has stood since 1913, is plagued by lack of clarity, limited provision for integrating modern financing instruments, and onerous business entry and exit procedures. The outdated legal framework has created a complex licensing environment for new businesses. Investors establishing a new business in Bangladesh must navigate a nontransparent and cumbersome regulatory space that includes more than 150 services delivered by 34 different line agencies. Businesses also face significant barriers to closing, and creditors struggle to collect on debts as a result of an insufficient insolvency framework. According to Doing Business, it takes an average of four years to seize the collateral of distressed debtors, making the recovery rate just 20 cents on the dollar. This hinders allocative efficiency in the private sector and does significant damage to the financial sector. The government has initiated some reforms, but although preparation of a new Companies Act has been ongoing for years and proposals have been made to establish an insolvency framework, progress remains slow.

A weak environment for contract enforcement prevents investment and restricts the development of SME supply chains. According to Doing Business, only 1 out of 190 countries performs worse than Bangladesh for enforcing contracts: it takes almost four years to resolve a contract dispute with costs eating up two-thirds of the value of the claim (more than twice the South Asia average). Lack of contract enforcement makes it difficult to build domestic supply chains, which would otherwise provide opportunities for SME growth. It may explain why Bangladesh's large companies choose operations that are highly vertically integrated. Given complex legal provisions and an overburdened court system, increasing the use of out-of-court settlements and of special commercial courts will be necessary. Bangladeshi law already provides for court-connected mediation, and a private arbitration center has been established with the support of IFC,[22] but further legal steps are required to promote out-of-court settlements.

Weaknesses in Regulatory and Corporate Governance

Bangladesh's regulatory framework is obsolete, uncoordinated, and poorly communicated. Many laws governing key aspects of Bangladesh's economy—foreign exchange, business incorporation, land registration—are outdated, and several of them predate independence. New laws also remain only partially implemented. The Competition Act, for example, was enacted by Parliament in 2012, but key provisions remain unimplemented. Moreover, government agencies often impose new rules and procedures without fully considering conflicts with requirements imposed by other agencies. According to a recent IFC survey of private firms (Zafar, Reaz, and Tasin 2020), more than 70 percent of respondents think that many laws in Bangladesh are inconsistent with each other, 60 percent are unable to find credible information about business regulations, and nearly half believe that frequent and unexpected policy changes make returns on investment unpredictable.

The discretionary environment has uneven impacts across the private sector, favoring existing firms and sectors, and creating incentives for regulatory capture. Perceptions of unpredictable and opaque administrative processes, as well as the uneven enforcement of regulations, can deter firm creation and investment, push firms toward informality, and impede productivity in the formal sector. Large corporations and well-established industry bodies, which have the capacity and channels to influence policymaking and administration, have an advantage over SME firms in the environment of high regulatory uncertainty. Over the years, business groups have successfully lobbied for lower tax rates, tax waivers, and exemptions, as well as tariff protections. Reportedly, in 2017, under pressure from the business community, the government delayed the value added tax (VAT) law, which stipulated a flat 15 percent VAT. When the law was finally enacted in 2019, it featured a wide range of rates. Another example is the Dhaka Urban Plan, which strengthened environmental safeguards but was shelved because of the opposition of large real estate companies (Pritchet and others 2017).

22 According to the Bangladesh International Arbitration Center (BIAC).

Weaknesses in regulatory governance contribute to weaknesses in corporate governance. Corporate governance practices in Bangladesh remain inadequate, particularly when it involves protecting minority investors and supporting the development of equity markets. Holding companies typically do not present consolidated accounts, corporate boards tend to lack independent directors, and management is often not professionalized. Financial disclosure practices also remain weak, and double bookkeeping is common. One reason for this is the historical dominance of family-owned companies, but there is also a mistrust of the government, which results from the perceived reliance by regulators on personal discretion rather than settled regulatory practices.

3.2. FINANCE

Gaps in Access to Finance, Especially for SMEs and for Long-Term Capital

Despite the size of Bangladesh's financial services sector, financial inclusion gaps persist. Bangladesh's financial services sector is large and includes eight state-owned banks, more than 50 private banks, a significant set of nonbanking financial institutions (NBFI), and a strong network of microfinance institutions (MFIs). While access to formal financial services expanded from 20 percent to more than 50 percent between 2013 and 2019, 35 million people remain excluded from the modern financial industry. Women are most excluded from bank finance: only 36 percent of women have accounts, versus 50 percent of men. This varies dramatically from the situation in microfinance, where 90 percent of the 21 million clients served are women. There are gaps in access to finance for SMEs and availability of long-term finance.

Nearly half of SMEs report being fully or partially hindered in their access to credit. The gap between the financing needs of SMEs and the funds available to them is estimated at US$2.8 billion. The problem is particularly acute for woman-owned SMEs, 60 percent of which have not met their financing needs. Interest rates on SME finance are also typically much higher (around 15 percent) than what is offered to larger corporations (8 to 11 percent). Lack of credit appraisal policies and an effective credit registry are important inhibiting factors. In 2018, Bangladesh Bank drafted a law, the Secured Transaction Act, that seeks to enable the use of non-fixed assets such as inventory and machinery as collateral against loans from the banking system, but it has not yet been approved by Parliament.

Businesses also lack access to long-term finance. Heavy dependence by banks on short-term deposits (roughly 75 percent are for less than one year) creates asset-liability mismatches that limit a commercial bank's ability to lend over long terms. Moreover, turning to local capital markets is not a realistic alternative for businesses seeking long-term capital. The market capitalization of equity markets is close to 20 percent of GDP, much lower than India, Thailand, and Vietnam (80 percent, 96 percent, and 55 percent, respectively). Moreover, the market for corporate bonds is still nascent, with just one listed on the Dhaka Stock Exchange (compared with 221 treasury bonds). In order to reduce barriers to the development of the corporate bond market, the National Bureau of Revenue (NBR) drastically reduced the stamp duty on corporate bonds in 2019 from 2 percent to 0.1 percent and began simplifying the approval process. Other segments of the financial sector that could play an important role in providing long-term finance such as project finance, venture capital, private equity, and fintech remain significantly underdeveloped (see the detailed sectoral analysis in the next section).

Regulatory Shortcomings Increase the Vulnerability of the Banking Sector

Banking sector vulnerabilities restrict flow of credit to the economy. The volume of NPLs and deteriorating capital adequacy have contributed to a decline in private sector credit growth and tightening liquidity. As of early 2020, NPLs accounted for 10.4 percent of the total loans given (figure 3.1). There has been a wave of defaults by influential firms, affecting loan loss provisioning and capital adequacy. There has also been a growing trend of loan rescheduling and restructuring, about half of which has come in the manufacturing sector, particularly in the RMG business. According to recent estimates, the actual size of bad loans is more than double the officially recognized figure[23] as a result of lenient loan classification standards adopted by Bangladesh Bank. The high level of stressed assets limits the banks' ability to engage in new lending: private credit growth has fallen sharply from 17 percent in FY18 to below 10 percent in FY20. Addressing the problem of NPLs will require putting in place a modern resolution framework for managing distressed assets, along with a modernized insolvency framework, which is discussed in detail in the assessment of the financial sector in Part II of this report.

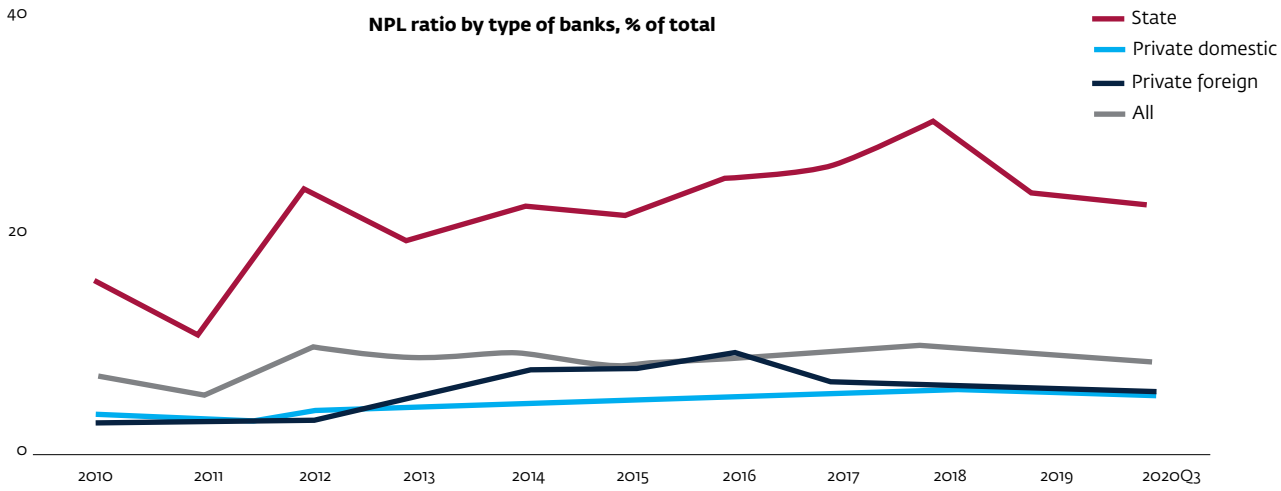
The COVID-19 crisis may significantly exacerbate banking sector weaknesses. Despite the flexibility of existing regulations for addressing the high probability of defaults, BB further expanded regulatory forbearance measures by freezing the classification status of credit exposures prior to the COVID-19 crisis. At the same time, the economic stimulus program relies on working capital loans to the industrial and service sectors. BB has devised several financing facilities totaling to US$4.5 billion that entitle banks and NBFIs to access funds from the central bank at 4-5 percent interest. Although this is a useful measure to support the industry during the crisis, there is a risk that large and willful defaulters are not excluded from the program and that the crisis may result in increased defaults in general. This may contribute to lower profitability in banks and significantly weaken asset quality.

Governance in the banking sector is at the heart of the problem. Weak oversight by BB, especially involving the monitoring of banks' capital adequacy and the regulation of NPLs, exacerbates corporate governance inadequacies. These include (a) the shareholding structures, in which most owners run multiple businesses and prioritize short-term gains over longer-term performance, while institutional investors or independent directors are rare; (b) regulatory restrictions that do not allow the dilution of the share of main shareholders below 30 percent and have limited availability of professional independent directors in the market; (c) no regulatory incentives to professionalize management or impose rules on cashing out dividends; and (d) political interference in terms of licensing, related-party lending, and cross-group lending. Governance problems are most acute in the state-owned banks, which accounted for around half of all NPLs as of January 2020 (figure 3.1). In 2019, BB formed several committees to make recommendations to reduce default loans and punish defaulters. In parallel, there is a review of existing legislation focusing on amending the Bank Companies Act, the Money Loan Court Act, the Financial Institutions Act, and other bankruptcy-related laws. The government is also considering a policy for the compulsory merger of weaker banks and financial institutions.

23 The IMF (2019) Article IV Staff Report notes, for example, that the default of borrowers who obtained "stay orders" from the courts appears to be outside of NPL calculation.

Government borrowing from the domestic market and interest rate caps amplify inefficiencies in the domestic banking sector. In addition to the more than 60 banks competing for depositors, available deposits were diverted to the government's National Savings Scheme (NSS), which offers high interest rates (in the range of 10 to 12 percent as of June 1, 2020).[24] The government also borrows from the banks to finance its fiscal deficit. Whereas this competition puts upward pressure on deposit rates, BB issued a circular that limits deposit and lending rates to single digits, reinforcing distortions in the sector.

FIGURE 3.1 NONPERFORMING LOANS AS PERCENT OF TOTAL, 2000–20



Source: Bangladesh Bank 2020

Note: DFIs = development finance institution; FCBs = foreign commercial banks; NPL = nonperforming loan; PCBs = private commercial banks; SCBs = state-owned commercial banks.

Restrictive Foreign Exchange Measures Severely Limit Inbound and Outbound Investment

Foreign currency borrowing is an increasingly important channel for supporting expanded private investment. For the private sector, foreign currency borrowing provides an attractive opportunity to supplement costlier domestic financing with cheaper international capital. Foreign borrowing may also be particularly important for financing infrastructure investments and other projects involving large capital investments because it provides access to larger loans and longer tenure than may be available in the domestic market. Compared to other developing countries, Bangladesh makes much less use of foreign commercial borrowing (the borrowing volume was less than 1.5 percent of gross national income in 2019), much lower than many of its Asian peers such as India (9 percent), Thailand (11.4 percent), and Vietnam (12.6 percent).

24 Nontradable bonds issued by the government to households and institutions to promote savings and finance the budget deficit.

Restrictive foreign exchange regulations place limits on a range of transactions. Foreign borrowing, if excessive, raises risks of capital flight and of balance sheet mismatches, which is why some countries place restrictions on it. In the case of Bangladesh, the more than 70-year-old Foreign Exchange Regulation Act (FERA) 1947 sets out the policy regime regulating transactions in foreign exchange—including certain payments, foreign exchange dealings, securities, and the import and export of currency—with supervision from BB. Although the taka is freely convertible and can be used for current account purposes such as trade, there are significant restrictions on capital account convertibility both for individuals and for companies, according to the law. The approval process for external commercial borrowing is manual and involves both BIDA and BB—each request requiring a technical review and approval by a scrutiny committee. The approval process lacks a clear time frame and involves a de facto interest rate cap. A process review[25] found it takes an average of 45 working days, although many investors have experienced delays that are considerably longer.

Legal and administrative restrictions on foreign exchange transactions raise barriers to both inbound and outbound FDI. Although full repatriation of capital invested from foreign sources is legally allowed, it is challenging in practice. As a result, foreign investors are unable to make timely decisions about reconverting local currency into foreign currency and repatriating it. This lack of flexibility to repatriate earnings is a fundamental barrier for international investors because it creates risks in currency transactions and other activities and restricts the ability to manage an international portfolio in an efficient way. These restrictions also hinder outbound investments by domestic businesses looking to set up overseas operations because they are not allowed to convert takas into foreign currencies and make investments abroad. In 2015, there was a slight liberalization of the law that allowed for outward FDI on a case-by-case basis, subject to approval from BB. FDI outflows continue to be allowed using the export retention quota. This allowed a prominent textile and clothing producer to invest US$9.5 million recently to set up an apparel factory in Ethiopia.

Restrictions on foreign borrowing limit the investment opportunities for Bangladeshi corporates, with distortive effects. Notable examples of restrictions on investment include the refusal of BB to allow one of the leading food conglomerates to build food processing and packaging plants in India. One of the commodities companies was similarly barred from setting up sugar mills in Brazil or Thailand. Restrictions also contribute to the perpetuation of Bangladesh's large, informal, and illegal market for international money transfers ("hundi"), which circumvent official channels. One consequence of the exchange controls is the capital flight often carried out through trade misinvoicing. Between 2008 and 2017, estimated US$33 billion in illicit funds flowed from Bangladesh, equivalent to 12 percent of the total exports of goods and services.[26]

25 This is carried out as part of technical assistance under the Bangladesh Investment Climate Fund.
26 Estimated based on Global Financial Integrity and World Development Indicators databases.

Although FERA has a role to play in protecting foreign exchange, partial liberalization of the exchange control regime is needed to support a modern trade and investment environment. With a desire to protect its foreign reserves, BB has long maintained the conservative stance that underpinned the 1947 FERA Act. Indeed, in the context of a relatively weak macroprudential environment, it would be premature for Bangladesh to adopt full capital account liberalization. There is room for reform, though, given the significantly changed international investment context and Bangladesh's strong reserve position. In recent years, a government committee was formed to introduce flexibility into the policy and reform the legislation, especially by allowing local businesses to make overseas investments and reducing restrictions on capital account convertibility. As a short-term measure during the COVID-19 crisis, BB has allowed foreign-controlled companies operating in Bangladesh to access short-term working capital loans from their parent companies abroad exclusively for use in paying workers' wages and salaries for up to three months. There have been no concrete proposals for permanent reforms, though.

3.3. TRADE AND INVESTMENT POLICY

Trade Policy Environment Creates an Anti-Export Bias

Bangladesh's past progress in trade policy liberalization has been undermined by the proliferation of para-tariffs. Following trade policy liberalizations initiated in the 1990s, Bangladesh substantially scaled down and rationalized tariffs, removed trade-related quantitative restrictions, eliminated import licensing, and reformed management of the exchange rate. Progress on reforms has meanwhile stalled and even reversed over the past decade. Average tariffs in Bangladesh are still twice the level in South Asia and three times that of its export-oriented Asian peers. The main problem in Bangladesh, however, is not basic customs duties but rather the proliferation of para-tariffs—additional taxes and duties—that add significant cost and complexity to the regime. Application of a regulatory duty charged on imports (but not for domestic production)—mainly at a 3 percent rate—affects about half of tariff lines.

Para-tariffs double the average tariff rate and significantly increase dispersion, delivering targeted protection to domestic producers in certain sectors. Excluding para-tariffs, the average most-favored nation (MFN) tariff in FY2019/20 has been 14.8 percent. When all import taxes and duties are taken into account, however, the equivalent tariff, referred to as the "nominal protection rate" (NPR), doubles to 29.6 percent (figure 3.2) and can range from 0 percent for many products to a high of 668 percent ("vehicles of cylinder capacity over 4,000 cubic centimeters"). Para-tariffs have a disproportionate effect on the NPR in sectors like transportation, textiles and clothing, footwear, animal products, and foodstuffs (table 3.2). In textiles and clothing, for example, para-tariffs increase nominal protection from just over 20 percent to almost 50 percent, with variability (measured by a standard deviation of the tariff) nearly quadrupling, which **suggests targeted application of para-tariffs on specific import products.**

Trade protection escalates across stages of production, sharply increasing effective protection to domestic producers. Not only are tariffs and para-tariffs substantially higher in Bangladesh than in peer countries, but their levels increase greatly across the stages of production. The average MFN tariff on capital goods in Bangladesh is 12.5 percent, but this increases to almost 19 percent for intermediate goods and

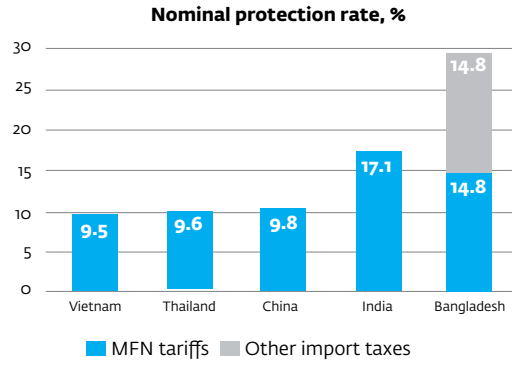
to close to 50 percent for final consumer goods (figure 3.3). Escalation significantly increases profitability for domestic producers of import-competing products. To reach similar levels of taxation on intermediate goods such as those prevalent in East Asian peers, Bangladesh would need to cut the MFN tariff on intermediate goods in half to 6.2 percent and eliminate all other import taxes. Moreover, as with nominal protection, there is wide dispersion in the effective rates of protection across subsectors. Agricultural products, for example, have a zero rate of effective protection, but manufacturing sectors receive considerably higher protection, with the effective rate in plastics reaching 480 percent.

TABLE 3.2 MOST-FAVORED NATION TARIFFS AND NOMINAL PROTECTION RATES, FY2019/20

	Number of Tariff Lines	MFN Tariffs (%)		Nominal Protection (%)	
		Average	s.d.	Average	s.d.
Animal (HS 1–5)	675	22.7	6.7	45.5	22.1
Vegetable (HS 6–15)	625	17.2	9.8	30.7	22.7
Foodstuffs (HS 16–24)	237	21.5	8.0	41.7	53.4
Minerals (HS 25–27)	201	10.2	7.8	14.3	15.9
Chemicals (HS 28–38)	1,016	9.4	6.9	11.7	13.3
Plastic and rubber (HS 39–40)	287	14.2	9.3	20.6	20.7
Hides and skins (HS 41–43)	77	11.6	9.2	17.2	18.9
Wood (HS 44–49)	302	14.1	9.5	19.6	19.7
Textiles and Clothing (HS 50–63)	830	20.4	7.9	48.0	30.2
Footwear (HS 64–67)	49	25.0	0.0	54.0	28.0
Stone and glass (HS 68–70)	174	17.4	9.2	38.1	34.9
Metals (HS 71–83)	729	13.7	8.4	18.5	14.5
Machinery and electrical eq. (HS 84–85)	1,013	8.5	9.6	13.2	20.5
Transportation (HS 86–89)	523	16.7	9.5	75.1	126.9
Miscellaneous (HS 90–97)	438	12.3	9.8	21.0	32.4
Total	**7,176**	**14.8**	**9.8**	**29.6**	**45.3**

Source: World Bank staff calculations using data from Bangladesh Customs.
Note: HS = harmonized system (code); MFN = most-favored nation; s.d. = standard deviation.

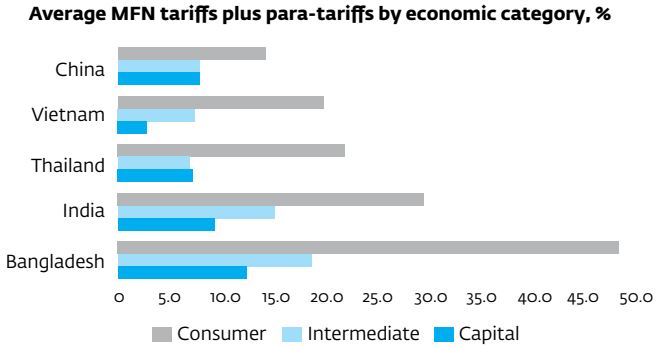
FIGURE 3.2 NOMINAL PROTECTION RATE, BANGLADESH AND EAST ASIAN PEERS



Source: World Bank staff calculations using data from the National Bureau of Revenue and the World Trade Organization.

Note: MFN = most-favored nation.

FIGURE 3.3 AVERAGE MFN TARIFFS AND PARA-TARIFFS, BY ECONOMIC CATEGORY, BANGLADESH AND EAST ASIAN PEERS



Source: World Bank staff calculations using data from the National Bureau of Revenue and the World Trade Organization.

Note: MFN = most-favored nation.

Although efforts are being made to rationalize tariffs, there has been little progress on para-tariff reform. NBR's customs policy team is reviewing proposals to reduce multiple rates and streamline the input tariff structure in priority export sectors. Under the IMF Extended Credit Facility program, Bangladesh was meant to reduce and rationalize para-tariff measures (with supplementary duties eliminated as part of LDC graduation), although no significant reform measures have yet been taken, except for eliminated tariffs on essential products (mainly medical goods) needed to address the COVID-19 pandemic.

Extensive domestic protection is mirrored in the services sector. Bangladesh's overall score in the Service Trade Restriction Index (44) is in line with the South Asia average, but around 60 percent worse than the global average (Bangladesh ranks 80th of 104 countries in the index). The highest restrictions exist in the telecommunications and transport services sectors, although improvements are being made in the latter. The financial sector also faces numerous entry restrictions. The South Asia Free Trade Agreement includes provisions on trade in services, but barriers still remain, including significant restrictions on commercial presence. In the absence of more competitive domestic markets, Bangladeshi producers—both those producing for export and for the domestic market—are likely to face higher costs or lower-quality inputs that have implications for productivity, profits, and consumer welfare.

In addition to these policy barriers, exporters face a trade facilitation environment that is among the world's least friendly. Bangladesh is one of the worst performers in the 2020 Doing Business report for trading across borders. It stands at the bottom 6th percentile, together with Afghanistan, by far the worst in South Asia (by comparison, India is placed at the top 36th percentile and landlocked Nepal at the top 32nd). In the most recent World Economic Forum *Global Enabling Trade Report* (2016), Bangladesh ranks 123rd of 136 countries, with border administration ranking at 130th. The Doing Business report estimates that border and documentary compliance take on average 315 hours for exports and 360 hours for imports, around three times as long as in Vietnam.

Ongoing reforms may significantly improve the trade facilitation environment. This includes the enactment of a new Customs Act (now awaiting a vote in Parliament) and the implementation of the Customs Modernization Strategic Action Plan 2019–22, which includes the adoption of risk management across customs and the development of a national single window to coordinate customs and border management. In the short term, NBR is implementing measures to promote business continuity and support safe cross-border trade in the context of the COVID-19 pandemic.

Together, these factors create a significant anti-export bias that undermines the goal of promoting diversification while protecting certain domestic actors and hurting the broad private sector and consumers. Bangladesh's distortive trade policy regime serves two objectives. First, the regime is calibrated to protect revenue generation. Adjustments to tariffs and duties are made by NBR without formal consultation with the Ministry of Commerce. With the COVID-19 crisis putting a significant strain on finances, there will be even greater pressure to at least maintain these revenue streams in future years. Second, tariffs are an instrument of discretion and influence, enabling certain firms and sectors to obtain protection from competition in their domestic markets through lobbying. Again, the COVID-19 crisis will likely aggravate this strategic use of protection in the coming years. This has a number of negative consequences. Most notably, it creates an anti-export bias, which in turn makes Bangladeshi firms miss out on the knowledge and technology spillovers from exporting that could help increase private sector productivity, even beyond the firms that export directly. High and selective protection deprives the domestic market of a key source of competition (imports), which creates higher costs and limits access to high-quality inputs, undermining competitiveness at a systemic level, and this costs the consumer. A recent World Bank study estimated that replacing the current array of tariff and para-tariff measures with a flat combined, 10 percent border tax would raise real consumer income by 11 percent and lift 11 million people out of poverty.[27]

Investment Policy Regime Inhibits FDI

The discretionary policy environment governing FDI is a barrier to new investment. In a country with a rapidly growing domestic market and a large, low-cost labor force, low levels of greenfield FDI suggests significant barriers to entry. Bangladesh's recently updated Industrial Policy Act (2016) outlines a broad range of investment incentives in "high-priority" sectors with few distinctions between foreign and domestic investors. Moreover, the Bangladesh Economic Zones Act (2010) established a modern regime for attracting investment into special economic zones and may help address severe constraints on access to land that restrict greenfield investment (box 3.1). The main law governing FDI,[28] however, is now 40 years old, and although the policy regime has few statutory restrictions, it includes many controls and allows for substantial regulatory discretion. There are, for example, 17 "controlled sectors"—financial services, telecommunications, transport, infrastructure, and the like—that require

27 These simulated changes to tariffs and taxes would result in small increases in imports and small revenue losses. Simulations estimating the impact of tariff and import tax reductions affecting 17 tariff lines in four specific sectors:—footwear, electrical, plastic, and lift manufacturing—show that most import prices would decline by 5 to 10 percent and imports would increase by 7.6 billion taka (0.1 percent of total imports in FY2017/18), with only four tariff lines experiencing increases above 500 million taka. (Kathuria and Malouche 2016).

28 The Foreign Private Investment (Promotion and Protection) Act of 1980.

permission from line ministries. Moreover, sectoral equity caps, approval prerequisites, and mandatory public listing on entry is imposed in various sectors, and large domestic actors and sectoral associations are known to lobby for restrictions on FDI.[29] Foreign investors often find the playing field leveled against them such as in situations where they have been targeted over tax or other regulatory issues. The wide scope given to government officials for imposing barriers to imports, technology transfer, and expatriate skilled workers or for targeting specific firms on tax or other regulatory issues means that in practice, many foreign investors find it impossible to operate in Bangladesh without a well-connected local partner.

Investment promotion and facilitation practices are being further upgraded. Bangladesh has taken important institutional steps in recent years to strengthen its investment promotion and facilitation regime. The formation of the BIDA in 2016 to take over the role of the Board of Investment was followed by the One-Stop-Service (OSS) Act 2018, which provides the legal basis for a "virtual" OSS for investors. The existing investment promotion agencies like BIDA, Bangladesh Economic Zones Authority (BEZA), Bangladesh Export Processing Zones Authority (BEPZA), and the Bangladesh Hi-Tech Park Authority (BHTPA) are being strengthened. BEZA has plans to develop scores of public and private economic zones in the country, and BEPZA has a long-established track record in the RMG sector. The lack of coordination among government agencies, however, results in multiple, often duplicate reviews that waste time, raise costs, and create uncertainty for investors. Indeed, investors looking to establish and operate a new business in Bangladesh must steer their way through a regulatory space that includes 150 services delivered by 54 different line agencies.

BOX 3.1 MISSED OPPORTUNITIES FOR TRANSFORMATIVE FOREIGN DIRECT INVESTMENT

In 2011, Samsung requested 250 acres in an export processing zone to develop an electronics hub in Chittagong. It was to be a US$1.25 billion investment that would create jobs for up to 50,000 workers. The investment did not materialize because no tract of land that large enough was available in the area controlled by BEPZA, and the use of the land in the mostly empty 2,500-acre Korean Export Processing Zone in Chittagong had been locked in dispute for more than 15 years. By contrast, Vietnam has been able to provide large, readily available tracts of land to large investors and their suppliers. Samsung was able to locate there with 76 of its Korean suppliers and now directly employs 100,000 workers or 35 percent of its global work force. This made Vietnam, which ten years ago had almost no exports in the electronics sector, the second-largest smartphone exporter in the world (Box 2.2).

Source: Lopez-Acevedo, Medvedev, and Palmade (eds.) 2017, based on Ahsan 2014.

29 With respect to garments, the Bangladesh Garments Manufacturers and Exporters Association (BGMEA) has recently expressed interest in supporting more FDI in the sector, provided there is"value addition" from foreign companies.

3.4. INFRASTRUCTURE

Land Access Constraints Hinder Investment and Expansion

Limited access to and high cost of developable land creates a significant barrier to investment. Bangladesh has the world's highest population density among nonurban states, and given its low-lying location and limited infrastructure, the cost of developing land is among the highest anywhere in the world. Competing pressures from agriculture, urbanization, and industrial development, along with the inundation resulting from climate change, are putting further pressure on land availability and rapidly driving up land prices. In this context, it is not surprising that land access is among the most commonly cited constraints by both domestic and foreign investors. Greenfield foreign investors and medium and large local investors often simply cannot secure a sufficiently large plot of serviced land at a reasonable price. Meanwhile, few SMEs can afford new land or facilities for expansion.

A low-quality land administration system and overburdened courts amplify the land availability problem, holding back investment in urban development. Bangladesh ranks 135th of 141 countries in the Global Competitiveness Index's quality of land administration indicator. The land registration system is still paper based and outdated, consistent with a legal regime for land administration that predates independence. It typically takes more than 400 days to register landownership in Dhaka. Commercial developers are also required to get land-use clearance certificates and building design approvals, which takes another eight months. It is estimated that these hurdles together add as much as 20 percent to the project cost of a housing development.[30] The situation is exacerbated by a history of land disputes: approximately three-quarters of the 3 million civilian and criminal court cases in Bangladesh are related to land disputes. The weaknesses in the administration and opacity of the system present significant room for discretionary practices, making land access dependent on influence. According to a Ministry of Land statement to Parliament, about 1.3 million hectares of government-owned lands are currently held by elites (The Netherlands Land Academy n.d.).

In response to the land scarcity problem, Bangladesh plans to massively expand its use of economic zones, with increasing private sector participation. Starting in the early 1990s, Bangladesh established export processing zones to provide serviced industrial land in a customs-controlled environment to support the development of the export-oriented manufacturing sector. Although these zones played an important role in stimulating the RMG sector, they were limited significantly in size and in scope. Following the Economic Zones Act (2010) and the formation of BEZA (2015), Bangladesh began planning a large expansion in the use of SEZs—using public, private, and mixed-development models—to attract new greenfield investment and more broadly ensure the availability of competitively priced land for the private sector. The solicitation of more than US$20 billion in domestic and private investment proposals as of January 2020 shows strong interest in the zones, as does the initial success in attracting international flagship investors such as Sumitomo and Honda. Given the mixed experience with such zones across South Asia and globally, it will be important for

30 Intelligent Transport System Status and Implementation Challenges in Bangladesh, April 2019

Bangladesh to ensure that they attract experienced international operators to manage them, as well as foreign investors. Bangladesh will also need to ensure transparency, a level playing field in the provision of land, allocations of land located near transport corridors, and the creation of affordable communities with sufficient infrastructure and services to house the workforce. Moreover, it will be important for Bangladesh to professionalize zone management, follow models that use public capital to crowd in private capital (PPP), and ensure environmental sustainability.

Transport and Logistics Inefficiencies Drag Down Productivity and Inhibit Trade Potential

Bangladesh's transport infrastructure has not kept pace with growth. Bangladesh ranks 100th of 141 countries in the World Economic Forum's Global Competitiveness Index in transport and 117th for road connectivity. Not enough transport infrastructure has been built, maintenance has been poor, and flooding and other climate change-induced weather events pose additional challenges. Performance issues in the road sector, which carries more than 60 percent of freight and 70 percent of passenger traffic, are many, and poor road safety and congestion have created significant economic, social, and environmental costs.[31]

Low-quality, inefficient infrastructure contributes to high logistics costs and reduces reliability, undermining competitiveness in GVCs. Bangladesh ranked 100th out of 160 countries in the 2019 Logistics Performance Index, underperforming relative to other coastal Asian countries, and it also had the weakest performance on hard infrastructure (121st out of 160). The logistics system is characterized by congestion (roads, ports), lack of reliability (ports), red tape (facilitation payments), limited sophistication (weak intermodal connectivity, limited use of ICT, inadequately qualified personnel) (Herrera Dappe and others 2019), and informality across logistics services providers. The competitiveness of Chittagong and Mongla ports is compromised by their shallowness, requiring costly load transfer. At Chittagong and Benapole (a land port), shortage of equipment, congestion, and long wait times for consignments have been long-standing problems. Dhaka Airport also suffers from capacity constraints, outdated equipment, lack of storage facilities, and the loss of goods from theft or from damage due to flooding and rains. Overall, logistics costs are high in most sectors, ranging from 5 percent of sales (for footwear) to 48 percent (for horticulture) (Herrera Dappe and others 2019). Moreover, time delays and uncertainty make it difficult for exporters to meet order deadlines of global buyers.

The drivers of underperforming transport and logistics are rooted in governance weaknesses and capacity constraints. Physical investments are needed to keep pace with growing demand (such as in ports), but several factors are blocking the expansion and improvement of transport infrastructure and logistics services, including the following:

- **Lack of comprehensive strategic vision and fragmented sector governance.** Bangladesh lacks a strategic road map for the transport sector, starting with the absence of a comprehensive transport sector master plan. In addition, sector governance is highly fragmented across different ministries and agencies with

31 For example, the social costs of annual carbon dioxide emissions from interdistrict transport in Bangladesh is equivalent to 1.2 percent of GDP, with almost 60 percent of the emissions caused by congestion (Herrera Dappe and others. 2019).

overlapping responsibilities, making clear accountability and effective coordination difficult. Lack of coordination across different transportation modes also frustrates efforts to improve performance of a particular transport link. Severe congestion at Chittagong Port, for instance, is exacerbated by congested roads around the port. The port authority, though, has not been involved in the planning of construction or traffic diversion plans related to the port-linked roads, potentially frustrating ongoing efforts to address congestion onsite. The government is pursuing plans to expand maritime port capacity at different locations in the country without a thorough competitiveness analysis of respective port expansions or additions. In the logistics sector, the warehousing subsector has evolved in a haphazard way without a cluster-based approach and is predominantly used for captive warehousing.

- **Outdated and complex regulatory landscape and weak enforcement.** In Bangladesh, regulations often date back decades and are no longer up to par with today's circumstances. This is further exacerbated by weak enforcement and the weak capacity of key agencies. Congestion at Chittagong, for example, is partly driven by imports not being cleared out of the port area. The use of off-docks for imports is limited to 37 products, requiring many goods and all partial-container-load (PCL) shipments to be cleared at the port. In addition, off-docks (95 percent of which are for exports currently) are required to be within a certain distance from the port, which proves difficult, given access to land issues. While the Customs Act stipulates that importers have to clear their goods from the port within 45 days, enforcement is so weak that containers sometimes stay in the port for years. Neither fines nor fees have been adjusted in several decades, and this allows importers to utilize the port as cheap storage. Regulations for bonded facilities are guided by the laws from the 1980s, which hampers bonded trucking introduction. Further, transit storages do not operate as bonded facilities, and there are no written standard operating procedures for transshipment.
- **Continued dominance of public sector and inefficient service.** The inadequate implementation and financial capacity of SOEs, which remain in charge in key subsectors, hold back efficiency improvements and modernization in the sector. Both Chittagong Port and Dhaka Airport are operated by public entities. Bangladesh is the only country in South Asia in which the landlord model, in which government owns basic infrastructure and regulates while the private sector operates, has not been implemented. While the government of Bangladesh has advanced the PPP agenda to attract private participation over the last 10 years, there are parallel efforts that demonstrate the government's preference toward financing large infrastructure projects such as airport expansion on a government-to-government (G2G) basis.
- **Poor implementation capacity and the increasing presence of unsolicited proposals (USPs) and G2G contracts weaken the existing PPP framework and approach.** As discussed in detail in the Bangladesh InfraSAP (2020), the government has made progress putting in place an institutional and policy framework for PPPs in recent years in expectation of increasing service delivery, quality, and efficiency through private investment. Bangladesh, however, has experienced only tepid success in building a pipeline of PPP projects and implementing projects. The government must address internal capacity issues to (a) increase the quality of project proposals, (b) understand and be prepared to manage contingent liability issues, and (c) increase transparency by putting appropriate guardrails around USPs and G2G undertakings.

Energy Supply Remains Unreliable

Bangladesh has leveraged the private sector to make major progress on its large energy deficit, but reliability remains an issue. Bangladesh quadrupled energy-generating capacity from 4.5 gigawatts (GW) to 20.5 gigawatts[32] during 2009–20, ramping up grid-based access from 32 to 85 percent between 2000 to 2018.[33] A recent IFC study shows that the unreliability of the power supply remains a major challenge to expanding medium-sized enterprises in sectors with export potential such as engineering goods, agro-processing, leather goods, and footwear. The study estimates that the annual loss to production due to power disruption has been over 0.5 percent of GDP (Sumi and Reaz 2019). Bangladesh is also in the bottom 5th percentile for the getting electricity indicator in the 2020 Doing Business report. Even larger firms interviewed during CPSD consultations indicated difficulties in getting connection to electricity.

The underperformance of the energy sector is linked to long-standing inefficiencies across the energy value chain that do not allow end users to receive the full benefits of the remarkably expanded generation capacity. These inefficiencies are largely driven by a lack of cost recovery in the system, inefficient practices in allocating domestic gas, suboptimal procurement practices of new generation capacity, lack of merit order dispatch, and growing transmission and distribution bottlenecks. As a result, the system wastes a lot of domestic gas and disincentivizes investment in new exploration. More efficient power plants are underutilized because cheap domestic gas is often allocated to older, less efficient, state-owned power plants and enterprises. New power plants do not necessary produce least-cost power. Some of the new power projects are reportedly facing delays due to delays in connecting to the grid. Furthermore, around 30 percent of the installed capacity comes from so-called rental plants that run on expensive liquid fuels: heavy fuel oil (HFO), furnace oil, and diesel. These plants, which generate very expensive power, have been introduced as a short-term solution to address acute energy shortages, but the process of phasing them out has been slow. Against this backdrop, continued expansion of domestic generation—the current power sector master plan envisages continued buildup of energy generation to reach 100 GW by 2041, including a buildup of coal-based generation capacity from nearly zero to around 30 percent —may be a suboptimal solution.

The energy sector assessment presented in Part II provides recommendations on how to recalibrate Bangladesh's energy sector strategy to achieve cost efficiency, reliable power supply, and a less carbon-intensive energy mix. It focuses on strengthening competitive procurement of new generation, increasing the share of imported and domestic energy generated from renewable sources, and expanding private sector participation in the transmission sector to ensure that least-cost energy can be delivered to the end consumer.

32 Data from the Bangladesh Power Development Board (BPDB).
33 World Development Indicators database.

Digital Infrastructure Expansion Is Needed to Support Productivity Growth and Improve Service Delivery

Although ICT penetration is growing rapidly, digital infrastructure is still significantly underdeveloped. The government of Bangladesh's Digital Bangladesh program helped drive a strong growth in internet connectivity, mobile phone usage, and the use of ICT in public services. The mobile telecommunication (telecom) industry in Bangladesh has scaled up rapidly to become the fifth-largest mobile market in the Asia-Pacific region, with more than 165 million subscribers as of the end of 2019, according to the Bangladesh Telecommunication Regulatory Commission (BTRC). The market, though, is still nascent with large infrastructure gaps remaining. As of 2020, only 15 percent of the population was covered by the 4G technology necessary for most modern applications. Internet bandwidth is low and poor-quality digital connection, for instance, reportedly causes frequent blackouts of the customs management system, adding to significant delays in imports and exports processing. The growing fintech sector also reports challenges caused by inadequate internet connectivity. According to the latest data from the International Telecommunication Union, as of 2019 only 13 percent of Bangladeshis used the internet versus 69 percent in Vietnam. Although digital industries are developing, access and quality gaps mean most businesses, especially SMEs, still make limited use of digital technologies. This is partly explained by the relatively high cost of internet connection, with the average cost of a fixed-line broadband package in Bangladesh ranking as second-highest in South Asia, about 2.5 times higher than in Vietnam (US$27 versus US$11 per month).[34]

Bangladesh has implemented important pro-market reforms to spur the development of the telecom market, enabling sizable private investment. The telecom law supports an independent regulator—BTRC—which has reportedly licensed close to 1,500 internet service providers (ISPs), four large mobile network operators (MNOs), and six national telecommunication transport networks. In earlier years, mobile operators received access to railway fiber networks when they began operations, which helped launch their services quickly and in a cost-effective manner, a good case for infrastructure sharing. Since the licensing framework for nationwide telecommunications transmission networks (NTTNs) was put in place in 2008, the mobile operators have relied mainly on the NTTN players to provide fiber networks for their expansion. Similarly, the government issued independent tower company licenses in 2018, which are expected to serve as the next round of growth drivers for the shared digital infrastructure in the country. Even with multiple NTTNs, though, quality, investment, and tariffs on optical fiber remain major concern to MNOs and ISPs.

Continued expansion of digital infrastructure to increase penetration of digital technologies will be important for meeting the needs of the modern economy, particularly in the context of COVID-19. The role of digital connectivity for business operations, continuity, and the broader functioning of society has been dramatically heightened since the outset of the COVID-19 pandemic, underscoring the critical importance of robust, high-quality digital infrastructure. Despite significant progress over the past decade, large capital investments are still needed in Bangladesh's digital infrastructure, including fiber-optic backbone infrastructure, 4G-capacity expansion,

34 The Price of Fixed-Line Broadband in 211 Countries (database), Cable.co.uk, https://www.cable.co.uk/broadband/pricing/worldwide-comparison/.

and telecom towers. To extend connectivity and to meet data usage growth as users transition from 2G and 3G to 4G, Bangladesh will also need a combination of efficient spectrum management, the deployment of small cells for improved indoor connectivity, the deployment of more towers, and passive and active infrastructure sharing.

Building up modern digital infrastructure will require a friendlier regulatory framework for enabling investment in advanced technologies and infrastructure. Despite major progress in modernizing the regulatory framework for the telecom network, there are important regulatory gaps which undermine the favorable development prospects of Bangladesh's telecom market, which is one of the most attractive in the region, given its size and unrealized potential. The key gaps are pertinent to the following interlinked factors, which create economic inefficiencies and distortions:

- **Overregulation and discretionary regulatory requirements.** The BTRC is de jure an independent regulator, but its independence is often de facto undermined by undue influence, which results in ad hoc policy changes and directives. These changes are often undertaken without adequate consultation with the industry players and without adequate impact assessment. The BTRC, for instance, is reportedly going beyond the scope of tower guidelines, preventing bilateral agreements between mobile operators and tower companies and instead trying to impose a non-negotiated common commercial agreement on all operators. Similarly, BTRC removed the right of mobile operators to lay fiber-optic cables, obliging them to use the fiber networks of designated NTTNs. While Bangladesh's fiber-optic network has a significant surplus capacity, MNOs should have the choice to optimize their infrastructure assets and contracting services. The current regulation also excludes mobile operators from building towers, which was allowed previously. Instead, they must rent towers from licensed parties. In addition, MNOs have uneven access to ducts, poles, and other shared infrastructure. This approach has created market distortions and resulted in a lack of trust between the government and industry players, thus holding back private investment. This ultimately deters the faster adoption of infrastructure sharing and hence does not allow the maximization of efficiency gains of shared infrastructure.
- **Fragmented licensing regime.** The overregulation has also contributed to a highly fragmented licensing regime. Currently, Bangladesh has a myriad of licenses, including 24 for establishing international gateways, 26 for interconnection exchanges, 34 for international internet gateways, seven for national internet exchange, and many others. Licensing of some of these activities only exists in Bangladesh. This regime increases operational complexities and costs for service providers.
- **Inefficient spectrum management.** Despite technological advances in recent years, spectrum availability and utilization remain inadequate in Bangladesh. The availability stands at 0.4 megahertz (MHz) per million of population compared to 1.15 in Indonesia and 3.7 in Tanzania. This is attributed to both the inadequate spectrum allocation framework as well as well as the inefficient use of spectrum by the operators. A spectrum auction conducted by BTRC in 2018, for example, ended 65 percent below the BTRC target, largely because the reserve prices were set too high to make a business case for the operators (Coleago Consulting 2018). As a result, BTRC received less money from the auction and foregone revenue from annual spectrum fees, while operators did not upgrade the network quality or improve the quality of such services as mobile broadband speeds for consumers. The operators also do not appear to use spectrum efficiently. The 2G technology—the

most inefficient in terms of spectrum utilization—remains dominant in Bangladesh, even though a transition to 4G technology could tremendously increase the efficiency of spectrum use and help improve the quality of service. Conversely, considering that most of the traffic is indoor and concentrated in dense urban areas, the operators could focus on introducing more innovative spectrally efficient solutions to improve the quality of indoor and outdoor service. One area to explore is the ability of operators to effectively use spectrum for fixed wireless access (FWA). The industry should also prepare for the launch of 5G technology. While it will take years to make it available for mass use, it will be important to bring it to market in order to enable digital solutions for manufacturing, agriculture, and public service delivery provisions. With more spectral-efficient technologies, future spectrum allocations going to higher frequencies including millimeter waves, usage of small cells specially for indoor coverage, and spectrum sharing will help address spectrum scarcity. BTRC should work with industry and other stakeholders to adopt a more advanced spectrum management system.

- **High taxes.** The taxes and fees on the sector are high, particularly compared to other sectors. Mobile operators are subject to a corporate income tax of 45 percent (compared to 12 percent for RMG). The industry is also subject to other taxes and fees and to double VAT taxation.

BTRC and the market participants should work together to address the above issues and to implement more innovative and cost-effective solutions, ultimately making telecom services more affordable and sustainable. Immediate priorities include revising the spectrum allocation framework and facilitating market-based infrastructure sharing. In parallel, the industry and the regulator should aim to establish a formal platform for public-private dialogue to inform policy making and to improve communication about policy changes. It will be also important to eliminate discretionary regulatory policy changes, which are introduced without adequate impact assessment on the industry and without prior consultations with the industry players.

Greater Adoption of Public-Private Solutions Will Be Critical for Closing Outstanding Infrastructure Gaps

Despite early success in leveraging the private sector in the energy generation sector, there has been a limited uptake of PPPs more broadly. In the mid-1990s, Bangladesh started to open its energy generation sector to private participation, which made a significant contribution to the energy mix today. Over the past decade, Bangladesh has made greater efforts and has put in place a regulatory framework, including a PPP law (2015), a PPP policy, and various guidelines (2010, 2018) and has set up technical assistance and viability gap funding (2018). Opening up infrastructure segments other than energy generation to private participation, though, has been lagging, and project pipeline development has been sluggish. Although the financing gap of approximately US$10 billion per annum through 2040 (InfraSAP 2020) signals significant potential for private sector financing, the weak institutional capacity and coordination of PPPs, sub-par public investment, and fiscal liability management and transparency issues have hampered the successful implementation of PPPs to date.

The World Bank Group Infrastructure Sector Assessment (InfraSAP)[35] notes that stronger institutional and implementation capacities are needed to leverage private investment and participation through PPPs for infrastructure service provision. In light of Bangladesh's limited fiscal resources, a greater use of PPP instruments could unlock much-needed investment in infrastructure, health care, education, and other critical services. The key issues include (a) weak implementation capacity in the relevant entities such as the Public-Private Partnership Authority (PPPA) and implementing line ministries; (b) limited structuring experience, understanding of risk sharing between public and private entities, and bankability requirements for projects; (c) coordination between the PPPA and line ministries in aspects like project evaluation and implementation; (d) transparency regarding G2G agreements as well as USPs, in which ambiguity may lead to loss in investor interest and suboptimal projects; (e) availability of donor and bilateral government funding that discourages line agencies from exploring private or commercial sources of financing (Box 3.2). Addressing these challenges will require a sector-specific approach and major upstream efforts to develop viable projects. The government recently has expressed interest in exploring more strategic engagement with the private sector through PPPs and other partnership models in the areas of health care, transport, and logistics.

TABLE 3.3 PRIORITIZED ACTIONS FOR PUBLIC-PRIVATE PARTNERSHIPS IN INFRASTRUCTURE

Near-Term Actions	• **Create a centralized product information management unit** under the purview of the Planning Commission. • Planning Commission and Public-Private Partnership Authority (PPPA): ***Adopt project selection and prioritization tools***. • Line ministries: ***Establish a dedicated public-private partnership (PPP) cell.*** • PPPA: ***Strengthen capacity*** through recruitment strategy, focused training curriculum, and competitive hiring. • PPPA: ***Develop guidelines*** on the content of feasibility studies. • PPPA and infrastructure-related agencies: ***Establish a PPP Forum*** for continued dialogue between the public and private sector. • PPPA: ***Work on declaring unsolicited proposals (USPs) an exception to public procurement policy*** and have clearly defined procedures for USPs. • Public-private partnership units (PPPUs): ***Make government-to-government projects subject to general fiscal commitment and contingent liability (FCCL)*** control and management as applicable for PPP projects.
Medium-Term Actions	• PPPUs: ***Develop an FCCL framework*** • ***The government of Bangladesh will deliver a few well-structured PPP projects for demonstration effect*** in key infrastructure segments (ports, road, water).

35 The report discusses sector priorities, financing needs, and bottlenecks to private participation in the energy, transport, and water sectors and provides recommendations on how to address constraints. It provides an analysis of PPPs across sectors and discusses cross-cutting issues such as SOEs, land, and environmental and social issues.

Based on Bangladesh's infrastructure priorities, diagnostics and context, the InfraSAP policy recommendations stress capacity building, better coordination (including outreach to the private sector), and more transparency to increase private participation through PPPs in the next one to three years. The main recommendations on the PPP agenda for infrastructure priorities are summarized in table 3.3. Box 3.2 summarizes complementary priorities for mobilizing private financing for infrastructure projects.

BOX 3.2 EXPANDING FINANCING OPTIONS FOR INFRASTRUCTURE PROJECTS

Sovereign bond issuance. The government needs to issue sovereign bonds in the international capital markets so that there is an adequate benchmark against which sovereign risk will be priced. This could also include bonds by state-owned enterprises with sovereign backing. This could facilitate the issuance of offshore bonds by Bangladeshi companies operating in the infrastructure space to tap into a new source of financing. This should be considered after the turbulence exerted by COVID-19 on global financial markets wanes.

Relaxing restrictions on the amount of preference shares that banks are willing to subscribe. Globally, the issue of preference shares is one of the key modes for financing infrastructure projects. The Bangladesh Investment Development Agency (BIDA) considers subscription of preference shares by banks as part of capital market exposure, which is restricted.

Adjusting Interest rate caps on foreign borrowing as per the BIDA foreign exchange guidelines and BB Foreign Exchange Act of 1947. It is difficult for international lenders to lend to infrastructure projects at this rate, given the risk profile of Bangladesh and alternative markets for lending. The LIBOR (or its forthcoming replacement) plus a margin as the ceiling would be more appropriate.

Relaxing foreign direct investment restrictions. BIDA requires a 70/30 debt-to-equity ratio for all foreign investments.

Developing domestic capital markets. Bangladesh's bond market represents 12 percent of its gross domestic product, with government bonds dominating the market. The private equity industry is nascent. As a result, the power companies, for example, mostly fund the projects through accumulated earnings or multilateral loans, both of which are limited. They therefore often resort to financing long-term projects with short-term financing, causing asset liability mismatches.

Issuance of local currency bonds offshore. Such bonds are issued in local currency in an attempt to shield issuers from currency risk and transfer the risk to investors buying the bonds. The coupon rate depends upon factors such as the issuing entity's country rating and currency stability.

Strategic disinvestment from public utilities. This will first require improving their governance and operational efficiency, thereby strengthening their creditworthiness.

Source: CPSD team based on PwC 2018b

3.5. HUMAN CAPITAL

Human Capital Gaps Inhibit Productivity Growth in the Private Sector

Weak human capital inhibits the productivity potential of the private sector. According to the World Bank's Human Capital Index, shortcomings in health and educational outcomes reduce the productivity of Bangladesh's future workforce by more than half (figure 3.4). The bulk of the workforce still has a very low level of educational attainment (it's on par with the Republic of Korea 50 years ago), and even among youth entering the workforce, nearly half have not completed secondary education. Employers regularly complain of skills gaps, notably in priority sectors such as light engineering, agribusiness, ICT, and pharmaceuticals. In the World Economic Forum Global Competitiveness Index's business opinion survey, "inadequately educated workforce" was identified as the fourth-most cited constraint. Bangladesh's ranking in the skills category of the index (117th out of 141) is in line with regional and low- and middle-income countries (LMIC) averages but is at only half the level of UMIC peers that Bangladesh targets in its next stage of development. Education outcomes are particularly poor in terms of producing better-trained workers with which to fill technical and managerial positions, and the workforce is significantly lacking in the technical skills and competencies needed to adapt to the changes that will be brought by rapidly developing technologies (World Bank 2018).

The COVID-19 pandemic risks halting or even reversing recent gains in human capital. The COVID-19 pandemic has closed schools and universities in Bangladesh, impacting some 40 million students from preprimary through tertiary institutions. While school closures will surely impair learning outcomes, the bigger concern is how the economic crisis may result in poor households no longer being in a position to send their children back to school when they reopen. Similarly, tertiary education students may not be in a financial position to re-enroll. The economic impact of the COVID-19 pandemic may affect health and educational outcomes even more severely by reducing the access of poor and vulnerable households to nutrition, potentially retarding physical development and producing a lower capacity for learning and worsening overall health.

Skills Development Ecosystem Falling Short in Quality and Relevance

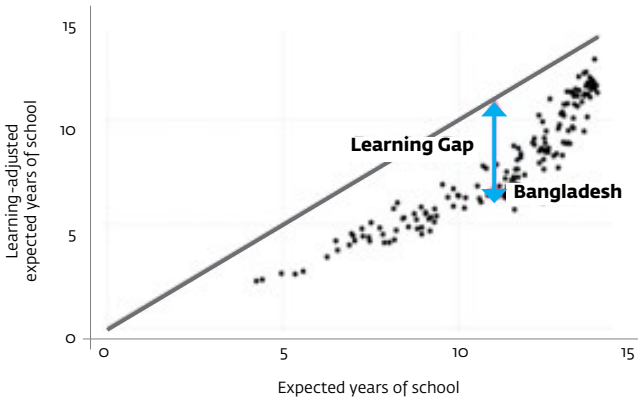
While higher academic education and technical and vocational education (TVET) is expanding rapidly, major quality gaps in quality and relevance are undermining their effectiveness. Enrollment in higher education has increased rapidly from 1.5 million students in 2010 to 2.6 million in 2016, partly as a result of the huge expansion of private colleges. Similarly, enrollment in TVET programs has taken off. Its share of total education enrollment went from less than 1 percent in 2007 to 14 percent in 2017.[36] Both segments still face problems in educational quality and in improving access, particularly for women and the poor. Shortage of financing, lack of qualified teachers (especially in key fields like STEM), inadequate facilities, and missing or weak standards

36 Data is from the Bangladesh Directorate of Technical Education, Ministry of Education, 2017.

all contribute to poor outcomes. Both the academic and TVET systems, moreover, are perceived as disconnected from employers, which contributes to a belief that education and training are irrelevant to the needs of the private sector. Despite the concerns that employers have about skills gaps, especially in small and medium establishments, though, Bangladesh provides fewer on-the-job training opportunities than peer countries (figure 3.5).

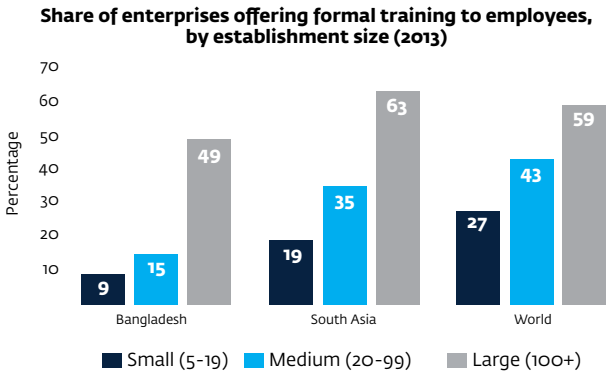
Institutional capacity constraints and poor coordination are major contributors to poor skills development outcomes. In the TVET system, for example, at least 23 different ministries have a mandate for skills training, but they tend to coordinate poorly with each other and with the private sector. Establishment of the National Skills Development Authority and the National Human Development Fund offers a possible institutional mechanism for improving the coordination and relevance of the fragmented network of public and private programs targeting skills development and for making targeted efforts to reduce the gender gap in skills. In addition, the establishment of the Industry Skills Councils (12 established to date), which involve coalitions of industry associations and key enterprises, has the potential to strengthen industry-institutional collaboration and enhance the quality of and access to skills training. To date, this promise remains unfulfilled due to resource limitations and capacity constraints, along with challenges in securing contributions and commitments from industry stakeholders.

FIGURE 3.4 LEARNING GAP IN BANGLADESH



Source: World Bank, Human Capital Index.

FIGURE 3.5 ENTERPRISES THAT INVEST IN TRAINING THEIR WORKFORCE, BY SIZE OF ENTERPRISE, 2013



Source: World Bank, Enterprise Surveys.

04. POLICIES FOR UNLEASHING PRIVATE SECTOR DEVELOPMENT

Main message: *Bangladesh needs to engage urgently in a new round of reforms. Such reforms will hopefully promote a diversification, openness, and competitiveness that will drive export-led growth and exploit the power of the private sector for broad-based investment and service delivery. This will require strengthening economic policy and modernizing institutions and changing the relationship between government and the private sector. The need for Bangladesh to plot its recovery from the COVID-19 crisis over the next several years presents an opportunity for making progress along this reform and modernization path.*

4.1 TIME FOR A NEW ROUND OF REFORMS

The time to engage in significant structural reforms to reinvigorate the private sector has arrived. Achieving Bangladesh's development aims will require the private sector to take advantage of the significant opportunities to invest, expand, and diversify. The current economic policy environment, though, places significant barriers in the way of the private sector, particularly for SMEs, foreign investors, and any investors working outside of well-established sectors. Additionally, the COVID-19 crisis is amplifying the threats to Bangladesh and accelerating the deterioration of the policy environment. Progressing on the reform agenda is now more important and urgent than ever.

Openness, diversification, and competitiveness will need to be central tenets of Bangladesh's approach to private sector-led growth and job creation in the coming years.

- **Openness:** Trade had been a critical part of the Bangladesh success story, and it is likely to play an important role in the recovery from the COVID-19 crisis. Despite the rapid growth of Bangladesh's economy and its large population, the size of the domestic market is equivalent to just 1 percent of global trade, one-tenth the level in India and one seventy-fifth the level in the United States. As there is no doubt that Bangladesh's growing domestic market can be a valuable springboard and that the strength of domestic value chains will be a priority, the private sector in Bangladesh has much to gain by embracing an outward orientation in sectors beyond RMG. Integrating into regional and global markets also calls for greater openness to FDI. It

also means dismantling domestic market protections. Although protectionism helps build industrial capability, it raises costs for producers and consumers and prevents a broader, more competitive private sector from emerging. Finally, for the government of Bangladesh, openness also extends to taking greater advantage of the private sector's capacity for infrastructure investment and service delivery.

- **Diversification:** To drive growth and reduce vulnerability, Bangladesh's private sector will also need to diversify in several ways. First, it must diversify exports beyond traditional sectors like RMG and develop new agriculture, manufacturing, and services sectors. The COVID-19 crisis has highlighted the vulnerabilities inherent in Bangladesh's overreliance on RMG. It will also need to expand the range of products and markets served by traditional sectors. The government, the private sector, and development partners have identified a number of opportunities within Bangladesh's product space that may offer high potential to expand exports, build domestic value chains, and create jobs. The private sector itself will also need to become more diversified, opening up to ensure that a wider range of actors emerge and compete both in export and domestic markets.
- **Competitiveness:** Gaining market share in new sectors and increasing value addition in traditional ones will require an increased focus on competitiveness. This includes improving both the external environment in which the private sector operates, as well improving the technologies and capabilities within the private sector. The need to raise productivity goes beyond the export sectors, which will face an increasingly challenging, competitive environment in the coming years. Indeed, raising productivity is also critical for raising earnings and improving job quality for the large segment of the private sector that remains small and largely informal.

Moving to the next stage of development requires changing the way the government approaches its role relative to the private sector. As countries move into middle- and upper-income stages, the role of the government, even in a developmental state, tends to shift from actively leading to becoming an effective regulator and facilitator of the private sector. Similarly, the manner in which government interacts with the private sector changes from one based on relationships to one based on systems supported by transparent, modern institutions. For Bangladesh, this means the relationship-based approaches of the present, which rely on discretion and perpetuate gaps between insiders and outsiders—for example, negotiating subsidies and tax exemptions on a sector-by-sector basis ahead of each budget—will become increasingly less effective. At the moment, however, the government is not set up to take on this new role: far from being facilitator, evidence from Doing Business and other surveys of the private sector show that inefficient bureaucracy is one of the primary sources of hindrance to the private sector. As a regulator, the state lacks institutions and enforcement capacity to protect competition, workers, and the environment.

This urgently requires the government to undertake a new round of deep policy reforms that borrows from the experience of successful East Asian economies. Since the 1990s, the pace of reform in Bangladesh has been incremental at best, with notable exceptions in energy and SEZ policy. In much of the economic policy that affects the private sector, there has been erosion rather than progress. Bangladesh's failure to maintain reform momentum is perhaps best illustrated by its performance in the World Bank's annual Doing Business report, where the country remained in the bottom decile over the past five years. As Bangladesh seeks to upgrade to higher-value-added activities in sectors like RMG, develop new competitive sectors, and expand the scope of the private sector, the onerous policy environment is increasingly becoming a binding

constraint. Experiences from East Asia's successful industrializers, including China, the Republic of Korea, and Vietnam, point to the importance of second-round policy reforms to kick-start the stage of the development path that Bangladesh is now entering.

Delivering on these reforms requires a significant, comprehensive strengthening of governance. To move to the next stage of development Bangladesh needs a stronger institutional context to succeed on policy reforms. As seen in East Asia, modernizing institutions for the next development stage requires improving the capacity and efficiency of the bureaucracy, but most importantly, addressing transparency and predictability. This includes ensuring a level playing field on which the private sector, including individual firms and industry associations, engages with government in a coordinated and systematic way to shape policy. This ensures greater transparency and predictability in both policymaking and policy enforcement. It also requires government-wide rationalizing and improving coordination to address problems of institutional fragmentation and overlapping authority. Bangladesh's transport sector, for example, currently comprises five ministries and 21 agencies with overlapping and partially conflicting mandates. Similarly, at least 23 different ministries and agencies possess some mandate over skills development. Efforts to modernize institutions have begun, including the launching of e-governance initiatives aimed at improving efficiency and transparency, but there is a long way to go. While institutional modernization is a long process that will take at least until the next Perspective Plan period to complete, getting the foundations in place during the next Five-Year Plan period will be critical.

Finally, delivering on this next stage of development will also require a change in the way the private sector operates. For Bangladesh to become an upper-middle-income country, the private sector will need to continue expanding, as well as become more diversified to close the gaps between insiders and outsiders. There will need to be space for new entrepreneurs and new sectors to emerge, with Bangladesh's "long tail" of SMEs playing a bigger role as sources of investment and job creation. Leading actors in the private sector will need to embrace openness, outward orientation, and competitiveness, rather than seeking to maximize the rents from existing markets. As part of this shift, these leading private sector actors will need to demand more transparency and efficiency from government institutions, rather than seeking to take advantage of these inefficiencies or simply work around them.

4.2. POLICY RECOMMENDATIONS

Table 4.1 provides an overview of the three highest-priority reform areas based on the analysis presented in the CPSD. Appendix A of the report includes the full set of reform recommendations. For each, the table highlights priority reforms, distinguishing between short-term actions ("low-hanging fruit") and structural reforms that are more difficult but ultimately critical ("game changers"). Unlocking the main constraints to the private sector will not be possible without addressing these "game changers." The high priority recommendations include the following: (a) Create a level playing field for business with a focus on facilitating exports and investment; (b) Restructure and modernize the financial sector; and (c) Unlock infrastructure constraints through regulatory reform and private participation. It is important to note that this CPSD focuses on a set of selected, priority constraints. Even beyond the full set of reforms covered in appendix A, there exist additional areas where reforms are needed to support specific sectors (education, water, housing, business services, and the like) or the private sector more broadly.

TABLE 4.1 KEY PRIORITY CONSTRAINTS AND POLICY REFORM RECOMMENDATIONS FROM THE CPSD

Policy Interventions		covid-19 Response		
"Game changers"	"Low-hanging fruit"	(1)	(2)	(3)
Reform Priority I: Create a level playing field for businesses and focus on facilitating exports and investment				
• Introduce a new ***Companies Act*** to modernize the processes of starting and running a business. • Overhaul the ***1947 Foreign Exchange Act*** to ease access to foreign capital for trade and investment. • Implement ***tariff rationalization*** for inputs in key export sectors, focusing on the ***removal of supplementary duties.*** • Fully implement the ***Customs Modernization Strategic Action Plan 2019–22.***	• Fully operationalize the ***One-Stop Service*** created by the Bangladesh Investment Development Agency. • Amend ***external commercial borrowing guidelines*** to shift from "blanket" to risk-based approval and introduce market-based ceiling by including the LIBOR. • Streamline processes and expand the ***bonded warehouse regime*** for non-RMG sectors. • Make the ***National Trade and Transport Facilitation Committee*** effective and operational. • Strengthen domestic ***testing and certification*** capacity.	✓	✓	✓
Reform Priority II: Restructure and modernize the financial sector				
• Establish an ***independent banking commission*** to review stability issues (NPLs, capital adequacy, liquidity, interest rate ceilings on bank credit) and adopt a ***reform road map*** in line with international standards. • Comprehensively address NPLs by introducing full ***asset quality review; NPL resolution and insolvency frameworks; a well-governed asset management company; and corporate governance standards.*** • Strengthen ***Bangladesh Securities and Exchange Commission (BSEC) capacity and oversight,*** including by introducing streamlined ***guidelines for corporate bond issuance and increased disclosure requirements for listed companies.***	• Amend the ***Money Loan Courts Ac***t to minimize lengthy stay orders and allow ***out-of-court workouts***. • Adopt the ***Secured Transaction Bil***l and establish a ***movable collateral registry.*** • Introduce ***regulatory frameworks for Fintech*** and guidelines for ***interoperability*** between mobile financial services, agent banking, and banks. • Revise ***private equity and venture capital rules and introduce a regulation for private provident funds***.		✓	✓

Policy Interventions		covid-19 Response		
"Game changers"	**"Low-hanging fruit"**	**(1)**	**(2)**	**(3)**
Reform Priority III: Remove infrastructure impediments through regulatory reform and private participation				
Transport • Develop and implement an ***integrated multimodal transport and logistics master plan.*** • ***Separate port oversight and operation*** and open port development to ***private participation*** and FDI. • Relax ***restrictions on foreign ownership in logistics.***	• Increase ***demurrage fees*** and allow more products for ***clearance in off-docks*** to decongest Chittagong port. • Establish and enforce ***performance criteria*** for port and logistics service providers.		✓	✓
Energy • Adopt a ***power sector master plan*** based on sound demand projections, least-cost power supply, and a special focus on imports. • Maintain active dialogue with neighbor countries on ***cross-border energy trade*** to further ***align regulations*** and mobilize required ***investment from various sources in cross-border transmission***. • Prepare to move to a ***cost-reflective tariff structure and gradually corporatize public utilities.***	• Develop and enact a ***private sector power transmission policy*** and implement a ***pilot PPP*** in the transmission and distribution sector. • Prepare an ***exit strategy from emergency power.*** • Ensure ***competitive procurement of all sources of power generation.***		✓ ✓	✓ ✓
Digital Infrastructure • Ensure the de facto ***independence of the Bangladesh Telecommunication Regulatory Commission*** by eliminating discretionary directives. • Introduce a ***formal platform for public-private dialogu***e to improve communication between the policy makers and market participants.	• Revisit the ***spectrum allocation framework.*** • Ensure that ***regulations for infrastructure sharing support market mechanisms,*** including free choice of providers, equal access to existing infrastructure, and operators' right-of-way to build their own towers and lay cables.	✓	✓	✓
Industrial Land • Adopt the ***National Master Plan for the economic zones program*** with phased land development. • ***Develop the market for climate-resilient infrastructure*** through PPPs in economic zones.				

Note: LIBOR = London interbank offered rate; NPLs = nonperforming loans; PPPs = public-private partnerships; RMG = ready-made garments; FDI = foreign direct investment.
Key to COVID-19 response: (1) Minimizing destruction; (2) Restructuring and recovery; (3) Creating markets.

PART 2: SECTORAL OPPORTUNITIES FOR IMPACTFUL PRIVATE INVESTMENT

INTRODUCTION TO SECTION ON SECTORAL OPPORTUNITIES

This section presents brief assessments of selected sectors where targeted reforms could enable private sector growth and investment in the near to medium term. The selection of sectors has been guided by several criteria, including a sector's ability to address important constraints on private sector growth (the transport and logistics, financial, and energy sectors met this criterion), its potential to contribute to addressing important development gaps such as jobs, access to services, competitiveness and sustainability (value-added manufacturing, agribusiness, health care sectors), and the likelihood that reforms could enable private investments in the short to medium term. Each sector assessment provides an overview of sector structure, describes key policy and investment constraints, and identifies opportunities for private sector investment that can produce significant impact. It also analyzes how the key cross-cutting constraints presented in Part I hold back the sector potential.

The sector assessments presented here are particularly relevant in the COVID-19 context. The COVID-19 outbreak has demonstrated the need to strengthen the health care system, which can be achieved by leveraging private sector investments and delivery models, at least in some areas. Modernization of the transport, logistics, and energy sectors will be more critical for building a more resilient, competitive economy for the recovery phase. The same is true for diversification and the increase of value addition in manufacturing and agribusiness. The financial sector assessment provides arguments for the importance of introducing the NPL resolution framework, given the projected further deterioration of the situation in the banking sector. It also highlights opportunities for increasing its depth and sophistication, one of which is the increase in fintech and digital finance activities, which have seen an increased demand as a result of social distancing measures.

This part of the CPSD extensively builds upon analytical work prepared by the World Bank Group in the past several years. Assessment of the logistics sector greatly benefited from the recent World Bank Group flagship report "**Moving Forward**," while the energy sector assessment drew upon "**Lighting the Way**" and "Toward **a South Asian Regional Electricity Market: Assessment of Economic Benefits.**" Both energy and transport sector reviews provide recommendations consistent with the World Bank Group's forthcoming **InfraSap for Bangladesh** report. The assessment of private sector opportunities in health care extensively references the recent World Bank study "**Private Sector Engagements in the Health Care of Bangladesh.**" The assessment of diversification opportunities in the RMG sector and beyond makes extensive use of the IFC studies "**Textile** Sector **Competitiveness and Sustainability**" and "**Building Competitive Sectors for Export Diversification.**" Finally, the agribusiness analysis draws upon the World Bank's forthcoming report "**Promoting Agrifood Sector Transformation in Bangladesh.**"

05. TRANSPORT AND LOGISTICS

5.1. INTRODUCTION: OVERVIEW OF TRANSPORT AND LOGISTICS SECTOR

Bangladesh's ability to increase its competitiveness, further diversify its exports, and integrate into global and regional value chains critically depends on efficient transport infrastructure and logistics services. Over the past decade, as exports doubled in volume terms to 40 billion in constant U.S. dollars and imports almost tripled, transport infrastructure and logistics services have come under increasing strain. Ranked 99th out of 137 on the Global Competitiveness Index for 2018, Bangladesh trails most of its regional peers and its competitors in East Asia. The country will need more ample, higher-quality infrastructure if it wants to diversify away from RMG into higher-value products with more complex logistics requirements and exploit the potential for regional trade.[37]

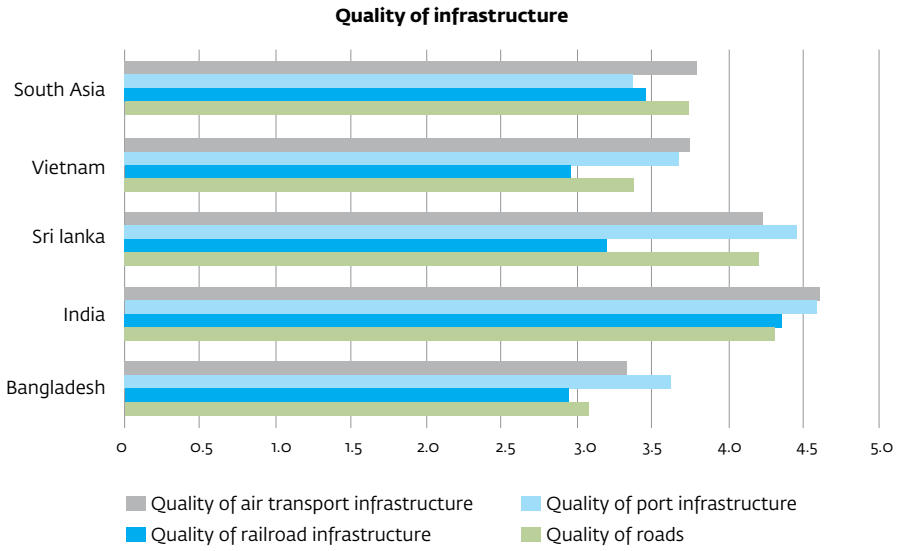
Bangladesh's infrastructure needs, estimated at US$608 billion by 2040, are significant. Annual infrastructure investment needs are estimated to be as high as 10 percent of GDP, of which transport infrastructure investment needs represent about half (Andrés, Biller, and Herrera Dappe 2013). With limited fiscal space and a level of public infrastructure investment constituting less than 2 percent of GDP for the last 15 years, there is a significant financing gap and need for the private sector to come in.

According to a recent market study, the transport and logistics services market in Bangladesh has a value of US$15 billion (PwC 2018a), equivalent to 6.8 percent of GDP. The lion's share, around 75 percent, is in transport (logistics infrastructure) and the remainder in logistics services (warehousing, freight forwarding, customs handling). Given the size of the sector and its projected growth, more formal, competitive private sector participation could create large-scale benefits for Bangladesh.

Bangladesh must address key cross-cutting issues of congestion, poor quality, and unreliability across all modes of transport. Bangladesh has had a largely stagnant performance on the Logistics Performance Index since 2010. Most recently in 2018, Bangladesh scored below India, its main regional competitor, and Vietnam, the highest performer in the same income group. Across all transport subsectors, the quality of infrastructure in Bangladesh is lower than that of its peers (figure 5.1). The transport system is congested across all modes, lacks multimodal integration, and receives little maintenance. This has driven up logistics costs because transportation costs make up the largest share of direct logistics costs (from 33 to 100 percent). In addition, delays in the transport chain involving delivery times due to road congestion and long dwell times at the ports produce unreliable service, leading to high inventory carrying costs across all industries that range from 17 to 56 percent (Herrera Dappe and others 2020).

37 Trade with South Asia makes up only 9 percent of Bangladesh's global trade, which is heavily focused on the EU and the United States. Regional trade could increase Bangladesh's growth but is limited by trade barriers and insufficient connectivity.

FIGURE 5.1 QUALITY OF INFRASTRUCTURE, BANGLADESH AND REGIONAL PEERS



Source: World Economic Forum, Global Competitiveness Report dataset 2018.

It is imperative for Bangladesh to reduce trade-related transaction costs through greater efficiency in the logistics sector. Unfortunately, the sector has been hampered by a fragmented approach and a convoluted institutional landscape unable to address critical capacity and performance issues. Currently, the country lacks an overarching strategic vision and does not have a comprehensive perspective on potential demand and investment needs.[38] While the sector has two principal national policy frameworks (National Land Transport Policy, 2004; National Integrated Multimodal Transport Policy, 2013), there is limited coordination among the various ministries and agencies, resulting in conflicting mandates and overlapping responsibilities. According to Herrera Dappe and others (2019), a comprehensive approach to address these weaknesses would yield significant benefits: a 2.6 percent reduction of logistics costs for tradable goods and a 19 percent increase in Bangladesh's exports.

5.2. IMPLICATIONS OF COVID FOR THE TRANSPORT AND LOGISTICS SECTOR

The COVID-19 pandemic is negatively affecting export-import trade, disrupting demand and supply, and impacting Bangladesh's transport and logistics sector. Bangladesh's key export-oriented economic sector, the RMG industry, has suffered significantly since the outbreak (World Bank 2020). As of April 2020, nearly US$4 billion worth of orders have been either cancelled or suspended by international buyers due to falling demand in the EU and the United States, Bangladesh's main export markets (Bhattacharjee 2020). Export of apparel declined by more than 80 percent in April compared to the previous year. On the import side, supply disruptions in China,

38 World Bank Group forthcoming; Herrera Dappe and others (2019).

which provides roughly 20 percent of Bangladesh's imports, as well as key inputs and raw materials to the RMG sector, have had negative impacts on export-oriented and domestic industries.

Export and import through Chattogram, Bangladesh's main seaport, have decreased, leading to declining revenues. At the same time, congestion at the port has intensified. Imports and exports through the Chattogram Port declined in March by over 12 percent and 26 percent, respectively. However, given the lockdown, imports of nonessential goods have not been cleared out of the port. This is exacerbating persistently poor port performance, which suffers from weak facility management and limited storage capacity. As the government of Bangladesh has waived storage fees, carriers have imposed their own surcharges (congestion, reefer containers), and some have started to divert Chattogram-bound reefer traffic to other ports.

Transport and logistics services are characterized by financial stress and job loss as a result of COVID-19. Transport and logistics providers such as trucking services, river ports, barge operators, freight forwarders, and customs-handling agencies tend to be small, numerous, and while privately run, organized through unions that limit competition. Many of these providers lack financial buffers or backup recovery plans and will incur financial and business loss. When designing and implementing measures aimed at restructuring the sector post-COVID and introducing greater levels of sophistication, the role and level of influence of unions and associations will be an important factor to consider.

COVID-19 may provide further incentives to the government of Bangladesh to act on its commitments to increase and improve private sector participation in transport and logistics. A COVID-induced slowdown in economic growth and trade will alleviate infrastructure capacity constraints and provide an opportunity for corrective action to enhance transport and logistics performance. Historically, the country has relied upon the public sector to develop, deliver, and maintain infrastructure with very few private sector interventions outside of the energy sector. As a result, the country has seen less cumulative investments from the private sector than its regional peers such as India, Indonesia, Malaysia, Pakistan, the Philippines, and Thailand to date.

COVID-19 will likely further aggravate fiscal space constraints, making the mobilization of resources for infrastructure investment an even bigger potential challenge. The COVID response will aggravate the fiscal position of Bangladesh. With export and GDP growth shrinking, the country's already low revenue generation (only 10 percent of tax-to-GDP ratio) will likely continue to suffer. Although its fiscal deficit in 2021 is projected to be 7.5 percent, it grew from 5.5 percent in 2019 to 7.7 percent in 2020. The public debt, on the other hand, is forecast to surge from 34 percent in 2019 to 38 percent in 2020 and 41 percent in 2021 (IFC 2020).

5.3. PRIVATE SECTOR PARTICIPATION IN TRANSPORT AND LOGISTICS

The private sector will need to take on an even greater role as the COVID-19 pandemic limits the government's ability to invest in infrastructure. PPPs may be a possible financing mechanism that could allow the government to manage within an ever-limited fiscal space. In this context however, diligent PPP project selection and prioritization, the quality of structuring PPPs, and allocating project risks across stakeholders will

become more important than ever. The government must remain laser-focused on possible contingent liabilities while being prepared to accept higher risk premiums from international and domestic private investors who may have experienced or are anticipating revenue generation challenges as a result of the economic slowdown.

Only six PPP projects have been implemented in the transport sector since 1990. While the government has committed to increasing private sector participation in infrastructure through PPPs, a lackluster track record has compromised investor confidence. Prior to embarking on a broader PPP agenda, Bangladesh needs to address these shortcomings and the lack of capacity both at the PPPA level as well as at the line agencies in charge of project implementation. The InfraSAP for Bangladesh discusses policy options in detail, which are also referenced earlier in this report.

The CPSD reviews opportunities and constraints specifically in ports, inland waterways, and the logistics infrastructure and services sectors. This choice is based on where private investment is deemed to have broad, positive impact and where it is deemed feasible. The port sector is still dominated by the government, but logistics services tend to be provided privately, though held back by a poor enabling environment and lack of coherence across responsible agencies.

5.4. PORT SECTOR PERFORMANCE: CURRENT STATUS AND OUTLOOK

Bangladesh's principal gateways to global trade are the seaports of Chattogram, and to a lesser extent, Mongla. Chattogram handles more than 90 percent of Bangladesh's international trade volume, which has grown at an annual rate of 9.5 percent over the past decade. Designed originally for an annual throughput of around 1.7 million TEUs, port capacity has been continuously stretched, reaching 3.1 million 20-foot-equivalent units (TEUs) in 2019. Most of the cargo is destined for the Greater Dhaka region, the country's economic center, to which Chattogram is connected by road, rail, air, and inland waterways. Mongla port, located in Bagerhat District in the southwestern part of the country, mainly serves the western part of Bangladesh and is not equipped to serve Dhaka at a competitive level, given its poorer connectivity and smaller capacity of 6.5 million tons and 50,000 TEUs.

Despite some recent capacity and cargo handling enhancements at Chattogram port, performance continues to be subpar and is characterized by congestion, delays, and inefficiencies. On key performance metrics, Bangladesh does not rate favorably. A shorter time in port, for example, is a positive indicator of a port's efficiency and trade competitiveness. Every hour of ship time saved helps ports, carriers, and shippers save money on port infrastructure investments, capital expenditure on ships, and inventory holding costs. Compared to competitors like India, Sri Lanka and Vietnam, ships spend triple the amount of time at Chattogram for container cargo.[39]

Maritime connectivity is modest and significantly lags behind peers in the UN Conference on Trade and Development's Liner Shipping Index in 2019. Bangladesh's score of 13 compares poorly to India (55), Sri Lanka (62), and Vietnam (66), placing

39 See United Nations Conference on Trade and Development, UNCTADSTAT, https://unctadstat.unctad.org/wds.

the country in the same league with countries like Equatorial Guinea, which has only a fraction of Bangladesh's annual trade volume. Container dwell times are also very long—four days for exports, 11 days for imports—mainly due to inefficient port operation, lengthy customs clearance processes, and other backups in the logistics chain (Herrera Dappe and others 2019). Connectivity is compromised by poor performance, as shipping lines avoid calling on ports with low service quality.

Chattogram has some inherent characteristics that put the port at a disadvantage. Compared to regional competitors, Chattogram is much shallower and can only accommodate ships of a certain length and size (up to 1,800 TEUs). As a result, feeder vessels are required for transshipments at regional hub ports such as Colombo and Singapore, incurring additional time and cost from loading and unloading work. This puts Bangladesh at a disadvantage relative to competitors in India, Pakistan, and Sri Lanka that can ship directly to their main markets. With container volumes expected to grow and global container vessel sizes averaging 3,500 TEUs, Bangladesh is planning to build new deep-water ports and is pursuing different options.

There are nonetheless other drivers of the port's underperformance that can be addressed. Good sector governance, clarity of strategic direction, and the professionalization of the port authority can produce improvement. Chattogram Port is managed by the Chittagong Port Authority (CPA) and reports to the Ministry of Shipping (MOS), which provides overall guidance and regulatory oversight. While the CPA enjoys a degree of operational and financial autonomy, it is a public entity under the administrative control of the government and does not operate under purely commercial principles. The CPA requires approval for tariff rates from the MOS, for example, cannot make autonomous hiring decisions, and lacks sufficient technical expertise.

Addressing governance at the CPA may improve operational port performance. According to a recent World Bank study, the CPA scores lowest compared to regional peers on the Board Governance Index (BGI). This index measures professionalization, private sector participation, and size among other characteristics of port authority boards to approximate quality of governance and decision making. Across the region, low BGI scores are correlated with poor port performance, which Chattogram bears out with its longer wait and turnaround times relative to other competitor ports (Herrera Dappe and Suárez-Alemán 2017).

Projected growth of the economy and international trade in the medium to long term requires port performance improvements and capacity additions. While COVID-related effects on trade and growth will attenuate projected container capacity gaps in the near term, demand is expected to outstrip supply within the foreseeable future, pushing utilization rates beyond 100 percent, unless new terminals and new ports are built. Throughput more than doubled from 1.4 to 3.1 million TEUs at Chattogram between 2011 and 2019. COVID-adjusted demand is projected to more than double again to roughly 7.2 million TEUs by 2030, which would far outstrip any realistic capacity expansions at Mongla and Chattogram ports.

The government has built several container terminals and initiated new seaports in recent years, many with limited progress to date. Bangladesh is the only country on the Indian subcontinent where the private sector does not play a meaningful role in the port sector. Among several planned container terminals and seaports, only three have envisioned some form of private sector participation (table 5.1).

TABLE 5.1 PLANNED PORT PROJECTS AND EXPANSIONS IN BANGLADESH

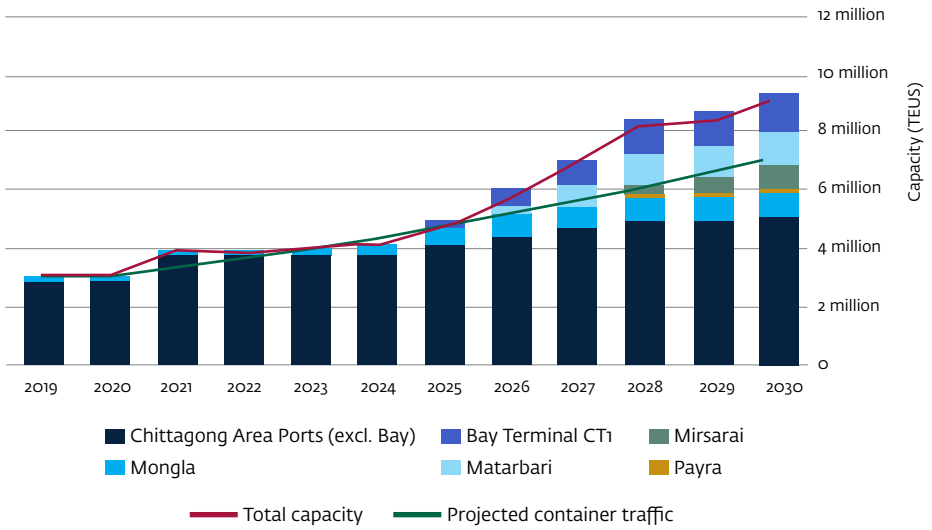
Name of Project	Planned Handling Volume and Container Capacity (Million TEUs)	Distance to Dhaka (km) and road Travel Time (hrs)	Expected Completion	Financing Mode
Chattogram Container terminals				
Ladlia CT	0.6	262 km 4.4 hrs	Discontinued because of land acquisition issues	First port PPP approved in 2013
Kharnapuli CT	0.5	262 km 4.4 hrs	Initiated in 2009 with expected completion in 2021	Public funding (CPA)
Patenga CT	0.4	262 km 4.4 hrs	2021	Public (CPA)
Sea Ports				
Mongla Port expansion (10.5 m max depth)	0.7	280 km 7.7 hrs	Approved in 2020, completion in two phases: 2023, 2025	Public funding
Bay terminal (14 m max depth)	3.0	262 km 4.4 hrs	Initiated 2012, expected completion: 2025	Mix public- private
Matabari (17 m max depth)	3.9	354 km 7.9 hrs	Approved 2020, completed expected 2026	Public funding (JICA)
Payra Port (9.5 m max depth: dredging constraints)	310	310 km 10.1 hrs	Feasibility study 2016, completion unclear; dredging cost may be prohibitive	Mixed funding (PPP)
Mirerrsarai and Sitakundo Port (9.5 m max depth)	1.86	219 km	Feasibility 2019, expected completion 2023–25	Mixed, (JICA)

Source: IFC Internal Assessment

Notes: CT = container terminal; hrs = hours; km = kilometers; max = maximum; m = meters; teu = twenty-foot equivalent unit.

If all the envisioned projects were realized, the port sector may face surplus capacity in the medium term, underscoring the need to properly assess the various port projects that are currently in the pipeline. Any viable private sector participation will rest on a comprehensive, realistic assessment of supply and demand (among other factors) in order to ensure utilization and profitability of the asset. Figure 5.2 indicates the supply and demand balance that would occur if all currently planned container terminal projects were implemented according to schedule. Under this scenario, surplus capacity would start in 2026 and outstrip projected container demand by roughly 2 million TEUs in 2030. It is critical that proper competitiveness analyses of prospective ports are conducted to ensure that there is demand for them and that the economic benefits for Bangladesh are maximized. The probability of success will be increased if this process incorporates the private sector perspective and attracts private investment with committed government backing as recommended in the Seventh Five Year Plan. The government should consider prioritizing key private participation projects in the port sector already underway and review the pipeline to avoid overcapacity in future.

FIGURE 5.2 PROJECTED CONTAINER CAPACITY VERSUS CONTAINER TRAFFIC (TEUS), 2019–30



Source: IFC staff projections 2020, based on publicly available information.
Note: CT = container terminal; TEUs = twenty-foot equivalent units.

5.5. OPPORTUNITIES FOR PRIVATE PARTICIPATION IN THE PORT SECTOR

Integrating the private sector into port operations has been a critical feature of port reform worldwide. The landlord port model, in which both the public and private sectors play a role, is now viewed as the best practice for port ownership and management structure. In this model, overall port oversight, regulation, and basic infrastructure provision is separated from dedicated operational management, investment, and execution. Box 5.1 provides an overview of different port operating models and the mix of public and private provision. The government, often through a port authority, enters into an agreement with a private port operator or operators. The port authority acts as a regulatory body and landlord, and private companies operate the port. Infrastructure is leased to private operating companies, which provide and maintain their own superstructure and own and operate the cargo-handling equipment (Herrera Dappe and Suárez-Alemán 2017).

A regional review of ports in South Asia demonstrates that private participation, exemplified through the landlord model, is linked to better port performance. A variety of ownership and management models is in use in South Asia: Bangladesh operates the toll port system, while India uses both the public and landlord models and Sri Lanka uses only the landlord model. Across the region, most landlord-managed ports have advantages and perform better than the few remaining public and tool ports. Higher levels of private sector participation (measured by the amount invested) are positively correlated with average efficiency in the use of port facilities and operational measures of performance such as turnaround and pre-berthing waiting times (figure 5.3). Larger investments allow port operators to expand and improve berths and terminals; buy better, modern cranes; and install better information and management systems to optimize operations.

There is an opportunity for private participation in deep seaports. The Bay Terminal presents one of the most interesting private sector opportunities in the pipeline. It compares favorably on key competitiveness dimensions such as strategic location and connectivity to Dhaka (distance and road travel time), economies of scale, expected capture of freight traffic, and depth of draft. Bay Terminal would add 3.0 million TEUs of handling capacity, roughly doubling the current capacity of Chattogram. To safeguard principles of sound public finance management, the Bay Terminal, for which a G2G memorandum of understanding (MOU) has been agreed to with the government of Singapore, should be subject to general FCCL control and management for PPP projects, like all G2G arrangements.

Another deep seaport for which possible private sector participation should be considered is Matabari Port, which shares many competitive advantages with the Bay Terminal. Private sector investment in the expansion of Mongla and the Chattogram container terminals are additional opportunities that could set an example and instill some confidence in potential investors looking at the port sector in Bangladesh, where only one prospective PPP (Laldia CT) has been discontinued. As G2G MOUs and USPs have increased, the government should consider the dampening effect these approaches may exert on the transparency of the process and the competitiveness of project selection. Adherence to clear criteria under which G2G arrangements are pursued and disclosure of PPP contracts as possible will support greater private investor interest.

BOX 5.1 PORT OPERATING MODELS: FROM PUBLIC TO PRIVATE PROVISION

Under the **public service model,** a port authority offers the complete range of services required for the functioning of the seaport system. It owns, maintains, and operates every asset (fixed and mobile). Cargo-handling activities are carried out by workers employed directly by the port authority.

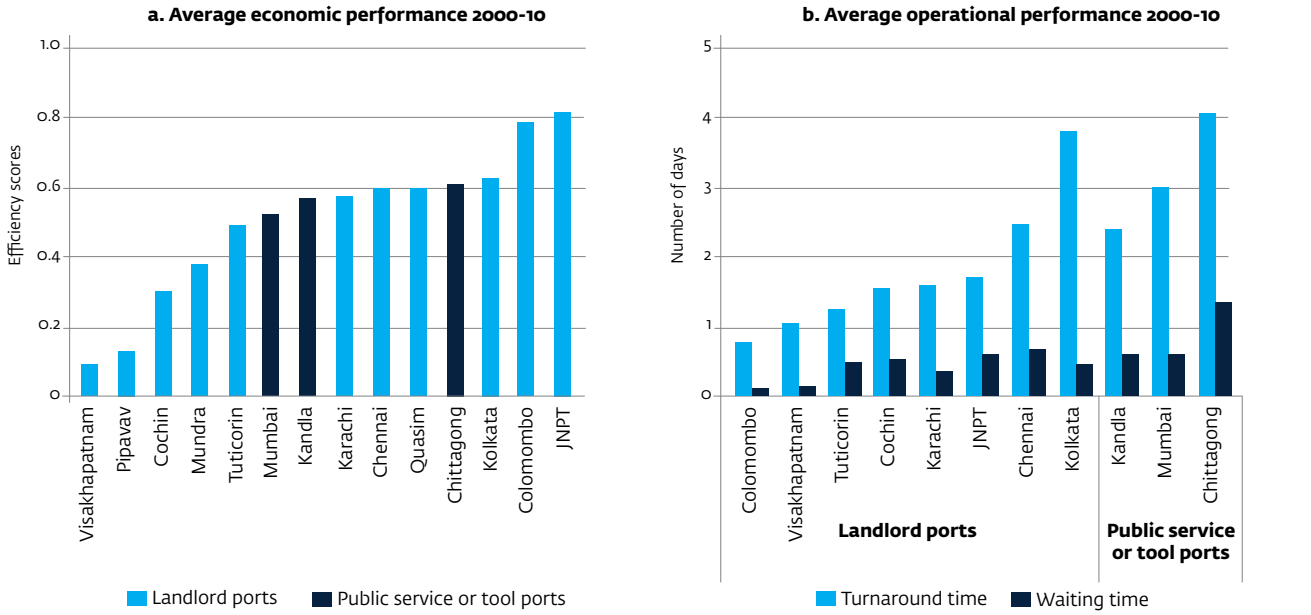
The **toll port model** is similar to the public service model. Under this model, the port authority owns, develops, and maintains the port infrastructure as well as the superstructure, which includes cargo-handling equipment such as quay cranes and forklift trucks. Cargo handling on vessels, on the apron, and on the quay is usually carried out by private firms contracted by shipping agents or other principals licensed by the port authority. The tool port model has often been used as an intermediate step to transition from a service port to a landlord port.

Landlord ports are characterized by their mixed public-private orientation. Under this model, the port authority acts as regulatory body and landlord, and private companies operate the port. Infrastructure is leased to private operating companies. Private operators provide and maintain their own superstructure, own, and operate the cargo-handling equipment, and in most cases, they employ the dock labor. The private operator pays a lease plus a revenue share (if any) to the landlord port authority in the case of a leasehold agreement. In the case of a concession agreement, the concessionaire pays the government for concession rights or the government pays the concessionaire for services it offers.

Very few ports operate under a **private model**. They are usually the result of the sale of port land and the transfer of regulatory functions to the private sector. Under this model, the private sector owns all port land and infrastructure. The state has no meaningful involvement or public policy interest in the port. The port owner has full flexibility and autonomy relative to owning and selling the assets (including land) for maritime or nonmaritime use. Private ports are essentially self-regulating entities with minimal or no regulatory oversight.

Source: Herrera Dappe and Suárez-Alemán 2017.

FIGURE 5.3 ECONOMIC AND OPERATIONAL PERFORMANCE OF PUBLIC AND PRIVATE PORTS IN SOUTH ASIA, 2000–10



Source: Herrera Dappe and Suárez-Alemán 2017.
Note: JNPT = Jawaharlal Nehru Port Trust.

5.6. HINTERLAND CONNECTIVITY: CHALLENGES AND OPPORTUNITIES OF INLAND WATERWAYS

To make Bangladesh more competitive, create better paying jobs, and bring economic benefits to areas outside the Greater Dhaka region, the entire transport and logistics chain must be improved. While the country's seaports are Bangladesh's primary connection to global value chains, trade can only grow and generate benefits if the entire backbone of transport infrastructure comprising roads, rail, and inland waterways has adequate capacity, is well interconnected, and serviced by efficient logistics providers. Herrera Dappe and others (2019) show that workers could enjoy a real wage increase of up to 1.6 percent and create jobs in 11 out of 64 districts in Bangladesh on the back of a comprehensive set of interventions targeting delays at Chattogram port, congestion of the road network, low-quality logistics services, facilitation payments, and other inefficiencies.

The majority of container freight movement takes place between Greater Dhaka and Chattogram, where the modal split is heavily concentrated on the road. Seventy percent of container traffic from Chattogram goes to Dhaka, with almost 95 percent going by road. This creates congestion (the average speed on inter-city roads is only 30 kilometers per hour) and high levels of pollution at the local and intra-regional level. The remaining traffic is transported by rail and inland waterways (IWW). With container traffic potentially going up to 5 million TEUs by 2030 on the Dhaka-Chittagong corridor as compared to its capacity of roughly 2.7 million TEUs,[40] it is imperative to pursue options

40 Data from HPC, KS Consultants Limited 2015.

across all transportation modes, particularly rail and inland waterways. Currently, there is no private participation in the rail sector compared to IWWs, which has a high number of private operators but provides low-quality service.

After roads, IWWs are the second-most-utilized mode of transport in Bangladesh by volume, but industry focus on containers is nascent. About 76 million tons of cargo, mostly bulk, are transported on IWWs, 61 percent of which are imports. Moving more container traffic to IWWs can have economic and environmental benefits, but several challenges must be overcome. Bangladesh has an extensive river network, but only about 6,000 kilometers are navigable during the monsoon season, shrinking to 3,900 kilometers in the dry season. Poor navigation aid systems and nighttime aids limit safe navigation on the river system currently.

Weak operational performance of inland ports makes inland waterway transport of container cargo uncompetitive compared to road transport. Inland water barges suffer from inefficiencies in the cargo handling at ports and in first- and last-mile connectivity. The cost advantage of shipping freight on inland waterways is eroded by the high last-mile cost of reaching the consignee's premises, not least due to the low level of containerization of inland water transport. Any competitive edge is further eroded by the much longer time it takes to move freight on barges, due to manual handling and long customs clearances at inland container depots (ICD). Average door-to-door movement takes about five days, compared to one day by truck. All in all, inland water transport is 17 percent more expensive than road transport, making it an unattractive investment.[41] In this comparison, the particular conditions that characterize trucking don't get full consideration, distorting the market in favor of trucking.[42]

To increase container volume on IWWs, the poor intermodal interconnectivity and capacity constraints of river ports need to be addressed. About 30 inland river ports are located across the country, but many are poorly connected to the road network and economic hubs. They lack adequate, permanent berthing facilities and cargo-handling infrastructure, leading to manual loading and unloading, which reduces utilization of barges and increases costs. River ports also lack storage capacity, often compromising cargo through theft or weather-related damage (Herrera Dappe and others 2020).

To expand the participation of professional and foreign private investors in the IWW segment and to generate benefits through technology transfer and higher-quality service, significant constraints in the enabling environment and distortions in the market structure must be addressed. One critical challenge is the short duration of contracts available to private operators (one to two years), which disincentivizes them from seeking large investments for facility upgrades and operational efficiency improvements. This is a key impediment to enhancing the competitiveness of IWWs for container cargo and increasing the volume. At the same time, it appears that river port operators are underreporting container volumes to the authorities because they are obligated to pay fees by volume. This means that in addition to suboptimal levels of private investments by the river port operators, the government is losing revenue. Long-term, well-structured PPPs may provide a win-win solution for public and private stakeholders, as well as consumers. The public sector must also create conditions friendly to private operators by enhancing navigational safety through introducing improvements like lighting

41 IFC Comparative analysis 2015.

42 Environmental emissions, crashes, congestion, noise, and unrecovered costs associated with the provision of public facilities.

systems for night navigation and regular dredging to ensure adequate draft, as well as enforcing vessel performance standards such as maximum lifetime service for barges. This will hopefully incentivize professional players to invest.

The market mechanism and competition in the logistics services sector is distorted, as owner associations and unions bundle the interests of a highly fragmented landscape of many small players. The involvement of unions and associations has negative consequences: it limits the entry of international service providers and disincentivizes the provision of quality services and innovation. Trucking and IWW companies have no incentive to compete based on quality, because they are not remunerated on this basis. As a result, many large manufacturing companies operate their own fleets for greater control at a higher cost. Moreover, facilitation payments to expedite movement of vehicles and cargo allocations are a common feature in the logistics services sector, particularly in industries that ship time-sensitive and high-value goods, which increases the overall cost to shippers Herrera Dappe and others (2019).

5.7. ANCILLARY LOGISTICS SERVICES: CHALLENGES AND OPPORTUNITIES

Ancillary logistics services—warehousing, cold chain logistics, customs clearance, and freight forwarding—are available in Bangladesh but not well integrated. Two to three service providers are typically involved per shipment, on average, and this increases direct and indirect costs. Additionally, logistics services across the board related to storage or transport are characterized by poor reliability, informality, low levels of skill and professionalism, and a lack of adequate equipment, which creates delays in the entire chain. Other logistics services such as inventory management, supply chain optimization, cargo aggregation, and third-party logistics (3PL) virtually does not exist in Bangladesh, despite demand. Logistics players lack the expertise and technological know-how to offer such solutions. Industries are using their own resources (captive logistics services) for handling these operations.

Poor quality, inefficiency, and a lack of integration undermine performance of the transport and logistics chain. The local private sector is well represented in key segments like freight forwarding, customs clearances, and warehousing, but quality is low and integrated logistics service providers and foreign companies are barely represented. Constraints to developing more sophisticated services and attracting foreign players can be found in the governance of the sector, enabling environment and market structure.

The sector is overcrowded with institutions that have overlapping mandates, responsibilities, and incentives. An abundance of outdated policies and regulations, as well as inconsistent implementation, exacerbates the situation. The Integrated Multimodal Transport Policy (IMTP) approved in 2013 made an important step toward implementing a strategic vision of an efficient multimodal infrastructure network. Unfortunately, however, the coordination committee that was supposed to be created to lead the policy's implementation has not been formed to date. Importantly, the IMTP—focused on the development of an interconnected, integrated, multimodal infrastructure—needs to be complemented by an integrated approach to services to accompany and strengthen performance overall.

There are attractive areas with potential for greater private sector investment in logistics services that are driven by favorable, medium-term growth fundamentals and demand for higher-quality services. Bangladesh has been experiencing consumer demand growth in perishable products since the country began urbanizing, for instance, and household income levels have risen. Over the past five years, the perishable food products industry has grown at a compound annual growth rate of 11 percent. Increasing demand for perishable products is creating demand for end-to-end temperature-controlled logistics (TCL). Another opportunity lies in digitization reforms to the logistics chain such as the National Single Window for processing import-export activities—which the World Bank supports—and digital trucking platforms.

Temperature-Controlled Logistics

Strong demand for quality TCL outstrips supply. Demand for TCL is driven by ten major perishable food product sectors that feature imports (quick service restaurants, frozen food, meat) and domestically produced goods (fruits, vegetables). Cold warehousing and transportation services are expected to grow in tandem with perishable product industry growth. Once established, an efficient TCL sector can also support the further development of pharma and biomedical industries in Bangladesh. As economic zones are developed, cold-storage warehouses can benefit from stable, dedicated electricity access, favorable tax treatments, availability of one-stop shopping for regulatory approvals, and other benefits.

The market structure is currently characterized by many poor-quality first- and second-party logistics. They lack economies of scale, required expertise and skills, and they have difficulty accessing financing for upgrades. Access to land, as well as the high costs of setting up the required infrastructure, is prohibitive, especially when demand aggregation cannot easily be achieved. Importers and international traders tend to outsource logistics services, dealing with different providers for storage and transport. These providers coexist with captive facilities that have been established to compensate for the dearth of quality 3PL services. Very few domestic companies provide vertically integrated services in Bangladesh, and they tend to be conglomerates that service their own operations.

To support the development of sophisticated, integrated TCL activity, the government ought to address several regulatory challenges that underly the poor state of the logistics sector generally. First, supplementary taxes on freezers affect the competitiveness of the TCL subsector, prohibition of customs processing at off-docks (and de-stuffing at the port) results in delays, as do poor cargo handling and publicly run storage facilities at ports and airports. Additionally, without prescribed standards for cold chain warehouses, no regular audits to check storage conditions, and a lack of consumer awareness of food and safety standards, there are limited incentives to outsource and to develop higher-quality and integrated logistics services. This and high barriers to entry for international companies have also had a dampening effect on the evolution of the 3PL subsector.

Commercial Warehousing

Lifting commodity restrictions would support the development of a commercial warehousing market. Bonded warehousing is a dominant type of warehousing, but NBR has restricted the number of commodities that can be handled at bonded warehouses and outside the port. NBR further mandated that warehouses must be in the vicinity of the port in order to better control the customs clearance process. Customs regulations allow only certain commodities to be de-stuffed outside the port, which means that

up to two-thirds of import containers are de-stuffed inside the port, which leads to congestion. Since the export-import trade in Bangladesh is skewed in favor of imports, this leads to increased requirement of covered vans to carry the de-stuffed cargo from the port to different locations. The additional vehicle trips are concentrated at Chittagong Port at a single location, which is one of the causes of traffic congestion. Also, because of customs regulation on distance of ICDs to Chattogram Port, there is no capacity at Dhaka. This creates a hurdle for the containerized movement of cargo and increases costs for user industries in Dhaka, as empty containers need to be sourced from Chittagong Port and container freight stations rather than from an ICD next door.

Freight Forwarding

Relaxing licensing restrictions on international freight forwarding services could help attract foreign investment and technology transfer. The ownership share allowed for foreign companies in joint ventures, or JVs (a requirement), has been further reduced to 40 percent, creating a significant disincentive for international players and discouraging entry into Bangladesh. This restriction also exemplifies the misalignment of industrial policy objectives and practical implementation created by an uncoordinated and fragmented institutional landscape. The Bangladesh Investment Development Authority promotes a 100 percent openness of the freight transport and logistics services sector to FDI, but NBR has the power to impose restriction on participation by foreign freight forwarders through releasing statutory regulatory orders (SROs). Moreover, large, international logistics service providers are deterred by the strong presence of unions and the pervasiveness of facilitation payments. This creates an unattractive, unstable business environment and discourages investment, leaving Bangladesh with higher costs and lower-quality services.

E-commerce: Taking Advantage of Digitization

E-commerce companies have become a fast-growing industry. They can generate significant benefits in the form of access to a wider set of products and services, as well as an increase in customer power and convenience. E-commerce players have experienced surging demand in Bangladesh in recent years, particularly in sectors like groceries and health care. Companies with a focus on IT systems and quality logistics chains have been able to capture the demand and make their business grow exponentially. Key challenges that need to be addressed include IT systems, lack of preparation for high volumes, inadequate investment in logistics infrastructure, and the availability of skilled labor.

Trucking dominates the logistics chain in Bangladesh, and the service can be improved through digital technology. Trucking in Bangladesh is inefficient, offers poor service, and adversely impacts the country's health and climate. One approach to fixing the problem is to make trucking services more efficient by utilizing digital aggregation platforms, a globally emerging business model, particularly in emerging economies. Digital truck aggregation platforms help organize the market for freight transportation by road, increase transparency for drivers and customers, and help improve truck utilization, thereby increasing income for drivers and improving the quality of operations. The potential service improvements include things like demand-supply mapping, in-transit insurance, assured delivery times, improved price realization, digital tracking, and digital payments. These platforms may offer a way to formalize the road transport sector by enrolling existing truckers and promoting competition currently limited by unions and associations.

5.8. MAIN RECOMMENDATIONS FOR ACTION: TRANSPORT AND LOGISTICS SERVICES

The CPSD recommendations on transport and logistics have been divided into short- and medium-term activities (table 5.2).

TABLE 5.2 ACTIONS ON TRANSPORT AND LOGISTICS SERVICES IN THE SHORT AND MEDIUM TERM

Short-Term (up to three years)	Medium-Term (three to five years)
Sector Strategy and Plannning	
• Develop, approve, and adopt an integrated multimodal transport sector master plan that includes subsectors. • Make the National Multimodal Transport Coordination Committee operational. • Develop and launch a logistics strategy. • Develop standards and key performance indicators for the logistics sector.	• Increase private sector participation as targeted in Seventh Five-Year Plan for key infrastructure sectors. • Develop and maintain a robust and effective public-private partnership (PPP) framework. * • Develop domestic capital market and enable foreign financing for infrastructure and logistics sectors.
Sector Governance and Service Quality	
• Enforce competition regulations in logistics (full implementation of the Competition Act of 2012). Make Bangladesh Competition Council independent and functional. • Increase information transparency through online freight marketplace (tariffs, service quality).	
Transport—Ports	
• Introduce base planning and capacity addition in port sector into transport master plan.	• Operate landlord model for ports. • Integrate information technology systems at ports for faster customs handling.
Transport—Inland Waterways	
• Increase lease periods for river ports based on performance-based parameters. • Establish equipment and service standards. • Follow through on corrective action (fines).	• Enforce standards for equipment and services.
Transport—Digital Trucking	
	• Build out and improve the network and the quality of mobile data services.

Short-Term (up to three years)	Medium-Term (three to five years)
Sector Strategy and Plannning	
Logistics—Warehousing	
• Expand list of commodities eligible for clearance in bonded warehouses. • Allow private operation of inland container depots. • Increase demurrage fees and allow more products for clearance in off-docks to decongest Chittagong port.	
Logistics—Freight Forwarding and Third-Party Logistics	
• Relax domestic shareholding requirements for foreign companies investing locally (joint ventures).	
Logistics— Temperature Controlled Logistics	
• Reduce custom duties on imports for cold-storage freezers. • Develop, adopt, and enforce regulations for cold-storage standards (technical and specific products). • Enforce food safety standards and audits.	• Involve private players under PPP approach in the development and operation of terminals and warehouses.

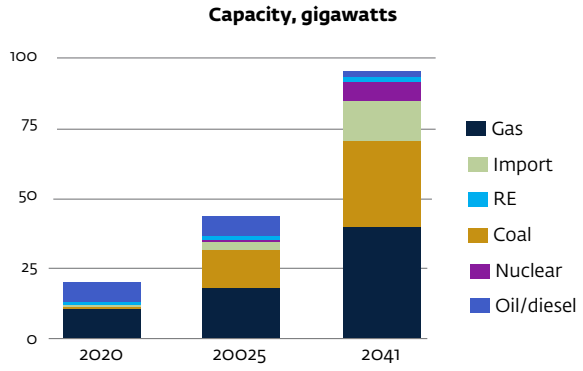
Sources: Forthcoming report on Bangladesh under World Bank Group Infrastructure Sector Assessment Program 2020; PwC 2018a; Herrera Dappe and others 2019; also see table 3.3 in this CPSD.

06: ENERGY

6.1. TRANSITION TO A CLEANER ENERGY MIX AND A MORE EFFICIENT POWER SECTOR

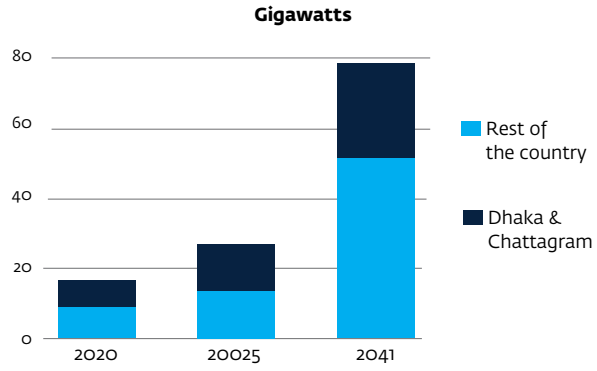
Bangladesh has leveraged the private sector to address its large energy deficit, but reliability remains an issue, making expansion still necessary to meet the longer-term needs. Bangladesh quadrupled its energy-generating capacity from 4.5 GW to 20.5 GW in 2009–20, ramping up grid-based access from 32 to 85 percent between 2000 and 2018.[43] Per capita electricity consumption still remains low at 510 kw per capita (just one-seventh of the MIC average), and transmission capacity has not matched the pace of power generation additions. A recent IFC study also shows that unreliable power supply is a significant challenge for the expansion of medium-sized enterprises in sectors with export potential such as footwear, plastics, and light engineering goods. The study also estimates that the value of annual production losses due to power disruption has reached 0.5 percent of GDP (Sumi and Reaz 2019). Furthermore, around 32 percent of the installed capacity comes from so-called rental plants that use expensive liquid fuels, HFO, furnace oil, and diesel (figure 6.1). Although these plants have been introduced as a short-term solution to address acute energy shortages, the process of phasing them out has been slow.

FIGURE 6.1 BANGLADESH'S PROJECTED ENERGY MIX, 2020–41



Source: For 2020—actual capacity reported by Bangladesh Power Development Board; for 2025 and 2041—Bangladesh Power Development Board 2018, high-case scenario, table 22.

FIGURE 6.2 BANGLADESH'S PROJECTED ENERGY DEMAND, 2020–41



Source: Bangladesh Power Development Board 2018, table 2.

43 Data from the Bangladesh Power Development Board and the World Development Indicators.

TABLE 6.1 POWER PROJECTS PIPELINE

	Under Construction		Under Contract (Comminssioned		Under Tender		Total Pipeline	
	No.	GW	No.	GW	No.	GW	No.	GW
Public	18	9.8	55 (37)	16.2 (6.3)	1	0.4	74	26.4
Rental	60.0	61.1	20 (20)	1.7 (1.7)	5	0.3	85	8.0
IPP	-	-	74 (46)	13.1 (6.0)	-	-	74	13.1
Total	**78**	**15.9**	**149 (103)**	**31.0 (14.0)**	**6**	**0.7**	**233**	**47.5**

Source: Power Cell; see http://www.powercell.gov.bd/.
Note: GW = gigawatts; IPP = independent power producer; No. = number

6.2. FUTURE ELECTRICITY DEMAND AND ENERGY MIX

The Power Sector Master Plan (PSMP) of 2016, followed by the revisited PSMP in 2018, set out the sector strategy for operations through 2041, envisioning a rapid expansion of generation capacity and a rebalancing of the energy mix. The pre-COVID forecast of power demand indicated that expansion of the economy at around 7 to 8 percent per year would require generation capacity to grow to around 100 GW by 2041 (Figure 6.2) (Bangladesh Power Development Board 2018). Reportedly, there are 233 projects with projected installed capacity of 47.5 GW in the current pipeline (table 6.1). The government of Bangladesh also committed itself to reducing the use of expensive, HFO generation and reliance on dwindling domestic gas supplies in exchange for increasing liquid natural gas imports and scaling up renewable energy generation, as well as introducing nuclear energy and building out coal.

The COVID-19 outbreak has reduced the urgency for expanding capacity, providing an opportunity to recalibrate the power sector strategy toward least-cost and low-carbon energy. The projected economic slowdown in the near to medium term will result in lower electricity demand. In May 2020, electricity generation across the country represented a decrease of 20 percent compared to the level in May 2019, as the energy-intensive construction and manufacturing sectors had come to a standstill.[44] Meanwhile, capacity utilization in the several years before that was already low (it was 43 percent in 2019). If all the plants planned within the Revisited PSMP were built, it would lead to even lower utilization. These assets would lie idle, potentially receiving significant capacity payments. This in turn would increase the financial burden on the Bangladesh Power Development Board (BPDB), which even before the pandemic was experiencing significant losses (around US$900 million in 2018 and 2019). The almost-completed Payra coal-fired power plant, for example, is reportedly receiving capacity

44 Based on data reported by Bangladesh Power Development Board.

payments of around US$19 million a month, but half of its capacity is unutilized due to a delayed transmission line connection (Nicholas and Ahmed 2020). It will therefore be important to reassess capacity needs and recalibrate the energy mix toward less carbon-intensive sources. Increasing the share of coal to 30 percent of the total energy mix from a very low base will damage the climate and face social opposition to domestic coal extraction, import capacity constraints on foreign coal and a prohibition of financing coal-fired power generation by major commercial banks and export credit agencies. Furthermore, imported coal-fueled power plants have been under severe financial stress elsewhere in South Asia. In these circumstances, the recent indication of the Ministry of Power to cap coal-based generation at 5 GW in the next PSMP is a welcome sign (Nicholas and Ahmed 2020).

TABLE 6.2 COST OF GENERATION, CENTS/KILOWATT-HOUR

		Tariff Range (per KWH)	
Gas	Public/BPDB	0.9	3.4
	IPP/rental	1.5	5.1
Diesel	Public/BPDB	15.8	261.5
	Private/Rental	21.5	29.8
HFO	Public/BPDB	17.5	22.2
	Private/Rental	14.0	20.5
Coal/BPDB			8.9
Wind/BPDB			41.4
Solar		6.5	18.0

Source: BPDB 2017 and IFC estimates.

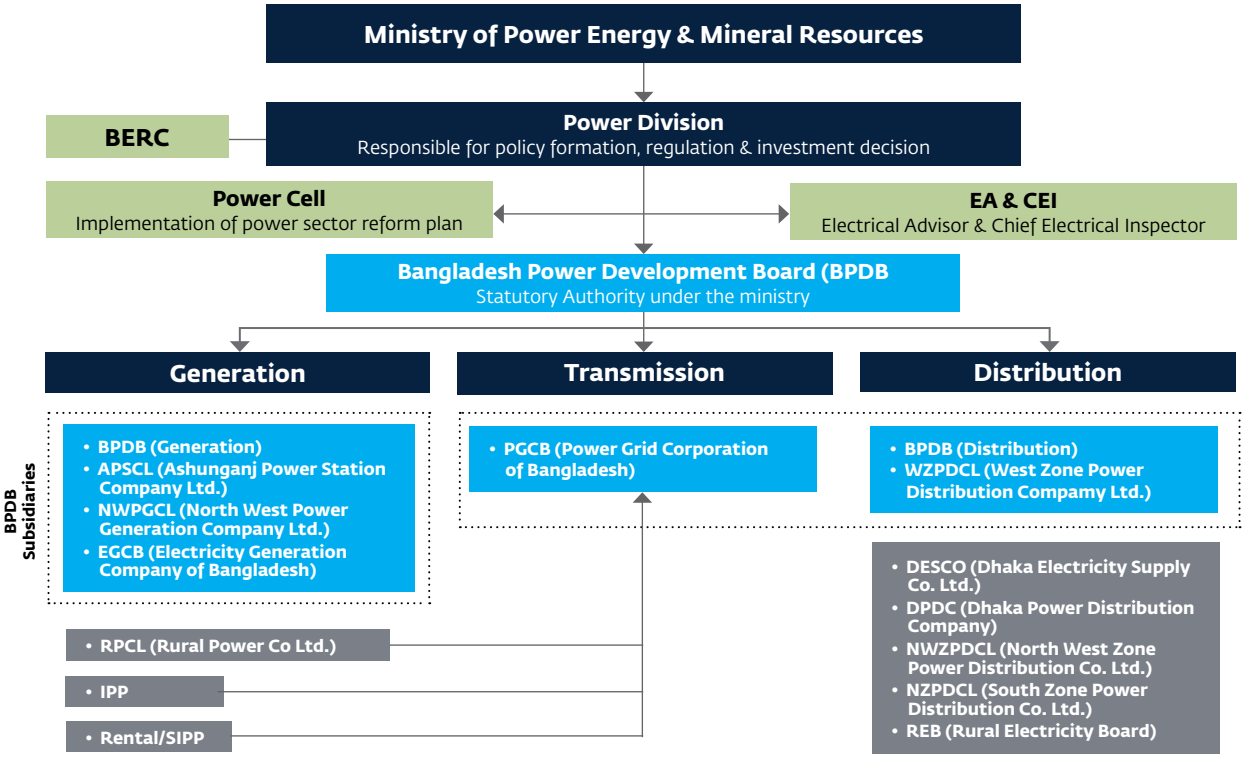
Notes: BPDB = Bangladesh Power Development Board; HFO = heavy fuel oil; IPP = independent power producer; kwh = kilowatt-hour.

The recent progress on regional power trade along with rapidly changing technologies offer opportunities to Bangladesh to transition to a cleaner energy mix and reduce costs. A significant share of power in Bangladesh is generated at high cost (Table 6.2). Meanwhile, it has become more feasible and cheaper to import electricity generated from clean sources in Bhutan, India, and Nepal. In addition, new technologies have made certain types of renewable energy (RE) more affordable and feasible for Bangladesh. For example, while offshore wind and floating solar have not yet demonstrated technical feasibility, industrial rooftop solar arrays present an alternative to expensive diesel generators used in energy-intensive manufacturing such as RMG. Finally, significant energy efficiency potential that could further reduce capacity expansion needs remains untapped, particularly in T&D, older state-owned power plants, and the residential and industrial sectors.

6.3. POWER SECTOR LANDSCAPE

The power sector is built on the concept of a single buyer for the purchase and sale of power, along with rapidly growing IPP participation. The overall organization of the power sector is straightforward, and responsibilities are well defined among the various institutions (figure 6.3). The sector structure has evolved since the late 1990s, moving from a single, vertically integrated utility to partial horizontal and vertical unbundling, as well as deliberate private sector participation. The sector is regulated by the Bangladesh Energy Regulatory Commission (BERC). BPDB is the single buyer for electricity and owns about half the power generation capacity in the country, thus it is vertically integrated. BPDB also sells energy in bulk to the utilities, including to its own distribution companies. The PGCB is the single transmission company, carrying power and receiving a wheeling charge for the power transmitted. It also includes the National Load Dispatch Center. On the distribution side, 80 rural cooperatives (Palli Bidyut Samitis) under the Bangladesh Rural Electrification Board (BREB) distribute about 40 percent of total power supplied in the country and Dhaka Power Distribution Company (DPDC) distributes about 19 percent, while the remainder is distributed by Dhaka Electric Supply Company (DESCO) and BPDB's distribution zones Pargal 2017). Bangladesh has not yet taken significant steps toward the development of a wholesale market for electricity.

FIGURE 6.3 BANGLADESH POWER MARKET STRUCTURE



Source: IFC due diligence.
Note: IPP = independent power producer; SIPP = small independent power producer.

Lack of cost recovery and inefficiency are the key issues in the energy value chain, undermining its sustainability and discouraging greater private sector participation. The losses of the power sector SOEs for FY19 are estimated at about US$1.2 billion, or 0.9 percent of GDP and are driven by the underpricing of energy products in domestic markets. The IMF estimates the total direct energy subsidy at 2 percent of GDP, which doubles if implied tax is added to reflect environmental and other externalities. Despite gradual increases since 2009, retail tariffs (average Tk 6 per kwh) do not cover costs (Tk 8 per kw). Costly oil-fired rental plants, which have been added since 2000 to address gas supply shortages, add to this differential. In addition, the obsolete state-owned power plants suffer from inefficiencies, requiring almost twice the amount of gas for the generation of one unit of electricity compared to combined-cycle turbine generation (CCG) plants. This worsens the fiscal drain and wastes domestic gas. The price paid for gas by power producers in Bangladesh has long been among the lowest in the world (Timilsina and others 2018). At current prices, domestic reserves are dwindling because of the lack of incentives for private developers to invest in exploration.

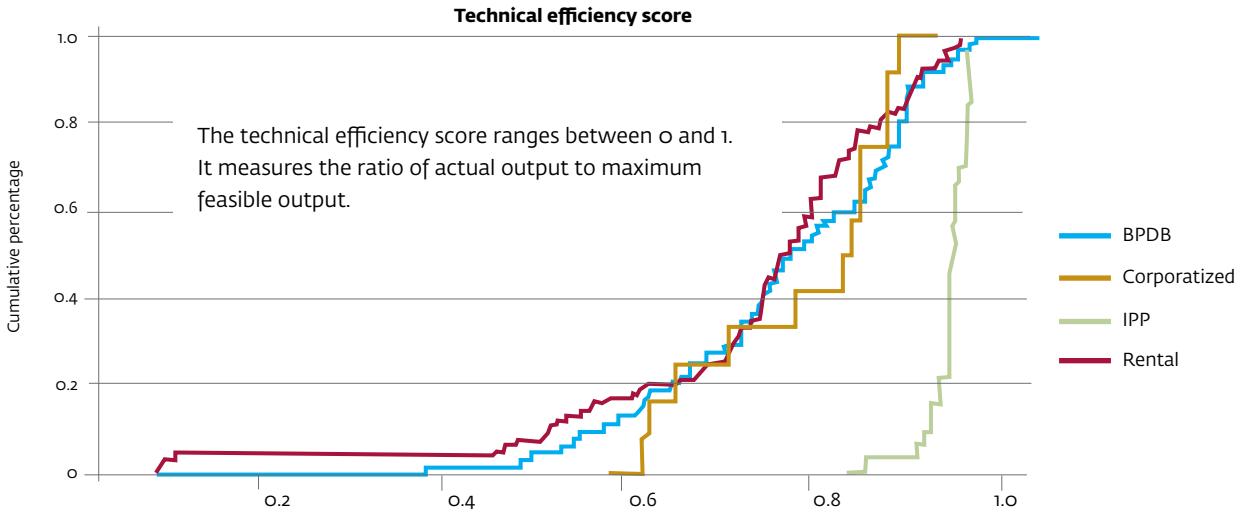
The energy tariff system and gas prices need to be gradually reformed to adequately reflect costs. This will be important for improving the financial performance of electric utilities, optimizing subsidies, and incentivizing energy efficiency. These in turn will help improve investment attractiveness of the power sector. The government may consider direct transfers for the population from lower-income deciles to ensure affordability. BERC has already been adjusting both power and gas prices almost once a year. In July 2019, for instance, gas prices were adjusted upward on average by 33 percent and gas for electricity by 41 percent. The March 2020 power price increase included an 8 percent increase for bulk supply tariff and 5 percent for weighted average distribution tariff. It is important, though, to assess the level of subsidies hidden in these increases. Purchasing costs of LNG supply should be also assessed. A current global oversupply of LNG is resulting in low costs (less than US$2 per thousand cubic feet), on the other hand, the government has foregone its take (55 percent of gas price) from local gas and relinquished customs duty and VAT on LNG imports.

Adherence to the merit order in electricity dispatch will help reduce energy costs. The dispatch of power by the National Load Dispatch Center (NLDC) is not fully consistent with the merit order. More expensive plants are often called into service in advance of cheaper ones due to a lack of automation and dispatch optimization tools. The other reasons include shortages of gas for gas-fired IPPs, transmission bottlenecks, existing commitments under power purchase agreements (PPAs), and the interference of vested interests. The World Bank's earlier estimates indicated that system-side power costs could be cut by 65 to 75 percent through a closer adherence to the merit order dispatch (Nikolakakis, Chattopadhyay, and Bazilian 2017). As per the most recent merit order list, many gas-fired combined-cycle power plants have marginal costs below Tk 2, even many in the range of Tk 0.99 to 2.06 per unit. In these circumstances, there should be hardly any scope to run liquid-fired rentals. Supply in peak evening periods in hot summer in western Bangladesh (to address transmission bottlenecks) may be covered by a very limited number of liquid plants or by efficient, gas-based engines for not more than three hours. Independent system operators can deliver transparent, rules-based economic dispatch, encourage greater participation of IPPs, and build a foundation for developing a wholesale power market in the longer term.

The governing framework for private participation in generation also needs to be enhanced to ensure competitive procurement of new capacity and deliver least-cost energy. Bangladesh integrated independent power plants (IPPs) into its power sector relatively early and registered success through the transparent auctioning of and

competition among IPPs. Private generation accounts for about 42 percent of the installed capacity, including 34 percent from IPPs and 8 percent from rental plants (Bangladesh Power Development Board 2019). The World Bank analysis shows that private sector-operated IPPs are the most efficient power plants in Bangladesh (figure 6.4). To the extent that the efficiency gap between BPDB (including rental power plants) and IPPs is related to differences in the quality of managerial practices across ownership types, there could be considerable potential to improve generation efficiency. On the IPP side, there is also room for improvement, primarily with regards to ensuring a fully competitive tendering process for both traditional gas-fired plants and solar plants, which has not been fully observed in the past several years. This has led to low participation by competent bidders, cost overruns, and schedule lapses, resulting in suboptimal, levelized tariffs for contracted IPPs. In the near term, the sector needs to transition toward fully competitive IPP bids by winding down procurements based on unsolicited proposals (USPs) and opening competition with respect to different sources of fuel such as gas and solar. This will help attract competent developers and achieve lower tariffs. It will also be important for building public sector capacity within the power cell to systematically track the development and execution of power projects on a build-own-operate basis to avoid fiscal and economic loss caused by time and cost overruns.

FIGURE 6.4 EFFICIENCY OF POWER PLANTS BY OWNERSHIP



Source: Zhang 2018.
Note: BPDB = Bangladesh Power Development Board; IPP = independent power producer.

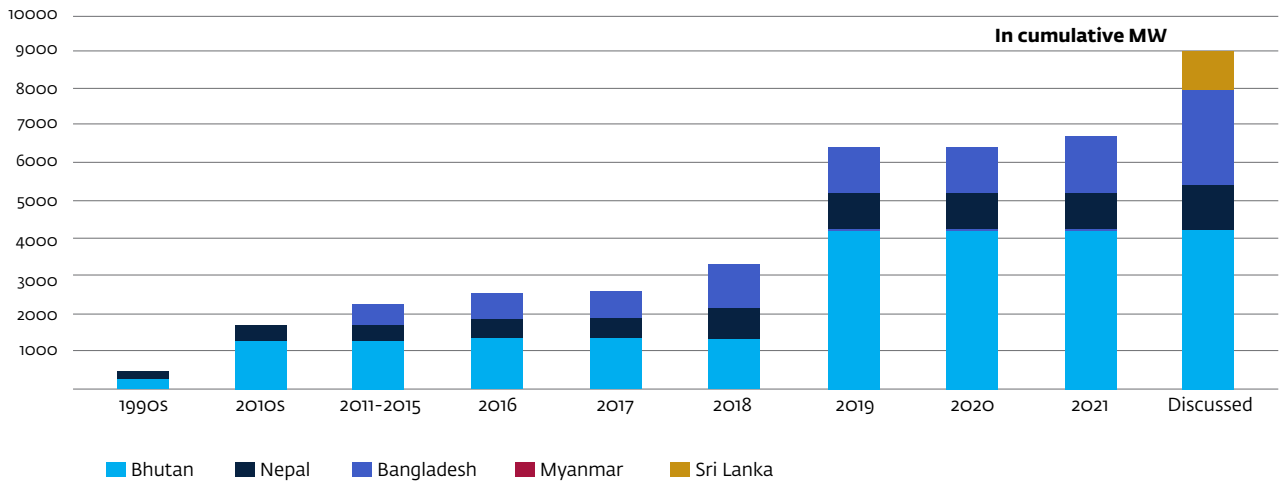
6.4. PROSPECTS OF CROSS-BORDER ENERGY TRADE

Cross-border energy trade (CBET) in South Asia has gained momentum. Bangladesh is well-placed to leverage its large power market, generation surpluses, and clean energy sources in neighboring countries to drive down electricity costs, bolster competitiveness, and reduce greenhouse gas emissions. Over the past decade, the region has transitioned from deep skepticism of meaningful CBET to putting in place around 1500 MW of high-voltage (HV) transmission connectivity between Bangladesh-India (1160 MW) and Nepal-India (300 MW), and increasing CBET on a win-win basis (figure 6.5 and table 6.3). Initiated by Bangladesh under an MOU with India in 2010 to import 500 MW of

electricity, a sustained policy dialogue among key stakeholders has helped put in place umbrella G2G arrangements under which transmission systems have been connected and power trade contracts agreed to and executed. Bangladesh's imports from India over the 2013–16 period helped alleviate crippling power shortages while also lower electricity costs. Imports now account for about 9 percent of its power supply.

Although CBET has been led by public sector enterprises from each country, the private sector has played an important role. The first HV transmission line between Nepal and India was put in place with private participation. The private sector is also playing a growing role in power trade: about 300 MW of Bangladesh's 1160 MW import is contracted from a private supplier in India. Since the commissioning of the first Bangladesh-India transmission connection in 2013 and the India-Nepal HV connection in 2014, trade has grown steadily, facilitated by transmission strengthening within Nepal and Bangladesh. Furthermore, Bangladesh's prospective Power Sector Master Plan (PSMP 2018) envisages electricity imports accounting for 7 percent of installed capacity by 2025 (3 GW) and 14 percent by 2041 (14 GW).

FIGURE 6.5 CROSS-BORDER POWER TANSFER CAPACITY WITH INDIA



Source: POSOCO (India National Dispatch Co) website.
Note: 2018-19 data cover April 1, 2018–February 28, 2019; GWh = gigawatt-hour.

TABLE 6.3 CROSS-BORDER ELECTRICITY TRADE, GWH

	2014	2015	2016	2017	2018	2019
Bangladesh	1,448	3,272	3,654	4,420	4,808	5,057
Nepal	702	997	1,470	2,021	2,389	2,477
Bhutan	5,555	5,109	5,557	5,863	5,611	4,607

Source: POSOCO (India National Dispatch Co) website.
Note: 2018-19 data cover April 1, 2018–February 28, 2019; GWh = gigawatt-hour.

Growing comfort with CBET is reflected in India's revised guidelines for cross-border import and export of electricity. The guidelines adopted in December 2018 set out the following objectives: (a) facilitate the import and export of electricity between India and neighboring countries; (b) evolve dynamic, robust electricity infrastructure for the import and export of electricity; (c) promote transparency, consistency, and predictability in regulatory mechanisms pertaining to the import and export of electricity; and (d) ensure reliable transmission and grid operations in the import and export of electricity. Among other things, the updated guidelines allow a phased opening of India's competitive and growing power exchanges to traders from neighboring countries, enable bi-directional trade, and provide mechanisms (with precautions) for neighbors to access third-country markets through tripartite agreements between authorized participants from each country. To underpin the guidelines, India's Central Electricity Regulatory Commission (CERC) issued relevant cross-border trade in electricity regulations in March 2019.

The first phase of CBET involving Bangladesh, India, and Nepal has been "investment light." The countries leveraged proximity of the respective transmission systems (about 100 to 150 km), existing generation surpluses in India's large and lower-cost power system, and India's relatively developed national electricity market. The above-mentioned 1500 MW of trade among Bangladesh, India, and Nepal has required a modest investment of about US$500 million to US$600 million (US$350 million in Bangladesh). It has given countries the confidence they need to expand trading options, begin developing greenfield generation capacity for cross-border markets (with Bangladesh's market being especially attractive), and investigate strengthening national electricity transmission systems so that they can facilitate transit trade.

New, capital-intensive generation and transmission projects are poised to play a bigger role in CBET, as is the private sector. Investment in requisite transmission connectivity has been enabled but remains a binding constraint to trade growth between Bangladesh, India, and Nepal. Hence, the "investment light" situation is beginning to change, with BPDB having concluded a PPA with an Indian developer to construct a 1600 MW power plant in India's eastern Jharkhand State together with a dedicated transmission line connecting to the Bangladesh grid. This project (Adani Godda Power Project), which is expected to be commissioned in 2022–23, has been designated a special economic zone by the government of India reserved for export-oriented activities that are eligible for tax exemptions relating to inputs and exports, in addition to other privileges. BPDB is also in negotiations with another Indian developer (GMR), which competitively secured the development license for a 900 MW hydropower plant in Nepal (Upper Karnali) and is counting on a PPA with BPDB for 500 MW of this capacity in order to secure the needed project financing. Unlike the Godda project and its dedicated transmission line between Bangladesh and India, power from Upper Karnali will need to be wheeled through the Indian grid, involve more complex tripartite contracts between parties in Bangladesh, India, and Nepal, and safeguard generation investors and buyers from multiple risks in an untested situation. Other potential investors in Bhutan and Nepal's vast, underutilized hydroresources are keenly watching this transaction to see if it successfully reaches financial closure. An HV (765 kV) transmission corridor across Bangladesh connecting India's northeast with Bihar and West Bengal is also under investigation by Bangladeshi and Indian transmission companies. In addition, by providing India an alternative corridor between its hydropower-rich northeastern states and the mainland through West Bengal (and its ecologically fragile "chicken neck"), it can provide Bangladesh with an alternative source of clean power and also bolster mutual dependence on each other.

It will be beneficial for Bangladesh to continue proactively advocating for the systematic lowering of barriers to cross-border electricity trade. World Bank studies indicate significant benefits for Bangladesh from cross-border power trade that are well worth the incremental investment in additional cross-border transmission capacity (box 6.1). The benefits stem from (a) expanded access to competitive, and in most cases clean, power sources in India and beyond, displacing costlier and dirtier power generation (which, along with enhanced domestic gas reserves, can still provide strategic backup); (b) more optimal utilization of renewable energy resources in the most competitive locations (enabled by a larger, better-connected regional grid; (c) a phase-out of dilapidated, highly inefficient gas-based steam turbines; and (d) the freeing-up Bangladesh's scarce land resources.

BOX 6.1 ECONOMIC BENEFITS OF CROSS-BORDER POWER TRADING FOR BANGLADESH

Short-term benefits: If Bangladesh had access to the Indian Energy Exchange in 2016 and 2017, this could have generated economic benefits in the range of US$100 million to US$450 million per year, which favorably compares to the cost of the HV direct-current interconnector that was put in place in 2013 for around US$200 million.

Long-term benefits: The long-term benefits of planned interconnectors from the least-cost planning perspective include US$1.7 billion in operating expenditure (OPEX) reduction and US$0.75 billion of capital expenditure (CAPEX) reduction during the period ending in 2035. After subtracting additional CAPEX and OPEX in the exporting countries, the net benefit for Bangladesh comes to US$1.3 billion in net present value terms. Since the cost of planned cross-border interconnectors are well below US$1 billion, this suggests an attractive payback period for these assets.

Source: World Bank 2020b.

Legal and regulatory mechanisms for CBET will need to be developed further to advance this important agenda. Preliminary findings of a bank-initiated assessment of the legal and regulatory framework at the country level for enabling and expanding bilateral and multilateral cross-border power trade suggest the following:

- **Existing legal and regulatory frameworks do not hinder the present level and growth rate of CBET, with the exception of Sri Lanka.** G2G umbrella arrangements such as MOUs and framework agreements have been adequate to create the above-mentioned level of cross-border electricity trade between India and each neighbor without the need for any country to amend its prevailing ("extant") legal and regulatory frameworks. The legal and regulatory frameworks in Bangladesh, Bhutan, India, and Nepal do not preclude CBET. Bhutan and Nepal's frameworks actually permit CBET, while Bangladesh and India frameworks are silent on it. India's CBET Guidelines (2018) and associated regulations (2019) have augmented its prevailing legal and regulatory frameworks, paving the way for tripartite electricity trade and associated investments. As such, these frameworks are conducive to CBET and provide greater clarity on internal checks and balances. India's experience with expanding and deepening a national electricity market carries useful lessons for its neighbors.

- **Policies, laws, and regulations governing CBET are improving, but contracts such as Transmission Service Agreements (TSA) and Power Purchase Agreements (PPA) are key for investor and trader confidence.** The ongoing improvements in the regulatory framework raise political awareness and broaden consensus around the pros and cons of CBET. Still, most investor and trader risks will continue to be addressed through contractual arrangements in the foreseeable future. Regulation by contract under the improving framework can support growth in CBET, provided the underlying risk allocation and contract enforceability are considered bankable by prevailing sources of financing. Participants may find that they are exposed to risks that cannot be adequately mitigated through contracts and will need a sustained effort to mitigate by other means. This could include national regulatory or legislative processes, as well as efforts to align each participating country's policy, legal, and regulatory frameworks. Tolerance to this exposure will also be partly determined by the magnitude of risk, which will be different for CBET based on national trade surpluses (electricity and capacity) investment in new generation for CBET, transmission connectivity, or a diversification of import dependence. Given the history of the subregion, perception of possible discriminatory treatment of CBET relative to national trade through, for example, taxation policies or supply and transmission curtailment will need careful management at multiple levels, ranging from standard operating procedures to coordinated national policies and regulations to cross-border treaties.

CBET can be supported by the entry of a wider array of generation and transmission developers with access to a larger global financial market. The still fledgling cross-border market remains dominated by local players, mainly each country's public sector, a few private developers from India, and local (largely public sector) financiers, and international financial institutions. These players are better placed to understand market opportunities and risks and manage them appropriately by using contracts that are ironclad as possible. CBET can be scaled up toward its potential if a wider array of generation and transmission developers with access to the larger global financial market enter this space. Such a scenario has yet to be tested, especially in a manner that can surface a prioritized sequencing of policy, legal, and regulatory reforms that can attract more market players, especially from the private sector. At the moment, the focus is on facilitating tripartite (three-country) trade and access to existing power exchanges (essentially by known, local players). Potential players can open the market in a more predictable and phased manner, potentially by using sovereign assurances of nondiscriminatory, open access to transmission infrastructure and each country's national markets. In the interim, building on the candor and solution-oriented G2G coordination mechanisms offered by the South Asia Power Secretaries Roundtable, Bangladesh can proactively take the lead in (a) seeking convergence around priority cross-border transmission connectivity (including fair, open, nondiscriminatory, reciprocal access and congestion management); (b) identifying opportunities for medium- and longer-term sharing of generation reserves and backup capacity; (c) enhancing predictability and clarity in transmission and trade tariff regimes; and (d) standardizing contractual framework documents for CBET.

6.5. RENEWABLE ENERGY DEVELOPMENT

Bangladesh's goals for renewable energy have been articulated over time in several directives and initiatives. The SREP Investment Plan notes that the government had two sets of directives for renewable energy investment.[45] The first is the 500 MW Solar Program of 2012, which aimed to add 500 MW of solar generation capacity by 2016. The Sustainable and Renewable Energy Development Authority (SREDA) also set RE targets for several technologies for a total of 2.9 GW to be installed during 2015–21.[46] Most of the new capacity was expected to come from solar (1.4 GW) and wind (1.2 GW), with the rest coming from waste-to-energy, biomass, biogas, and hydro (4 MW).

The RE potential could be significantly higher than previously assessed. Although there has been a prevailing view that Bangladesh does not have the land available for a major rollout of wind and solar power installations, growing evidence suggests that there are more suitable sites available than previously thought. The SREP Investment Plan estimates Bangladesh's total RE technical potential at around 3.7 GW, including 1.4 from solar parks and the rest from rooftop solar, solar home systems, and solar irrigation. If agricultural land is included, though, the potential from solar parks alone goes up significantly. A recent paper from the University of Berkeley estimated a 53 GW potential from utility-scale solar photovoltaic (PV), with more than 99 percent of the potential coming from areas classified as cropland (Shiraishi, Shirley, and Kammen 2019). The World Bank is working with SREDA to identify and implement pilots of colocation of solar PV with agriculture (often referred to as "agrivoltaics"). The solar installation could be either installed on elevated supports or on the fringes of agriculture land. Agrivoltaics pilots from around the world have shown very positive results, sometimes also increasing crop yields, which could potentially contribute to rural development.

So far, the growth of RE has been very modest. As of June 2020, SREDA reported 311 MW of installed RE capacity on-grid and 317 MW off-grid (295 MW from solar, 230 from hydro), which is well below the 2021 targets. Meanwhile, recent technological advancements have significantly reduced the cost of RE over the past few years, including in Bangladesh (table 2.4), where some of the earlier plants have been contracted at a tariff of US$0.18 per kwh. This should ultimately stimulate a greater level of growth in RE.

TABLE 6.4 SOLAR PARK TARIFFS, CENTS/KILOWATT-HOUR

Public Projects	Private Projects				
Bangladesh: Rangamati	**Bangladesh: Metito**	**India: REWA**	**Senegal: Kahone Solaire**	**Mexico: Solem**	**Uzbekistan: Masdar/Samarkand**
6.50	7.48	5.08	4.84	3.49	1.78

Source: IFC and public announcements

45 SREP refers to "the Scaling up Renewable Energy in Low Income Countries Program.
46 See http://www.sreda.gov.bd/index.php/site/page/7b9b-49f7-69fb-40fd-45a3-9e6c-b391-7ba5-31f9-13ee

Large-scale development of RE can be facilitated by addressing the key constraints. Three models have been identified by the authorities for investment in utility-scale solar parks and wind farms: public investment on government-owned land, IPP investment on government land, and private investment on private land (Pargal 2017). Negotiated fixed-tariff contracts have been considered for large-scale RE development and feed-in tariffs for small-scale generation and microgrid projects. The key challenges for the large-scale grid connected solar IPP project development in Bangladesh are related to the following:

a. **Land issues** that bring about scarcity, problematic ownership, and expensive land development. The solar park common infrastructure PPP model is one way to mitigate these risks.

b. **Weather and climatic conditions** are not optimal for solar development with low-lying lands prone to flooding and relatively low irradiation.

c. **Limited capacity of public entities to carry out competitive RE auctions within the private sector.** The World Bank Group has been able to generate projects with very low tariffs through such auctions in many other developing countries (table 6.4). Transition to a competitive bidding process will require building institutional capacity within the government agencies to evaluate, award, implement, and monitor IPPs.

d. **Underdeveloped regulatory frameworks** create a lack in adequate technical standards and codes, an absence of regulated tariff structure and incentives for large-scale RE IPPs, and a complex approval process requiring around 30 permits.

e. **Inadequate power infrastructure**, including the weak capability grids have for integrating intermittent power supply, insufficient transmission lines, challenges with obtaining rights-of-way for evacuation line construction and transmission tower installations. This could be addressed by modernizing T&D.

f. **The lack of robust financial and business models** due to absent capacity payments, as well as a high level of perceived risk for investors due to lack of information about project realization and standards.

The recent introduction of net metering policy has opened opportunities to commercialize distributed generation (DG) and battery energy storage systems (BESS). Currently, there are ongoing discussions concerning implementation of various models for DG recognized in the policy, including OPEX, CAPEX, and leasing. BESS could facilitate the commercialization of distributed solar, particularly in larger SEZs with RMG and small- to medium-sized manufacturing operations. DG and BESS could also become relevant in the future for the IT sector as a way of supporting the development of energy-intensive data centers and telecom towers. Bangladesh could also explore corporate PPAs for onsite generation through combined heat and power generation (CHP) and combined-cycle turbine generation (CCGT) for heavy-duty industries such as cement, steel, and chemical manufacturing factories. The bankability of DG models, though, needs to be carefully assessed. This assessment should also evaluate the potential for coupling DG with battery energy storage systems as costs continue to decline.

6.6. SUPPLY- AND DEMAND-SIDE ENERGY EFFICIENCY POTENTIAL

Significant sustainability gains can be achieved by modernizing outdated, inefficient gas-fired power plants, increasing gas prices and revisiting gas allocation policy. The World Bank analysis indicates that the following measures would promote energy savings and investments in energy savings, which will ultimately reduce the need for capacity expansion (Pargal 2017):

- **Promoting the modernization and retirement of outdated, inefficient gas-fired power plants.** The fleet of gas-based power plants comprises many old and inefficient plants. The World Bank analysis shows that as of 2014, the overall efficiency level of these plants was only 34 percent. It also suggests that substantial potential exists for increasing efficiency through the retirement, repowering, and modernization of inefficient plants (table 6.5). The expected payback periods for the investments in energy efficiency (EE) upgrades were estimated to be up to three years. Efficiency improvements through converting plants from open-cycle gas turbine (OCGT) generation to CCGT generation, especially in public sector generation companies where efficiency lags (Figure 6.4), could be particularly prioritized.
- **Gradually increasing gas prices and optimizing gas allocation practices.** Low-priced gas does not provide incentives for conservation and efficient use. Plants with captive generators that have access to cheap gas, for instance, can produce their own electricity at less than Tk 2.5 per kwh, while industry pays Tk 7.5 per kwh for electricity from the grid. As a result, it is not cost-effective to install waste-heat boilers to produce steam, so factories burn natural gas to produce steam, despite the fact that the waste heat from the gas engine generators could be used for that purpose. In addition to underpriced gas, gas allocation practices also contribute to large inefficiencies in the system. The high idle capacity in generation is not only driven by lower demand and transmission bottlenecks but also by the decline in domestic gas production. Meanwhile, some highly inefficient public power plants and other energy-intensive facilities such as fertilizer production plants receive gas allocation.

TABLE 6.5 ENHANCEMENT OF POWER GENERATION OUTPUT FROM ENERGY EFFICIENCY I NTERVENTIONS

	2014 Capacity, MW	Capacity after Activity, MW	Additional Output, US$ Million per Year
Repowering public plants	1,200	560	495
Repowering private plants	135	70	53
Rehabilitation of plants	880	808	241
Total	**2,215**	**1,438**	**789**

Source: World Bank 2017.
Note: MW = megawatt.

Policy makers recognize the importance of demand-side EE initiatives to ensure a sustainable electricity consumption growth and to increase the country's competitiveness. The Energy Conservation (EC) Act of 2014 provides an enabling framework, along with the SREDA, which was established subsequently. In addition to promoting RE, SREDA's function is to implement demand-side EE programs and formulate policies, rules, regulations, and guidelines and facilitate and monitor the implementation of the various provisions of the EC Act. The SREDA EE and Energy Conservation Master Plan 2015–30 lays out the action framework for policies, programs, and legal documents. The government aims to reduce primary energy intensity by 15 percent by 2020 and 20 percent by 2030. Achieving these targets would significantly reduce the need for adding new generation capacity.

Actual EE improvement actions have not been implemented at scale, even though significant inefficiencies exist across many parts of the system. These include inefficient generators and poor end-use efficiency among industrial and residential consumers (particularly rapidly growing end-uses such as space cooling and lighting). The master plan aims to achieve this target through the adoption and implementation of EE and a number of conservation regulatory measures such as (a) the Energy Management Program (Energy Audit Program), (b) the EE Labeling Program and EE Buildings Program, and (c) the EE Financial Incentive Programs. In late 2018, SREDA drafted a green building rating system called the Buildings Energy and Environment Rating (BEER) for Design and Construction of Buildings. In addition, SREDA has initiated a draft of regulations for energy efficiency and a labeling system of appliances.[47]

6.7. IMPROVED EFFICIENCY AND EXPANDING THE CAPACITY OF TRANSMISSION AND DISTRIBUTION

Expansion of transmission and distribution (T&D) has lagged the rapid buildup of new generation capacity. Bangladesh has added around 3,300 km of new transmission lines in the past decade. The T&D losses went down from about 28 percent in 2002 to 11 percent 2019.[48] While installed generation capacity has quadrupled since 2009, though, the transmission capacity has grown only by 40 percent. Transmission bottlenecks reportedly prevent lower-cost power from reaching load centers. Expanding more-efficient high-voltage lines and replacing less-efficient, smaller power stations are particularly important steps to take in addressing these bottlenecks. Although T&D networks have significantly expanded, 400kV lines account for only 20 percent of the total additional capacity (less than 6 percent of the total installed capacity). There are many small, inefficient power stations below 100 MW that remain in operation. In addition, transmission assets owned and operated by BREB in the rural zones of Bangladesh incur restoration costs from network damages that are as high as the cost of new construction. Given that transmission is a very capital-intensive business, leveraging private capital will be critical for its continued modernization. India's experience shows a way to engage the private sector to build, own, and operate high-voltage lines.

47 The World Bank is supporting SREDA in these demand-side EE areas through the ongoing Energy Sector Management Assistance Program and approved Technical Assistance Facility for Clean Energy Investment support.

48 Data from Power Cell of Bangladesh.

The government of Bangladesh has recently indicated intentions to allow private participation in transmission sector activities. Internationally, private sector participation in T&D has proven to be conducive to capital mobilization for massive new investments in transmission lines and the improvement of operational and financial performance in distribution (World Bank 2015). Recognizing that large-scale expansion of power generation requires faster growth in modern T&D networks, the government has decided to build part of the power grid system with private investment and has identified several grid lines for implementation on a PPP basis. To advance this agenda, the Ministry of Power drafted a private sector power transmission policy in July 2019. Given the broader PPP framework does not focus on the transmission sector, this policy sets out specific modalities of implementing transmission projects with private participation, fiscal incentives and incentives for foreign investors, environmental requirements, and service charges. This policy has not been yet approved, though. Box 6.2 identifies some of the provisions that will be important to consider in making transmission projects attractive for the private sector.

BOX 6.2 DESIRABLE ELEMENTS OF THE PRIVATE SECTOR POWER TRANSMISSION POLICY

- **Governing law.** It will be difficult to attract international sponsors and reach commercial close under the Bangladeshi law. As with laws related to independent power producers, the governing law should be in line with international precedent. The arbitration provisions and dispute settlement should specify a neutral seat such as Singapore and adopt International Court of Arbitration or UN Commission on International Trade Law rules of arbitration.
- **Modality for implementation.** Transmission is a capital-intensive business with low operation and management expenditures. Globally, a number of different bidding criteria have been used including transmission service charge (TSC), as proposed in the draft policy. Unless it is a merchant transmission line, though (which would be unbankable), the project sponsor will not have much control over the energy flow through the wire. If the bidding is done purely on the basis of TSC, there would need to be an adjustment mechanism at the end of the year to true up the costs. Alternatively, availability-based models such as an annuity payment based on fixed and variable charges should be considered. Risk sharing between public and private sector in availability-based public-private partnerships is another possible model.
- **Bidding process.** In the case of pilot projects, a two-stage bidding process with a separate prequalification process would be more appropriate. This will also allow the negotiations on transmission service agreements (TSAs), which are not yet standardized, to be carried out prior to the bidding with a smaller number of prequalified bidders. Otherwise, the negotiations will happen post-bidding, giving leverage to the winning bidder and delaying the commercial close. Competitive negotiations also have the benefit of capturing comments from many bidders.
- **Land acquisition.** It would be beneficial to give the responsibility to the organization best positioned to manage land acquisition. As a government agency, PGCB should be responsible for the acquisition or lease of land, while the private sector could be required to pay for it. This is a de-risking element.
- **Right of way.** The private sector should be encouraged to use the right of way and transmission towers for limited commercial activity such as fiber-optic communication. This will reduce the cost of the project to PGCB. This can be stipulated in the policy.

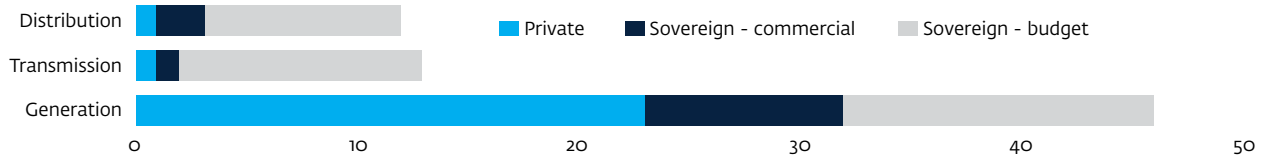
Source: IFC.

6.8. FINANCING

Although a slowdown of GDP growth rates in the next few years will reduce the urgency of capacity expansion in the energy sector, the medium- to longer-term financing needs remain significant while as the fiscal space continues to be further constrained due to the COVID-19 outbreak. Figure 6.6 illustrates the needs and potential financing sources in generation, transmission, and distribution based on underlining assumptions of capacity expansion needs from "Revisiting PSMP 2016." It assumes that 50 percent of investments in generation would be done by private sector IPPs. In reality, considering the strong presence of IPPs and their ability to run efficient operations, it is questionable whether the public sector needs to continue to invest in generation, other than in newer technologies such as floating solar or hybrid generation plants. In T&D, only 10 percent of investments is assumed to be implemented and directly financed by the private sector through PPP models. Based on fiscal constraints, significant space exists for the expansion of a PPP model to facilitate private sector financing and construction of HV transmission lines.

In the context of COVID-19 and the resulting decline in electricity demand, reported capacity underutilization, and T&D bottlenecks, the government needs to revisit the medium-term investment requirements in the energy sector. This would entail a prioritization of investments for strengthening the T&D infrastructure (including cross-border lines) as well as improving the financial performance and governance of state utilities and a regulatory framework for private participation. These would help ensure

FIGURE 6.6 POWER SECTOR FINANCING NEEDS, 2017–25



Source: BPDB 2018.

TABLE 6.6 NET PROFIT AFTER TAX OF SELECT POWER UTILITIES, $US MILLION

	2014	2015	2016	2017
Bangladesh Power Development Board	(821.0)	(878.0)	(467.0)	(534.0)
Power Grid Company of Bangladesh	(0.4)	5.0	15.0	24.0
Electricity Generation Company of Bangladesh	4.3	7.2	(2.2)	7.1
West Zone Power Distribution Company	(4.9)	4.8	2.1	n/a

Source: POSOCO (India National Dispatch Co) website.
Note: 2018-19 data cover April 1, 2018–February 28, 2019; GWh = gigawatt-hour.

that the private sector can play a greater role in the energy sector in the medium term. Increasing availability of long-term finance in the country will also facilitate private investment for power projects as suggested in Box 3.2.

Improving the creditworthiness of public utilities will be critical for making the power sector more efficient, sustainable, and attractive for private participation. Power utilities like BPDB, which is also the bulk power purchaser, have not been performing well financially (table 6.6). The financial performance of state utilities has been further weakened by the COVID-19 crisis as a result of the deferral of consumer payments without penalties granted by the government. The poor financial state of public utilities decreases the overall attractiveness and viability of the entire sector and makes it difficult for utilities to raise finance. Reforms of SOEs to operate more efficiently and become more financially sustainable and creditworthy as off-takers should be a critical part of sector strategy in Bangladesh. The reform agenda needs to promote further commercialization, ensure cost recovery tariffs (including pass-throughs), the competitive procurement of new generation sources, transparent subsidies (when required), and governance. The policy makers could also explore business models for various forms of private sector engagement in distribution to reduce commercial losses, implementation of smart meters, and the potential for the digitization of the grid. These measures will also help build utility resilience within grid operations to handle COVID-like shocks in the future.

TABLE 6.7 RECOMMENDATIONS ON STRENGTHENING ENERGY SECTOR BY CREATING ENVIRONMENT FOR GREATER PRIVATE PARTICIPATION

Short term	• Revise power sector master plan to recalibrate generation sources based on least-cost planning and minimized environmental impacts (optimize the role of coal in the energy mix, for instance, taking into account the full potential of regional power trade, as well as RE and EE solutions). • Move to competitive procurement of all sources of power generation to reduce the average purchase price of power. This will require building institutional capacity within the government to evaluate, award, implement, and monitor IPPs. • Support the development of a more comprehensive private sector power transmission policy and implement pilot PPP projects in transmission subsector. • Maintain proactive engagement with neighboring countries in various forums to enhance the prospects of CBET by (a) building consensus on approaches to aligning necessary policy and regulatory frameworks and (b) coordinating and mobilizing cross-border transmission investments from various financing sources to ensure timely operationalization of needed cross-border transfer capacity.
Medium Term	• Prepare exit strategy from emergency power. • Carry out the assessment of the DG and BESS markets to evaluate potential and identify bottlenecks and bankability gaps for attracting private investment, followed by policy measures to address the bottlenecks and gaps. • Reform energy tariffs to allow cost recovery, increase the price of natural gas, and facilitate private sector investment in exploration and production to replace declining sources of domestic gas. • Prepare to move to cost-reflective tariff structure and gradually corporatize public utilities to strengthen operational and financial performance of the sector to enable access to commercial finance and wider private participation.

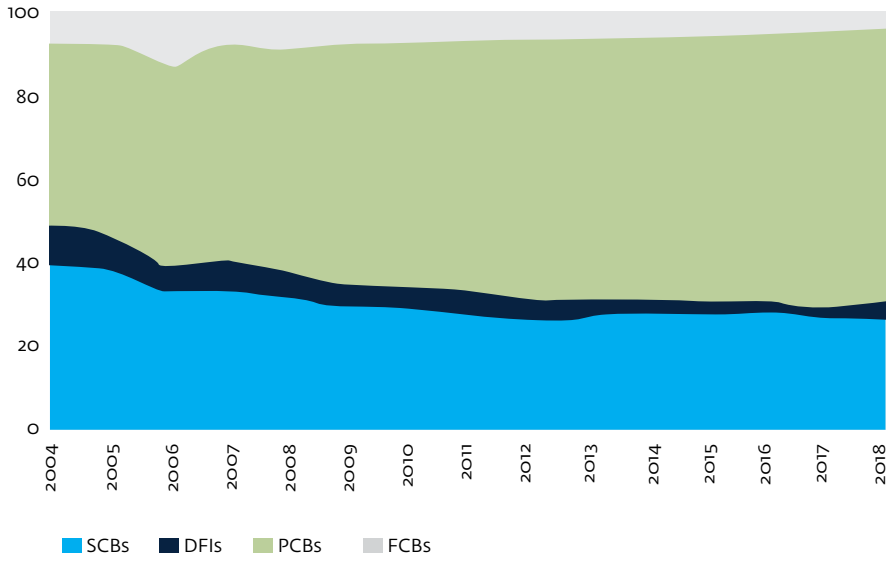
07. FINANCIAL SECTOR

7.1. STRUCTURE OF THE FINANCIAL SECTOR: A BANK-CENTRIC MODEL

Bangladesh's financial sector is dominated by the banking sector, which has grown significantly in recent decades, supporting industrial growth and socioeconomic development. Banks account for about 90 percent of total financial system assets: there are eight state-owned commercial banks (SCBs) and more than 50 private domestic and foreign commercial banks (PCBs) that account for approximately 93 percent of banking assets. Five development financial institutions (DFIs) account for the rest (figure 7.1). Following liberalization of the banking sector in the late 1980s, the share of private banking grew considerably, particularly in the early 2000s, although it has stabilized over the past decade. As of 2020, PCBs accounted for two-thirds of banking sector assets versus almost 25 percent for SCBs. The growth of PCBs has contributed to efficiency gains and significantly expanded financial intermediation. Capital adequacy has varied, with foreign banks being most capitalized and state banks being least capitalized (figure 7.2). Overall, the financial sector has played an important role in providing liquidity to finance the country's industrial expansion with high rates of private sector credit growth. Banking sector credit has increased from 25 percent of GDP in 2000 to more than 60 percent of GDP in 2020. The sector has also helped in the successful intermediation of significant volumes of remittances, where there has been a secure and well-managed flow by the formal banking sector.

The microfinance sector has played a particularly important role, being at the heart of Bangladesh's development success story. Thanks to the pioneering efforts of BRAC and Grameen, Bangladesh has benefitted by being one of the forerunners in the development of the microfinance sector. Bangladesh's microfinance institutions (MFIs) cover more than 32 million members and lend more than US$7.5 billion annually. MFIs have played a particularly important role in rural areas, which had little access to the formal banking sector. By enabling rural households to invest in diversifying their sources of income, microfinance has played a key role in supporting increased incomes and enabling increased household investment in human capital. The microfinance sector was able to overcome hurdles—lack of access to the national ID database and an absence of credit for MFIs—as it expanded. This may serve as the precursor to a large increase in migration to the digital environment that some MFIs have already begun, a move enabled by the emergence of fintech firms to Bangladesh, and it may fit with government plans to develop an inclusive digital financial ecosystem.

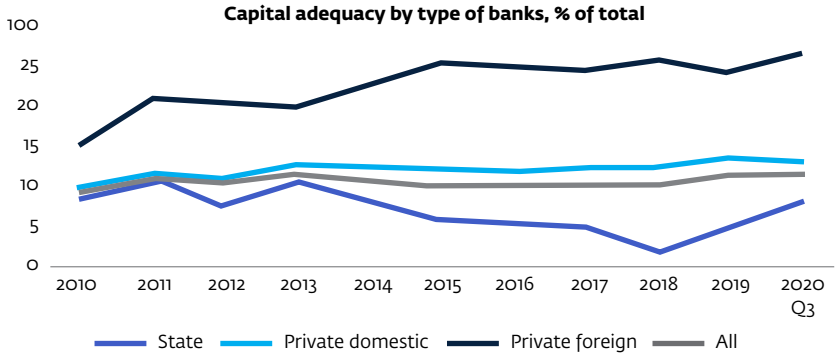
FIGURE 7.1 DISTRIBUTION OF BANKING SECTOR ASSETS



Source: Bangladesh Bank.

Note: DFIs = development finance institutions; FCBs = foreign commercial banks; PCBs = private commercial banks; SCBs = state-owned commercial banks.

FIGURE 7.2 CAPITAL TO RISK-WEIGHTED ASSETS RATIO



Source: Bangladesh Bank.

Note: Development Finance Institutions are not shown because of scale but had a capital-to-risk-weighted asset ratio of –32 percent in 2018. FCBs = foreign commercial banks; PCBs = private commercial banks;SCBs = state-owned commercial banks.

7.2. GAPS IN ACCESS TO FINANCE: UNDERSERVED SMES AND THE AVAILABILITY OF LONG-TERM CAPITAL

Despite the size and breadth of Bangladesh's financial services sector, there are underserved segments. Access to formal financial services has expanded from 20 percent to more than 50 percent between 2013 and 2019. Still, there are important inclusion gaps at individual, firm and product levels:

- **At individual level**, around 35 million people remain excluded, though, from the modern financial industry. Women are disproportionately underserved, with only 32 percent of women having bank accounts versus 50 percent of men. However, this varies dramatically from the situation in microfinance, where 90 percent of the 21 million clients served by MFIs are women.
- **At firm level**, access to finance is a particular challenge for SMEs. Although bank lending to SMEs tripled between 2010 and 2016, most SMEs have only limited access to affordable credit.[49] Nearly half (48 percent) report being fully or partially constrained in its access to credit, so the gap between the financing needs of SMEs and the funds available to them is estimated at US$2.8 billion.[50] The problem is particularly acute for women-owned SMEs, 60 percent of whose financing needs are unmet (World Bank 2019). The interest rates on SME finance are also typically much higher (15 percent) than what is offered to larger corporates (8 to 11 percent). One reason for the lack of credit availability for SMEs is that private banks and state banks tend to be concentrated in urban areas and focus on lending to large corporates, while the microfinance sector is targeted to the needs of microenterprises, leaving a gap in the middle of the market. Many firms, especially export-oriented SMEs, have big challenges in getting working capital finance, and there are constraints to supply-chain financing. Many SMEs do not have sufficient collateral or guarantee to obtain working capital. Other supply-side constraints include the lack of credit appraisal policies and the lack of an effective credit registry. In 2018, Bangladesh Bank drafted the Secured Transaction Act to allow nonfixed assets to be used as collateral against bank loans, but it has not yet been approved by Parliament. On the demand side, SMEs, particularly women-owned SMEs, often lack the financial capabilities and documentation to cover collateral requirements and may also lack credit ratings from formal sources.
- **At product level**, absence of long-term finance and vibrant capital markets represents a significant market gap. Within the banking sector, provision of long-term finance is limited because banks depend heavily on short-term deposits (roughly 75 percent are for less than one year), with asset-liability mismatches limiting the ability of commercial banks to lend long term. Moreover, businesses seeking long-term capital cannot realistically turn to local capital markets, which are still very much in their infancy and are heavily equity oriented. Although the equity market has grown rapidly, market capitalization at around 28 percent of GDP is lower than many comparator countries such as India, Thailand, and Vietnam, which are at 80 percent, 96 percent, and 55 percent respectively. The market for corporate bonds is still

49 In the Bangladeshi manufacturing sector, small industry is defined as enterprises with either the value of fixed assets excluding land and building between Tk 7.5 million and Tk 150 million, or with 31 to 120 workers, while medium industry is defined as enterprises with either the value of fixed assets excluding land and building between Tk 150 million and Tk 500 million, or with 121 to 300 workers.

50 SME Financing Gap Database, World Bank Group, 2018–19.

nascent: just one is listed on the Dhaka Stock Exchange (compared with 221 treasury bonds). In order to reduce barriers to development of the corporate bond market, NBR drastically reduced the stamp duty on corporate bonds in 2019 from 2.0 percent to 0.1 percent and began simplifying the approval process. Other segments of the financial sector that could play an important role in providing long-term finance are almost nonexistent. There is a manifest shortage of project finance, venture capital, and private equity, while fintech remains underexploited. Out of 11 licensed venture capital organizations, very few are active, while there are only a few private equity players. In order to develop the longer-term capital market, one will need a sizeable base of domestic institutional investors, coupled with a functioning regulatory body to address accountability, transparency, and compliance issues.

7.3. BANKING SECTOR: STRONG POTENTIAL AMID GROWING VULNERABILITY

Bangladesh's Banks have Strong Growth Potential That is Hindered by Current Inefficiency and Vulnerability

Bangladesh's banking sector has favorable growth potential. Since liberalization in the 1980s and 1990s, private banking has grown rapidly. The sector continues to have favorable fundamentals pertinent to the large depositor base (close to 95 million accounts in 2020) and growth potential underscored by underpenetration of the financial services. Furthermore, while banks are currently inefficient, they are undercapitalized cheap which indicates upside potential for equity investors. However, realization of this potential is hinged upon significant improvement of the corporate and regulatory governance of the sector to address intensifying vulnerability pertinent to persistently high NPLs and low capital buffers. As of June 2020. capitalization of the broad banking sector stood at 11.6 percent, which significantly lower level for state banks, while NPLs ratio remained at around 9 percent.

Private sector banks are relatively heterogeneous, but on average perform significantly better than state banks. Currently, private banks account for more than 70 percent of total banking assets. Their performance has been mixed, with around 10 to 15 high-performing banks which are well-capitalized and managed. Market analysts estimate that the assets of the better-capitalized banks represent approximately a third of banking sector total assets. Private banks' NPLs have averaged 6-8 percent over the past several years, compared to 25-30 percent for state banks (Figure 3.1). Private banks, particularly foreign, are also significantly better capitalized. As of June 2020, capital adequacy for private banks stood at 11.6 percent (Figure 7.2). Capital adequacy in state banks have, although improved from 4.6 percent to 6.9 percent during the second quarter of 2020—supported by BB's deferral facilities given to state banks for provisioning against NPLs as part of the COVID-19 response package—remained well below the Basel III minimum requirement.

Asset quality and capital base are likely to be weaker than officially reported in both public and private banks raising risks for future credit growth and access to finance. The actual levels of NPLs and capital shortfalls are likely to be underestimated due to deviations from international NPL recognition, loss provisioning and capital calculation standards.[51] There has been a growing trend of loan rescheduling and restructuring, with about half of these loans in the industrial sector and RMG sectors. The IMF estimated that as of 2019 total stressed assets—including NPLs, restructured and rescheduled loans—exceeded 20 percent of total loans (equivalent of 10 percent of GDP). The high level of stressed assets limits banks' ability to engage in new lending—private credit growth has fallen from 17 percent in 2018 to 11 percent in 2019 and below 10 percent in the second quarter of 2020. The recent decline has been attributed to the economic stress due to COVID-19. This has relaxed recently as bank lending capacity has increased by close to US$8 billion in the aftermath of monetary measures by BB to boost liquidity in the money market.

Directed Lending, Inadequate Risk Management, and Weak Governance Undermine Banking Sector Stability

Weak corporate governance of both public and private banks is one of the key drives of weak banking sector metrics. In case of state banks, a very high ratio of NPLs (see figure 3.1) points to inefficient credit allocation. In private banks, shortfalls in corporate governance are pertinent to the shareholding structure of banks whereby ownership is dominated by businessmen who run multiple businesses that tend to prioritize short-term gains over longer-term performance, which in case of banks requires strengthening capital positions. Furthermore, regulations restrict dilution of main shareholders below 30 percent, and there is a lack of regulatory incentives to professionalize management or impose rules on cashing out dividends. Institutional investors and independent directors have a limited presence in banks' management. The situation is exacerbated by political interference in terms of licensing, related party lending, and cross-group lending.

Weak underwriting practices is another important driver of weak performance of Bangladeshi banks. Lax loan underwriting by inexperienced credit professionals, which results in lax collateral valuation and registration, is an important factor behind lingering NPL problem. Insufficient collateral security at loan origination has limited the leverage available to banks. The initial principal amount of many large corporate loans is greater than the value of the collateral, owing to the reliance on "name" lending. Furthermore, there are reported occasions when the same collateral is used to back several loans. Unofficial estimates indicate that half of the NPL stock is lacking underlying collateral, which makes it difficult to find private sector solutions for the NPL resolution.

Governance problems are exacerbated by inadequate regulatory oversight. No mechanisms have been put in place to penalize or sanction willful defaulters. There has been a reluctance to legally recognize "willful defaulters" and the insolvency framework for fear that the weak enforcement system may fail to prevent "willful defaulters" from continuing to borrow. Against a backdrop of recurrent NPL problem, BB made numerous concessions in loan classification rules, rescheduling and write-off

51 The IMF (2019) Article IV Staff Report notes, for example, that the default of borrowers who obtained "stay orders" from the courts appears to be outside of NPL calculation.

policies, as well as loan forgiveness practices. These undertakings have masked the underlying problem and given further incentives for borrowers to default. In May 2019, for instance, BB issued a special policy on loan rescheduling and one-time exits for defaulters to reduce the high number of defaulted loans. Under this policy, defaulters were allowed to regularize their loans for 10 years—this includes a one-year grace period—at 9 percent interest by making a 2 percent down payment.

Government borrowing from the domestic market and interest rate caps add to inefficiencies in the domestic banking sector. In addition to competition by more than 60 banks for depositors and the issuance of new banking licenses to new banks without adequate due diligence by BB, available deposits have been diverted to the government's National Savings Scheme (NSS), which offers high interest rates (over 10 percent).[52] The government also borrows from the banks to finance its fiscal deficit. This competition puts upward pressure on deposit rates and crowds out credit to private sector. Furthermore, the authorities recently introduced interest rates caps in the attempt to keep deposit and lending rates in single digits, reinforcing distortions in the sector (box 7.1). Market forces and incentives to improve banks' efficiency could be a more sustainable driver of lowering the cost of credit.

The COVID-19 crisis may exacerbate banking sector vulnerability. Despite the flexibility of existing regulations to address the high probability of defaults, BB has further expanded regulatory forbearance measures by freezing the classification status of credit exposures prior to COVID-19. At the same time, the economic stimulus program is channeling large volumes of subsidized lending through the banking system through already weak, state-owned banks, with only modest additions to liquidity and no provisions for risk sharing. Overall, the stimulus program aims to disburse through the banking sector around US$7.5 billion in working capital finance to the industrial, services, and agricultural sectors, along with another US$1.5 billion in additional trade finance. There are concerns that the initiatives under the stimulus package, which include both subsidies and interest rate caps, leave banks to bear the credit risk. Moreover, large (and willful) defaulters are not excluded from the program. This may further worsen banks' profitability and asset quality. Authorities are considering the establishment of a partial credit risk guarantee scheme as one option for ameliorating risks to the banking sector. This could come in the form of a public-private special-purpose vehicle, whereby public capital would be used to provide the first-loss cover.

Resolution of Distressed Assets Is Key to Setting the Banking Sector on a Sustainable Growth Path

Implementing a modern resolution framework for distressed assets will be critical to addressing the current problems in Bangladesh's banking sector. Such a framework would help eliminate the stock of bad debt. This, in turn, would improve the efficiency and stability of the Bangladeshi banking system and insulate the economy from macro-financial shocks. Putting in place a clear and efficient NPL resolution framework would send a powerful signal to international and domestic investors, which are carefully watching Bangladesh's banking sector given its favorable fundamentals and upside potential from the efficiency gains. There have been discussions of a new bankruptcy

52 Non-tradable bonds issued by the government to households and institutions to promote savings and finance the budget deficit.

law in Bangladesh, but these are still in the discussion phase. Meanwhile, the country is relying on the outdated Bankruptcy Law of 1997, which does not provide a coherent resolution framework.

A proper NPL resolution process would entail a framework for early recognition, reporting, and time-bound resolution of stressed assets. First, an asset quality review is needed to understand the depth of the problem, followed by the introduction of strengthened regulations for loan classification, provisioning, and write-offs. An early recognition of these problems, where incipient stress is recognized, will be key. Second, there will need to be a system of regular reporting about these problems to the regulator. Third, there is a need to address the NPL stock using public and private asset management companies (AMCs), professional recovery entities, NPL servicers, and bank restructuring.

One possible solution could be an institutional framework of asset management resolution in which public AMCs are created to handle public debt and private AMCs handle private debt. This approach has had mixed results, though, and has not worked well in many markets. Given that one of the root causes for the increase in NPLs has been the lack of good corporate governance and political interference, a deeper

BOX 7.1 INTEREST RATE CAP

On April 1, 2020, BB issued a circular imposing an interest rate ceiling on bank loans, effective April 1. It fixed loan interest rates at 9 percent, excepting credit cards. For defaulters, the ceiling is raised to 11 percent. The rationale behind the policy is to support companies, employment, and economic growth.

- High-income countries have used interest rate ceilings to prevent usury and protect vulnerable consumers. In low- and middle-income countries, as in Bangladesh, the aim has often been to lower the price of credit. However, international experience and World Bank Group analysis suggest that this risks several unintended consequences for the financial sector and the broader economy:
- Higher fees could be introduced to compensate for the lower interest rates, resulting in less transparency in pricing of credit;
- The policy may erode the after-tax profit margins of domestic banks, endangering financial stability of the financial sector;
- Liquidity shortages could because it will not be easy for banks to adjust their cost structure driven by their business models (types of loans, operating areas, degree of automation) as well as nonperforming loans on their balance sheets;
- Negative impact on the credit supply to the real economy with larger borrowers maintaining access to cheaper credit and the smaller, riskier ones being pushed to informal or costlier lenders;
- A decrease in access points as a result of closures of banks' branches to compensate for weaker profitability;
- A decrease in funds available to SMEs as operating costs of SME credit lines is much higher than large corporate loans or trade credits.

Ultimately, these effects can negatively affect output growth. They can also negatively impact capital market development (both government and corporate securities): banks may switch from private sector lending to holding lower-risk, similar-return government securities, corporates may halt all bond issuance plans as the room to price their bonds becomes tighter, firms may prefer lower-priced bank loans, and people may get cheap bank loans to invest in national saving certificates (NSC), exacerbating NSC-related distortions. Meanwhile significant gains could be made toward lowering market interest rates by addressing the banking sector's NPL issue and by targeting lower bank-operating expenses.

assessment needs to be made on how public AMCs will be designed using lessons from other Asian economies, otherwise the solution could end up creating more issues. It will be also important to review relevant regulations to ensure they are conducive for NPL resolution—banks' rights to sell NPLs to private domestic and foreign investors, laws around consumer protection, data disclosures, and bankruptcy and dispute resolution. In this context, there is a need for a time-bound resolution map.

It will be critical to put in place a modernized insolvency framework. This can be modeled after similar measures in countries like India, which provides an orderly process for corporate debt resolution and bankruptcy processes (box 7.2). Again, while there have not yet been results, reviews of existing legislation are under way that focus on amending the Bank Companies Act, the Money Loan Court Act, the Financial Institutions Act, and other bankruptcy-related legislation. The government is also considering a policy for compulsory merger of weaker banks and financial institutions.

It will be also important to address not only the existing stock of NPLs, but also their flow. It will require addressing the problem of willful defaulters and related party transactions. In 2019, BB formed several committees to make recommendations on how to reduce default loans and punish defaulters, but no substantive actions have yet been undertaken. It will also require strengthening supervision function of BB, increasing uptake of good corporate governance practices and enhancing underwriting and risk management practices of banks.

BOX 7.2 DESIGNING THE DISTRESSED ASSET RESOLUTION FRAMEWORK IN INDIA

The Reserve Bank of India has a framework for revitalizing distressed assets in the economy, which outlines a plan to address distressed assets. The main features of the framework are:

- The early formation of a lenders committee with timelines to agree to a plan for resolution
- Incentives for lenders to agree collectively and quickly to a plan, including better regulatory treatment of stressed assets if a resolution plan is underway and accelerated provisioning if no agreement can be reached
- The mandating of independent evaluation of large value restructurings, with a focus on viable plans and a fair sharing of losses (and future possible upside) between promoters and creditors
- Higher future borrowing costs for borrowers who do not cooperate with lenders in resolution
- More liberal regulatory treatment provided for asset sales. Lenders can spread the loss on sale over two years, provided the loss is fully disclosed; take-out financing and refinancing are possible over a longer period and will not be construed as restructuring; leveraged buyouts will be allowed for specialized entities for acquiring stressed companies; steps to enable better functioning of asset reconstruction companies mooted; sector-specific companies and private equity firms are encouraged to an play active role in the stressed assets market.

Source: Reserve Bank of India 2014.

7.4. CAPITAL MARKET DEVELOPMENT: IMPORTANT SOURCE OF LONG-TERM FINANCE FOR CAPITAL INVESTMENTS

Bangladesh has the potential to develop a vibrant capital market that can provide long-term finance.[53] Developing local capital markets as a source of long-term finance is particularly important for the private sector in Bangladesh because the banking sector remains highly focused on short-term instruments, and access to foreign loans remains restricted. Despite the economy reached US$ 300 billion, Bangladesh's fixed income market remains small and under-developed. The bond market totaled US$ 16 billion as of 2018, or about 6% of GDP, compared to 16% in India. As a first step, Bangladesh will need to develop a well-functioning government debt market, which is foundational for capital market development because it sets the risk-free rate and benchmark for pricing other instruments. Since there is no tradable securities market, it is hard to establish what would be a fair price for a government bond, and without a government benchmark, it is hard to price corporate bonds. Unfortunately, the National Savings Scheme (NSS) offers double-digit interest rates and creates distortion in relative to the risk-free rate.[54] Secondly, reforms will be needed to stimulate the still-nascent corporate debt market.[55] Key issues relate to the trading structure, tax incentives, limited confidence in related professional services (audit, credit rating), and a lack of diversity in debt products. Approval processes for corporate bonds, especially with BSEC, are still too cumbersome and do not allow companies to issue bonds quickly. Processes that should take a few weeks take more than six months. Finally, better governance of the equity market is important for the future. Currently, many companies do not list due to concerns that the stock market is not fair and that the share price is undervalued. Moreover, many companies have their own sources of capital and these family-owned businesses do not want to dilute family control by selling shares. The prevalence of cheap bank funding and intertwined relationships among the real and financial sectors also contribute to the limited development of capital markets. Developing corporate governance and transparency will help support greater listing and the development of the equity market.

Local institutional investors are growing but still underdeveloped and mostly invested in short-term instruments. In many emerging markets, the assets of insurance companies, provident funds, and mutual funds can be critical in safely funding long-term investment. There is no official pension fund because it is unfunded and paid annually to civil servants from the budget. In Bangladesh, though, the combined assets of these three are below 1 percent of GDP.

- The **insurance sector** in Bangladesh is heterogenous and fragmented, consisting of 62 companies that are a mix of public corporations and private entities. It is valued at more than US$5 billion and is growing, but it is significantly smaller than many of Bangladesh's aspirational peers such as Malaysia and Thailand, where that sector is several times bigger. It is mostly dominated by a few big life insurance companies such as National Life, Delta Life, and Metlife. Within Bangladesh's insurance

53 This section is based on J-CAP analysis.

54 In the last year, however, there has been some reform in the system due to the government's move to make savings certificate sales transparent through automation and enforce individual limits on purchases of instruments, as well as a decline by 20 percent in net NSC sales between 2018 and 2019.

55 To date, just one corporate bond has been listed on the Dhaka Stock Exchange.

sector, around three-quarters of the market consists of life insurance products. By convention, insurance companies are expected to keep 30 percent statutory reserves in government securities, but the remainder can be invested flexibly. Important factors inhibiting development include the capacity of the regulator, sectoral fragmentation, the weak quality and capacity of many companies, and an erosion of public trust in the sector.

- Bangladesh's **mutual funds** (**MF**) industry is nascent and is dominated by a few big players. At US$1 billion in size as of December 2019, it has substantially grown, but governance challenges remain. It is of particular concern that regulators have made arbitrary decisions on the issuance of bonus shares by some of the closed-end MFs, investment opportunities have not been abundant, and dividend performance has been mixed. In recent years, returns have been quite weak. The amendment to the MF rules bringing greater oversight and discipline to the MF industry approved in draft form in 2015 still needs final regulatory approval. As the governance of the MF industry improves, there will be possibilities for matching prominent MF with good corporates issuing bonds.
- Bangladesh's **provident funds** represent another large sector that has not yet played a significant role as a potential institutional investor. Private provident funds control at least US$2 billion in assets.[56] A recent review shows that while many private companies have provident funds, the sector remains largely unregulated. Private sector provident funds are mostly invested in NSS instruments that benefit from tax relief and are mostly parked as bank deposits with a stable interest rate. New regulations are needed to govern the provident funds and establish real oversight. Fragmented data at zonal offices render the task difficult. Moreover, the forums that bring together institutional investors, corporates, and regulators must help develop a better ecosystem.

Opportunities exist to exploit these three sources of institutional investment in Bangladesh. Given their long-time horizons, insurance companies can become important players in corporate bond markets, assuming that there are attractive bond offerings. Based on the recommendations provided in the Joint Capital Markets Program (JCAP) diagnostic report, regulatory changes may be required by the Ministry of Finance's Insurance Development and Regulatory Authority (IDRA) for institutional investors to be able to purchase corporate bonds. The regulatory capacity of IDRA will need to be enchanced to mitigate the risk of governance failures. Mutual and provident funds may become another source of financing for corporate expansions and longer-term infrastructure investment. Capacity-building will be needed to match institutional investors with corporate bond issuers and ensure support from regulators.

7.5. FOREIGN EXCHANGE REGULATIONS

To facilitate FDI inflows and tap into foreign capital markets, Bangladesh will need to ease foreign exchange restrictions. BB has tight control over a wide range of foreign exchange transactions. The foreign exchange regulations are also relatively complex, especially for imports. By moving toward partial liberalization of foreign exchange inflows and outflows, Bangladesh could follow in the footsteps of East Asian and South Asian peers, virtually all of which have introduced at least partial capital account convertibility (table 7.1).

56 The government's defined benefit pension scheme for civil servants operates on an unfunded, pay-as-you go basis.

TABLE 7.1 INTERNATIONAL PEERS HAVE LIMITED FOREIGN EXCHANGE CONTROLS COMPARED WITH BANGLADESH, 2019

Country	Exchange Control and Convertibility
Bangladesh	***Full current account and capital account restrictions:*** Restrictive policy under Foreign Exchange Regulation Act 1947; tight controls on foreign exchange inflows and outflows.
India	***Full current account and partial capital account liberalization:*** India has moved to partial capital account convertibility; capital account convertibility exists for foreign investors and nonresident Indians (NRIs) undertaking direct and portfolio investment in India; Indian investment abroad up to US$4 million is eligible for automatic approval by the Reserve Bank of India subject to certain conditions; the Tarapore panel on capital account convertibility in 2006 laid down the preconditions for full convertibility: 3 percent fiscal deficit, 3 percent current account deficit, 1 per cent nonperforming assets
Pakistan	***Full current account and partial capital account liberalization:*** Central bank implemented partial convertibility of capital accounts by allowing foreign companies to operate in Pakistan and the corporate sector to obtain foreign equity; the rupee also made fully convertible for some capital account transactions, such as foreign portfolio investment.
Thailand	***Full current account and significant capital account liberalization***: Recent reforms from the Bank of Thailand have led to a relaxation of exchange control regulations to stimulate capital outflows to support capital flow balance and lessen pressure on the Thai baht; Thai residents allowed to keep a certain amount of foreign currency proceeds offshore, allowing more free outward remittance of foreign currency.
Malaysia	***Full current account and significant capital account liberalization:*** Malaysia's central bank, Bank Negara, loosened foreign exchange controls in recent years; local companies no longer need to convert foreign earnings back into Malaysian ringgit before reconverting to another currency; greater flexibility (upon application to the bank) for residents to hedge foreign currency obligations; wider access to the onshore market for nonresidents.
Vietnam	***Full current account and capital account restrictions***: Vietnam has historically imposed exchange controls to limit foreign currency outflows, generally requiring the use of the Vietnamese dong for domestic transactions and for channeling the flow of foreign currencies into the banking system; transfer of capital into Vietnam requires foreign investors to first set up a foreign-invested enterprise, then open a capital bank account in a legally licensed and operating bank.

Source: CPSD team based on Central Bank websites.

7.6. MORTGAGE FINANCE MARKET

The urban housing market is growing rapidly, creating a large opportunity for the nascent market in urban housing finance. With the country's total urban population having more than doubled in recent decades and the total number of urban households now estimated at 16 million, there is a growing gap between supply and demand of affordable housing, especially for the growing urban middle class.[57] Around 12 million urban households (70 percent) still reside in informal housing, and estimates suggest that even if organized private sector developers triple their annual supply of housing

units to 51,000 units per year, they will only be able to serve 25 percent of the demand from the target households by 2030 (IFC 2019). As of June 2019, lending for housing finance amounted to Tk 738 billion, equivalent to 8 percent of total lending and just 2.9 percent of GDP, compared with 10 percent of GDP in India. Banks are currently the largest providers of housing loans, accounting for 80 percent of all outstanding loans, and there are two private non-banking financial companies that specialize in housing finance and raise funds by accepting public deposits.

Several key constraints must be addressed to unlock the market for housing finance. Several financial regulations are in place that, while they could play a role in preventing speculative bubbles and usurious lending, may unduly hamper market development and could be replaced by more effective macroprudential rules. The bank loan cap, for example, which increased from Tk 12 million (US$140,000) to Tk 20 million (US$245,000), is a barrier, although it reaches the top 10 percent segment of the population. This removes a potentially profitable market for the banking sector, which also allows banks to build up mortgage assets with good collateral as they gradually move down the income distribution chain. There are also restrictions on nonbank financial institutions (NBFIs) entering housing finance despite the manifest benefits that long-term local currency financing would have on the asset-liability management of financial institutions. Notably, NBFIs would normally be natural champions for housing finance, while instruments that banks provide are constrained and typically focus on the formal sector. Banks have a limited scope of increasing the supply of credit to the housing sector because Bangladesh Bank has enacted strict regulations to ensure that minimum levels of credit are allocated to agriculture, SMEs, and women entrepreneurs.

There are other challenges for the emergence of housing finance. Capital market funding would help bridge the maturity mismatch for lenders. This would provide fixed-interest-rate long-term financing to issue housing bonds, which would be long-term government debt securities to raise money for affordable housing projects. Moreover, financial institutions suffer from the lack of foreclosure practices, in part due to misleading property valuations and complex legal procedures. Finally, on the supply side, there is a need to improve land allocation and zoning in cities, provide viable incentives for existing housing suppliers to increase the number of affordable housing units, and put in place regulations and fiscal incentives to encourage new private sector entrants to the market. On the supply side, the lack of properties in the affordable range is also a constraint.

7.7. GREEN FINANCE

Green finance is another potential market for expanded private sector development. As a signatory of the 2015 Paris Agreement, the government of Bangladesh has recognized the importance of transitioning to a low-carbon growth path. IFC estimates total climate-smart investment potential in Bangladesh at US$ 172 billion between 2018 and 2030. These includes investment in green buildings, transportation infrastructure, urban water, climate smart agriculture, waste management, and renewable energy.

57 Affordable housing is defined as housing units that can be afforded by the seventh to ninth income decile households with an average monthly income ranging from Tk 40,000 to Tk 102,000 (Type A households), making up 30 percent of the population.

To scale up green investment, BB has introduced a set of policies and incentives to promote sustainable financing. This set includes green banking policy guidelines, donor-aided projects, on-lending facilities, and concessional refinancing schemes. BB has also set a minimum target of direct green finance at 5 percent of the total loan disbursement and investment from January 2016 onwards for all financial intermediaries. Banks, however, face a number of challenges to meet the quota. There are not enough green bankable projects for banks to finance. They cannot disburse credit lines earmarked for green on-lending because the list of eligible green products is too narrow. They also have limited capacity to assess and underwrite green projects.

Bangladesh has considerable potential to develop a domestic green bond market to mobilize private capital for climate-related initiatives. Estimates suggest that climate related financing needs in Bangladesh are particularly high relative to the size of the domestic banking sector. Financing needs as a share total 52 percent of bank lending, compared to an average of 30 percent across emerging markets. This demonstrates the need to develop the domestic finance sector and green bond markets in particular, to offer new capacity to both refinance bank loans with longer term (and larger scale) financing, as well as for direct financing through capital markets. Local commercial banks and asset management companies are the domestic institutions with the highest potential to invest in green bonds. In general, investors with higher assets under management and a higher share in fixed income, would be more likely to invest in a green bond. Currently, investors and issuers face a number of key barriers to investing in and issuing a green bond respectively, including the attractiveness of a green bond instrument relative to other financial products, the availability and quality of the underlying project portfolio and the capacity of service providers in the domestic market to deliver a green bond issuance. BB, BSEC and IDRA in coordination with the Ministry of Finance, can play a catalyzing role in developing green bond market. IFC diagnostic report (IFC 2020) provides a set of recommendations in this regard: (a) building a strong pipeline of bankable projects and matching issuers with potential investors; (b) de-risking green bonds through demonstration issuances by sovereign or state owned entities, credit enhancement, or with participation of state banks or development finance institutions; (c) fundamental changes in the financial sector regulatory framework, particularly with regards to foreign currency lending so that financial institutions can more easily hold FX-denominated instruments and hedge FX risk.

7.8. FINTECH

Growth of the emerging fintech industry, along with financial innovation, can play a pivotal role in promoting financial inclusion and the broader private sector. Financial inclusion is advancing in Bangladesh as the government continues to implement its Perspective Plan 2010–21 (and launches the new 2021–41 plan), a strategy for achieving social and economic advancement. This includes the aim to reach a "digital Bangladesh," that will incorporate the adoption of mobile money and other digital payment platforms. Fintech firms in Bangladesh together process approximately US$4 billion in monthly transactions and can become a key driver for financial inclusion. Fintech can reform payment processing activities in Bangladesh, which are currently being made through cash or informal economic transactions. Moreover, increasing payments through the formal economy can improve transparency and improve the effectiveness of tax collection.

The explosion of the internet and mobile penetration has catalyzed the rapid development of fintech. The mobile subscription density of the country is at an all-time high, thereby reducing the last-mile connectivity challenge (figure 7.3). According to the data of the BTRC, the total number of internet subscribers reached 103.3 million at the end of March 2020, including 95.2 million mobile internet subscribers, making the cell phone a strong medium to perform many other business activities besides communication. The smartphone penetration is lower—around 20 percent of population or 31 million users as of 2018, compared to 37 percent in India and 45 percent in Vietnam (Newzoo 2018).

Bangladesh can spur its economic growth by leveraging its fintech industry and the payment ecosystem. Over the last three to four years, many fintech players have started business in digital payment, wealth management, and alternative financing. Most of the fintech companies are focusing on the digital payment space, and there is innovation with new use cases such as QR code payments, government payments, and business-to-business payments. Another focus area is e-commerce, which is growing as a result of the growth in mobile payment capability, especially since more than 30 percent of banks have introduced online payment gateway services for e-commerce payment processing. According to Statista,[58] the e-commerce market of Bangladesh currently stands at US$1.6 billion and is estimated to reach US$3 billion by 2023 on the back of the growing digital economy in the country, further accelerated by the COVID induced needs.

Mobile financial services (MFS) were initiated in Bangladesh in 2010–11 by Trust Bank, Dutch Bangla Bank (Rocket), and BRAC Bank (bKash). In Bangladesh, the fintech sector has developed as a bank-led model in which banks own majority stake in fintech companies. Providers of MFS such as bKash, Rocket, and SureCash are targeting customers through innovative financial products and services. They are also actively forming partnerships with other financial institutions, including banks, to provide financial products such as savings and loan products to customers. As of now, 25 commercial banks have been awarded MFS licenses, of which 18 are in operation. The market, though, is heavily dominated by bKash followed by Rocket, which together capture 97 percent of the MFS market share. The majority of MFS providers are in the payments space, followed by lending and personal finance. With a total customer base of 58 million and only 21 million active accounts, the market still offers a huge opportunity for penetration. MFS has significantly contributed to rural-urban fund flow and has ensured higher penetration at the bottom-of-the-pyramid market.

In order to support fintech development, the government has taken on multiple initiatives as part of the Digital Bangladesh program. The key elements of the government's 2009 Digital Bangladesh Vision are human resource development, connecting citizens, digital government service delivery, and ICT in business. The government has reduced bandwidth price by 15 percent, which is an advantage for local bandwidth providers. It will further increase the usage of the internet. The Bangladesh Association of Software and Information Services, which is the national trade association for the software and IT-enabled service industry of Bangladesh, has

58 A German firm that provides an online portal for statistics that makes available data collected by market and opinion research institutes.

won tax breaks for IT-enabled services through 2024. IT companies in Bangladesh can enjoy tax breaks for 10 years, which is encouraging many fintech companies to register as IT-enabled services entities. The government has also streamlined some approval processes for fintech firms to start but can accelerate them to ensure a level playing field for new entrants.

There remain regulations, however, that can impede the growth of the sector. First, there is a lack of regulations governing emerging fintech products or instruments. BB is trying to help develop the financial services sector, but it can learn much more from international experience. Given that the fintech world is a nascent policy space, it is important for the central bank and regulators to devise and enforce rules, especially in a world of cybersecurity challenges. Second, there is a limited interest and lack of investment in start-ups in the sector. Third, the fintech ecosystem in Bangladesh tends to be bank-led, and many products such as MFS and payment gateways, which have not applied for payment system operator (PSO) licenses, are controlled by banks. While banks in Bangladesh have a large customer base, a long history, and good infrastructure, start-ups can provide innovation, out-of-the-box thinking, technical expertise, and knowledge of IT solutions. As such, they can emerge as leading and independent players and foster competition and innovation. Fourth, there is a long gestation period for payment service providers (PSPs) due to licensing approval processes. Finally, there is a lack of interoperability between core banking solutions and MFS.

FIGURE 7.3 BANGLADESH DIGITAL FINANCIAL INFRASTRUCTURE AT A GLANCE

Mobile phone penetration

87% total SIM connections

51% Unique mobile subscribers

21% Unique mobile internet subscribers

Status of financial inclusion

50% Adults (aged over 15 years) remain unbanked

30% Gender gap in account ownership

Status of MFS

18 banks permitted to offer MFS

66.74 million registered clients

862,103 agents operational

31.45 million live accounts

6,865,612 average of daily MFS transactions

Status of agent banking

banks with agent banking services

5,791 agents operational

2.02 million active accounts

Source: Findex 2017; Bangladesh Bank; Intermedia GSMA
Note: ATMs = automated teller machines; MFS = mobile financial services.

Bangladesh has significant potential to develop the fintech space, including in its core areas of payments, but also in new areas such as cross-border payments and unsecured lending. Companies such as BKash have demonstrated the tremendous possibilities of bringing in previously unbanked people to access conventional financial services, including small business loans, payment collection, and insurance services. Fintech can be used to process large volume of remittances from the Bangladeshi diaspora. The international experience, especially from countries like the Philippines and Kenya, shows that reducing entry restrictions, including eliminating requirements that fintech initiatives be led by a bank, has helped catalyze the sector.

COVID-19 will significantly increase the scope and accelerate the development of fintech. The dynamics created by the COVID-19 pandemic creates opportunities for fintech to support the move away from cash and the increased use of e-commerce. The government's decision to use MFS to roll out cash transfers under the government stimulus program will accelerate the growth of fintech. Moreover, there is an increased interest in digital solutions to meet consumer demand, especially in the areas of retail, G2G payments, and wage payments. Unlike traditional banks, though, most fintech firms in Bangladesh have existed less than a decade, and few have demonstrated operational profitability and deep cash resources. Capitalizing on new opportunities unleashed by the COVID-19 situation can help ensure survival for many of these firms.

Based on the above assessment, recommendations to promote development of the fintech industry include the following:

- **Short term.** Increased transparency and faster processing and issuance of PSP and PSO licenses; establishment of working group committees and consultation forums that bring together all relevant market players to assess the industry needs, and to develop guidelines accordingly.
- **Medium term.** Provide incentives for merchants to transition to digital payments and incentives for customers to use digital products by making issuance free; develop policy and regulatory frameworks to promote the development of the fintech sector beyond its current focus on person-to-person transfers and retail payments; encourage open API-based integration with existing financial institutions to allow fintech to offer targeted financial products.
- **Long term.** BB should consider moving beyond a bank-centric fintech model. In the immediate short term, it can provide a set of regulations and fiscal incentives to further stimulate the industry. Over the longer period, it should consider forming a dedicated fintech support department that could collaborate with the national ID issuing authority, the Securities and Exchange Commission, the prime minister's office, BTRC, and the ICT sector regulator. The goals would be to educate, observe, and guide fintech activities, and encourage test-and-learn regulatory approaches to encourage innovation such as developing a regulatory sandbox, for instance, by better assessing the risks and support for fintech-friendly regulations. This has a very good potential in Bangladesh, as the government is eager to transition toward being a key user and driver for digital payment ecosystems including government-to-person and person-to-government payments.

08. HEALTH CARE

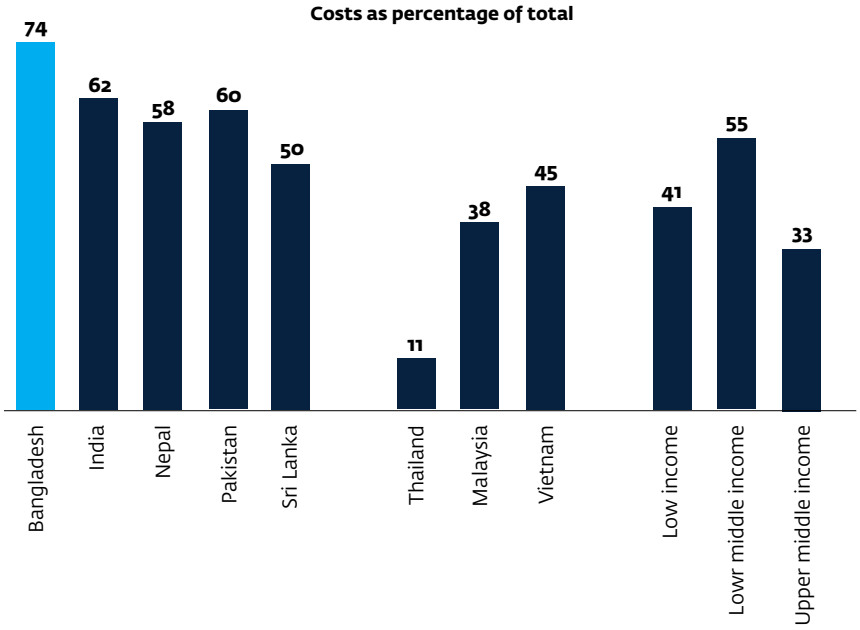
8.1. SUCCESS AND CHALLENGES IN BANGLADESH'S HEALTH CARE SYSTEM

Health outcomes have improved markedly in Bangladesh over recent decades. Since 1990, life expectancy increased from 58 to 72 years. Bangladesh has notably been among the world leaders in improving health outcomes for women and children. Maternal mortality rates have declined by more than 60 percent since 2000 and under-5 mortality rates by 80 percent. Bangladesh has also made significant progress in reducing the incidence of child malnutrition during the last 15 years (rates of childhood stunting have fallen by one-third since 2013) as well as the incidence of communicable diseases like malaria. The country has put a strong emphasis on meeting health-related sustainable development goals. Specific sustainable development priorities include reducing maternal, under-5, and neonatal mortality; reducing malnutrition; ensuring universal access to sexual and reproductive health services; and achieving universal health coverage.

These successes were achieved through innovative approaches, despite extremely low levels of government investment. At 3 percent of GDP, health financing in Bangladesh is low compared with countries at a similar level of development. Government expenditure on health care, less than 1 percent of GDP, is one of the lowest in the world. There has, however, been a large private sector and NGO presence in the sector, which has been an important driver of the country's success. A recent World Bank study (Ahmed, Begum, and Cotlear 2019) identified four key pillars of a successful "institutional pluralism" that contributed to these outcomes: (a) the effective prioritization of public financing on highly cost-effective interventions; (b) an effective alignment of government and development partner financing based on the mechanism of the sector-wide approach; (c) the extensive use of female community health workers and innovative NGOs that allowed for door-to-door delivery and an early, rapid adoption of innovations in service delivery such as the Oral Rehydration Therapy Program and the National Tuberculosis Program; and (d) a large, informal private retail pharmacy sector that sells medicine produced by the country's large, competitive domestic pharmaceutical industry. The study also acknowledged the education of girls and female labor force participation. Water and sanitation interventions outside the health sector played an additionally significant role in achieving better health outcomes.

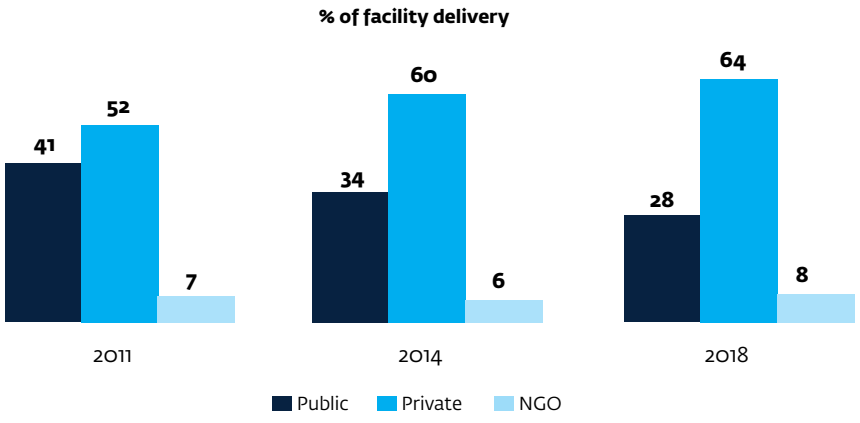
The quality and coverage of health care service provision still faces formidable challenges. Despite the successes, the lack of public investment in health care contributes to significant gaps in coverage and quality. Overall health expenditure is well below the LMIC average of 4 percent of GDP and out-of-pocket expenditure accounts for nearly three-quarters of total health care expenditures, among the highest in the world (figure 8.1). Out-of-pocket expenditures are largely spent on medication and outpatient care. This spending places a strain on household finances, with around 25 percent of households reporting that they spent more than 10 percent of their income on health care in the last year (World Health Organization 2019). Health insurance is practically

FIGURE 8.1 OUT-OF-POCKET HEALTH CARE COSTS, 2017



Source: World Development Indicators.

FIGURE 8.2 DISTRIBUTION OF FACILITY DELIVERY AMONG PUBLIC, PRIVATE, AND NGO HEALTH CARE FACILITIES IN BANGLADESH



Source: Ahmed, Begum and Cotlear 2019.

Note: BDHS = Bangladesh Demographic and Health Survey; NGO = nongovernmental organization.

nonexistent. Around 80 million Bangladeshis (nearly half the population) lack sufficient access to health care services. The quality of service is also problematic, particularly in public-sector-run hospitals, where inadequate funding results in a significant shortage of medical practitioners and hospital beds. At 0.8 beds per 1,000 persons in 2015 (which includes both public and private beds), Bangladesh has levels similar to many sub-Saharan African countries, and less than half the level in Malaysia. The incentives for public health care workers are low because the jobs are often low-paying and provide little incentive to improve performance. Service provision is particularly problematic in urban areas. Health services are not well suited to tackle the challenge of noncommunicable diseases (NCDs). These have increased by more than 25 percent over the last ten years, and now cause more than two-thirds of deaths.

Health-sector human resources are both in short supply and poorly distributed. Bangladesh has just 0.4 nurses per 1,000 people, among the lowest densities in the world and 2.5 times lower than the low-income country average. The density of doctors, particularly specialists, is among the worst in the world. For example, Bangladesh has just three specialist surgical workers per 100,000 people compared to an average of 22 in LMICs and 70 in OECD countries. Moreover, almost all specialists are concentrated in Dhaka and Chittagong. The human resource gap is more profound in public sector facilities, where almost 50 percent of the approved job positions remain vacant. Lack of available human resources is a significant factor limiting the pace of expansion of health infrastructure in the country, particularly outside the largest cities. It also prevents the development of PPPs because lack of access to human resources risks preventing the effective utilization of expensive assets.

The COVID-19 pandemic has had a significant effect on Bangladesh's health care system. As of May 2021, according to the Institute of Epidemiology, Disease Control, and Research (IEDCR), there were over 775,000 recorded cases with nearly 12,000 deaths. Many health care workers have been infected with the virus, and dozens of hospitals and clinics across the country have been locked down after their staff tested positive. Health care workers have expressed concerns that they do not have adequate personal protective equipment, and the health system cannot cope with the outbreak. Although the number of new daily cases has declined to around 1,300 as of May 2021, the trajectory of the pandemic remains uncertain amid uneven access to vaccines and the second wave of the pandemic.

8.2. ROLE AND OPPORTUNITIES FOR THE PRIVATE SECTOR

Private sector providers have a significant presence in Bangladesh's large and rapidly growing health care sector (figure8.2). Bangladesh's overall health care market, which includes spending on medicine and services, was estimated at US$10 billion as of 2018 and is expected to grow to US$14 billion by 2023. It is now one of the country's largest service-sector industries, both in terms of revenue and employment, and has expanded to respond to the needs of the country's rapidly growing population. Within this market, the private sector is present in all service delivery levels including primary care. The private sector consists of for-profit organizations including traditional private pharmacies, private clinics, auxiliary services (laboratory, radiology, physiotherapy), and private hospitals of all sizes. There are also less-conventional private sector participants, which include e-health and mobile health providers, bank and nonbank health financing institutions, international and local NGOs, and unlicensed

practitioners. While the wealthier groups use private services at a higher rate, it is important to note that lower-income groups are also covered by private provision. In Bangladesh, private sector health financing includes household expenditures, private nursing home investments, and drug funds from NGOs.

The private sector's participation in Bangladesh's health care sector has grown in significantly in the last two decades, although it remains highly fragmented with few groups of any considerable size. Increasing number of entrepreneurs started investing in establishing of for-profit private hospitals, diagnostic clinics and laboratories, helping fill the gap in the public sector capacity by providing quality, efficient health care. Many private nursing homes also came to the market in recent years. Around 46 percent of all health facilities are now privately run, and most private facilities provide care at the secondary level and above (mainly due to a high number of community clinics in the primary health care segment). It is estimated that Bangladeshis spend six times as much at private hospitals than at public ones, contributing to the larger flow of revenue and resources into the private health care sector.[59] Moreover, most Bangladeshis usually obtain the majority of their drugs from the private sector, and there is a large market of private sector–run pharmacies. The majority of private medical training institutes (PMTIs) are managed by the private sector, mostly located in Dhaka. The private sector is a large provider of health care, even in poor areas, but given the fragmentation and unevenness, there are concerns relating to quality, access, and coordination of care.

Pharmaceutical retailers play a particularly important role in health care provision, but rampant informal practices are a concern. Many patients use pharmaceutical retailers as their entry point to the health system. The first point of care for acute respiratory infection, for example, is almost evenly split between health facilities, traditional doctors, and pharmaceutical retailers (private pharmacies, and formal and informal drug outlets). In part, this is because pharmaceutical retailers are convenient to use because they are widespread and open for longer than health facilities. Informal practices are, however, widespread in the pharmaceutical retail sector. Around half of retailers are unlicensed drug shops. In these and in registered pharmaceutical retailers, informal practices are common. Dispensing of prescription-only medicines without a prescription is common, as is the provision of services such as giving injections and providing diagnostic services and vaccinations, all of which are not allowed under a drug license. This leads to concerns with the quality of health services and medication provided through many pharmaceutical retailers.

Health services are concentrated in urban areas. Most public and private health facilities are concentrated in Dhaka and Chittagong, although there is a growing rural network. According to the government's Health Bulletin 2019, the number of registered private hospitals and clinics under the Directorate General of Health Services has increased to more than 5,000 in 2019, compared to 3,026 in 2011 and 1,032 in 2000. The challenge, especially for the urban poor, is the lack of access to good public or private facilities due to cost, and as a result, they are forced to rely on informal private operators.

59 An analysis of the Household Income and Expenditure Survey 2016 (produced by the Bangladesh Bureau of Statistics) shows that among primary health care seekers, only 11 percent sought care from public facilities whereas 89 percent went to private providers within 30 days preceding the survey, and a significant proportion of treatment is sought from private informal providers. The private formal sector was the main source (69 percent) for secondary care (Ahmed, Begum, and Cotlear 2019).

There exists significant scope for further expansion of private investment in Bangladesh's health care sector. Global population growth, changes in disease profiles, and technology are changing the health care landscape, and there is a growing need for the private sector to respond to the challenge of NCDs as government funding and development assistance flows into other priority areas. The ongoing COVID-19 pandemic suggests that there will be an increased future need for private sector investment, particularly in diagnostic clinics, testing, hospitals, and pharmaceuticals. Bangladesh can learn from the growing experience of countries in East Asia and Latin America who have used workable models of public-private engagement to improve diagnostic services, surgery, and disease treatment. One other option is for the public sector to contract a number of clinical services out to the private sector as many other countries have done. An example is São Paulo State in Brazil. A more complex, longer-term way to engage with the private sector is through PPPs. Internationally, there are three leading PPP models: (1) an infrastructure-based approach focused on building and refurbishing public health care infrastructure; (2) a discrete clinical services approach that seeks to add service delivery capacity; and (3) an integrated PPP approach that provides a comprehensive package of infrastructure and service delivery. In 2018, Vietnam got its first hospital built using a PPP model. Another aspiration example for Bangladesh is Turkey, where the government has been implementing a US$ 20 billion PPP program to modernize and scale up health care provision. As of 2017, Turkey served around 1.1 million of medical tourists, receiving annual revenue estimated at US$2.3-3 billion.[60] Overall, though, the adoption of PPPs in the health sector in Asia has been slow, and the most relevant examples of PPPs for Bangladesh have occurred in India.

Several government initiatives may potentially create new opportunities for private health care providers. Over the long term, there is an intention to introduce national health insurance as part of the National Health Care Financing Strategy 2012–32. This has the potential to create opportunities for the formal private sector to serve lower-income patients. In the near to medium term, there are a number of opportunities, particularly in urban areas, to expand access to quality health care services through the private sector using vouchers, PPPs in select areas, health care providers pursuing inclusive business models, and a greater adoption of disruptive technologies such as telemedicine, e-pharma, and affordable drugs. In order to be innovative, Bangladesh will require new business models, better access to finance, and revised payment mechanisms that will benefit from national health insurance.

The Ministry of Health and Family Welfare (MoHFW) is increasingly partnering with private providers through PPPs and service contracts with NGOs. The health sector is one of the very important areas where the PPP model could play a prominent role in ensuring preventive and curative health care services. There are two PPP-based, operational hemodialysis hospitals, both of which are advised by IFC. Six other PPP projects are at various stages of development, most of which involve integrated facilities comprised of medical colleges and hospitals with the total cost ranging between US$30 million and US$200 million per project. As discussed below, however, the MoHFW is missing basic tools to regulate the private sector and to adequately implement PPPs.

60 IMTJ Team, "Health Tourists Spend 10 Times More in Turkey," LaingBuisson, https://www.imtj.com/news/health-tourists-spend-10-times-more-turkey/.

The PPP approach has great potential, but the government will need support to identify how and where they can be most effective, especially by resorting to direct contracting for services from the private sector. PPPs often start as a pilot project and end up having a short lifespan if not planned correctly. In this regard, the sustainability of PPPs can only be achieved if there are clear, well-defined objectives and deliverables as well as a well-thought-out working model that works well with public and private providers. In this regard, pre- and post-hospital care, timely diagnostic services (lab, radiology), and easily accessible preventive care services (health screening) provide an excellent initial platform private providers can use to work with public hospitals, especially in emerging markets such as Bangladesh.

Overall, there are some clear steps that will support private investment in health care:

- **Partner with tech start-ups, which are emerging players in health care provision and help support supply-side financing.** More than 10 start-ups are currently operating in the country (USAID 2019). They are providing services such as molecular cancer diagnostics, integrated hospital information systems with electronic health records, online doctor appointment systems, health care–related content for general awareness, and mobile app–based health tips. Furthermore, traditional insurance providers have started to adopt innovations to capture the new market. For example, a digital start-up partnered with one of the leading insurance companies to launch a cancer care benefit available through life insurance. Private investors could also support some high-tech start-ups that offer telemedicine. The scale, however, is limited, and this would be a last opportunity.
- **Support integrated health care providers and hospitals.** Given the growing size of the health care market and the development of hospital groups, private investors can support the expansion of scalable, integrated health care providers that provide services in a more cost-effective way. Private investors can thus help deliver quality health care, reach underserved markets, and contribute to enhanced health care system efficiencies through networks.
- **Specialized treatment and care for chronic illness.** Private investors can implement cost-effective approaches to treat important health problems such as diabetes, cardiovascular illness, hypertension, and other ailments. Private sector approaches can involve commercial investments in specialty care networks, as well as corporate and financial services.
- **Vouchers and demand-side financing.** The private sector can cooperate with the government to improve a voucher system allowing subsidized or low-cost treatment for health ailments. Private sector delivery systems can be set up alongside government facilities, but there are some concerns that the contracting arrangements without adequate regulation have so far led to a domination of the market by lower-quality providers.
- **COVID-19 testing, treatment, and data reporting.** Private investors can help support the treatment of Bangladesh's growing numbers of COVID-19 patients with medicines and care centers. They can also provide quality data to be used by public sector health officials. In the present and the future, there will be potential for the private sector to help conduct testing throughout the population and support immunization when the vaccine is developed. Besides commercial investments

in diagnostics, private investors can help develop innovative models that enable diagnostics through the adoption of lower-cost technologies or developing financing and servicing schemes that help avoid issues of lack of qualified staff.

- **Vaccine development and production.** As described in section 8, Bangladesh has successfully developed its domestic pharmaceutical industry, which supplies nearly all medicine to the domestic market. It features scale, cost-efficiency and several leading producers which supply drugs to the markets in advanced economies (for example, the EU and the US), which position this sector very well to contribute if not to vaccine development, certainly to its production at large scale.
- **Support expansion of the Model Pharmacy initiative.** This initiative aims to strengthen the sector by promoting a voluntary accreditation scheme for higher-quality pharmaceutical retailers. To be accredited, pharmacies need to meet standards in a range of areas such as the role and qualifications of staff working in the facilities, the facility's structural design, record keeping, and the storage and quality of medications sold. There is a comparable process for supporting model druggists. Indications are that patients prefer model pharmacies, and they have been on vanguard in introducing new technologies such as telemedicine. Overall, the model pharmacy initiative has gained traction, with hundreds of model pharmacies being accredited. It is not clear, however, that the population at large is aware of the advantages of model pharmacies, which suggests that there is space for public-interest advertising to explain the benefits to patients of the model pharmacies.

8.3. CONSTRAINTS TO PRIVATE SECTOR PARTICIPATION IN HEALTH CARE

The increasing private sector participation in health care has not been accompanied with an adequate evolution of the regulatory framework. Private health care services are regulated under the Medical Practice of Private Clinics and Laboratories (Regulation) Ordinance of 1982, which has not been updated to regulate private health care facilities. The MoHFW has strict licenses from new health care providers, but the processes remain opaque and cumbersome. A PPP deal between a private investor and an established hospital, for example, would need to go through a process that would normally take several months. A study (Aminuzzam and Khair 2014) of private health care services noted a lack of legal framework, the poor enforcement of the existing regulations, and a lack of government oversight. Many hospitals outside Dhaka lack the necessary equipment. The implication of this is that the sector has uneven quality, and it is hard to identify precise entry points for international operators. Only the high-end hospitals and the major pharmaceutical players seem to have the ability to undertake major investments.

Overall, a recent World Bank assessment of obstacles to private sector opportunities identifies six market conditions that limit private health sector opportunities:[61]

- **Costly licensing requirements** that created weak coordination between agencies for facility inspection and an increase in licensing fees for health clinics
- **Uneven playing field** consisting of competition from a large, poorly regulated informal sector (especially drug shops and unlicensed providers)
- **High cost of inputs** despite the reduction of taxes on medical equipment (for example: 62 percent on hospital beds)
- **Personnel shortages** characterized by a scarcity of nurses, lab techs, and other professionals
- **Narrow range of incentives** consisting of limits to government incentives other than PPPs for incentivizing private sector providers
- **Difficulty accessing credit** because the health sector is considered high-risk investment by commercial banks and financial institutions
- **Inadequate capacity of MOHFW and limited knowledge of domestic industry players** to implement PPPs in health care delivery

The MoHFW lacks basic tools to strengthen the performance of the private sector. The issues include limited data availability on private sector providers, constrained capacity to ensure quality, and an underregulated informal sector. There is a general lack of knowledge by the government regarding the private sector, which is compounded by a lack of trust between public and private health actors because of limited dialogue and engagement.

Government capacity and regulatory restrictions remain significant barriers to PPPs and contracting with the private sector. The challenge with PPPs in Bangladesh is not unique to health care: it spans a range of industries and products. Among the challenges is a lack of capacity at the PPP Authority, as well as a lack of competent transaction advisers and lawyers to help guide the process. This makes it difficult to implement standard international models that tend to have a degree of complexity that is not easily implemented in Bangladesh. These issues are compounded in the health sector where the MoHFW also does not have a dedicated PPP unit.

61 Internal assessment.

TABLE 8.1 RECOMMENDATIONS ON CREATING ENVIRONMENT CONDUCIVE FOR PRIVATE SECTOR PARTICIPATION IN HEALTH CARE PROVISION

Improving regulatory framework, including regulatory capacity and oversight, for private participation.	This would entail (a) a review of the private sector health care landscape in terms of quality and capacity, (b) reducing barriers to licensing that are inhibiting the development of networks and making it more difficult for quality formal health providers to enter, (c) developing precise guidelines for PPPs and contracting with the health care sector with clear timelines and approval processes, (d) putting in place quality control mechanisms to the quality of health services being offered by the private sector counterparts—for example establishing national accreditation programs to monitor and measure the quality; (e) strengthening MoHFW's data systems. The government can do more to bring together the public sector, the private sector, and international players. Private sector participation must be on the government agenda when developing their plans for a national health initiative.
Support patient ability to afford private health services through strengthening the country's voucher schemes.	While these exist in rudimentary form, it will be important to scale them up until national health insurance can be implemented. Bangladesh has one very effective program, the Maternal Health Care Voucher Program implemented by the MoHFW. Started in 2004, this program has helped more than 500,000 mothers obtain maternal care services using vouchers. This approach can be expanded and used for other demographic segments.
Expand risk pooling by channeling the large spending into pooled funds (public, community, or private risk pools).	Risk pooling allows other members to reduce high out-of-pocket expenditures for lower-middle-income families.
Address market barriers hindering greater participation by foreign investors.	There exist good opportunities for FDI partnerships in hospitals, one example of a good investment focus being the supply of medical equipment. To encourage greater FDI in the health care sector, the government should address regulatory approvals and foreign exchange restrictions (though not those specific to health care).
Support start-ups that can take advantage of opportune market conditions like the current pandemic.	There will be many opportunities to invest in new start-ups that may provide testing, lab work, contact tracing, and other COVID-19-related activities. There is also a requirement for technology investment.
Strengthen awareness of model pharmacies.	Public-service advertising campaigns can be used to support patient awareness of the benefits of model pharmacies.

09. RMG AND VALUE-ADDED MANUFACTURING

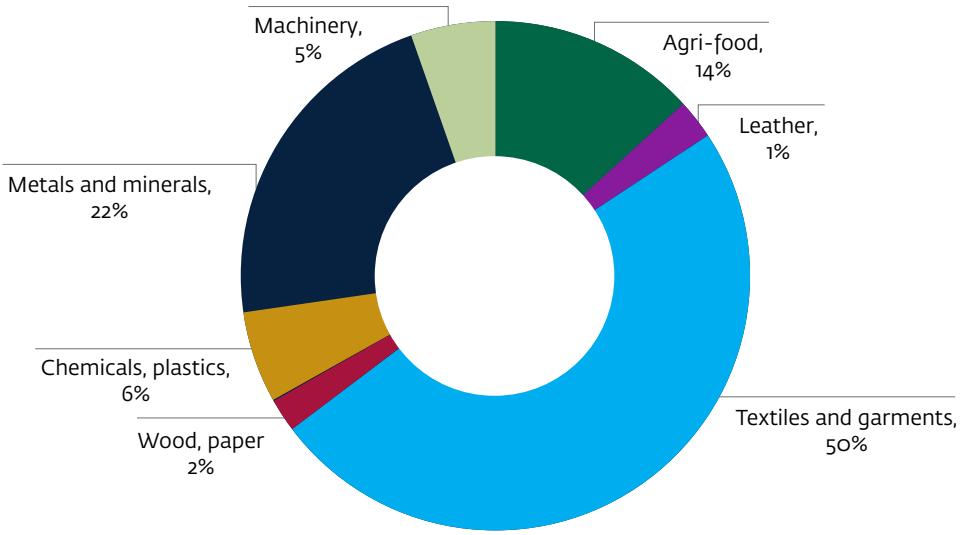
9.1. INTRODUCTION TO THE MANUFACTURING SECTOR IN BANGLADESH

Low-skilled, labor-intensive manufacturing plays a critical role in Bangladesh's economy and development. Manufacturing currently accounts for around 17 percent of value added and 90 percent of exports in Bangladesh. While manufacturing accounts for only around 15 percent of all employment in the country, it has been instrumental in bringing women into the labor force and in providing steady, paid employment in an economy where the vast majority of workers are still self-employed. Among working women under the age of 25 in urban areas, almost half are in manufacturing.[62] The sector also has strong multipliers: close to two direct and induced jobs are created for each direct job in manufacturing compared with less than one in nonmanufacturing sectors.[63]

The manufacturing sector is highly segmented both by size and sector. Data from the Economic Census[64] indicates that microenterprises (less than 10 workers) account for 90 percent of all manufacturing establishments in Bangladesh. Among nonmicroenterprises covered in the 2019 Survey of Manufacturing Industries, large firms (more than 250 workers) account for just 6.5 percent of establishments (textile and garment factories account for 85 percent of these) but 68.5 percent of jobs, while factories with less than 100 workers account for 87 percent of all establishments but just 23.5 percent of jobs. Textiles and garments dominate from a sector perspective, accounting for around 40 percent of nonmicroenterprise manufacturing establishments, half of manufacturing value added, and 85 percent of exports (figure 9.1). Food and beverage manufacturing accounts for another 20.5 percent of establishments but just 14 percent of value added, while minerals and metal products account for 17 percent of establishments but almost 22 percent of manufacturing value added.

62 Data are from the 2016 Labor Force Survey by the Bangladesh Bureau of Statistics.
63 Multipliers analysis based on data from the GTAP10 database (version 10a).
64 Data are from the Bangladesh Bureau of Statistics (2013).

FIGURE 9.1 DISTRIBUTION OF MANUFACTURING VALUE-ADDED BY SUBSECTOR (NONMICROENTERPRISES), 2013

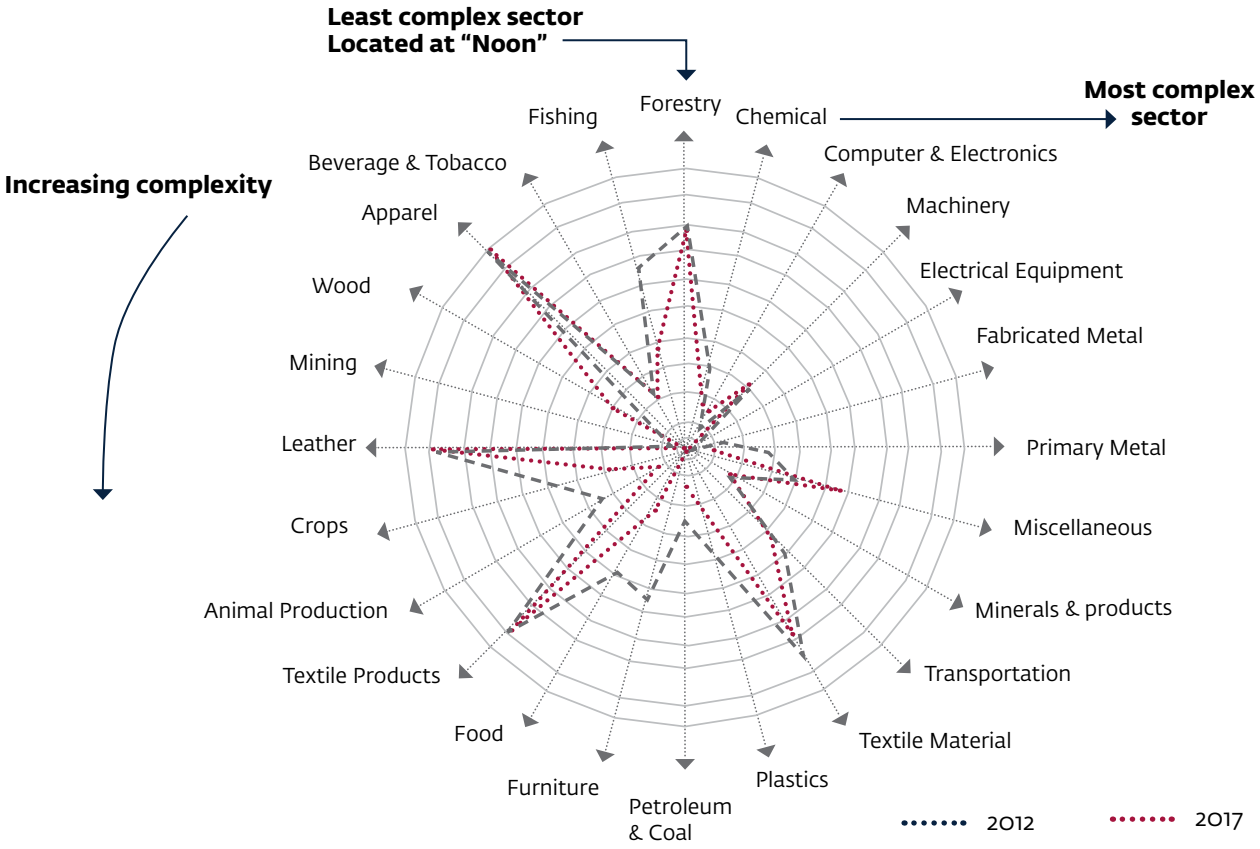


Source: Survey of Manufacturing Industries 2013, Bangladesh Bureau of Statistics.

Despite the success of the RMG sector, manufacturing remains basic and productive capabilities have not evolved significantly. Bangladesh's manufacturing sector remains concentrated in low-productivity activities involving limited technological complexity and requiring only basic skills. Indeed, RMG is among the least complex industries globally (figure 9.2). Bangladesh's apparel sector also remains on the lower rungs of the global product quality ladder and has not shown significant upward progress over the past decade (Lopez-Acevedo, Medvedev, and Palmade 2017; World Bank, forthcoming). Manufacturing sector productivity growth in Bangladesh was just 1.6 percent annually in the period 2003–10, rising to 2.2 percent in the period 2010–16. In both periods, this was more than 50 percent below the average rate of productivity growth in the overall economy. Failure to increase the rate of productivity growth will not act as a drag on GDP growth, but it limits the pace of wage growth that is possible, therefore slowing the pace of poverty reduction.

The Fourth Industrial Revolution (IR 4.0) is posing increasing challenges for Bangladesh's reliance on low labor costs, but it also presents opportunities for the manufacturing sector. Global automation trends and the increased use of service inputs in manufacturing ("servicification") will reduce the relative role of unskilled labor in the production process. Even though RMG is considered among the sectors least susceptible to full automation, technological change is already affecting labor use in the sector. For Bangladesh, this endangers the employment of low-skilled labor. It also endangers the competitiveness of Bangladeshi manufacturers, who have relied on competition based on low wages and tended to be weak in the adoption and use of technology. On the other hand, pressure to adopt industrial, informational, and transactional technologies as well as to adopt improved managerial practices (World Bank, forthcoming) can play a critical role in helping shift Bangladesh's manufacturing sector toward more complex, higher-value-added activities which can support higher wages.

FIGURE 9.2 ECONOMIC FITNESS OF BANGLADESH'S GOODS EXPORTS, 2012 AND 2017



Source: IFC estimates based on Harvard Atlas of Economic Complexity.

Note: Economic fitness is a measure of diversification and complexity of country's exports. High economic fitness indicates a diversified and advanced set of capabilities that enable a country to produce a diverse range of goods and services. It is predictive of long-term growth in gross domestic product per capita. Sector fitness is measured as the complexity-weighted diversification of a country's exports in a specific sector. It captures the country's level of productive capabilities in different sectors.

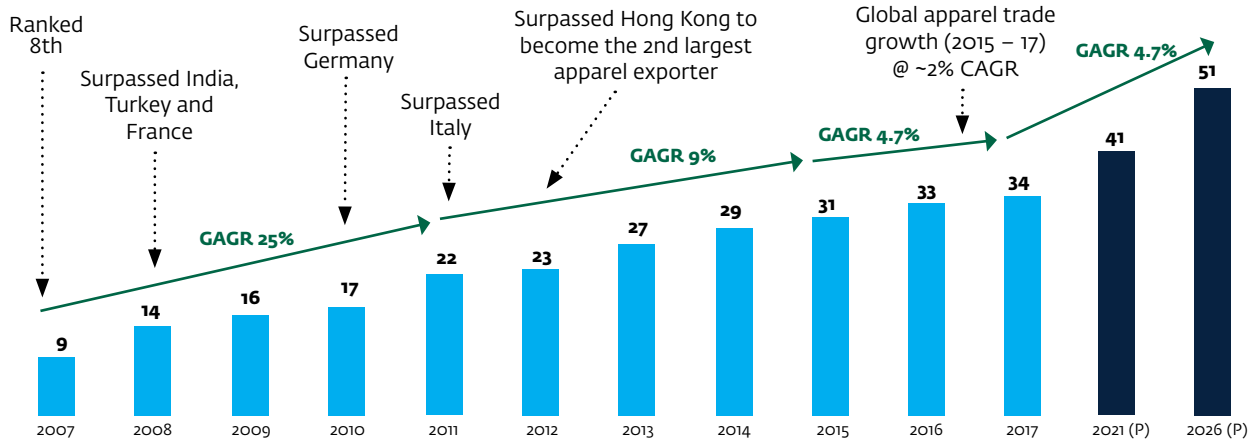
The effects of the COVID-19 pandemic may accelerate IR 4.0 and strengthen the case for diversifying manufacturing exports. Bangladesh's vulnerability to overconcentration in its exports (both products and markets) was underscored by the COVID-19 crisis, as lockdowns in the United States and Europe led to a collapse in demand across global RMG supply chains. The COVID-19 pandemic is also likely to accelerate two key trends in manufacturing that will have significant implications for Bangladesh. First, although trends will vary significantly by sector, overall manufacturers will likely adopt technology at a faster pace to minimize risks to labor and respond to increased consumer demand for online platforms. This will mean the impacts of IR 4.0 will be felt more quickly in Bangladesh than they might have otherwise. Second, the pandemic is likely to change supply chain strategies, as lead buyers reassess the balance of risk against cost, leading to the consolidation and restructuring of existing global supply chains. This will present both threats and opportunities for Bangladesh.

9.2. READY-MADE GARMENTS

Although RMG remains by far the most important industrial sector for Bangladesh, concerns about a slowdown arose even prior to the COVID-19 crisis. Bangladesh is the second-largest exporter of RMG globally: the sector accounts for 15 percent of GDP and generates around 85 percent of the country's exports. It also directly employs more than 4 million people, the majority of them female workers, and accounts for around 10 million jobs through indirect and induced effects. The sector has achieved this success due to several factors that include low labor costs, sizable production capacity, government incentives, and favorable trade agreements. RMG export growth, however, has slowed down in recent years (Figure 9.3) and was in decline for FY20 even prior to the onset of the COVID-19 pandemic. Restructuring of the sector in the years following the Rana Plaza disaster has resulted in the closure of a number of factories and has contributed to stagnation in employment since 2015 (although likely contributing to improved productivity in the sector).

COVID-19 has caused a massive shock to the RMG sector and will likely have long-lasting impacts. Lockdowns imposed around the world in response to the COVID-19 pandemic resulted in a sharp contraction of retail activities. According to forecasts from McKinsey (Ahmed and others 2020), the US$2.5 trillion global fashion industry (garments and footwear) will decline 27 to 30 percent in 2020. For Bangladesh, the impact has been severe. BGMEA has documented US$3.16 billion in cancelled orders among its members through mid-April 2020, impacting 2.26 million workers in 1,140 factories.[65] Overall, RMG exports over the period of March to May 2020 are US$5 billion down from a year earlier. In addition, many factories reported that buyers are demanding discounts on shipped orders and delaying payments. As of the end of May 2020, around 30 percent of BGMEA factories remained closed due to lack of orders,

FIGURE 9.3 BANGLADESH READY-MADE GARMENT EXPORTS, 2007–26, US$ BILLION



Source: PricewaterhouseCoopers, Bangladesh Textile Sector Competitiveness and Sustainability.
Note: CAGR = compound annual growth rate.

65 Data from BGMEA; see https://www.bgmea.com.bd/.

and 80 factories were closed permanently. A survey of BGMEA and Bangladesh Knitwear Manufacturers and Exporters Association (BKMEA) members[66] also found that among reopened factories, average capacity utilization was below 50 percent. On the other hand, there is also evidence of agility among RMG manufacturers: around 14 percent of factories have shifted to producing face masks and other PPE to meet changing demands. While the industry overall is expected to rebound over the next couple years, there are likely to be both medium-term and potential long-term changes in consumer behaviors, including greater focus on price but also a shift toward durability over "fast fashion'". Moreover, automation in production is likely to be accelerated, and global supply chains are likely to be restructured to reduce risks and strengthen resilience.

In the short term, RMG firms face the challenge to remain viable and to be able to recover their market position. As part of the government's COVID-19 economic response program, BGMEA factories were directed to pay 60 percent of wages in April and 100 percent in May in an effort to minimize layoffs of garment workers. While payment of wages is supported by a US$588 million component of the government stimulus program, it is being provided as a repayable working-capital loan to replace (for most companies) large losses in income. This has significant implications on the profitability of firms: it is estimated that if export orders decline by no more than 30 percent over the year, the average factory would lose all profits. Perhaps more importantly, many firms in the sector, particularly small and mid-sized firms, face significant liquidity constraints that may make it difficult for them to ramp up production when orders return. The government stimulus program should help provide some access to additional working-capital loans as well as trade finance, but many firms will struggle to access these loans through the commercial banking sector.

To maintain its leadership position and continue supporting the domestic economy, Bangladesh's RMG sector needs to invest to keep up with IR 4.0, evolving consumer trends, and the increasing scrutiny of environmental and social standards. The global RMG industry is in the midst of transformational changes that will erode Bangladesh's current comparative labor cost advantage. Policy reforms and firm-level investments will be needed to transform the sector for the future.

- First, the rise of "fast fashion" and "e-tailing" is reducing the lead time and size of RMG orders. This is changing the economics of the sector, which is built on a six-month manufacturing cycle of high-volume "mass" product. Even if the extent of automation in core RMG production processes remain relatively limited in the near future, Bangladesh manufacturers will need to embrace ***investment in new technology and equipment and the development of relevant digital and multi-tasking skills*** in the labor force, as they need to learn how to operate multiple machines simultaneously. RMG technology upgrades could create a fertile ground for tech start-ups to deliver digital solutions for this industry. In this context, the adoption of ***general-purpose technologies*** (information and transactional technologies that perform data capture, storage, and analysis with dynamic feedback on quality and production flows) and ***improved management practices*** will be more critical to productivity growth rather than focusing on industrial process automation (World Bank (forthcoming)).

66 Survey carried out in May 2020 as part of the "Mapped in Bangladesh (MiB)" project in conjunction with BGMEA and BKMEA.

- Second, with a shorter manufacturing cycle, the poor quality of ***transport and logistics*** will become a more binding constraint. Compared to India, trucking costs are almost double in Bangladesh (approximately Tk 6 per ton per kilometer) and Bangladesh ports take around 12 days more time for export-import cycles, resulting in an estimated loss of approximately US$1.3 billion for the industry.
- Third, consumers are becoming more concerned about the environment and are making sustainability one of the major factors influencing purchasing decisions, along with design and price. While there has been significant progress in ***improving labor conditions and a greater uptake of energy and water efficiency solutions*** in Bangladesh RMG, further alignment with international standards is critical for the longer-term competitiveness of this sector. McKinsey reports that only around 100 factories out of 5,000 have achieved full compliance. Wet processing of fabric in Bangladesh takes 120 to 300 liters of water per kilogram in Bangladesh compared to the global average of 50. Also, there has been limited uptake of industrial rooftop solar, partially due to a lack of regulatory framework. Furthermore, there is no effective enforcement of industrial wastewater treatment. Anecdotal evidence suggests that although large RMG plants have wastewater treatment equipment installed, proper operational procedures are often not followed in order to save on the costs of required chemicals.
- Fourth, consumer preferences are shifting from cotton to manmade fabrics that are easier to maintain. ***Environmental sustainability*** will be a major challenge for "fast fashion" and the increasing popularity of high-tech fabrics, which will require a greater push toward the reuse and recycling of used clothes. This will require that manufacturers in Bangladesh can access new sources of inputs and that they invest in circular production and distribution models. Manufacturers that are in greater control of design will be in a much better position to do this.

Over the medium term, job losses to automation, restructuring, and COVID-19 effects in RMG GVCs could be offset through market diversification, the production of higher-value products, and the development of upstream and downstream industries. Despite strong headwinds, there are also tailwinds and unrealized opportunities that could drive continued growth and job creation in Bangladesh's RMG and sectors requiring similar capabilities. Leveraging the broad opportunities outlined in the three pillars of IFC's Global Manufacturing Strategy, Bangladesh has an opportunity to increase the complexity of the RMG value chain and leverage RMG for expanding and diversifying its industrial base and moving towards more complex manufacturing (figure 9.4) in the following ways:

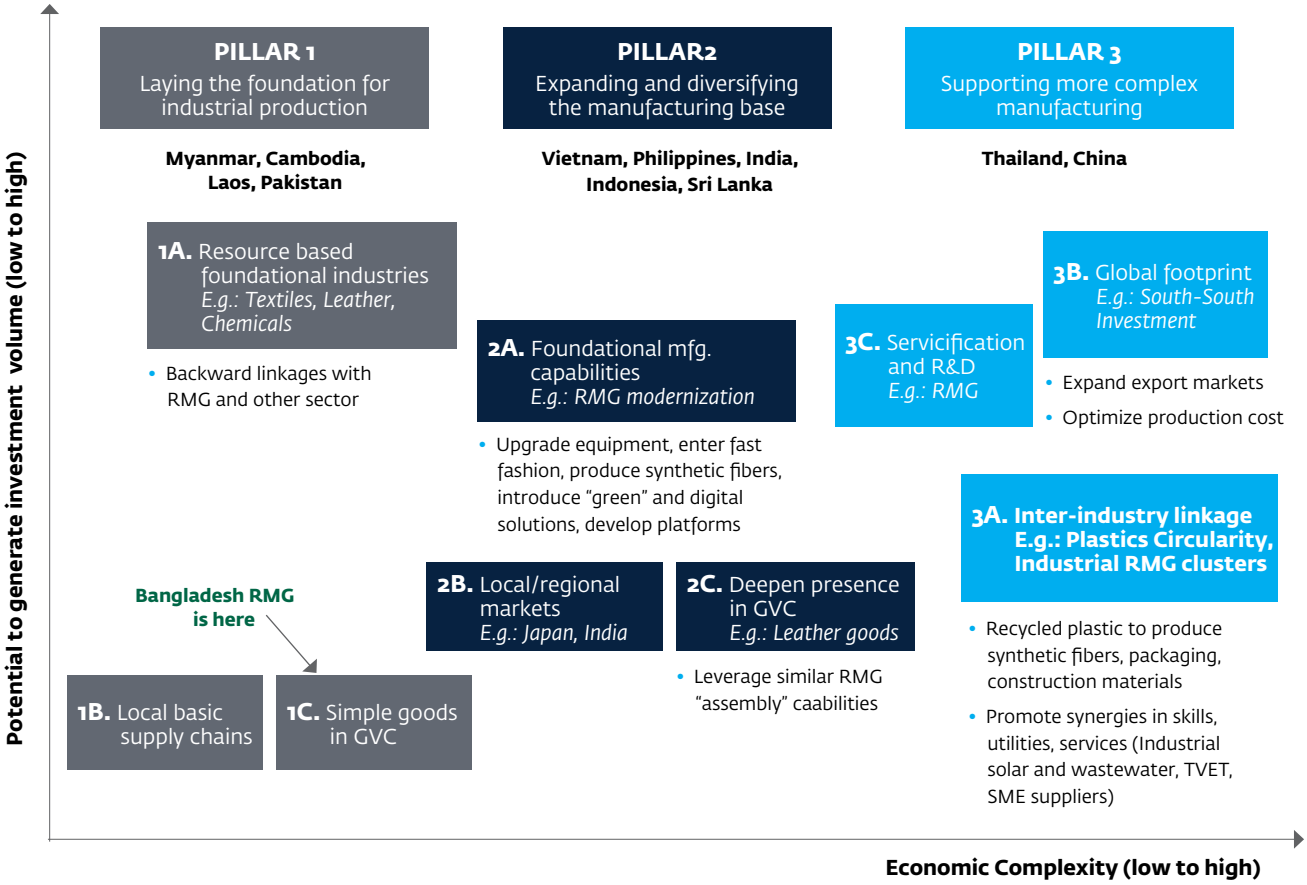
- **Increasing market share.** Trade tensions and growing labor costs in China create opportunities for Bangladesh. Replacing 20 percent of China's current RMG exports would allow Bangladesh to double its RMG exports and increasing Bangladesh's market share from 5 percent to 10 percent in the United States and Japan would add at least US$6 billion to exports. Although Bangladesh should be well positioned to attract producers shifting out of China, it faces growing competition from countries like Cambodia, Ethiopia, and Vietnam.

- **Moving upmarket.** The majority of Bangladeshi RMG producers are focused on basic large-volume, low-margin orders. Moving up the value chain into fashion design, introducing new styles and quality labels, and targeting high-end users will open new growth opportunities for the sector. Moving upmarket and developing brands will require a strengthening of (a) the product design ecosystem (design studio, design institutes, fashion shows, exchange program); (b) intellectual property rights to encourage developing new designs; (c) research and development facilities for experimenting with raw materials, technology, trims, and design elements; (d) downstream supply chain integration, including physical or online retail in foreign markets backed by brand-building; and (e) upstream integration to fabric manufacturing facilities to allow experimentation, particularly with manmade fabrics (MMF). BGMEA is now considering launching a virtual marketplace to help sell the US$3 billion in cancelled orders, using it as an opportunity to build a Bangladesh brand in the global market.
- **Developing upstream, downstream, and laterally connected industries.** Bangladesh can leverage RMG for economic diversification and industrialization, the pathway that countries such as Korea and Turkey have adopted to develop such industries as machinery and equipment, plastics, and chemicals. IFC market study indicates that there is a business case for investment in such upstream segments such as the production of manmade fibers, chemicals, and recycled plastics (see later subsection) (IFC 2019f). There are also opportunities to expand laterally, such as through technical textile products with applications in sectors like health care, automotive, aircrafts, and home furnishing.

Incentives provided to the RMG industry generated significant economic gains, but their design needs to be reconsidered going forward to create a more favorable environment for growth in other sectors. The current system of RMG incentives has insulated the industry from the impact of market forces and may have constrained progress toward higher-value products, greater efficiencies and diversification. Furthermore, Bangladesh may have to withdraw "prohibited" incentives on graduation from LDC status. Going forward, it will be important to ensure that incentives are reoriented toward (a) enabling environmental compliance; (b) improving an FDI-enabling environment; (c) the provision of vocational training; (d) improving shared industrial infrastructure and services for sectors with high potential through using SEZs and other policy approaches; (e) strengthening logistics; and (f) improving access to productivity-enhancing technologies and management practices. It is worth noting that the industry itself, while not proposing to get rid of existing subsidies, recognizes the need for government policy on the sector to refocus on supporting this future-looking agenda. Specifically, BGMEA has identified a need for policy support in five key areas: (a) product diversification; (b) technology upgrades; (c) SME development and the facilitation of new entrepreneurship; (d) exit policy; and (e) sustainability.[67]

67 Data come from interviews with BGMEA (officials in May 2020).

FIGURE 9.4 MAPPING RMG OPPORTUNITIES (AND BEYOND) FOR BANGLADESH USING THE IFC MANUFACTURING STRATEGY FRAMEWORK



Source: CPSD team based on IFC 2019b, "IFC Sector Deep Dive–Manufacturing" section.
Note: GVC = global value chain; Mfg. = manufacturing; R&D = research and development; RMG = ready-made garments; SME = small and medium enterprises; TVET = technology and vocational education and training.

9.3. LEATHER AND LEATHER GOODS

Bangladesh has a long-established leather sector with enterprises operating across the basic leather (tanneries), leather goods, and leather footwear subsectors. Bangladesh has traditionally produced raw leather (buffalo, cow, sheep, goat) and gained a reputation for fine-textured skins. Following an export ban on "wet-blue" hides in the 1990s, producers began to diversify into crust and finished leather in the 1990s. Today, leather goods and leather footwear account for most of the output in the sector.

Like the rest of Bangladesh's manufacturing sector, the structure of the leather sector is segmented.[68] Bangladesh has around 155 actively operating leather tanneries. More than 90 percent of tanneries were until recently concentrated in the Hazaribagh area of Dhaka, although those still operating have transferred to the recently established Savar Leather Industrial Estate. Medium- and large-sized tanneries (averaging 81 workers) account for 20 percent of establishments but more than half of output and 60 percent of jobs. Similarly, medium- and large-sized leather goods and leather footwear producers account for around 20 percent of establishments but more than 80 percent of sales and jobs. Leather goods and footwear is also concentrated in Dhaka, although clusters also exist in Bhairab and Chittagong.

While the leather goods sector is considered to have great potential for exports and FDI, it has yet to deliver on that potential. The leather sector is an important contributor to output and jobs in Bangladesh, accounting for around 2 percent of industrial production and employing about 558,000 people directly and 300,000 people indirectly in FY 2015–16 (Sumi and Masrur 2020), and its workforce includes a significant number of women. Leather is also Bangladesh's second largest export earner, contributing US$1.2 billion in FY19. Exports are lower now than they were five years ago, mainly due to a steady decline in raw leather exports that has been somewhat offset by a growth in leather products exports. Moreover, Bangladesh's share of the more than US$100 billion global market for leather and leather products is less than 0.7 percent. This is just a fraction of what has been achieved in RMG, despite the sector receiving substantial incentives and policy support.

Growth potential is seen as greatest in leather products and footwear, which share many of the same characteristics as RMG, but this sector will also be impacted significantly from COVID-19. In recent years, many large international brands and buying houses have established a presence in Bangladesh and begun sourcing in large volumes, including Decathlon, H&M, PQM, Timberland, and KGS Sourcing. Large domestic leather footwear brands such as Apex, Bay Footwear, Jennys, and Leatherex have also been expanding exports. COVID-19 has had a particularly negative impact on the leather products and footwear segment. Exports of leather goods were down 82 percent (year-on-year) in April, and exports of leather footwear were down 78 percent.[69] The Leather Goods and Footwear Manufacturers and Exporters Association of Bangladesh expects sales to remain depressed for at least two seasons. Moreover, as with RMG, global brands and buyers are reconsidering their global supply chain strategies to minimize risks.

Taking advantage of the potential of the leather sector and remaining competitive in the changing global environment will require improvements in standards compliance and the upgrade of technology and skills. The government has set a US$5 billion export target for 2022, which looked ambitious even prior to the COVID-19 crisis. As trade in the leather sector has been hit to a similar degree as RMG, and supply chain restructurings are also likely to take place in the recovery phase of COVID-19, it remains unclear what the realistic potential for Bangladesh's leather sector might be in the medium term. An unchanged consensus, however, still maintains that Bangladesh has both the economic strength and the capabilities to become a significant global

68 Data in this paragraph are based on a survey of the leather value chain carried out as part of the World Bank Group's "Let's Work Bangladesh" program in December 2017.
69 Based on data from the Export Promotion Board.

manufacturing location for leather goods and footwear. Taking advantage of this potential will require the addressing of several key constraints:

- **Environmental and Social Compliance.** As global buyers increase their requirements for supply chain compliance, particularly as it relates to environmental standards such as chemical usage, chemical traceability, and wastewater and solid waste management, Bangladesh's leather sector faces a significant threat. Leather goods manufacturers are able to export despite these problems, but they rely on high-cost imports of leather because domestic tanneries are noncompliant. Overcoming the compliance gap will require first addressing the technical and operational problems with the central effluent treatment plant (CETP) at the Savar Industrial Estate, and then, once problems at the CETP are rectified, increasing capacity and technological capability in tanneries. In addition, firms will need to make significant investments in improving energy efficiency, particularly in the tanneries subsector.[70] To support this, it will be critical for the government to articulate required regulatory standards, facilitate access to certification, and strengthen monitoring and enforcement.
- **Access to raw materials and components.** In addition to environmental compliance restrictions on supply, access to raw hides is highly seasonal (around 60 percent of all skins and hides are sourced during the annual Eid-al-Adha festival), meaning tanneries either lack the capacity to process the spike in volume or are forced to work at over-capacity for most of the year. Lack of a developed local supply chain also restricts access to accessories and key components like molds. The lack of domestic production of molds, for example, significantly increases the lead times required for Bangladesh's manufacturers to produce samples for global buyers.
- **Skills and management capabilities.** Significant constraints exist, particularly for the technical and managerial workforce that hinders environmental and social compliance and prevents upgrading.
- **Access to finance for capital investments.** While the largest domestic players are well-resourced, SMEs face significant barriers in accessing finance to invest in much-needed machinery and technology upgrades. This has restricted the running of shifts at many tanneries to Savar and has prevented investment in environmentally compliant and productive technologies.

9.4. PLASTIC RECYCLING

Bangladesh has a large and diverse, but relatively unsophisticated, plastics sector. Bangladesh's plastics industry emerged as a backward link to provide products needed for the RMG sector like plastic hangers and other accessories. The sector includes around 5,000 establishments, mainly SMEs, and they employ around 2 million workers in relatively labor-intensive production (Sumi and Masrur 2020). Beyond RMG accessories, exports remain relatively limited, mainly coming from packages (PVC bags), recycled waste and scrap plastic, and more recently, toys. While the global plastics market is huge, the biggest opportunities in Bangladesh exist in the rapidly growing domestic market, which had been growing at double digits prior to the COVID-19 crisis and was expected to reach US$4 billion in 2020. Although a domestic plastics recycling

70 Bangladesh's leather footwear producers are about 20 percent less efficient in energy consumption than global benchmarks, but tanneries are around 90 percent less efficient (550 kwh per ton of raw hide processed versus 290/ kwh per ton benchmark).

sector exists, the supply chain remains undeveloped. It is estimated that only around 10 percent of the inputs used in plastics production in Bangladesh comes from recycled sources, and most original plastic raw materials are imported.

Increasing pressures for plastic recycling and circularity, including within the RMG industry, create a diversification opportunity for Bangladesh. While there are growing concerns about plastic pollution globally, plastics continues to offer economic and even environmental advantages over relevant alternatives like glass bottles and cement pipes (IFC 2019e). Consequently, the main efforts to address pollution are focused on recycling and circularity. Estimates show, for example, that the environmental impact of polyester—measured by energy, land and water use, the application of fertilizers and pesticides, human health effects, and carbon dioxide emissions—would be lower than that of natural fibers if circularity was incorporated in its life cycle. This provides a unique opportunity for Bangladesh to develop this labor-intensive and more complex industry while pioneering plastics circularity solutions. Currently, most of the collected plastic waste in Bangladesh is shredded and exported to China and India, where it is processed to produce high-grade resins and polyester synthetic fiber (PSF). PSF is later imported by Bangladesh's RMG manufacturers. A greater adoption of plastic recycling and circularity has the potential to generate positive environmental impacts, improve efficiencies in the existing plastics industry, partially offset imports of plastic goods (an estimated US$1.7 billion in 2017), and generate new, higher-quality jobs.

IFC market study identified a number of specific opportunities exist for private investment in Bangladesh's plastics recycling sector (IFC 2019e):

- **Production of high-grade recycled polymers.** The existing supply chain of post-consumer plastic waste collection is highly unorganized and includes the individual tokais[71] and small-scale scrap dealers. The large aggregators hold significant market power in the supply of raw materials to the recyclers. In addition, the unorganized nature of supply chain exposes workers to several environmental and social risks. Facilitating and encouraging the development of formalized plastic recycling in Bangladesh could potentially enable the production of high-grade recycled polymers and its subsequent use for producing recycled PSF.
- **Production of PSF from recycled plastic.** Global trade of manmade fiber-based apparel was valued at US$150 billion in 2017, with Bangladesh accounting for 5 percent of exports compared to 10 percent for Vietnam. Production of PSF would enable Bangladesh to move upmarket to produce high-technology garments, strengthen backward links in RMG, and support plastics recycling and circularity solutions. This would also provide a natural progression for the RMG manufacturers confronted by the plateauing of their existing business. A strong commitment of major global RMG brands to increasing the share of the recycled polyester as part of a sustainability strategy provides support for the development of this sector.
- **Modernization of the construction materials industry.** Currently, manufacturers of plastic pipes, sheets, and frames used in construction rely on basic mechanical recycling processes to produce recycled powder. With the introduction of available modern technologies, the quality of recycled plastic can be improved while the use of recycled content can be increased from the current 10 to 20 percent to 50 percent, lowering the cost of production. Considering the large gaps in infrastructure and affordable housing gaps in the Bangladesh, it could generate significant efficiency gains.

71 Waste picking children.

Taking advantage of the opportunities to develop the plastics recycling sector will require ensuring cost competitiveness, addressing regulatory constraints and tackling environmental and social risks at collection stage. Considering investments in plastics production using recycled materials requires paying close attention to price competitiveness. While the current environment of depressed virgin plastics prices makes investments in recycling difficult, analysis suggests that medium-scale polyethelyne terephthalate (PET) recycling and PSF production units in Bangladesh could get relatively strong returns on investment (IFC 2019e). A number of constraints remain, though:

- **Lack of recognition as a distinct industry**, which does not allow the sector to benefit from industrial policy incentives
- **Lack of plastic waste management regulations** (no specific laws, rules, or guidelines), which makes it difficult for firms to comply with global standards
- **Unorganized recycling and collection practices**, which results in lower-quality plastic waste collection and various occupational health and safety (OHS) risks
- **Lack of domestic testing facilities** to meet the demand of global brands for the testing of various attributes of plastics used in their products when testing by international facilities is unaffordable for most small-scale manufacturers
- **Lack of appropriately skilled workers**, particularly for computer numerical control machinery and other newer technologies
- **Misplaced cash incentives** (exports of plastic flakes receive cash back, but recycled plastic exports don't)
- **Outdated recycling technology** resulting in poor-quality recycled resin products that subsequently produce poor-quality PSF
- **Lack of domestic tool molds and die-making facilities** that forces SMEs to outsource to international providers (as SMEs cannot afford in-house facilities), significantly increasing lead times and costs

9.5. ENGINEERING AND ELECTRICAL GOODS

Bangladesh's engineering and electrical goods industry is mostly serving the large and growing domestic market. Total household consumption expenditures in Bangladesh reached nearly US$200 billion in 2018 and demonstrated an average annual growth rate of 15 percent over the past five years. A conservative assumption that 5 to 10 percent of the total is spent on durable goods indicates a total market size of US$10 billion to 20 billion. In this context, the engineering and electrical goods industry has grown robustly at around 20 percent annually in recent years to meet the growing domestic demand for white goods, motorcycles, and machinery parts, among others.

The light engineering industry is dominated by microenterprises and focused primarily on domestic markets. The sector overall is comprised of at least 40,000 establishments employing around 1 million workers. The electronics sector comprises around 2,500 of those establishments employing about 100,000 people directly. While microenterprises are prevalent the light engineering sector, a few large corporates such as Walton and Jamuna dominate the domestic market. Exports in consumer durables remain limited, although exports in other parts of the light manufacturing sector, most notably bicycles but also industrial products like transformers, objective lenses, and batteries, have gained significant volume. Overall, exports of light engineering products account for

just 0.4 percent of Bangladeshi exports and have declined in recent years to less than US$500 million. Despite this, there are expectations that the sector could increase exports rapidly to reach up to US$9 billion in the coming years (Sumi, H., and M. Reaz. 2020). Moreover, it is estimated that domestic production currently meets only around 20 percent of domestic demand, suggesting huge potential remaining to produce for the Bangladesh market.

Opportunities exist across a number of subsectors in electrical goods and light engineering. Given the growth potential in the domestic market, particularly for consumer durables, significant opportunities exist for private investment, even if large conglomerates possess a substantial share of the market. Much of that potential opportunity could come from developing markets that supply key components for electrical goods and machinery domestically. As Bangladesh looks to meet their commitments on energy efficiency as part of its nationally determined contributions as outlined in the Paris Climate Agreement, the market for energy-efficient appliances is expected to increase significantly. The sector also offers opportunities in the automotive subsector, including automotive and motorcycle assembly for domestic and export markets. Cross-fertilization across light manufacturing industries is largely unexploited and offers significant potential for increasing Bangladesh's economic growth and complexity. One of Bangladesh's largest consumer goods manufacturers, for example, operates its own plastic mold design and manufacturing unit for internal use only. Such a workshop could become an autonomous business unit that, in addition to producing for internal company demand, could profitably serve other business in Bangladesh that produce plastic products and otherwise need to import such molds to run their plastic presses.

While significant opportunities exist for investment in the sector, several fundamental constraints must be addressed:

- **Availability and quality of components.** Original equipment manufacturers either produce parts and components in-house or import them due to the low quality of locally made items. Production in-house may lead to inefficiencies, while foreign sourcing increases lead time.
- **Skilled labor availability.** This sector is relatively less labor-intensive but requires a skilled workforce to operate the machinery. Such skills are not adequately available in Bangladesh. Most SMEs employ unskilled workers who receive minimal training on the job, which affects the productivity and export readiness of SME units. Finding and attracting qualified middle managers is also reported to be difficult because business graduates prefer working in the telecom and other service sectors. Skilled migration further reduces the availability of skilled workers.
- **Reliable supply of energy.** Engineering and electrical goods manufacturing processes, while not particularly energy-intensive, require an uninterrupted power supply. Power cuts are frequent and may range from less than an hour to four hours. During the summer, the power shortage is acute. This is a major concern for the engineering industry because many machines used in the industry spoil raw materials and work that is in progress, and it wastes energy upon restart every time there is a power shutdown.
- **Technology and equipment.** While larger producers use modern equipment and machinery in their units, SMEs use machinery that is more than 25 years old. There is no mechanism for SMEs to leverage economies of scale and invest collectively in modern machinery.

- **Access to common technical facilities.** Metal heat treatment facilities, for example, are part of the manufacturing ecosystem in many developed engineering sectors. They are necessary to provide the right mechanical or durability characteristics to finished products. Laboratories for metal testing enable firms to validate the uniformity of their products, but only relatively large plants can afford running their own labs. It would be beneficial to promote shared labs that either use spare capacity from such large companies as a service for small metal processing businesses or promoting independent laboratories that could provide such services for SMEs.

9.6. PHARMACEUTICALS

Bangladesh has developed a large, vibrant domestic pharmaceutical sector. The sector, which has been growing solidly at more than 15 percent a year, is currently sized at US$3 billion, and is expected to reach US$5 billion by 2025. Once dependent on imports, the sector is now self-sufficient but is still dominated by domestic companies. The local sector produces 97 percent of the medicines that are needed in the local economy and is the second largest tax contributor to government revenue. There are more than 150 firms in the industry with the top 20 firms making up around 85 percent of the total (South Centre 2019). The industry includes global brands like Square and Incepta and employs more than 100,000 white-collar professionals. The Bangladeshi pharmaceutical manufacturing firms mostly produce small-molecule generic drugs that are no longer patented in the domestic market. The industry's low-cost base relative to major exporters such as China and India suggests that there is a potential to increase exports. There is already a move toward a greater focus on exports: 54 companies from Bangladesh are exporting to more than 127 countries around the world, according to the Bangladesh Association of Pharmaceuticals Industries. The industry has been very beneficial to Bangladeshi consumers, who are able to obtain quality medicines at low cost.

The pharmaceutical sector has benefited from a conducive policy regime and incentives, as well as the favorable WTO treatment granted to LDCs. WTO agreements grant pharmaceutical products from LDCs waivers from patent restrictions until 2016 (later, the patent waiver period was extended up to 2033). This allows Bangladeshi companies to produce drugs at a fraction of the price they are normally sold for in developed markets where they are still under patent. In addition to being able to produce drugs that are under patent elsewhere, Bangladeshi firms benefit from restrictions on the import of foreign-produced pharmaceuticals for sale on the local market, though, with mixed results relative to price levels in the country. Research suggests that average prices are significantly cheaper when compared to international benchmark prices, but certain medicines for common NCDs are more expensive in Bangladesh than in some other countries in the region such as India, Pakistan, and Sri Lanka. The sector also benefits from reduced import duties on certain pharmaceutical raw materials (from 12 percent to 5 percent), tax holidays, and other benefits.

Despite its size, the backward linkages in the industry remain underdeveloped and domestic producers largely rely on foreign suppliers of APIs. The industry imports about 97 percent of needed APIs every year. This amounts to hundreds of millions of dollars in imports per year. A few firms have started API manufacturing but on a small scale. As part of its focus on developing industry, the government aims to increase local API production, and in its 2018–21 export policy, it declared API and pharmaceutical reagents a priority sector. These policies aim to reduce the raw materials import

dependency to 25 percent by 2032 from 97 percent in 2016. To achieve this objective without increasing the prices of inputs for local pharmaceutical firms, the API industry will ultimately need to export at scale. In this industry, plants that require investments of US$50 million to 400 hundred million dollars are fairly common. Another financial concern is the cost of contract management, which can run into the millions of dollars for a single contract. These economies of scale suggest that a large-scale API industry will need to focus on the large international market to succeed. One initiative to boost the API sector is a planned industrial park that is intended to facilitate a steady supply of raw materials of drugs and reduce import dependency. The park is projected to start operations in 2021.

There is relatively little activity in the biopharmaceuticals segment. Only a few companies in Bangladesh produce biopharmaceuticals. They have had notable successes such as being tapped to manufacture COVID-19 vaccines. The biopharma sector is expected to constitute the main source of industry growth globally in future years. Internationally, this sector already makes up 20 percent of pharmaceutical spending in developed countries and is expected to grow at twice the rate of the rest of the industry (Otto, Santagostino, and Schrader 2014). In recent years, most of the highest-selling pharmaceuticals have been biopharmaceuticals. These pharmaceuticals are often produced by living systems and include products such as vaccines, allergenics, recombinant therapeutic protein, and living medicines used in cell therapy. Because they are produced from biological sources, this medication is often extremely complicated to manufacture, and investments can take a long time to mature. This suggests that access to long-term finance will be important for the industry's development. The sector has had a difficult time achieving regulatory requirements that require laboratory testing. The Directorate General of Drug Administration (DGDA) has not had bioequivalence testing laboratories and does not have animal houses, which are recommended by the WHO for vaccine testing.

The sector's ability to enter high-value-add areas is undermined by several gaps in the industry's innovation ecosystem. There are few links between the industry and the university system. It is reported that engagements such as contract research, consultancies and personnel exchanges are limited. Academics are not rewarded sufficiently for conducting practical research that is relevant to industry. Furthermore, industry participants report that the curriculum taught in universities is often not aligned with industry needs and requires updating. Pharmaceutical firms face restrictions on outward-looking investment. This is an important constraint on the acquisition of technology, because in the pharmaceutical sector, this is often done through the purchase of companies with technical capabilities in other countries. One challenge is the difficulty of accessing foreign exchange. Another challenge is the lack of incentives for exporting, as well as for R&D. In particular, there are few tax breaks or grants available for R&D. Remedying the gaps in the country's innovation system are particularly important for producing more complex generics and APIs, while achieving regulatory approval to export and successful R&D will be critical to the industry's success.

There are several recommendations that can help boost private investment in the pharmaceutical sector:

- **Open up access to long-term finance.** Investments in more-advanced generics, APIs, and biopharma are particularly dependent on access to large-sized loans with longer tenors.
- **Promote innovation.** Promote R&D in the sector through tax breaks and grants. Support firms to achieve regulatory approvals for export.
- **Establish API park.** The launch of the API park could be expedited.
- **Support for university – industry collaboration.** Modernize and reform syllabi for students studying in fields relevant to the industry. Strengthen university-industry connections through increasing recognition for academics that work with industry, promoting industry-relevant research at universities, and promoting training by universities.
- **Establish laboratory testing in critical areas.** The industry needs a domestic bioequivalence laboratory and an animal laboratory, which could be established with the government support.

9.7. CROSS-CUTTING PRIORITIES FOR DEVELOPING HIGH-VALUE MANUFACTURING

Although diversification of manufacturing requires certain sector-specific interventions, the analysis presented in this section reinforces several cross-cutting priorities. The development of subsectors that add higher value needs to be encouraged, and the common areas that call for improvement include the creation of an enabling environment for FDI incentives schemes, compliance with environmental and social standards, trade logistics, access to reliable energy supply, and labor force skills (table 9.1). These areas have been repeatedly identified during the CPSD consultations, as well as in available analytics.

TABLE 9.1 RECOMMENDED CROSS-CUTTING PRIORITIES FOR ENABLING DIVERSIFICATION IN MANUFACTURING

Short term	• ***Create an enabling environment for FDI*** to bring know-how and expand access to export market. • ***Improve access to long-term finance*** by streamlining foreign commercial borrowing approvals stipulated in the guidelines.
Medium Term	• ***Reform the incentives regime,*** which must include ending excessive trade protection because it disincentivizes development of sectors not covered by existing schemes. • ***Strengthen compliance with environmental and social standards*** by increasing regulatory enforcement and investing in technical infrastructure such as laboratories, testing facilities. • ***Improve trade logistics*** to reduce the cost of transportation and storage. • ***Expand access to reliable energy supply*** by strengthening connectivity infrastructure. • ***Improve skills of the labor force*** by identifying gaps, expanding vocational training, and strengthening collaboration between industries and universities.

10. AGRIBUSINESS

10.1. ROLE OF AGRICULTURE IN THE ECONOMY

The agriculture sector has played a critical role in poverty reduction and economic transformation of Bangladesh and remains a major source of employment. Growth in the agriculture sector and the shift of labor from agriculture into rural nonfarm employment, urban industry, and services has been at the heart of Bangladesh's economic transformation. The share of agriculture in GDP has declined from 23 to 13 percent since 2000. Although the sector's share in employment has declined by 15 percentage points during this period, it continues to be the country's largest employer, accounting for around 40 percent of the total. Meanwhile, the contribution of the sector to poverty reduction has declined from 70 percent in 2005–10, when the sector grew at 5 percent per year, to 27 percent in 2010–16, during which agricultural growth moderated to around 3 percent per year.

Agricultural reforms implemented since the 1980s propelled the strong productivity-driven growth of the sector in earlier years and has helped Bangladesh improve food security. Liberalization in the 1980s of agricultural input markets such as fertilizer and irrigation were followed in the 1990s by the National Seed Policy, which helped reform the seed sector. These reforms, combined with research and extension activities, investments in irrigation, and targeted agricultural policy support such as input subsidies and public rice procurement helped the sector achieve a dramatic increase in rice production from 10 million tons of rice per year in the 1970s to about 37 million ton in 2019. Table 10.1 provides some key data about the role of the agricultural sector in the economy.

TABLE 10.1 ROLE OF AGRICULTURE IN THE ECONOMY, 2017

	Total value added, US$ billions	Share of GDP, %	Estimated employment, millions of people*	Exports, US$ millions	Imports, US$ millions
Agriculture, including:	35.8	13.1	24.0	1,300	8,940
Crops and horticulture	19.4	7.1	11.7	37	3,098
Fisheries and aquaculture	8.1	3.0	12.0	517	45
Animal farming	4.8	1.8	8.5	414	397
Other					
Agro-processing**	6.4	2.3	0.3	333	5,400

Source: Estimates based on national statistics, UN Food and Agriculture Organization, UN Conference on Trade and Development * includes part time employment in more than one sub-sector; **estimated based on agro-processing share in 2011 GDP.

Note: GDP = gross domestic product.

The agribusiness sector has a large, untapped potential to generate higher-value addition and exports, meet growing domestic demand for food that is more nutritious, and create jobs across the value chain. Bangladesh can significantly increase domestic production and scale up exports of agricultural produce by closing large productivity gaps. On average, Bangladesh lags behind the regional peers and global averages in terms of yields for some of the key agricultural products while outperforms the comparators for others (Figure 10.1). Bridging productivity gaps will help improve cost competitiveness. It will also help increase production to meet domestic demand, scale up exports, and strengthen backward and forward links by increasing domestic demand for inputs and raw materials supply for the agro-processing industry. Importantly, the shift to higher-value products will create better income opportunities for farmers as demonstrated by significantly higher margins in high-value-added subsectors of agriculture, particularly shrimp, fruits, and vegetables (Figure 10.2).

FIGURE 10.1 YIELDS OF MAIN CROPS AND PRIMARY LIVESTOCK: BANGLADESH AS % OF A COUNTRY WITH THE HIGHEST YIELDS

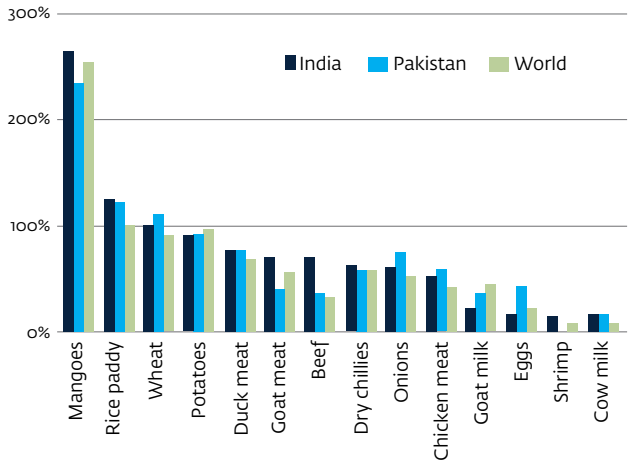
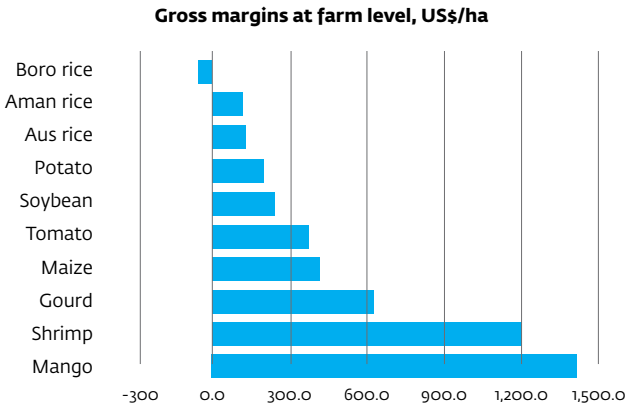


FIGURE 10.2 GROSS MARGINS AT FARM LEVEL, US$/HECTARE



Source: Estimates based on FAOSTAT data from the UN Food and Agriculture Organization, except for shrimp, which is based on the "Shrimp Aquaculture Landscape" report by CEA Consulting, 2018.

The realization of the growth potential of agribusiness hinges upon the introduction of climate-smart agriculture (CSA) practices because climate change is a major risk for the sector. Climate change will reduce the availability of arable land and intensify extreme weather events, damaging livestock and crops. Rising sea levels and salinization are already being felt across coastal areas. Approximately 62 percent of coastal land has been affected by soil salinity. By 2040, cropland could shrink by almost 18 percent in southern Bangladesh and 6.5 percent nationally (Bangladesh Planning Commission 2015). Adopting CSA practices will be critical to addressing climate risks. This will include use of inputs that are more efficient (such as drip irrigation), introduction of crops that are more resilient, and the modernization of agribusiness storage and logistics.

10.2. SECTOR STRUCTURE AND RECENT TRENDS

Crops

The crop subsector plays a dominant role in agriculture. Although the crop subsector experienced gradual diversification toward non-paddy crops over the past two decades, rice accounted for 71 percent of the crop production area and 59 percent of total crop value (figure 10.3). Among the recent strong performers are fruits and vegetables. Annual growth rates in areas under production have been particularly high for fruits (6 percent), vegetables (4.3 percent), and potatoes (3.6 percent). Overall, though, high-value crops still represent only a small share of production.

Fisheries and Aquaculture

The fisheries subsector showcases a private sector–led diversification success story in Bangladesh agribusiness. The country has become the world's third-largest producer of inland capture and fifth in inland culture fisheries. The country has massive marine, coastal, and inland water resources for fish production. Inland capture fisheries account for 56 percent of total production and 3.9 million hectares of water-spread areas (WSA). It is followed by inland aquaculture with 28 percent share in total production and WSA of 800,000 hectares. Marine fisheries account for 15 percent of production, but they will increase as the country negotiates its new maritime boundary with India, which provides additional 12 million hectares of maritime water with great potential for expansion of marine fisheries.

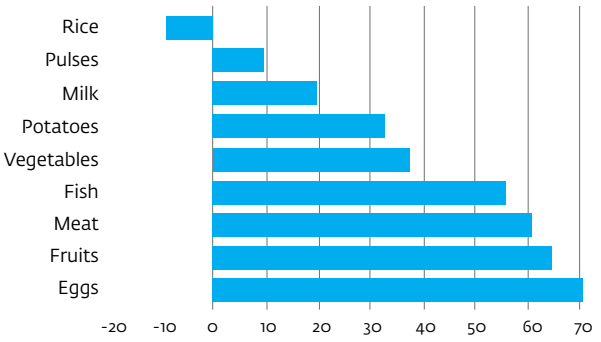
FIGURE 10.3 CROP AND ANIMAL PRODUCTION IN BANGLADESH, US$ BILLION, 2016

Source: Estimates based on UN Food and Agriculture Organization

Inland aquaculture has transformed substantially in last three decades. The farmed-fish market experienced a 25-fold increase since 1990es, driven mostly by demand from the domestic market because over 90 percent of farmed fish (excluding shrimp) are sold on the domestic market (Rashid and Xiang 2019). Commercial shrimp production has scaled up considerably, becoming Bangladesh's third-highest export earner after the RMG sector and the leather sector. The UN Food and Agriculture Organization estimates that around 12 million people have full or part-time employment in the sector (Table 10.1). This subsector will be increasingly important because rising sea levels and increasing salinization of arable land in coastal areas have forced farmers to switch from land-based agriculture to aquaculture. If cultivation is organized well, shrimp could be produced with a lower-carbon footprint than other animal proteins. The government is working to support cluster development in aquaculture.

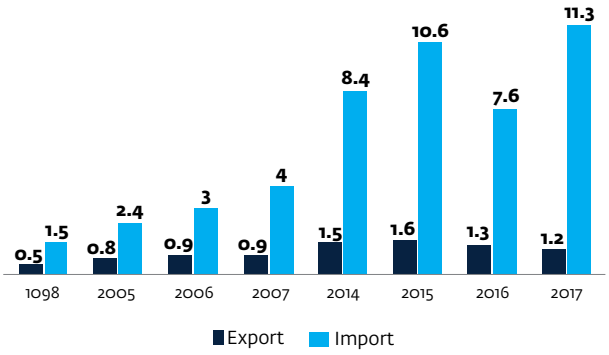
Despite favorable conditions for cultivation, shrimp exports have been declining over the past several years. While shrimp remains the third-largest export product in the country, shrimp exports have declined steadily from 97,000 tons to 68,000 between 2012 and 2017. The shrimp export industry has suffered from periodic bans in importing countries due to low compliance with international food standards and traceability requirements (UNCTAD 2017). The size of Bangladeshi farms is cited as the main impediment for traceability certification. Around 9 million out of the 12 million people employed in this industry are subsistence farmers. As a result, there has been no adoption of modern farming practices, resulting in high pollution, low productivity, inadequate product quality, and challenges with certification. The falling global demand for tiger shrimp—the dominant variety produced in Bangladesh that is highly vulnerable to disease —has also contributed to a decline in exports. There is a potential to develop the Vannamei shrimp variety, which is less susceptible to diseases, but this would require international certification.

FIGURE 10.4 PROJECTED CONSUMPTION GROWTH, 2015–30



Source: Calculations based on the Household Integrated Economic Survey, UN Population Fund population data.

FIGURE 10.5 IMPORT AND EXPORT OF AGRIBUSINESS, US$ MILLION



Source: FAOSTAT.

Animal Protein

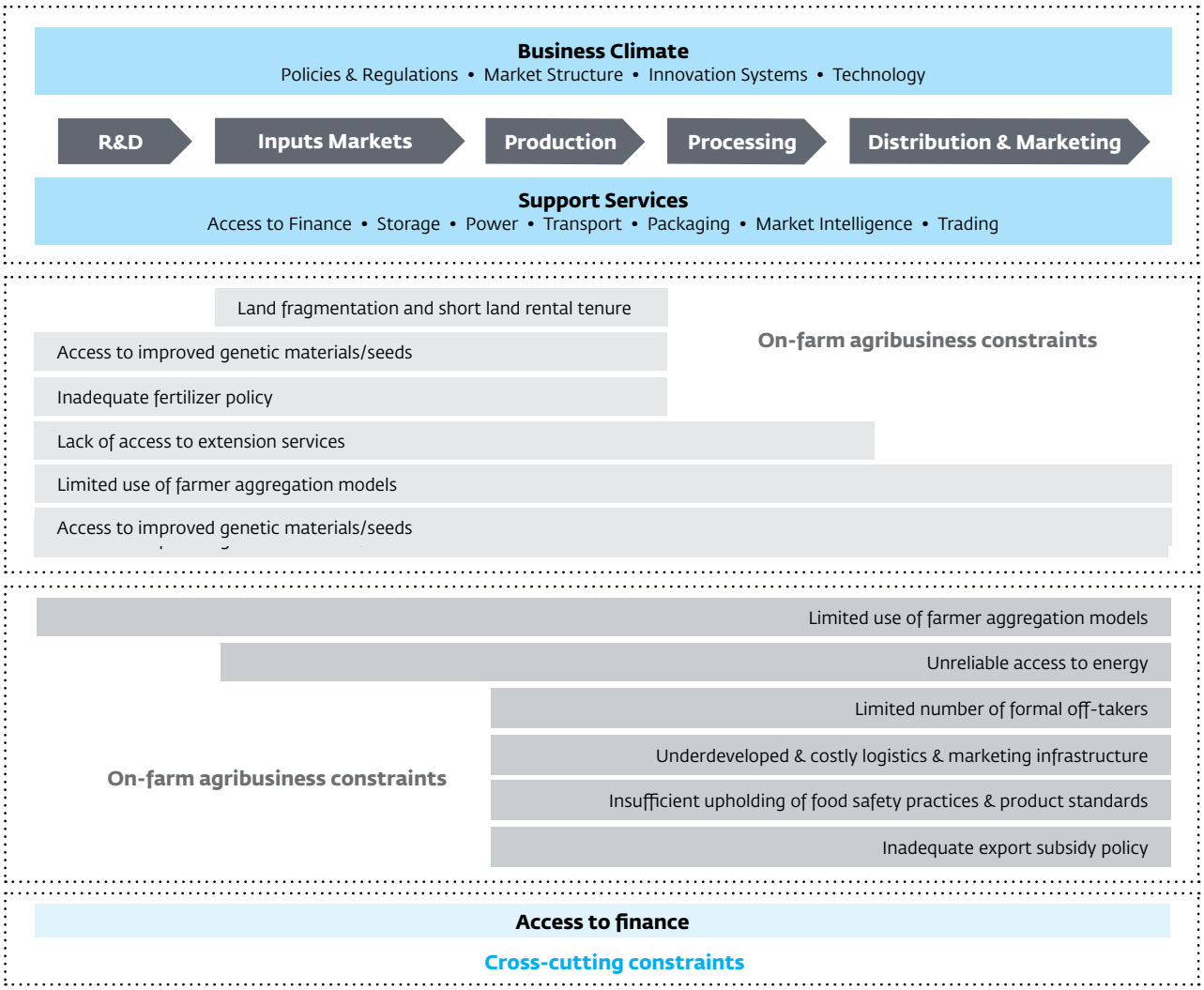
The existing livestock value chains, which are mainly informal and dominated by smallholder farms, are struggling to keep up with the growing demand because their productivity remains very low. Only the expanding commercial poultry subsector has shown real dynamism in recent years, in part through the adoption of contract farming. The red meat value chain, on the other hand, is the least developed: there are only two formal meat-processing enterprises in the country. The formal dairy sector is small but growing. Meat generates the second-highest animal product gross production value (14 percent of the total). The subsector's performance was poor in past decades and reliance on imports, particularly for dairy products, has been growing. In FY16 alone, the country spent around US$249 million on dairy imports. Given scarce land resources, a significant consolidation of livestock and dairy production is unlikely.

10.3. GROWTH OPPORTUNITIES IN DOMESTIC AND EXPORT MARKETS

With rapid urbanization and growing household income, dietary patterns are changing rapidly in Bangladesh, creating demand for higher-value-added products. Consumption patterns in Bangladesh have been changing, partly due to growing incomes. Since 2000, average daily rice intake per person has declined by 20 percent. Meanwhile, consumption of vegetables, fruits, fish, meat, and eggs has increased considerably. The present daily rice intake, which is still above recommended levels, is expected to decline further, while demand for eggs, fruits, meat, and fish is expected to grow by more than 50 percent by 2030 compared to current levels (Figure 10.4). This has highlighted the need for transformation in the agrifood system to ensure a supply of nutritious, safer foods that are more diverse to the urbanizing population.

Bridging productivity gaps and shifting to higher-value-added products will increase the domestic food supply, help reduce imports, and potentially scale up exports. While Bangladesh meets current domestic demand for most food items locally, imports have risen rapidly in recent years, while exports have remained small. Bangladesh's agricultural imports have tripled in just the last decade—equivalent to almost 12 percent of annual growth—and reached US$11 billion in 2018, or 17 percent of total imports. Around 60 percent of food imports come from cooking oils, cereals, and sugars (figure 10.5). While some of these (palm oil, sugar) do not represent an area of comparative advantage for Bangladesh, others (wheat products, maize, legumes, dairy, vegetable oils, and fruits) are currently produced in significant volumes domestically, and under certain conditions, they may have the potential to substitute imports in a competitive manner. Agribusiness exports remained insignificant, with the exception of aquaculture and fish products. Figures 10.1 and 10.2 indicate significant scope for productivity enhancement and value addition in agribusiness.

FIGURE 10.6 AGRIBUSINESS ECOSYSTEM AND CONSTRAINTS FOR VALUE CHAIN DEVELOPMENT



10.4. KEY CONSTRAINTS IN THE AGRIBUSINESS ECOSYSTEM

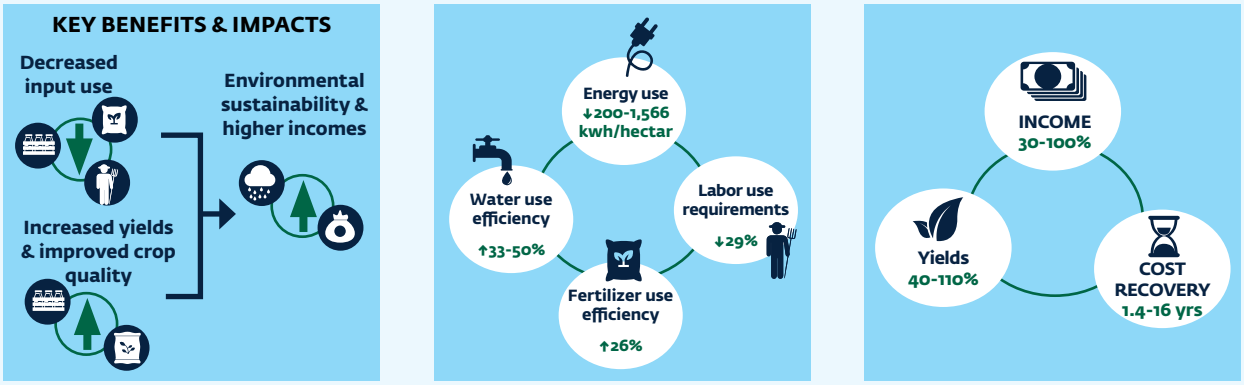
The ecosystem for the agribusiness sector in Bangladesh is not yet conducive to private investment and productivity growth. There are constraints within the overall business climate as it relates to the agrifood sector as well as in terms of the availability of support services. This section identifies the most notable constraints on productivity growth and explains how they hold back the development of high-value-added crops and limit opportunities for value addition along the supply chain. It also demonstrates how they reinforce each other and affect multiple nodes of the value chain (figure 10.6). Major constraints at the farm level include land fragmentation and informality in land rental markets, limited access to quality seeds for non-paddy crops, limited knowledge and adoption of good agricultural practices (GAP) reflected in imbalanced use and overuse of inputs, and limited use of farmer aggregation models (which hinders the delivery of extension services), access to finance, and links with markets. Similarly, some key constraints that are preventing off-farm value addition and commercialization

in the agrifood sector include the limited number of formal off-takers; inadequate, costly marketing infrastructure and logistic services; and the inadequate upholding of appropriate food safety practices and product quality standards. These constraints are exacerbated by other cross-sectoral issues such as distortive policy incentives, access to finance, and the overall investment climate.

Research and Development

While Bangladesh has a strong agricultural research and extension base, it mainly focuses on rice, with limited coverage of other products despite substantial yield gaps. The share of agricultural researchers engaged in horticulture research, for example, is one of the lowest in the Asia-Pacific region.[72] Certain regulatory barriers are also preventing the acceleration of private sector participation in the R&D of seeds for non-rice and non-crop agriculture. Most important of these are the dominance and control of the public sector agency Bangladesh Agricultural Development Corporation (BADC). Another challenge is the ability to transfer the outcomes of agriculture research to farmers. In the short term, improvements to extension are required in order to get information on new techniques down to the farm level in a usable form. Closer integration is needed between the Department of Agricultural Extension (DAE) and the private sector to maximize efficiency in the use of available resources.

BOX 10.1 BENEFITS OF EFFICIENT IRRIGATION



A quantitative assessment of the impact of improved access to efficient irrigation technology in the Indian state of Gujarat helps illustrate the benefits of modern irrigation for small farmers. In Gujarat, investing in efficient irrigation technology often makes financial sense even in the absence of government subsidies, which are widely utilized across India. The payback period of less than two years for efficient irrigation technology investment compares favorably with an average technological asset life of about five years. Similar payback periods have been achieved by farmers in Burkina Faso and Zambia, where initial investment in equipment for a small farmer has averaged between US$500 and US$1,800 depending on the technology, and operating costs have ranged between US$120 and US$450 per year. In these countries, farmers have achieved an increase in yield between 9 and 400 percent after switching to more efficient irrigation.

Source: IFC 2019c.
Note: KWh = kilowatt-hour

72 Data are from the ASTI database.

Input markets

Land fragmentation remains a barrier to increasing productivity of agriculture, limiting economic opportunities for farmers. With over 170 million people, the country has only around 7.9 million hectares of net cultivated area. Agricultural farms in Bangladesh are highly fragmented, and overall, Bangladeshi agriculture is dominated by smallholder farms. Cropping intensity is quite high. The national average is 195 percent, but it ranges from 152 percent in the hilly areas in the east to 220 percent in the northwest highlands. While some farmers may have the opportunity to expand production by renting land from the few large landowners with scattered parcels around several villages, such leasing agreements are normally limited to just one to three years. Limited tenure discourages long-term investments in new production technologies and can even limit farmers from practicing proper rotations. Farmers in the inland fishery subsector are facing similar challenges. Increasing the length of land and pond leases, the emergence of producer organizations and cooperatives, and aggregators and companies that use contract farming models could help address challenges stemming from land fragmentation.

Certain policy incentives and support schemes exacerbate inefficiencies in input use, particularly water and chemicals. Limited adoption of modern farming practices by smallholder farmers due to knowledge and capacity gaps is magnified by the policy distortions that lead to an inefficient use of inputs. While over 85 percent of net cultivated area is irrigated mostly by groundwater, the dominance of water-intensive rice cultivation has resulted in rapidly declining groundwater storage levels, which fell by 32 percent during 2003—13.[73] A shift from Boro paddy rice to other non-paddy crops and the utilization of modern CSA practices and technology could help address groundwater depletion (Box 10.1). However, paddy cultivation is currently incentivized—through public procurement, cash subsidies and high import tariffs—even though this crop has negative gross margins (Figure 10.2). In addition to the unsustainable use of groundwater resources, the unbalanced use and overuse of fertilizers is also widespread due to a lack of incentives for the efficient use of subsidized fertilizer, lack of knowledge, and reliance on traders' recommendation about fertilizer dosages (World Bank 2016). Integrated pest management is rarely practiced at present. The issue of subsidized fertilizers is also linked to underpriced gas allocated to highly inefficient and outdated state-owned fertilizer plants (World Bank 2017).

Animal feed industry has not been able to keep up with the growth of the animal protein sectors. Around 60 percent of feed is imported from China and India. Vaccines and the necessary medicines that are used in feed are also imported, despite Bangladesh's well-developed domestic pharmaceutical industry. The top four to five industrial producers meet around half of feed demand, while the rest is met by small-scale local producers. There is a major difference in quality between the two different forms of feed, as the second group of producers have lower production standards. As smaller local producers cannot achieve economies of scale and ensure adequate equality easily, they face a hard time staying in the market. The industry trend is also shifting toward relatively higher-priced balanced feed manufactured by mechanized feed millers due to high feed conversion ratios that leads to greater commercial benefits.

73 A study of Bangladesh's sub-surface water storages, Science of the Total Environment, Volume 625 of June 2018.

Lack of a conducive, regulatory framework for seed development and production underscore the shortage in the supply of quality seeds in the market. Private sector actors are prevented from developing seeds for notified crops (except for paddy) and the certification process for seeds developed by the private sector takes a long time. Moreover, the seed quality control mechanism remains inadequate.

Production and processing

The dominance of small and marginal farmers in the production structure impedes a greater adoption of modern–more sustainable and productive—farming practices. With the lack of formal aggregation models such as cooperatives and intermediary aggregators, the highly fragmented farming system prevents efficiencies derived from economies of scale and creates additional challenges of reach for extension services (notably to support adoption of good agricultural practices, or GAP), pooling resources for access to finance and infrastructure, as well as the aggregation of products for marketing. These farmers are also not equipped to adapt to the intensifying effects of climate change such as natural disasters and the salinization of soil from sea-level rise, which contribute to unsustainable rural-urban migration. Helping them engage in high-value-added agro-production, move to modern farming practices, and connect to a marketplace will make them more productive, enhance income opportunities, and improve resource use efficiency.

The food processing industry is starting to expand to meet local demand, but its growth is hindered by an insufficient supply of quality raw materials. Around 90 to 95 percent of agricultural produce is sold to the final consumer unprocessed because the value chains are underdeveloped. Currently, most food processing is targeted at the local market with some exports to neighboring countries and diaspora in the Middle East. Several large food processors with extensive supply chain links and capabilities to ensure compliance with food safety standards have emerged, but their numbers remain limited, which does not provide formal off-take opportunities for farmers. This, in turn, contributes to the limited focus on higher product standards along the value chain. Indeed, the agrifood business sector in Bangladesh is dominated by microenterprises. Only around 13,000 of 500,000 agrifood manufacturing enterprises, create jobs for more than 10 persons, and less than 15 percent of agrifood enterprises have fixed capital of more than Tk 500,000 (US$6,000).[74] Moreover, most of the enterprises in the agrifood sector are retail businesses, and over half of agrifood manufacturing enterprises are household-based enterprises.

Distribution and Marketing

The distribution and marketing node of the value chain remains largely informal, with almost 98 percent of the flow of agricultural goods transiting via traditional wholesale and wet markets. Associated challenges include inadequate infrastructure and a lack of quality and food safety standards enforcement. As the country moves through the transition phase toward urbanization, supermarket retailers are expected to take on a bigger role in consolidating and retailing fresh produce and other food products. This is expected to ultimately drive improvements upstream and will encourage suppliers to invest in better production, as well as harvesting and post-harvesting handling techniques. Supermarket retailers are also more likely to invest in refrigerated transport and temperature-controlled warehouses and distribution centers.

74 Calculated using data from the 2013 Economic Census produced by the Bangladesh Bureau of Statistics.

BOX 10.2 THE ROLE OF FORMAL OFF-TAKERS IN SHRIMP FARMING: THE CASE OF ANDHRA PRADESH IN INDIA

In total, India exported over US$4 billion worth of shrimp in 2018. Shrimp and fish farming are among the main agricultural activities in Andhra Pradesh, where strong domestic demand for fish and growing export demand contributed to the transition from less lucrative crops (paddy crops) to higher-priced but more volatile aquaculture. The production of fish is targeted toward the domestic market and largely serves the lower-income consumer segments. The production of shrimp is oriented at export markets, and it serves middle-class consumers. An average shrimp farmer with a 5-hectare pond and two crops per year can expect to earn about US$65,000 per year from the operations. An investment in a shrimp farm can currently generate a 40 percent return, although it's highly sensitive to movements in feed and shrimp prices.

One of the IFC prospective investee clients, Growel, is a leading fish and shrimp processor in Andhra Pradesh. It serves about 8,000 fish farmers and 3,000 shrimp farmers through the provision of quality feed and technical advice. Growel's extension staff visit the farmers about once per week. The seven Growel aqualabs help the farmers assess the quality of the water, monitor shrimp growth, and provide guidance for reducing disease outbreaks to avoid crop losses. Many of the shrimp farmers also benefit from selling the shrimp back to the company as an input into its processing operations. On the input side, Growel reaches over 2,000 farmers through its maize and wheat purchases. Furthermore, shrimp processing is a highly labor-intensive operation (removing the heads and peeling are both done manually), and the vast majority of jobs are held by women. In terms of indirect employment, Growel has a network of around 200 dealers. The shrimp farmers working with Growel also employ about two full-time workers plus a substantial number of seasonal workers (up to 40 people) during the harvest times. As such, the aquaculture value chain is characterized by high job multipliers, and it promotes exports and supports backward links to the domestic economy.

Source: IFC staff.

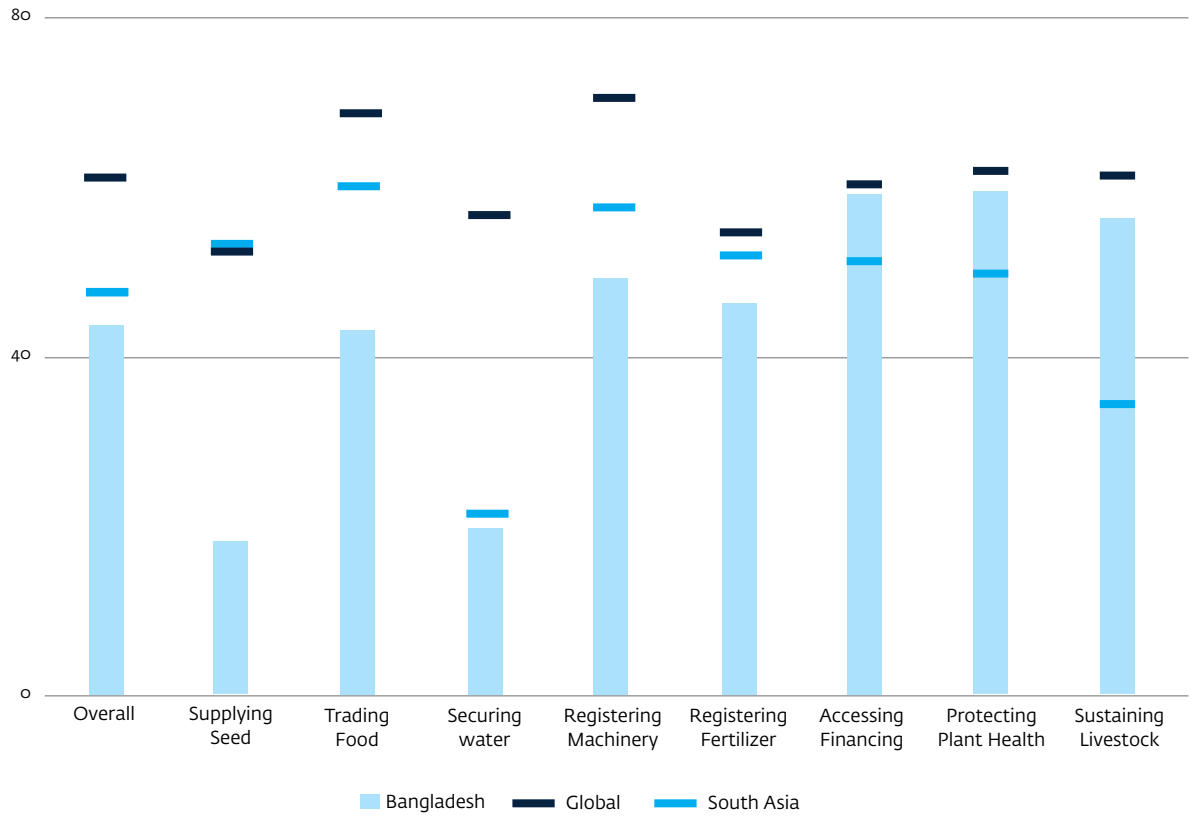
Business Climate and Food Safety

Bangladesh trails its regional and global peers in business environment standards for agriculture, which explains some of the inefficiencies in the value chain described above. According to the World Bank report "Enabling the Business of Agriculture," Bangladesh performs above the regional average on regulations related to livestock, plant health, and access to finance. It lags behind its regional peers, however, in seeds, fertilizer, machinery, agricultural trade, and water. Agricultural trade regulations, for example, in the country do not require burdensome trader-level licensing and membership requirements, and recent reforms to ease agricultural trade by making necessary documentations available online is noteworthy. Still, a continuing challenge for exporters is the absence of an electronic phytosanitary (e-phyto) system that can generate the necessary documentation such as certificates and application. The process of obtaining mandatory agriculture-related documents can take up to 150 hours, in comparison to the average of 45 hours in countries in the region. The certification of technology takes around two years, and the weak business environment for seed development is reflected in an EBA score that is just one-third of the South Asia regional average. In regard to fertilizer, there are good practices found in the law, but the process of registration of a new fertilizer product by the private sector is cumbersome. As a result, in all areas measured by the report, Bangladesh scores below the global average when compared to the broader sample of 101 countries (figure 10.7).

Weak food safety systems impose health care costs on the local economy and hold back the potential of domestic and export-oriented agribusiness. The smallholder farmers lack the knowledge and resources to follow appropriate production and

food-handling practices. The resulting overuse of fertilizer, misuse of pesticides, and general lack of modern crop management systems make food safety a serious issue for Bangladeshi agriculture. These issues are magnified by the underdeveloped storage, logistics, and formal retail segment. Exports of fisheries and horticulture products often suffer setbacks due to poor compliance with international food safety and quality standards, particularly from the EU and the United States (COMCEC Coordinating Office 2014). Despite efforts invested in addressing these issues, compliance monitoring and law enforcement remain weak and irregular. The recently introduced food safety legislation has not been fully adjusted to the Bangladeshi context. The complexity and overlaps of the regulatory framework with many laws and regulations, in addition to the overlapping responsibilities of the control-enforcement system and government agencies, contribute to preventing significant improvements in food safety outcomes in the country. The new Food Safety Authority also lacks adequate capacity and funding to perform its functions. The government and some private sector food processing and supermarket retail businesses are attempting to develop and implement GAP standards with varying degrees of success. Outside of contract farming arrangements and export-oriented value chains, food safety and quality monitoring is difficult because many companies do not have their own labs or cannot access lab services. The government, for instance, does not have accredited labs for a full range of product tests. There are several accredited private laboratories, but only for limited types of tests and products.

FIGURE 10.7 BANGLADESH, ENABLING THE BUSINESS OF AGRICULTURE SCORES, 2019



Source: World Bank, Enabling the Business of Agriculture project, 2019.

The current agricultural support system creates an unbalanced incentive structure, which prevents diversification toward other cereals and higher-value agricultural commodities. To develop exports, Bangladesh has introduced a 20 percent subsidy of the free-on-board value for certain agricultural products. Over the last few years, though, potato exports have declined dramatically, while vegetable exports have stagnated. Overall, the export subsidy has not managed to support the sustainable export competitiveness of the targeted agricultural subsectors. About 80 percent of the fertilizer used in Bangladesh is applied to rice crops, with very heavy subsidies (Huang, Gulati, and Gregory 2017).

Support Services

Despite a dynamic microfinance sector, access to finance in the agrifood sector remains constrained. Several factors restrict access to finance for farmers, including the lack of funds in the agriculture sector, limitations in existing eligibility criteria (which require land ownership or guarantees from the landlord), high risks in agriculture and consequently high interest rates, and poor diversity in financial products and services. In aquaculture, almost half of fish farmers, particularly small and marginal farmers, lack adequate access to finance. Existing financial products are limited to basic seasonal and short-term loans. Access difficulties also extend to nonfarm actors (mainly microenterprises) along the agrifood value chain. These challenges are not unique to Bangladesh, as indicated by its standing on the EBA access to finance indicator: above the regional average and in line with the global average.

Underdeveloped logistics for agribusiness is another critical bottleneck for its development. Although 87 percent of all farms in Bangladesh are located within 2 kilometers of an all-weather road, the basic infrastructure remains poorly maintained and managed. The share of transport in cost structure is high by global standards and is particularly high (48 percent of total revenue) for high-value products like perishable horticulture (Herrera Dappe and others 2019). Of this total cost, inventory carrying costs (storage) account for 30 percent and direct logistics costs account for 70 percent, of which a little more than half is taken by transportation costs, with the rest coming from indirect costs (formal and informal fees). Furthermore, limited capacity and high congestion in the main ports cut food processors off from imported raw materials.

Improving storage and packaging will be important for raising productivity, particularly for high-value products. Adequate storage facilities and improved packaging are important for reducing post-harvest losses and maintaining food quality and longer shelf life. Plastic crates, for example, could be used to package perishable fruits along the value chain. The use of packaging and labeling, though, remains limited, given the informal nature of the distribution and marketing of food products in the country. Capacity of existing storage infrastructure is also inadequate. Farm-level storage is limited, which leads many farmers to sell their products immediately after harvest. The role of supermarkets and agribusinesses in consolidating and retailing fresh produce with improved storage and packaging facilities and refrigerated truck fleets remains limited. The export potential of high-value fresh produce is also hampered by insufficient storage space in main ports and airports, although the commercial viability of such exports at small scale has been proven by existing exports of fresh fruits and vegetables to daily markets in the Middle East.

10.5. PRIORITY REFORMS AND ACTIONS

A new wave of reforms for diversifying agricultural production toward higher-value products and value chain development is needed to meet the growing demand for food and to create jobs. The leading Bangladeshi conglomerates have started to invest in various parts of the value chain—agro-processing, agricultural machinery and equipment, inputs, and post-harvest infrastructure—in response to the growing external and domestic demand for food that is more nutritious. Capitalizing on this trend, the government of Bangladesh needs to prioritize interventions that will help address major hindrances to agribusiness development identified in the previous sections, which can be organized into three broad categories: (a) on-farm productivity constraints; (b) off-farm value addition and commercialization constraints; and (c) cross-sectoral enablers (table 10.2).

TABLE 10.2 RECOMMENDATIONS ON AGRIBUSINESS DEVELOPMENT

Increasing on-farm productivity	• ***Support land agglomeration and efficient land rental markets:*** carry out an assessment of the agricultural land rental market to identify what is preventing longer-term rentals of agricultural land and identify solutions. • ***Improve the efficiency of the public agriculture subsidies:*** carry out a more in-depth cost-benefit assessment to identify how the system of agricultural subsidies could be modified or repurposed to improve competitiveness by approaches such as making investments that facilitate the development and adoption of productivity-enhancing technology. • ***Enable access to extension advice:*** introduce digital extension service solutions in partnership with private sector actors to overcome limited resources and reach more farmers. • ***Assess opportunities and facilitate the development of export-oriented aquaculture:*** conduct a sector assessment and adopt a sector development strategy in close coordination with the private sector.
Addressing constraints on off-farm value addition and agribusiness commercialization	• ***Facilitate aggregation and market linkages:*** support the private sector development of digital platforms to connect producers with off-takers or directly with consumers. • ***Strengthen food safety and quality standards, and regulatory oversight systems:*** streamline the legal and regulatory framework for food safety, as well as the inspection and enforcement system in close coordination with the private sector; crowd in private third-party accreditation and certification services. • ***Develop marketing infrastructure and agrilogistics:*** implement policies and incentives for supporting private investment in the development of marketing infrastructure, such as regional market hubs, cold storage sites, warehouses, and cool chains (including railway cool chains) run through PPPs.
Resolving cross-sectoral issues	• ***Improve access to finance for agrifood value chain actors:*** further develop innovative tools like warehouse receipt financing for post-harvest financing; strengthen the secured transactions regime or support the use of rental land as collateral.

APPENDIX

APPENDIX A: COMPREHENSIVE REFORM RECOMMENDATIONS

Policy Interventions		covid-19 Response		
Constraint	**Policy Interventions**	**(1)**	**(2)**	**(3)**
Business environment and governance				
Licensing and other regulatory requirements (150 services delivered by 54 different line agencies) increase time and cost required for starting a new business.	• Fully operationalize BIDA's **One-Stop-Service (OSS),** including integration and streamlining processes at the Registrar of Joint Stock Companies and Firms, and others. • Introduce a new **Companies Ac**t that implements reforms to modernize processes for starting a business, resolving insolvency, and protecting minority shareholders.		✓	✓
Overburdened court system and legal barriers undermine **contract enforcement,** limiting the private sector development.	• Enact the draft Commercial Dispute Resolution Court Act to establish dedicated special courts at divisional levels for commercial disputes. • Amend the Arbitration Act of 2001 to introduce mandatory arbitration before court trial. • Enact mediation rules (for amended civil procedure code) to operationalize mandatory mediation.			✓
Lack of effective i**nsolvency and debt recovery framework** raises risks for investors, lenders, and suppliers and restricts the effective allocation of resources in the private sector	• Amend and modernize the **Bankruptcy Act** to introduce insolvency procedures that include provisions for reorganization, enhancing creditor rights and the administration of debtor assets in insolvency proceedings, and establishing a regulatory framework for professional insolvency practitioners (require amendments in the **Companies Act** to bring coherence and consistency). • Establish a mechanism for **out-of-court workouts** (alternative debt resolution) that include mechanisms for collective workouts. • Amend the **Money Loan Courts Act** of 2003 to minimize lengthy stay orders and promote the greater use of mandatory mediation such as through introducing mechanisms for referrals to private mediation centers.			✓
Weak **corporate governance** with insufficient regulatory oversight raises risks for investors.	• **Reduce double taxation** of both the parent company and the subsidiary to encourage formation of holding company structure and consolidated balance sheets in conglomerates. • Revise the **Corporate Governance Code** to encourage the presence of independent directors, the professionalization of management, and transparent financial reporting. • Issue guidelines for banks to r**aise requirements on financial disclosures** from large borrowers. • See also specific issues on governance in banking sector below.			✓
Overlapping, poorly communicated, and poorly enforced regulations increase uncertainty and gives rise to discretion, creating an uneven level playing field across the private sector.	• Establish a r**egulatory impact assessment** system in the Ministry of Law to review new laws, amendments, and rules. • Continue the **digitization of business regulatory service delivery** to minimize face-to-face interactions. • Adopt a r**isk-based approach for regulatory monitoring and enforcement** across government agencies.			✓

Policy Interventions		covid-19 Response		
Constraint	**Policy Interventions**	**(1)**	**(2)**	**(3)**
Financial sector				
Gaps in access to credit and the high cost of credit for SMEs (especially women-owned SMEs) inhibit the development of growth-oriented domestic firms.	• Enact the **Secured Transaction Bill** to expand the types of assets that can be used as security against loans; establish a **movable collateral registry.** • Expand the scope and time period of data held by the **Credit Information Bureau** and ensure that credit bureau coverage includes all commercial loans, regardless of size. • Introduce legal provisions to prohibit **gender-based discrimination in access to credit.**		✓	✓
Absence of domestic markets for long-term finance restricts private investment, particularly in key sectors like infrastructure and project finance.	• Reform **National Savings Scheme** instruments by (a) closely monitoring the database of NSC subscribers to reduce the scope for misuse and enforce access limits to NSCs; (b) reducing the number of savings instruments to simplify the system, and in the medium term, (c) linking NSC interest rates to market interest rates. • BSEC to develop and operationalize **guidelines for corporate bond issuance** to streamline the approval process and remove dual scrutiny by BSEC and BB. • Allow **foreign institutional investors and nonresident Bangladeshis** to invest in the primary and secondary capital markets through a portfolio investment scheme. • Establish a **regulatory framework for private provident funds.**		✓	✓
Restrictive foreign exchange controls limit inbound and outbound FDI and access to financing from foreign banks	• Adopt an **overall policy shift** from the micromanagement of foreign exchange transactions to the macromanagement of foreign exchange flows and the foreign exchange market. • Overhaul the **Foreign Exchange Act** of 1947 and issue guidelines to introduce partial capital account convertibility by (a) allowing a range of permissible capital account transactions and streamlining foreign exchange transactions; and (b) simplifying approval processes for overseas Bangladeshi investments. • Amend **external commercial borrowing guidelines** for Bangladeshi firms by shifting from "blanket" to risk-based approval and introducing market-based interest rate ceiling by including the LIBOR.	✓	✓	✓

Policy Interventions		covid-19 Response		
Constraint	**Policy Interventions**	**(1)**	**(2)**	**(3)**
Weak banking sector governance resulting in low efficiency and aggravating vulnerability (high NPLs), raising macro-financial risks and contributing to lower credit provision to the private sector.	• Establish an **independent banking commissio**n to review stability issues (NPLs, capital adequacy, liquidity, interest rate ceilings on bank credit) and adopt a reform road map in line with international standards. • Introduce **strengthened regulations** (through BB) for loan classification, provisioning, write-offs, concentration risks and large exposure limits, related-party transactions, licensing criteria, and underwriting in line with the international Basel standards. • Conduct an independent **asset quality review** (BB and the Ministry of Finance) and a viability assessment of banks most exposed to problem assets. • Develop an **NPL resolution** framework, including plans for write-offs, debt restructuring, consolidation of state-owned banks, and setting up an asset management company to take over bad debt in state-owned banks. • Introduce regulations that define what a **willful defaulter** is and strengthen enforcement. • Launch a r**isk-sharing facility scheme** (through BB) to provide partial credit guarantees for bank lending to SMEs. • See also recommendations on bankruptcy and insolvency provisions.		✓	✓
Limited development of **digital financial services** affects access to finance for entrepreneurs and impedes firm growth.	• Enact the **Payment System Act.** • Enact regulations and guidelines for expanding SME financial access through **digital financial services.** • Introduce regulations to remove restrictions on **know-your-customer** (KYC) requirements and introduce tiered requirements. • Introduce guidelines for **interoperability** among and between mobile financial services, agent banking, and banks.	✓	✓	✓
Underdeveloped financial services product markets weaken the link between the financial and real sectors.	• Introbduce **green bond standards** and enhance **green banking regulation.** • Introduce **housing bonds** to support long-term finance for the housing construction market.		✓	✓
Trade and investment				
High rates of protection from tariffs and para-tariffs (overall levels, dispersion, escalation) restrict access to price competitive and quality inputs, and bias firms against exports.	• Implement **tariff rationalization** for key inputs in priority export sectors and the **removal of supplementary duties.** • Implement changes to tariffs and nontariff policies and procedures such as border controls in response to the COVID-19 crisis to facilitate trade in essential goods (medical, food).	✓	✓	✓
Instruments for promoting exports in sectors outside of RMG insufficient in number	• Revise **bonded warehouse policies and expand facilities** for non-RMG sectors to bring them into line with the regime that governs RMG; streamline business processes and apply risk management principles in bond licensing, renewal, and audit.		✓	
Restrictions on investment in services sectors in Bangladesh and across region restrict access to markets and to competitive inputs.	• Carry out a diagnostic study and adopt a strategy for **trade in services.**			✓

Policy Interventions		covid-19 Response		
Constraint	**Policy Interventions**	**(1)**	**(2)**	**(3)**
Customs and border administration delays increase cost, time, and unpredictability for traders.	• Fully implement the **Customs Modernization Strategic Action Plan 2019–22.** • Implement **risk management approach** in customs and border agencies. • Introduce the **National Single Window** for trade. • Make the **National Trade and Transport Facilitation Committee** effective and operational. • Pursue **regional trade integration** including through mutual recognition agreements for the harmonization of standards, the reduction of nontariff barriers, and the harmonization of border clearance procedures.		✓	✓
Lack of **access to and high cost of developable land** restricts greenfield investments and expansions, especially for FDI and SMEs.	• Fully digitize and make publicly searchable the r**egister of land title and interests.** • Finalize the **national resettlement policy** to clarify and reduce uncertainties in the land acquisition process. • Strengthen the nationwide **Grievance Redress System** (as specified in the Land Acquisition Act). • Carry out an **inventory of publicly owned land.** • Require major land-holding institutions to **adopt land asset management plans** with clear criteria for developing or disposing underutilized real estate. • Adopt the **national master plan for economic zones program,** with phased land development, and disseminate to private investors domestically and internationally. • Develop **private economic zone developer qualification requirements** and a periodic monitoring system that tracks compliance.			✓
Limited adoption of **PPPs in infrastructur**e holds back potential private investment.	• Create a centralized **public investment management (PIM) unit** under the Planning Commission and establish a dedicated PPP cell within each line ministry to facilitate a greater adoption of PPPs. • **Build capacity and provide training to the PPPA** and the responsible line ministry staff to improve project selection and build a pipeline. • Recruit **transaction advisers and legal specialists** to advise PPP Authority on international practices. • Declare **unsolicited proposals (USPs**) as an exception to the public procurement method and have clearly defined procedures to ensure value for money from USPs. • Make **G2G project**s subject to general rules for PPP projects to improve transparency of investment project selection and implementation. • **Develop the market for climate-resilient infrastructure** through PPPs in economic zones.			✓

Policy Interventions		covid-19 Response		
Constraint	**Policy Interventions**	**(1)**	**(2)**	**(3)**
High costs, congestion, and lack of reliability across **transport infrastructure** lower competitiveness and limits potential for Bangladeshi firms to integrate in GVCs.	**Overall** • Develop a comprehensive **integrated multimodal transport and logistics master pla**n to improve modal and intermodal performance and instill investor confidence that the balance of capacity demand and supply makes sense. • Make the **National Multimodal Transport Coordination Committee operational.** • **Open transport sector to wider participation by the private sector**, allowing direct investment and concessions by pursuing demonstration projects. • Develop **domestic capital market** and enable f**oreign financing** for infrastructure and logistics sectors. **Ports** • Base planning and capacity addition in port sector on transport master plan. • Adopt **landlord model for ports.** • Integrate **IT systems at the por**t for faster customs handling. **Inland waterways** • Pursue longer-term **river port contracts** on a PPP basis to attract players who are more sophisticated and who upgrade facilities and cut down handling costs. • Establish and enforce **performance criteria** for port and service providers and establish **equipment standards.** **Transport logistics and warehousing** • Develop s**tandards and KPIs** for logistics sector. • Remove **entry barriers** for international logistics players by **relaxing foreign ownership restrictions.** • Enforce c**ompetition regulations** in logistics from the Bangladesh Competition Council. • Decrease congestion at CTG port by (a) expanding the list of containerized products that can be destuffed and cleared in **off-docks;** (b) allowing less-than-container-load shipments to be cleared in off-docks; and (c) increasing **port demurrage fees.** • Increase information transparency through **online freight marketplace** (tariffs, service quality). • Build out and improve the **network and quality of mobile data services** to enable digital trucking. **Temperature-controlled logistics** • Reduce **customs duties on imports for cold-storage freezers.** • Adopt **technical standards and protocols for cold storage** for different products. • Enforce **food safety standards and audits.**			✓

Policy Interventions		covid-19 Response		
Constraint	**Policy Interventions**	**(1)**	**(2)**	**(3)**
Underutilization of the installed generation capacity a**nd cont**inued use of expensive rental plants contribute to poor financial and environmental sustainability throughout the sector, while the **low reliability of electricity supply** continues to undermine productivity and deter investment.	**Overall** • Develop and adopt the next-gener**ation Power Sector Master Plan with** sound demand projections and prioritizing **regional energy trade** and s**elective RE developmen**t to address supply gap cost-effectively and green energy mix. • Maintain proactive engagement with neighboring countries in various forums to **enhance prospects of CBET** by (a) building consensus on approaches to **align necessary policy and regulatory framework**s and (b) coordinating and prioritizing **cross-border transmission investments** from various financing sources to ensure the timely operationalization of needed cross-border transfer capacity. • Prepare to move to a **cost-reflective tariff structure** and **gradually corporatize public utilities** to strengthen the operational and financial performance of the sector to enable access to commercial finance and wider private participation. **Generation** • Prepare an exit strategy from emergency power and **review the Special Power Act.** • Strengthen the **PPP framework** and the capacity for reviewing project proposals. • Transition to the **competitive procurement of all sources of power generation** to reduce the average purchase price of power. **Transmission and distribution** • Develop and enact a **private sector power transmission policy and implement a pilot PPP in the T&D sector.**		✓	✓
Underdeveloped **digital infrastructur**e limits the potential for growth in key sectors such as ICT outsourcing and fintech, lowers productivity, and limits the effectiveness of the response and recovery from COVID-19.	• Ensure the de facto **independence of BTRC** by eliminating discretionary top-down directives. • Introduce a **formal platform for public-private dialogue** to inform policy making and to improve communication about policy changes. • Revisit the **spectrum allocation framework** by introducing a nominal spectrum fee to replace spectrum auctions. • Ensure that r**egulations for infrastructure sharing** support market mechanisms and include free choice of providers, equal access to existing infrastructure (fiber-optic cables, poles, and ducts), and an alignment of right-of-way regulations with international best practices.		✓	✓
Lack of quality and relevance in vocational and technical education creates skills gaps, especially in technical and managerial professions.	• Create a sustainable financing mechanism that seeks private sector participation for **industry skills councils.** • Initiate **skills gaps assessments** across key sectors and occupations.			✓

Policy Interventions		covid-19 Response		
Constraint	**Policy Interventions**	**(1)**	**(2)**	**(3)**
Human capital				
Lack of access to quality health services affects productivity.	• Strengthen the **regulatory framework for private participation** in a way that improves oversight, streamlines licensing process for facilities, and strengthens the regulation of informal private sector health facilities. • Develop **precise guidelines for PPPs and contracting of the health care services to private sector providers** with clear timelines and approval processes. • Support the ability of patients to afford private health services through **strengthening the country's voucher schemes.** • Address market barriers hindering **greater participation by foreign investors,** including foreign exchange restrictions.			✓
Weak **occupational health and safety standards** raise risks in the context of COVID-19.	• Develop guidelines for the assessment, implementation, monitoring, and reporting of **occupational health and safety and community health and safety risks** for new and established businesses.		✓	✓
Competitive value-added manufacturing				
Bangladesh needs to **replicate in other sectors the success of the export-oriented RMG sector,** which has created millions of jobs and contributed to high investment rates.	• **Create an enabling environment that encourages FDI,** in order to bring know-how and expand access to the export market. • **Improve access to long-term finance** by streamlining foreign borrowing approvals stipulated in the guidelines for foreign commercial borrowing. • **Reform the incentives regime** to discourage excessive trade protection, which disincentivizes the development of sectors not covered by the existing schemes. • **Strengthen compliance with environmental and social standards** that include regulatory enforcement and technical infrastructure laboratories and testing facilities. • **Improve trade logistics** to reduce the cost of transportation and storage. • **Expand access to a reliable energy supply** by strengthening the connectivity infrastructure. • **Improve the skills of the labor force** by identifying gaps, expanding vocational training, and strengthening collaboration between industry and universities.		✓	✓

Policy Interventions		covid-19 Response		
Constraint	**Policy Interventions**	**(1)**	**(2)**	**(3)**
High-value-added agribusiness				
Agribusiness **value chains remain undeveloped, limiting economic opportunities for farmers and forcing rural-urban migration**, while quality employment opportunities in urban areas remain limited.	• Strengthen **food safety and quality standards and regulatory oversight systems** by (a) streamlining the legal and regulatory framework for food safety, as well as the inspection and enforcement system in close coordination with the private sector; and (b) crowding in private third-party accreditation and certification services. • Support land agglomeration and efficient land rental markets by carrying out an **assessment of the agricultural land rental market** to identify what is preventing longer-term rentals of agricultural land and identify solutions. • Improve the efficiency of public agriculture subsidies by **optimizing and repurposing agricultural subsidies to improve competitiveness.** • Introduce **digital extension service solutions** in partnership with private sector actors to overcome limited resources and reach more farmers. • Assess opportunities and facilitate the **development of export-oriented aquaculture.** • Support the development by the private sector of **digital platforms** to connect producers with off-takers or directly with consumers. • Develop **marketing infrastructure and agro-logistic**s by implementing policies and incentives to support private investment in marketing infrastructure such as PPPs in regional market hubs, cold storage sites, warehouses, and cool chains. • Improve **access to finance for agrifood value chain actors** by developing innovative tools like warehouse receipt financing for post-harvest financing and strengthening the secured transactions regime or supporting the use of rental land as collateral.		✓	✓

COVID response key: (1) Minimizing destruction; (2) Restructuring and recovery; (3) Creating markets

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IFC
2121 Pennsylvania Avenue, N.W.
Washington, D.C. 20433 U.S.A.

CONTACTS

Thomas Farole
tfarole@worldbank.org

Iuliia Mironova
imironova@ifc.org

ifc.org

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