Bangladesh:

Country Private Sector Diagnostic

APRIL 2025

About the Country Private Sector Diagnostic

The private sector is the engine of long-term economic growth and a vital catalyst for global social and economic development. When functioning well, the private sector promotes innovation and entrepreneurship, improves access to and the quality of economic opportunities, and supports the sustainable use of natural resources. In developing economies, the private sector creates most jobs, generates tax revenue, and accounts for significant investment.

The revised Country Private Sector Diagnostic (CPSD) reports seek to unlock private sector–led growth and investment. Prepared jointly by the institutions of the World Bank Group, each report discusses the overall business environment within a country and provides an analysis of specific sectors in which private sector investment could accelerate growth, if appropriate policy and regulatory issues are addressed.

Designed from the perspective of an investor or entrepreneur, this new generation of reports seeks to identify untapped private investment opportunities and the barriers that stand in the way (earlier reports can be found here). The sector opportunities are chosen based on their potential to spur private investment, create jobs, generate domestic revenue, and foster sustainable, inclusive growth, in response to targeted policy action. The report aims to help country policymakers prioritize the most impactful actions that can boost private sector growth, while delivering on broader development goals.

The CPSD is one of the World Bank Group's core country diagnostics produced to guide the design and implementation of public and private investment projects, budget support operations, advisory services, and other analytical work. It is intended to be of interest to domestic and foreign business investors, government officials, World Bank Group staff and management, civil society, and other development partners.

Bangladesh:

Country Private Sector Diagnostic

APRIL 2025

WORLD BANK GROUP
THE WORLD BANK IBRD • IDA
IFC International Finance Corporation
MIGA Multilateral Investment Guarantee Agency

Contents

Acknowledgments iii

Executive Summary iv

1 Country Context 1

2 Sector Selection 18

3 Green Ready-Made Garments 22
- 3.1 Sector Context and Opportunity 23
- 3.2 Constraints to Private Investment in the RMG Sector and Recommendations 27

4 Housing for Middle-Income Households 31
- 4.1 Sector Context and Opportunity 32
- 4.2 Constraints and Recommendation for Private Investment 34

5 Paint and Dyes 41
- 5.1 Sector Overview – Paint and Dyes 42
- 5.2 Sector Context and Opportunity – Paint 45
- 5.3 Constraints and Recommendations for Private Investment – Paint 46
- 5.4 Sector Context and Opportunity – Dyes 48
- 5.5 Constraints and Recommendations for Private Investment – Dyes 49
- 5.6 Risks to Be Managed 52

6 Digital Financial Services 55
- 6.1 Sector Context and Opportunity 56
- 6.2 Constraints to Private Investment and Recommendations 61

Appendixes
- A. Potential Increases in Private Investment and/or Jobs 70
- B. Charts and Figures: Paints and Dyes 74

Acronyms 77
Notes 79
References 87

Acknowledgments

The Bangladesh Country Private Sector Diagnostic was prepared by staff from across the World Bank Group. The core team was co-led by Suhail Kassim and Shawn Tan, and included Miah Rahmat Ali, Juliana Beall, Persephone Economou, Gunjan Gulati, Mahima Khanna, Sudha Bala Krishnan, Noor Ahmed Naveed, and Hosna Ferdous Sumi. The extended team included Akanksha Burman, Xavier Cirera, Ghiles Elkadi, Jacqueline Irving, Santiago Ortega, Zeinab Partow, Matthew Saal, and William Soh. Adama Badji, Sarder Niamul Islam, and Fatima Yousofi provided ample administrative support to the team. Special thanks are due to Sudha Bala Krishnan for helping to bring the report to closure.

The Diagnostic was conducted under the guidance and supervision of Gabi Afram, Jeffrey Chelsky, Martin Holtmann, and John Nasir (until May 2024), and under the direction of Imad Fakhoury, Paolo Mauro, Abdoulaye Seck, and Mathew Verghis. Overall leadership was provided by Susan Lund (IFC Vice President, Economics and Private Sector Development), Riccardo Puliti (IFC Regional Vice President, Asia), and Martin Raiser (World Bank Regional Vice President, South Asia).

Peer reviewers at different stages in the preparation of the Diagnostic were Mahfuza Afroz, R. Balaji, Souleymane Coulibaly, Michael Engman, Rebecca Konrad, Matthew Saal, Wilfried Tamegnon, and Yutaka Yoshino.

Technical consulting services were provided by Monish Das, Ahsan Mansur and his team at Policy Research Institute of Bangladesh (until June 2024), Dilip Santlani, Minal Shanghavi, and the firm Policy Exchange Limited.

The team is grateful for generous guidance and feedback from many other colleagues across the World Bank Group, including Sadia Afrin, Tanvir Al-Fazal, Ehsanul Azim, Ayesha Baig, R. Balaji, Zsolt Bango, Ifrad Chowdhury, Nishat Chowdhury, Khondoker Tanvir Haider, Bernard Haven, Sajid Imtiaz, Roumeen Islam, Syed Dadul Estem Islam, Kelly Johnson, Karol Karpinski, Nazmus Sadat Khan, Rowshan Tamanna, Faaria Tasin, Tanzeem Qayyum and Kazi Farhan Zahir. The team thanks World Bank Group staff members and consultants who provided documents and information and participated in meetings.

The team is grateful to government officials, private sector representatives, development partners, and other stakeholders who provided valuable insights.

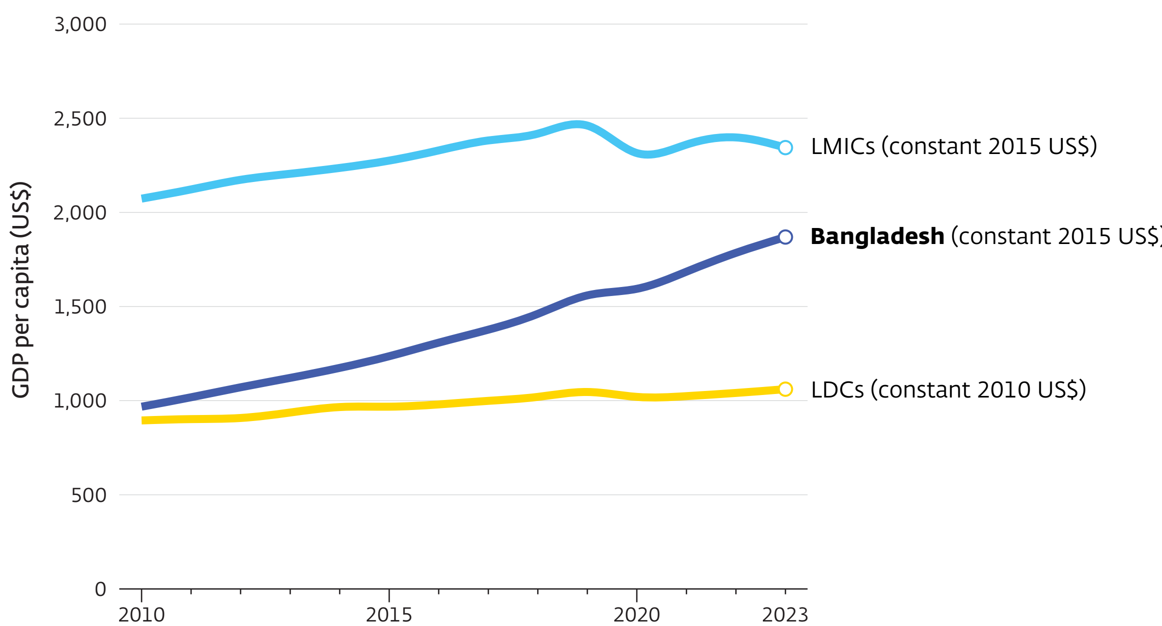
Executive Summary

Bangladesh achieved remarkable progress in economic growth, poverty reduction, and human development over the last two decades.

Stable macroeconomic conditions supported by steady remittance inflows and expansion of ready-made garments (RMG) exports for most of the period underpinned average annual real gross domestic product (GDP) growth of 6.4 percent between 2010 and 2023 (figure ES.1). Poverty and extreme poverty declined by 20 and 7 percentage points to 30 percent and 5 percent, respectively.[1] While these achievements remain, the pace of poverty reduction and of job creation have slowed, particularly in rural areas and among women, and spatial disparities and urban inequality have widened. After a wave of protests led to

Figure ES.1

Bangladesh's real GDP per capita has grown significantly, faster than other LDCs and closing the gap with LMICs



Source: World Bank Group's World Development Indicators.
Note: LDCs = least-developed countries; LMICs = lower-middle-income countries. GDP per capita reported in US$ at constant 2015 prices for Bangladesh and LMICs. LDCs are reported at constant 2010 prices.

the resignation of the former Prime Minister and forced out the party that had been in power for 15 years, an interim government took over in August 2024. Uncertainties related to the transition have greatly augmented pre-existing challenges faced by private investors due to a legacy of poor corporate governance, protectionist policies, energy shortages and weaknesses in the financial sector. The net result has been a sharp deceleration in economic growth and a wait-and-see attitude among investors.

Recent challenges aside, Bangladesh will also need to anticipate its eventual graduation from least-developed country (LDC) status to developing country status.[2] Expected graduation from LCD status comes with challenges for Bangladesh. LDCs benefit from trade preferences such as duty-free access to developed markets, which are gradually removed upon graduation. If Bangladesh moves on from LDC status in 2026, as expected, it will lose those trade preferences in 2029. To remain competitive, the country's private sector will need to become more productive which will require it to attract new investment, which in turn will require improvements its business environment.

The interim government is working to restore macroeconomic stability and protect jobs and development gains. Bangladesh's post-COVID recovery continues to be impacted by high inflation, balance of payments deficits, financial sector vulnerabilities, and increasingly limited job opportunities, especially for women and educated youth.[3] But the authorities recently undertook bold exchange rate reforms resulting in a significant exchange rate realignment.[4] The fiscal deficit has been contained below 5 percent of GDP, largely by compressing public investment, including in critical infrastructure. Despite recent efforts to strengthen the regulatory framework, the banking sector is vulnerable. The ratio of non-performing loans rose from 10 percent at end 2023 to 20 percent in early 2025,[5] with vulnerabilities concentrated in state-owned commercial banks (SOCBs).[6] Compounding this are other factors including contingent liabilities in other state-owned enterprises, a low revenue-to-GDP ratio, and evidence that GDP was systematically overstated overall several years.[7] This points to greater fiscal vulnerabilities than might be suggested by the public debt-to-GDP ratio estimated at 39 percent in 2024.

Bangladesh's corporate bond market is small, illiquid, and dominated by government securities with minimal participation by institutional investors. As of January 2025, there were only 16 corporate bonds listed on the Dhaka Stock Exchange versus 234 government bonds. While recent reforms have improved primary market pricing and transparency, the secondary market is underdeveloped and illiquid. Limited investment, due to a nascent pension sector and high-risk aversion among local investors with longer-term liabilities profiles, further hinders bond market growth.

The equity market is somewhat more developed, with 728 listed firms as of January 2025, but remains fairly illiquid. Stock market capitalization stood at 25.5 percent of GDP at end-2023, low compared to South Asia (34 percent) and lower-middle-income countries (28 percent). Investor confidence is weak due to economic uncertainty and vulnerabilities in SOCBs. Additionally, as monetary policy has tightened in recent years, large numbers of retail investors have exited the equity market in favor of high-yielding short-term debt securities.

Despite current turbulence, Bangladesh's underlying fundamentals are strong. Bangladesh is set to see substantial population (and labor force) growth over the next two decades, surpassing other middle-income countries (figure ES.2). The resulting rapid growth in domestic demand is expected to increase opportunities for private investors in a range of sectors, including manufacturing, housing construction, consumer goods, and services. Moreover, the ready-made garments sector demonstrates that with the right policies, Bangladesh can successfully export manufactures and attract foreign direct investment (FDI). It will need to do this in more sectors to create jobs for the many young Bangladeshis entering the labor force.[8] An unemployment rate of 28 percent among youth with tertiary education testifies to a growing mismatch between the competencies of graduates and the skills demanded by employers.[9] Without reforms to catalyze a new round of private sector–led growth, Bangladesh is at risk of wasting part of its demographic dividend.

To encourage private sector investment, Bangladesh needs to tackle several obstacles to its business environment. Firms cite electricity shortages, access to finance, corruption, and competition from the informal sector as major obstacles (figure ES.3). These obstacles have restricted the ability of promising small- or medium-sized firms to grow. Most sectors are dominated by a few large business groups. Promising small firms struggle to grow, and weak large firms fail to shut down.[10] Electricity shortages can be overcome by firms installing their own electricity generators that require large investments by the company itself.

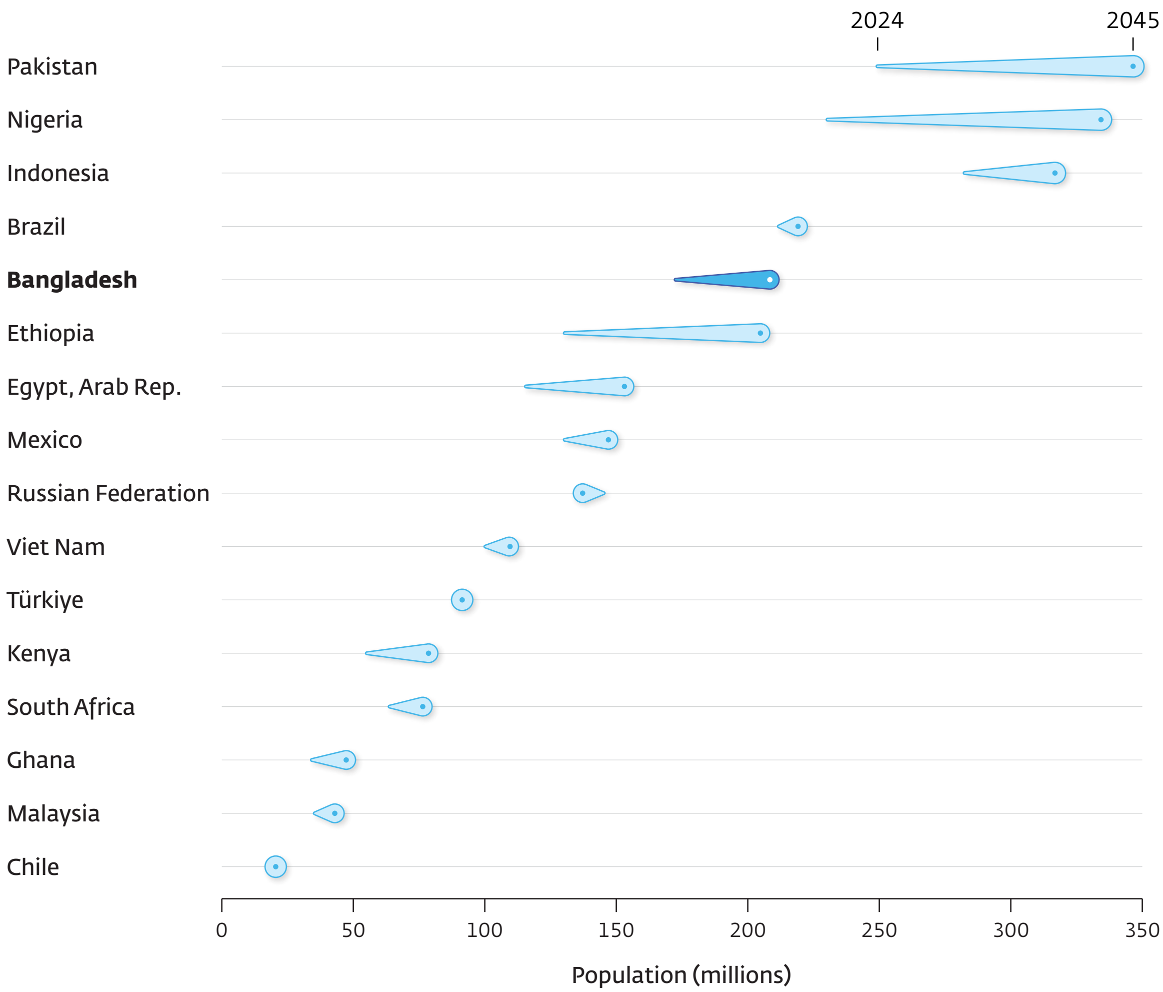
Corruption is also a major obstacle to doing business for firms operating in Bangladesh. According to the Worldwide Governance Indicators,[11] Bangladesh is in the 15th percentile globally, for "control of corruption" and compares unfavorably with the rest of South Asia. Bangladesh has *de jure* anti-corruption policies and regulations, but their enforcement has been lacking.[12] It is notable that the interim government has pledged to improve governance and transparency and made this one of their core objectives.

In addition, Bangladesh needs to overhaul its customs procedures and tariff structure. Bangladesh scores 2.6 on a five-point scale in the Logistics Performance Index (2023) with a 2.3 score in customs, indicating an overall rank of 88 and customs rank of 101 out of 139 countries. Long clearance times can lead importers to stockpile inventory which can be costly. Bangladesh continues to use tariffs as a primary trade policy instrument and a major revenue source. The average most-favored nation tariff in 2023 was 14.1 percent, but including supplementary and regulatory duties, effective protection rates on imports rise to approximately 30 percent.

Figure ES.2

Bangladesh is among emerging economies with rapidly growing populations that need to generate new opportunities for private investment

Bangladesh and middle-income country comparators,* population projections



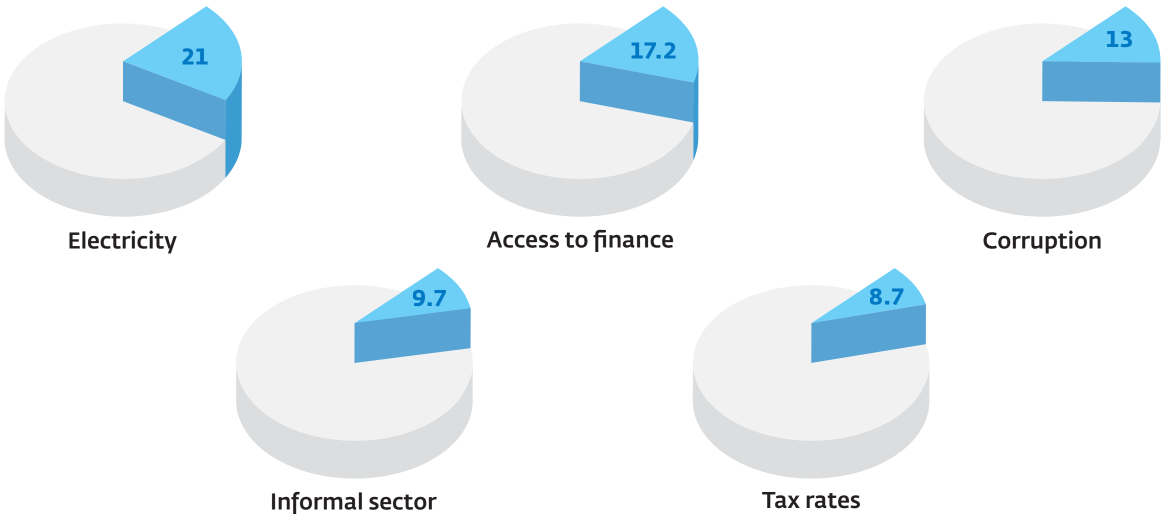
Source: United Nations World Population Prospects.
* This report benchmarks Bangladesh against structural and aspirational comparator countries as identified in the World Bank's (2022a) Bangladesh Country Economic Memorandum, other World Bank Group reports, and team consultations.

This CPSD analyzes opportunities for profitable private investment in four sectors, where reforms could serve as a signal of commitment to a more transparent and competitive economic model. These sectors are green ready-made garments (RMG), housing for middle-income households, paint and dyes, and digital financial services. Although these are by no means the only sectors that could contribute to the country's development, they were chosen as the focus of the CPSD based on the relative maturity

Figure ES.3

Top five business environment obstacles

Share of firms choosing it as a top obstacle (%)



Source: World Bank 2022b.

and political ease of the reform agenda. Rapid progress in these four sectors could catalyze investor interest, including from abroad, and serve as a signal that Bangladesh is open for business. The trajectory of the recommended policy actions—particularly with respect to regulatory reform and governance (including of SOCBs)—has relevance across to the economy more broadly. Moreover, improvements in the business environment in these four sectors could motivate reforms in industries with upstream and downstream linkages, thereby starting a virtuous cycle of structural reforms that can help Bangladesh address its jobs and productivity challenges.

Green Ready-Made Garments

Bangladesh is the world's second-largest exporter of textiles, after China. The textile sector draws more foreign investment than any other and accounts for 85 percent of the country's exports, mostly destined for the European Union. Its position as a leading FDI destination and exporter will be threatened once Bangladesh graduates from LDC status and loses its automatic duty-free access to the European Union (EU) (figure ES.4). Loss of trade preferences is expected to result in a decline in exports by 14 percent according to the World Trade Organization (WTO).

For Bangladesh to retain market access, it will need to meet the conditions of the EU's Generalized Scheme of Preferences Plus (GSP+), which require improvements in

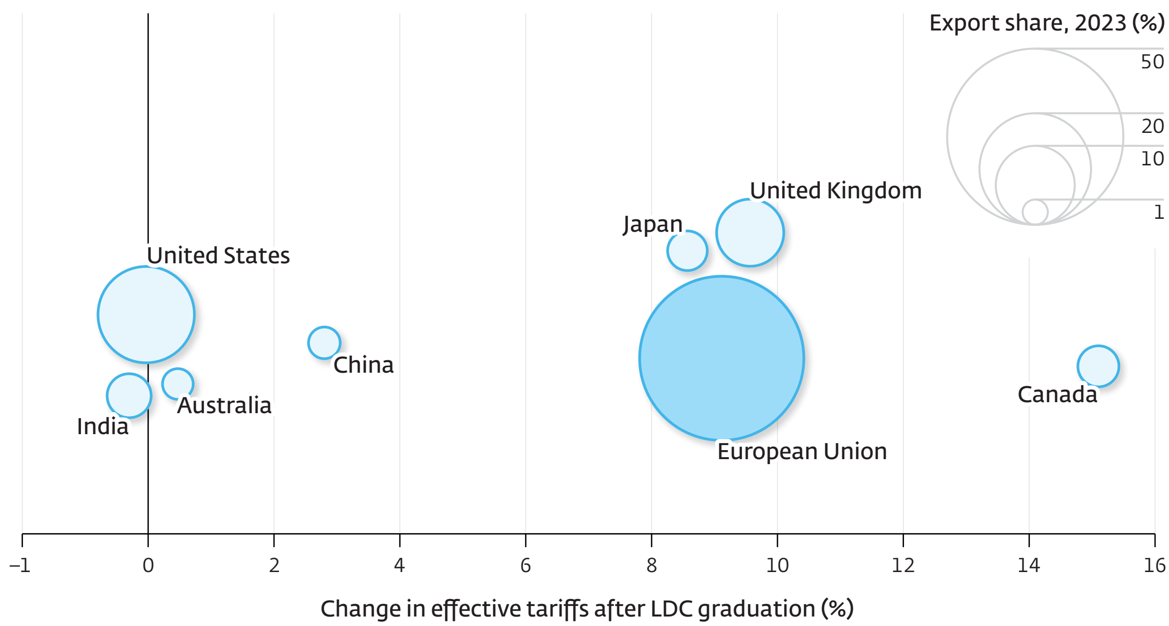
labor and environmental standards. In addition to GSP+, regulations such as the EU's *Corporate Sustainability Due Diligence Directive* require firms selling to the EU to adopt more stringent sustainability practices. Meanwhile, there is growing consumer preference for environmental, social, and governance–compliant products with major apparel brands having strengthened their sustainability commitments.

These shifts can attract private investment to help firms maintain market access and strengthen competitiveness. To remain competitive, the RMG sector must invest in advanced technologies to meet the increasingly stringent environmental and labor standards of major markets. One way of doing this by diversifying into man-made fibers (MMF) products, which require less water and have lower greenhouse gas emissions than traditional cotton products.

To attract private investment to the sector, Bangladesh will need more coherent import and export policies. For example, equalizing the duty for solar inverters (currently 37 percent) with the duty for solar panels (currently 1 percent) could encourage more solar investment in RMG factories. And rather than offering a cash incentive to export the polyethylene terephthalate bottle and flake used in MMF, manufacturers could be encouraged to use them to develop a domestic MMF production industry.

Figure ES.4

The immediate effect of LDC graduation will be higher tariff rates in Bangladesh's major export markets and lower exports



Source: World Bank 2022a.
Note: Export share refers to share of exports to a given destination as percent of total exports from Bangladesh.

Housing for Middle-Income Households

A growing number of middle-income households and rapid urbanization are driving demand for housing in Bangladesh, but supply remains constrained by land shortages, the cost of construction materials, and a complex and fragmented regulatory framework. Bangladesh's urban population grows by about 2 million people per year, while only about 30,000[13] housing units are supplied annually by formal sources in urban areas. Currently, private developers target high-income housing while the public sector focuses on social housing for low-income households. That leaves an opportunity to provide housing to the large and growing middle-income segment, particularly those in the 70th to 95th income percentiles, with potentially significant knock-on effects for consumer spending and job creation. However, high costs of land and construction materials (many of which are imported and subject to tariffs) push up prices.

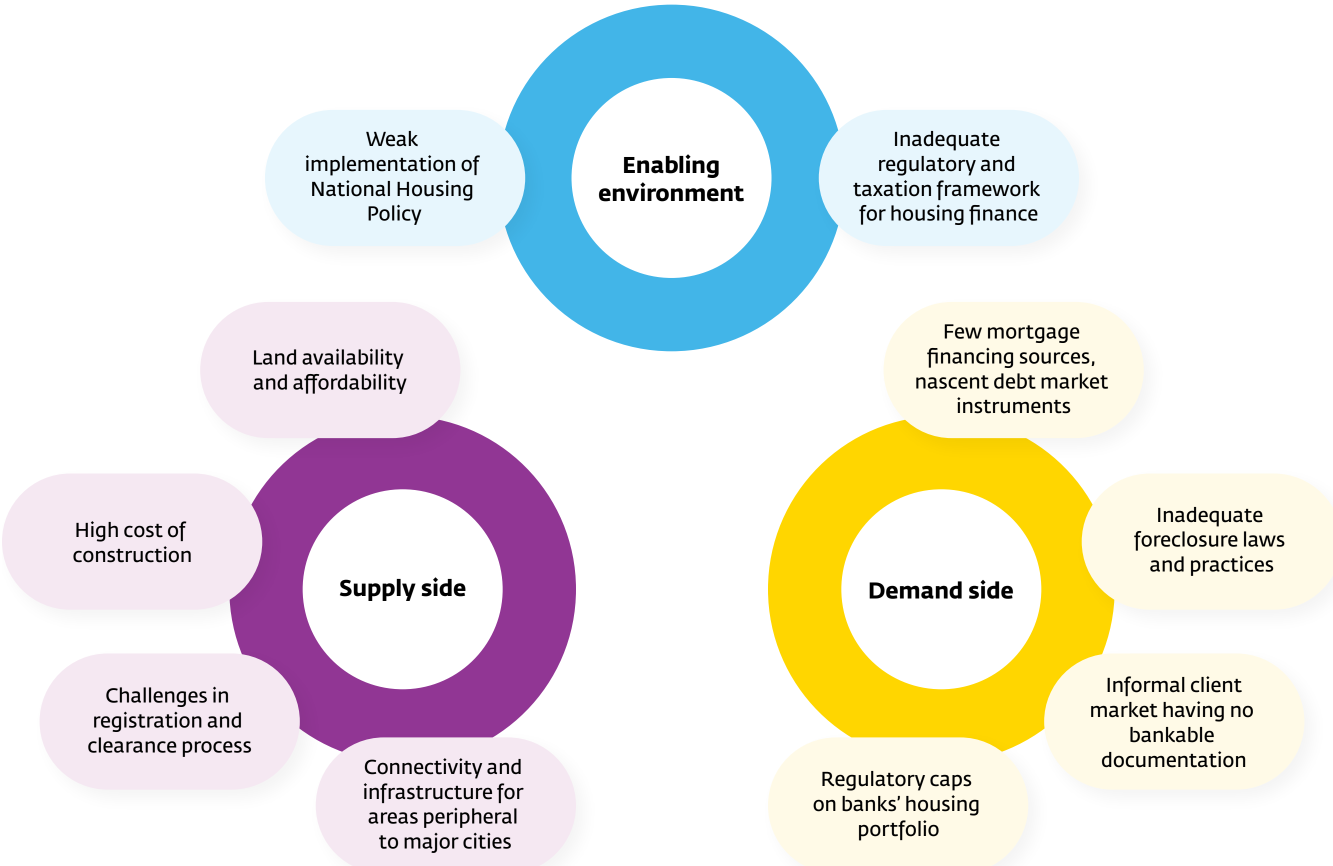
Bangladesh's housing sector faces significant challenges due to a fragmented regulatory framework and complex property transaction process. Complex legal requirements, unclear land titles, extensive paperwork, and bureaucratic delays make property transactions time-consuming and complicated for both buyers and sellers. Interest from foreign investors has been met by resistance from domestic housing interests (figure ES.5).

Home ownership is limited, with the majority of households residing in rental housing. This is partly due to structural challenges in the financial sector. Most bank deposits are short-term—a common trait in developing countries—which restricts banks' ability to offer medium and long-term mortgage loans. Additionally, the bond market is underdeveloped, limiting alternative funding sources. Establishing a mortgage refinance company could incentivize banks to provide more housing loans, while encouraging the financial sector to introduce affordable home financing products could facilitate the development of the mortgage market. Simplifying the foreclosure processes would also lower the costs and risks of mortgage lending, making homeownership more attainable for the middle class.

This report recommends that, among other things, the government spurs the housing market by making available its significant stock of vacant land at the periphery of urban areas for private development of housing. Improving infrastructure in exurban areas could enhance the commercially viability of housing development. A land bank, organized by the Bangladeshi Ministry of Land, could bring more transparency to land acquisition, as would digitizing the land registration process. Allowing developers to build smaller apartments could enhance the profitability of serving this segment of the housing market. And revising building codes to allow "green bricks," which are cheaper and more environmentally sustainable than traditional bricks, would lower building costs.

Figure ES.5

Private investments in housing are hampered by regulatory, supply side, and demand side constraints



Source: Team analysis based on research validated by expert interviews.

In a scenario modeled in this report, implementing the recommended reforms could increase annual construction by approximately 150,000 units per year.[14] This would create investment potential estimated at approximately US$2 billion annually for various financial entities, including banks, non-banking financial companies, and microfinance institutions. Supporting these housing loans could result in the creation of more than 2 million jobs[15] in construction and related industries each year.

Paint and Dyes

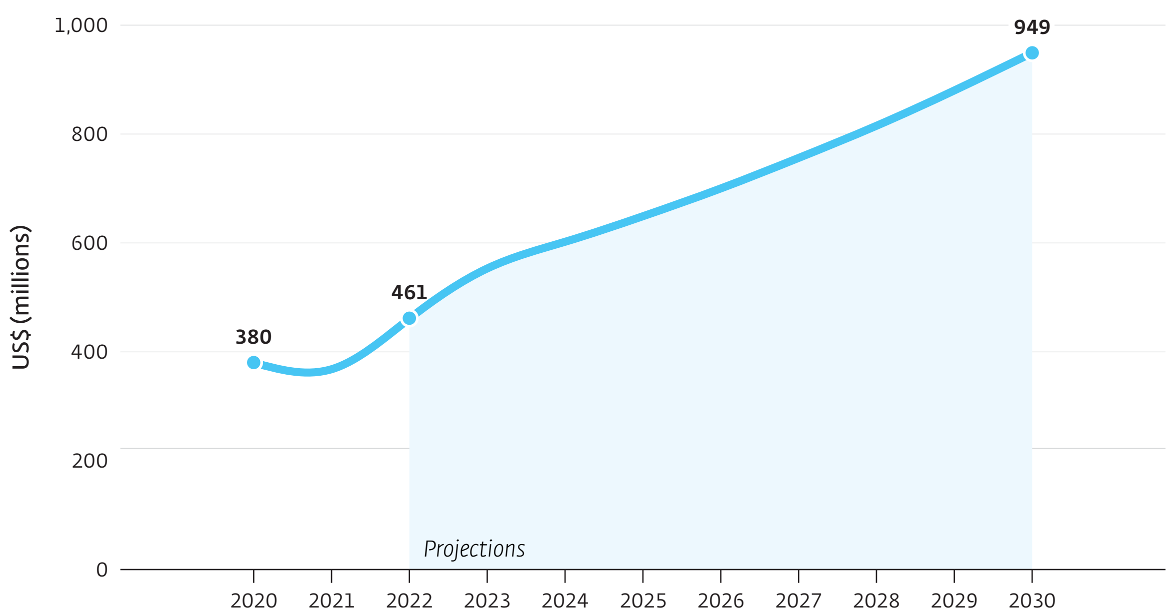
Demand for paint in Bangladesh is expected to grow in line with rapid urbanization, income growth, and construction demand, while demand for dyes is set to grow in line with the vast garment industry (figure ES.6). Indeed, with the right policy changes, including easing restrictions on the imports of raw materials used in dye production, there is ample scope for substituting expensive imported dyes for the RMG industry with domestic production. For paints, facilitating raw material imports could lower production costs, as imports account for up to 60 to 70 percent of total input costs.[16]

Both products suffer from complex and burdensome import rules stifling domestic production. For instance, complicated lab tests to determine import duties on raw materials imported by paint producers and a largely undigitized bureaucracy cause delays and force importers to carry large inventories. In the case of dyes, non-harmonized tariffs on raw materials and final goods discourage local production by incentivizing finished product imports.

Developing a more efficient customs system with lower tariffs would help. Dye and paint producers could benefit from faster customs clearances through the implementation of digitized classifications and allowance of third-party lab testing. Dye producers could also gain from improved bonded warehouse access and equalized duties, while paint producers could improve cash flow if permitted to defer duties on imported raw materials. A cost analysis in this report finds that these changes could allow Bangladesh to produce certain raw materials and finished goods—alkyd resin, used in paint, and black reactive

Figure ES.6

Estimated size and projected growth of Bangladesh market demand for dyes



Source: BCDMEA 2024. Interviews and team analysis. Data based on projections of RMG exports, which has historically grown in-line with the textile sector.
Note: Excludes basic chemicals. Figures represent total domestic consumption of dyes.

dye CI5, used for textiles—more cheaply than importing them. With the implementation of recommended reforms, domestic paint and dye production could expand by as much as US$1.4 billion (sales revenue) between 2023 and 2030. This increase in production would require an additional 10 to 20 percent in private investment, translating to an investment opportunity of US$144 to 288 million. The policy reforms suggested in this sector are symptomatic for the broader agenda of eliminating distortions in Bangladesh's trade and investment regime, which, while protecting individual companies, create high overall costs for the economy.

Digital Financial Services

Adoption rates of digital financial services (DFS) in Bangladesh are growing in some segments of the market. Thirteen banks currently offer mobile money services through more than 1.8 million agents, representing 60 percent growth since 2021.[17] Person-to-person (P2P) transactions dominate the market, accounting for nearly 80 percent of total transactions and registering 90 percent growth during the 2021–2024 period. Merchant payments, while growing by 85 percent, still constitute only 12 percent of total mobile financial services (MFS) payments (by value).[18] Given the more developed P2P market and other DFS for firms, there is relatively untapped lending potential that could enable higher usage of more complex financial services with the right enabling policy framework.[19]

Growth in DFS will improve financial sector efficiency and reach, improving the quality of intermediation. The low cost of account servicing, disbursement, and collection via digital channels will enable both innovative and traditional financial intermediaries to economically reach and service a mass market of low-value savers and borrowers. Implementation of CPSD recommendations could result in an increase in active MFS accounts and digitization of payment transactions, more data available for cash flow analysis and credit scoring, greater use of alternative data credit scores, and improved ability of non-bank lenders to fund their balance sheets. The prospect of increased adoption and opportunities to introduce new credit products will attract further investment into the sector.

DFS expansion has potential to increase employment and reduce informality. DFS can reduce informality by improving transaction records, incentivizing the use of digital payments, and increasing business efficiency. This report tentatively estimates that DFS could transform between 320,000 to 360,000 informal jobs to formal positions if the industry keeps its growth rate during the next five years.[20] The potential for DFS to increase employment is based on its ability to ease credit constraints by firms, thereby creating new business opportunities. Reforms aiming to increase adoption rates, enhance firms' credit access, and strengthen payment enforcement could create an estimated additional 96,000 to 460,000 jobs for firms adopting digital payments.[21]

Table ES.1

Summary of recommendations*

Sector	Recommended actions
Green ready-made garments (RMG)	
Rationale • RMG is the largest manufacturing and exporting sector, and a major employer (including of women). • There is a need to upgrade competitiveness in anticipation of least-developed-country (LDC) graduation. • Increasing sustainability focus and new regulations in foreign consumer markets pose risks for market access and jobs. *Key constraints* • High duties on non-cotton materials or man-made fibers, no regulation on fabric waste and groundwater usage. • Low levels of technological sophistication and investments in the sector.	• Adapt Labor Law (2006) to maintain European Union market access after LDC graduation. • Adopt EU's Ecodesign for Sustainable Products Regulation, and other green regulations through implementation of the Digital Product Passport (DPP),[a] and establish a DPP monitoring system. • Remove 10 percent cash incentive on polyethylene terephthalate bottle and flake exports. • Include advanced production technologies in the curriculum of the national skills and training programs. • Equalize the duty for solar inverters and solar panels in a fiscally neutral manner. • Introduce water efficiency certification for RMG firms to promote more efficient production. • Implement Government plan for the "Shadow Price of Water" for reducing groundwater usage in RMG sector.[b]
Housing for middle-income households	
Rationale • Housing for middle-income households is an investment opportunity given rapid urbanization and rising disposable income. • A weak regulatory environment and complex interdependencies between agencies need be addressed to unlock investment potential. • Expanding to peripheral areas and amending building regulations could help satisfy growing demand for housing units, while mortgage financing would help prospective buyers. *Key Constraints* • Housing development costs in cities are high and land registration, clearance, and sale procedures are challenging. • Undeveloped connectivity and infrastructure to peripheral urban areas.	• Use vacant government land for residential housing construction. • Raise floor area ratio to support construction of multi-story affordable homes. • Enhance municipal services to areas peripheral to urban centers. • Digitize land registration and clearance processes. • Government to enact the legal and regulatory framework to establish a mortgage refinance company. • Amend Money Loan Court Act to include non-judicial (i.e., out of court) settlements to expedite resolution. • Revise building codes and construction guidelines to permit use of green bricks.

(Table continues next page)

Table ES.1

Summary of recommendations* *(continued)*

Sector	Recommended actions
• Underdeveloped housing finance market and lack of regulations to support mortgage market. • Non-functional foreclosure practices, complex legal frameworks for loan restructuring and recovery.	
Paint and dyes	
Rationale • Paint sector will grow in line with urbanization, population growth, and local construction demand. • Strong demand from RMG buyers presents an opportunity for investment in textile dye production. • Both products present investment opportunities for manufacturing "closer to the consumer" products, greater diversification, and increased global value chain participation. *Key constraints* • Inconsistent application of customs classifications on imports of inputs for paint and dyes. • Cost of inventory holdings imposes capital constraints on domestic producers. • Benefits of bonded warehouse regime are largely unavailable for non-RMG sectors. • Tariff structure incentivizes import of finished dyes over domestic production.	• Digitize customs classifications on imported inputs for paint and dyes to expedite clearance. • Accept internationally reputable third-party laboratory testing results for customs purposes. • Allow application of deferred duties for importing firms until raw materials are cleared or consumed. • Revise the Bonded Warehouse policy to allow third-party operators to manage bonded warehouses, thereby increasing access for non-RMG firms. • Equalize customs duty of imports of raw materials used in dyes with those for finished dyes in a fiscally neutral manner.
Digital financial services (DFS)	
Rationale • Large population with low existing penetration of financial services. • Widespread use of mobile money shows willingness among consumers and firms to try new solutions on the demand side. • A vibrant but nascent fintech sector, partnerships of banks and mobile financial services, and emerging embedded finance offerings demonstrate innovation potential on the supply side.	• Establish protocol to enable mobile financial services to issue and validate merchant/corporate wallets that have higher transaction limits, enabling their use for wholesale transactions. • Bangladesh Bank should publish its methodology if it sets any limits on merchant discount, interchange, or other fees. The methodology should consider the costs and cost-savings to all involved parties to ensure that adoption of digital payments is economically attractive to users and economically viable for providers.

(Table continues next page)

Table ES.1

Summary of recommendations* *(continued)*

Sector	Recommended actions
Key constraints • Price controls on digital payments hinder cost recovery for acceptance networks. • Weak credit information systems slow data-driven lending and DFS growth. • Digital lenders lack funding structures and regulatory frameworks, requiring partnerships with banks. • Technical barriers restrict widespread adoption of structured finance.	• Confirm that alternative data scores (e.g., from credit bureaus licensed under 2024 guidelines) are acceptable alternatives to traditional credit reports for bank lending. • Broaden Credit Information Bureau reporting and data access to include all commercial entities engaged in lending. • Adapt non-bank financial institution licensing to encompass fintech or create new licensing category for fintech and embedded finance. • Eliminate transfer taxes on assets moved from originator to structured finance vehicles. • Articulate circumstances under which structured finance vehicles may take in offshore funding.

* For more detailed analysis and specificity of which authorities would be responsible for implementing recommended actions, please refer to sector-specific chapters in this report.

a. Digital passport is a document that accompanies a product on its journey, consolidating data from material sourcing and extraction until end-of-life recycling, permanently affixed to each product in the form of an NFC chip, QR code, or RFID tag.

b. Shadow Price of Water is a government plan to minimize the use of ground water by including an additional price that firms will have to pay on the amount of ground water that an industry is extracting and/or using.

1
Country Context

1 Country Context

Over the past two decades, Bangladesh has achieved remarkable progress in economic growth, poverty reduction, and human development.

Strong real GDP growth (6 percent on average between 2010 and 2023)[22] has been supported by stable macroeconomic conditions, steady remittance inflows, and expansion of ready-made garments (RMG) exports.[23] But not all factors underpinning past success can be counted on to drive future growth.[24] To successfully transition to upper-middle-income status, the country needs a transformative policy shift focusing on productivity growth, private sector competitiveness, investment in human capital, and infrastructure modernization.[25] Currently, Bangladesh's growth model leans heavily on labor-intensive exports, particularly in the RMG sector, remittances, and public financed infrastructure expansion. For a successful transition to a high-productivity, innovation-driven economy, Bangladesh needs to diversify its industrial base, focusing on higher value-added manufacturing, and enhancing technology adoption and digitalization across sectors. Additionally, increasing FDI inflows is vital to bring in expertise and support economic transformation. At present, FDI as a percent of GDP stands at a mere 0.4 percent, which is insufficient for the growth and transformation Bangladesh aspires to achieve.

After being ruled by the same party for the past 15 years, Bangladesh underwent a regime change in August 2024 following public protests. An interim government is currently place and Bangladesh is working to enhance macroeconomic stability. Bangladesh's post-COVID recovery continues to be impacted by high inflation, balance of payment deficits, financial sector vulnerabilities, and increasingly limited job opportunities, especially for women and educated youth.[26] The deceleration in economic growth since 2022 was driven by weak consumption and investment, while exports held up well. From around 2021 onwards, Bangladesh was subject to rising balance of payments pressures and persistently high inflation. In June 2024, the IMF completed the second review of its program with Bangladesh, which remains focused on tightening monetary policy, improving monetary transmission, realignment of the exchange rate and the operationalization of a crawling peg regime and measures to enhance domestic revenue mobilization.[27] The fiscal deficit has been contained below 5 percent of GDP, largely by curtailing public investment, including in critical infrastructure (table 1.1). Compounding

Table 1.1

Despite strong growth, Bangladesh faces foreign exchange shortages, high inflation and rising NPLs

Bangladesh economic indicators

	2010–19 average	2020	2021	2022	2023	2024 projected
GDP (US$, billions)	230.4	374	416.3	460.1	437.4	466.4
Real GDP growth (%)	6.6	3.4	6.9	7.1	5.8	4.2
GDP per capita, PPP (constant 2021 international $)*	5,374	6,968	7,366	7,805	8,172	...
Investment (% of GDP)	29.6	31.3	31	32	31	30.8
Inflation (% period average)	7	5.6	5.6	6.1	9	10.9
Fiscal balance (% of GDP)	–3.1	–4.8	–3.7	–4.6	–4.4	–4.6
Public debt (% of GDP)	27.3	31.7	32.4	33.7	35	35
Current account balance (% of GDP)	0.3	–1.5	–1.1	–4	–0.6	0.9
Gross reserves (US$, billions)	22.3	36	46.4	33.4	25.2	22.9
Total reserves (in months of imports)	5.7	7.2	7.8	4.2	3.9	4.1
FDI net inflows (% of GDP)	0.7	0.3	0.3	0.4	0.4	0.3

Sources: World Bank's Macro-Fiscal Model database (March 2024), World Development Indicators, and Macro Poverty Outlook (October 2024).
Note: NPLs = nonperforming loans; PPP = purchasing power parity. In 2023, the population of Bangladesh was 173 million.
*PPP GDP per capita is from World Development Indicators.

this are contingent liabilities in state-owned enterprises (SOEs), a perennially low revenue-to-GDP ratio, and evidence that GDP was systematically overstated overall several years.[28] This points to greater fiscal vulnerabilities than might be suggested by the public debt-to-GDP ratio estimated at 39 percent in 2024.

1.1 Financial and Capital Market Development

Despite recent efforts to strengthen the regulatory framework for banks, vulnerabilities are elevated. The sector has suffered from related party lending, poor oversight and thus a large underlying stock of non-performing loans. A change in loan classification and the slowing economy have brought this to light, with several banks, including the large state-owned commercial banks (SOCBs) and the sector as a whole significantly undercapitalized as a result.[29] The interim government is introducing a modern regulatory and resolution framework to address these issues.

The corporate bond market in Bangladesh is small,[30] shallow, and illiquid with no participation from local institutional investors. Government issues currently dominate the bond market: 16 corporate bonds were listed on the Dhaka Stock Exchange versus 234 government bonds as of January 2025.[31] The conditions necessary for a well-functioning local currency bond market will require lower inflation and more predictable monetary policy. In August 2023, the central bank discontinued buying government securities on the primary market and reduced reliance on NSCs to fund domestic public debt. These actions are helping improve the primary market's ability to price and supply government securities and publication of the schedule for government securities auctions, enhancing market transparency and predictability and necessary to build a benchmark yield curve including for longer maturities (which are important for the development of a residential mortgage market). Although the primary market yield curve for government securities has become more reliable, the secondary market remains illiquid and underdeveloped.

Domestic capital market development is impeded on the buy side by the nascent pension fund sector and limited participation of other institutional investors with predominantly longer-term liabilities such as life insurers and provident funds. Provident funds hold more assets than pension funds, but both categories of investor currently hold the bulk of their assets in short-term bank deposits and other liquid/short-term assets.

The equity market is more developed, with 728 listed firms as of January 2025 (table 1.2), up from 593 in 2018. The market is fairly illiquid, however, with a low turnover ratio of 23.2 percent at end-2024 on the Dhaka exchange (which accounted for 95 percent of total market turnover as of mid-2024).[32] Stock market capitalization to GDP of 25.5 percent at end-2023 is similarly low. To attract medium-sized firms, national exchanges

Table 1.2

Domestic financing is predominantly bank-based, with the corporate bond market in its infancy and the equity market on par with income group peers

	Domestic credit to private sector		Bank credit penetration		Public equity market		Corporate bond market	
	2023 (% of GDP)	5Y avg. (% of GDP)	2023 (% of GDP)	5Y avg. (% of GDP)	No. of listed firms[a]	Stock market cap. to GDP (%)[c]	No. of listed firms[a]	Local bonds listed (% of GDP)[f]
Bangladesh	37.5	38.8	37.5	38.8	728[b]	25.5[d]	32[e]	0.13[g]
South Asia region	49.3	46.2	40.8	42.6	827	34.2	n.a.	n.a.
Lower-middle-income countries	36.6	36.5	34.6	34.6	307	27.9	n.a.	n.a.
Low-income countries	14.3	14.4	13.4	14.0	5	n.a.	n.a.	n.a.

Source: World Bank Group staff calculation based on date from World Development Indicators, International Financial statistics, World Bank and Organisation for Economic Co-operation and Development GDP estimates, Bank for International Settlements Domestic Debt securities, and World Federation of Exchanges database.

Note: Data on number of listed firms on the public equity market and corporate bond market for Bangladesh are reported by Chittagong Stock Exchange (CSE) and Dhaka Stock Exchange (DSE) as of January 2025, while comparator groups are from 2022. Data on stock market capitalization to GDP and value of local corporate bonds listed relative to GDP for Bangladesh are from 2023 and 2024, respectively, whereas comparator groups are from 2022. Bangladesh's values are compared to the averages in the South Asia region, lower-middle-income countries, and low-income countries. n.a. indicates insufficient data to calculate aggregate for the group.

a. As of January 2025.
b. The most recently available public equity listings data for the CSE was 368 as of January 2025. The DSE reported 360 listings on the public equity market as of January 2025.
c. As of December 2023.
d. As of December 2023, which is the most recently available comprehensive data for both securities exchanges, with equity market capitalization data sourced from the WFE.
e. As of December 2024.
f. Tallies reported by CSE and DSE as of January 2025.
g. As of December 2024. Based on total value of local corporate bonds outstanding as reported by the DSE and CSE: US$538.3 million equivalent.

have been operating SME equity platforms, with streamlined listing requirements since 2019. There were only 20 firms on the DSE SME board as of January 2025. Low investor confidence in the face of economic uncertainty, high yield opportunities in the short-term debt market, and vulnerabilities in SOCBs have impeded development of an equity market.[33]

1.2 Labor Market and Skills

Bangladesh's working-age population continues to expand, yet education gaps and skill mismatches persist, creating challenges in a labor market characterized by high participation but lagging employment quality. With one of the world's fastest-growing working-age populations, the country has a high labor force participation rate of 64.5 percent—outpacing South Asia and lower-middle-income country averages but trailing comparator economies (table 1.3). Unemployment has been stable at around 4.5 percent,

Table 1.3

Bangladesh maintains a relatively high labor force participation rate with few firms identifying workforce education as a major constraint

	Bangladesh	South Asia	Lower-middle-income	Comparator averages*
Labor force supply				
Population ages 15–64 (% of total population)[a]	65.3	66.3	64.3	64.5
Labor force participation rate (% of population ages 15–64)[b]	64.5	56.9	61.2	67.1
Learning-adjusted years of school[c]	6.0	6.5	6.4	7.6
School enrollment, tertiary (gross %)[d]	24	29	27	43
Labor market conditions				
Unemployment, total (% of total labor force)[b]	4.5	4.5	4.4	6.7
% of firms identifying an inadequately educated workforce as a major or very severe constraint[e]	6.0	16.8	16.0	16.4
Employment by sector (% of total employment)				
Industry[b]	20.9	24.5	22.6	22.1
Agriculture[b]	35.3	41.9	39.2	23.7
Services[b]	43.8	33.5	38.3	54.1

Sources: Approach follows that used in the World Bank Group Growth and Jobs Reports.
a. World Development Indicators.
b. International Labour Organization.
c. Modeled figures for 2024 Human Capital Index, learning-adjusted years of school adjusts the years of school for how much students learn for each year they are in school. This is done using results from standardized tests.
d. UNESCO. All countries are the latest available.
e. Bangladesh from 2023 Enterprise Surveys (latest available results, Bangladesh from 2022).
* Structural and aspirational comparator countries as identified in the World Bank's (2022a) Bangladesh Country Economic Memorandum, other World Bank Group reports, and team consultations. They include Chile, Brazil, Ethiopia, Egypt, Arab Rep., Ghana, Indonesia, Kenya, Malaysia, Mexico, Nigeria, Pakistan, Russian Federation, South Africa, Türkiye, Viet Nam.

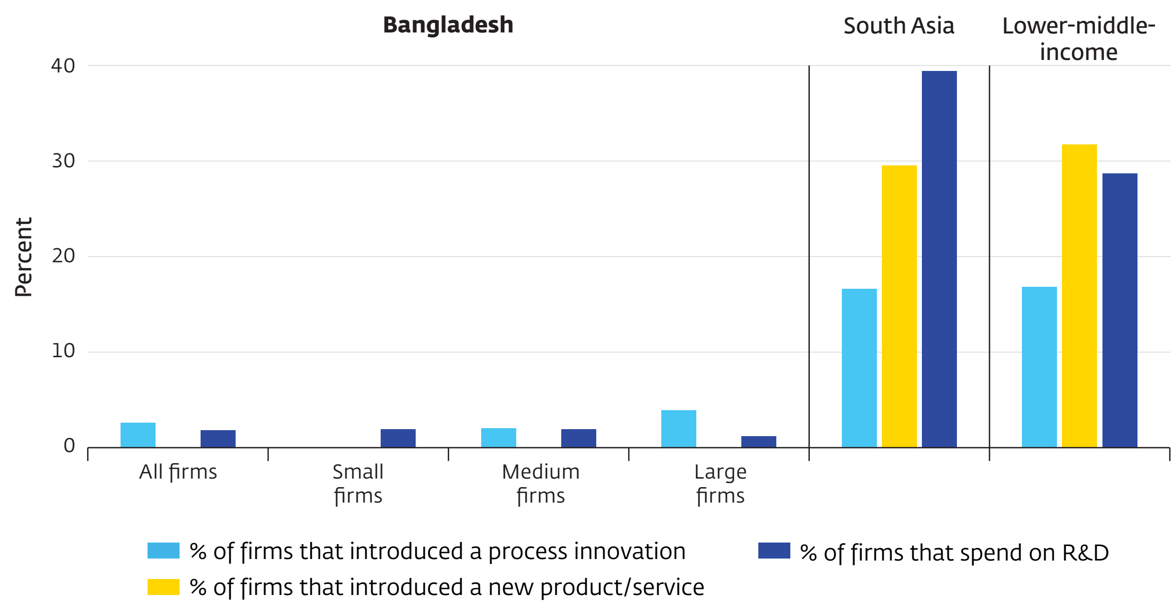
aligning with regional and income groups. While job growth has supported economic expansion in recent years, concerns persist over employment quality and skill mismatches. The transition to higher-productivity sectors, such as manufacturing and services, has slowed, while informal, low-wage jobs remain widespread, particularly in rural areas. Bangladesh lags behind peers in learning-adjusted years of schooling, averaging 6 years compared to 7.6 years in comparable economies. Although only 6 percent of firms cite an inadequately educated workforce as a major or very severe constraint to their business operations, a growing skills gap is evident—28 percent of unemployed youth hold tertiary degrees, underscoring a misalignment between education and labor market demand.

1.3 Research, Development, Innovation and Competition

Bangladeshi firms invest less than comparators in research and development and are less innovative with respect to products or production processes (figure 1.1). Partly as a result, the domestic private sector lags in technology adoption, even for top firms (figure 1.2).[34] Thus, economic diversification and greater efforts to move up the technological ladder would reduce the risk of deceleration. Structural and governance reforms are needed to strengthen the environment for private investment, unlock potentially profitable opportunities for private firms, and foster job growth and a more competitive and

Figure 1.1

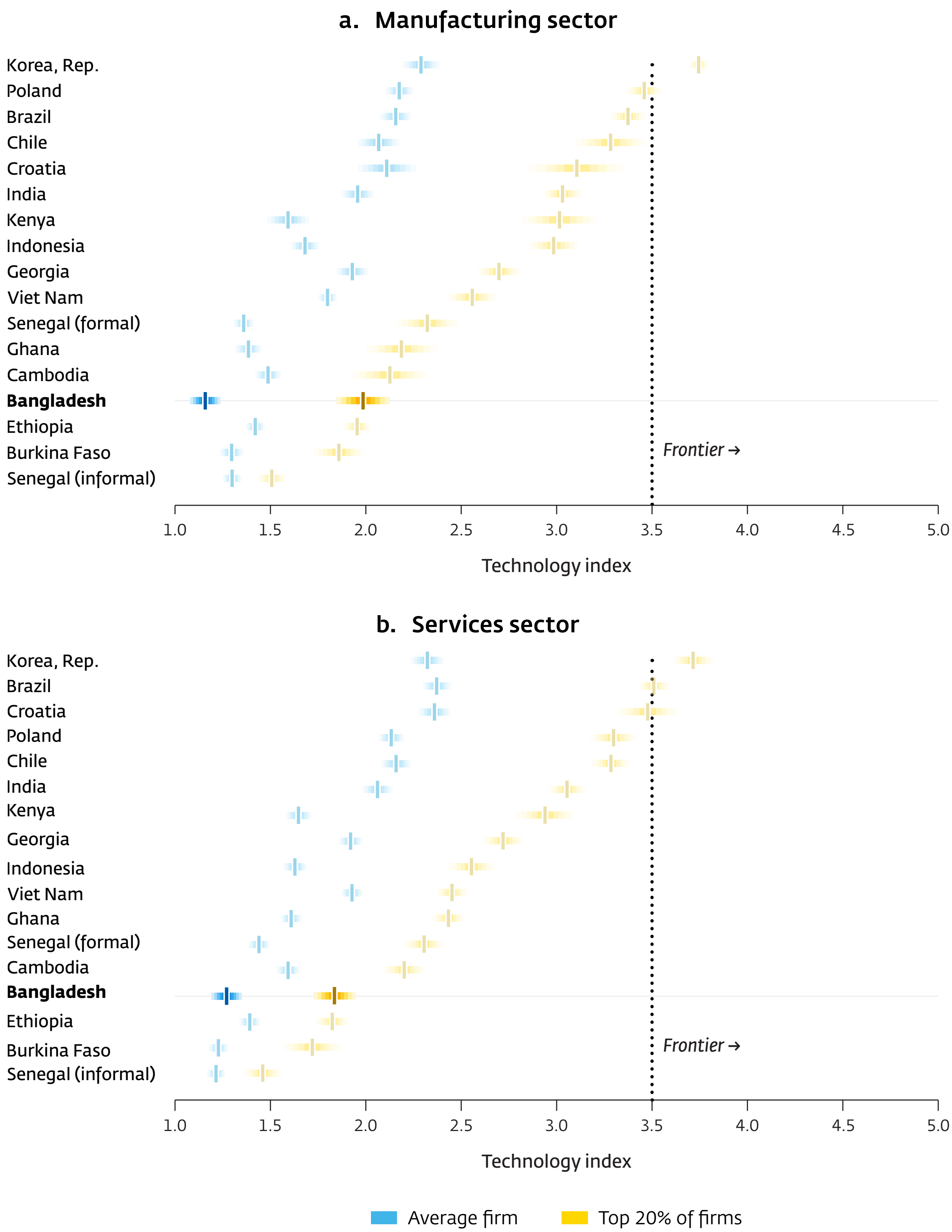
Lack of innovation among Bangladeshi firms, 2022



Source: World Bank 2022b.
Note: Percent of firms that introduced a new product/service for Bangladesh is negligible.

Figure 1.2

Gap to the technology frontier is large even among top 20 percent of Bangladeshi firms



Source: Adapted from Cirera, Comin, and Cruz 2022.
Note: Technology frontier is top percentile of firms in the global Firm-level Adoption of Technology (FAT) Surveys. X-axis measure the general business functions index that goes from 1 to 5.

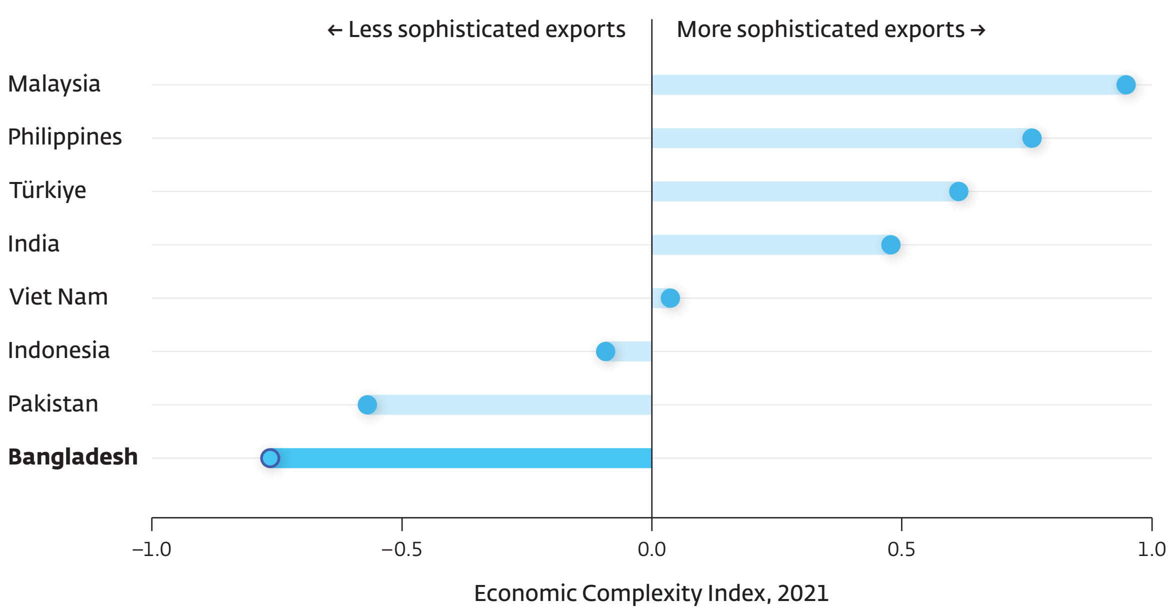
resilient economy. Exports are highly concentrated in RMG and relatively low value-added products, highlighting the need for diversified growth from exports higher up value chains (figure 1.3).

Firms lag in technology adoption, risking an eventual loss of international competitiveness.[35] Most sectors are dominated by a few large business groups limiting competition and the incentive to innovate. Promising small firms struggle to grow, and weak large firms fail to shut down.[36] Management performance in Bangladeshi firms is often below average for South Asia (figure 1.4) and the gap widens for smaller and family-owned businesses.[37] High tariffs (double the average in South Asia)[38] and para-tariffs (including regulatory and supplementary duties) shield domestic firms from competition.

Bangladesh's business environment is also characterized by a lack of market competition. Markets tend to be composed of large leading firms competing against much smaller firms. According to the Enterprise Survey (2022), the largest firm in a sector account for 93 percent of the market (on average).[39] Furthermore, 124 enterprises with state shareholdings operate in competition with the private sector, including 60 in sectors

Figure 1.3

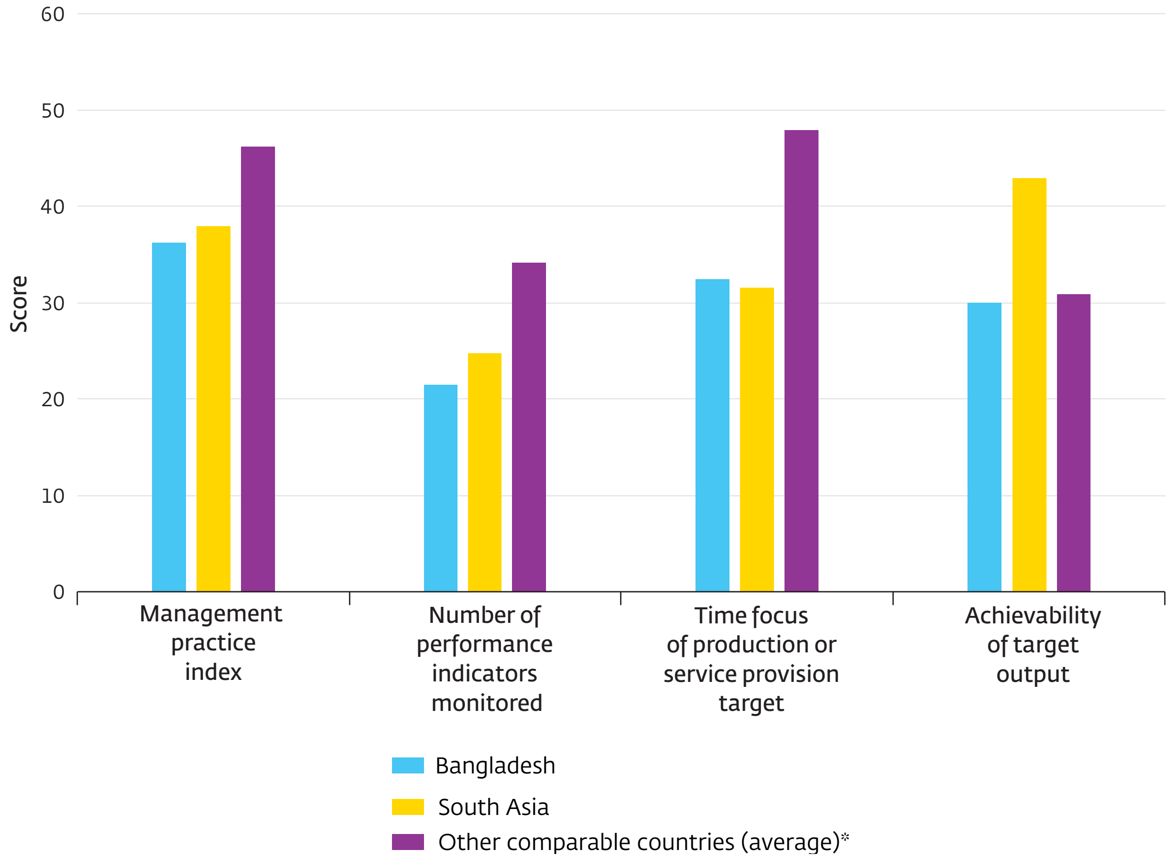
Low export complexity largely due to concentration in RMG exports, 2021



Source: Harvard Growth Lab's Country and Product Complexity Rankings.
Note: The Economic Complexity Index (ECI) ranges from –1 (raw materials) to +1 (complex and sophisticated). Negative values (0 to –1): indicate reliance on low-value-added, simple exports (e.g., raw materials, basic agricultural products). Positive values (0 to 1): reflect sophisticated, high-value exports requiring advanced capabilities. Higher ECI scores suggest stronger economic diversification and growth potential. A lower score indicates that a country's export basket consists of less technologically sophisticated products with a risk for unsustainable growth.

Figure 1.4

Management performance lags in Bangladesh relative to South Asian and selected comparable countries



Source: World Bank 2022b.
Note: The scores measure aspects of management practices and vary from 0 to 100 denoting a well-structured management practice. The index is a composite of information from all eight aspects of management practices.
* "Other comparable countries" is an average between Pakistan and Kenya score. The two countries were selected because they have similar levels of GDP per capita compared to Bangladesh.

where private participation is feasible,[40] such as finance, manufacturing and transport. The World Bank's Business Ready (B-READY) report scores Bangladesh 43 out of 100 on market competition.[41] The B-READY findings highlight some positive aspects, such as the operational independence of the Bangladesh Competition Commission (BCC).[42] In practice, decisions by the commission can be reviewed by the government. Furthermore, the competition framework lacks certain essential tools for antitrust enforcement, such as mandatory merger control regime for all sectors,[43] as well as a lack of provisions for leniency to fight cartels and guidelines for predictable implementation.[44] Implementation has been limited regarding the review of mergers that could undermine competition and anticompetitive practices, although the BCC has recently opened an antitrust case in digital markets.

The country does not have a clear SOE ownership policy and some SOEs are exempt from the competition law, undermining competitive neutrality. According to experts, sector regulators and BCC lack well-defined mandates for antitrust enforcement in regulated sectors, which might lead to overlapping interventions between regulators and the BCC.[45] Greater collaboration between market institutions would be important to boost competition in regulated sectors such as finance, but competition advocacy—that is, the work of identifying and addressing barriers to competition in a market—by the BCC has been weak.

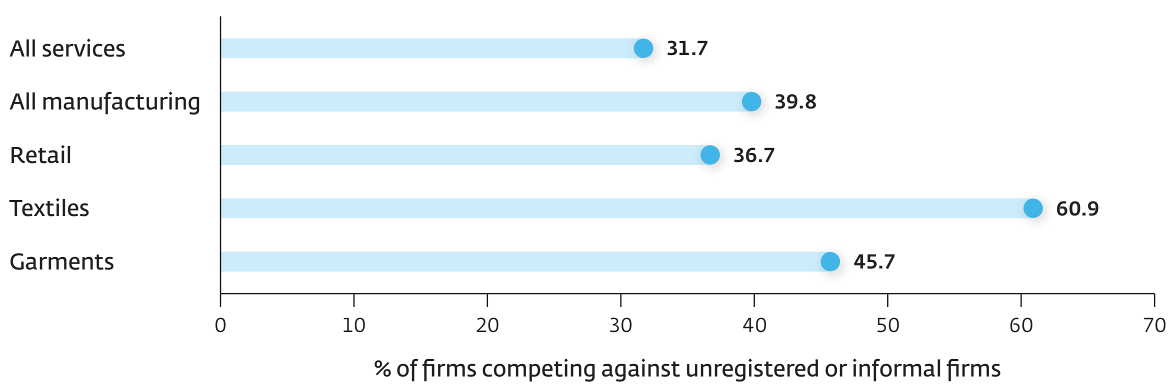
Manufacturing firms face competition from the informal sector. World Bank Enterprise Surveys (2022) report an increasing number of businesses citing practices of informal sector competitors as their biggest obstacle. While most of the informal businesses operating in Bangladesh engage in retail services, the percentage of formal retail businesses that report themselves to be competing against informal businesses is lower than the average of all manufacturing sectors. Figure 1.5 shows that the manufacturing sectors generally report facing higher competition from the informal sector.

1.4 Business Climate

Several constraints deter private investment and suppress job creation (figure 1.6).[46] Unreliable electricity supply is the constraint to doing business most often cited by firms in Bangladesh. An unstable electricity supply has caused production disruptions and losses. Persistent liquidity issues in the energy sector due to import dependence, high cost and insufficient tariff revenues have compounded these issues in recent years. Compared to

Figure 1.5

Manufacturing sectors, especially textiles, have many firms competing against informal firms

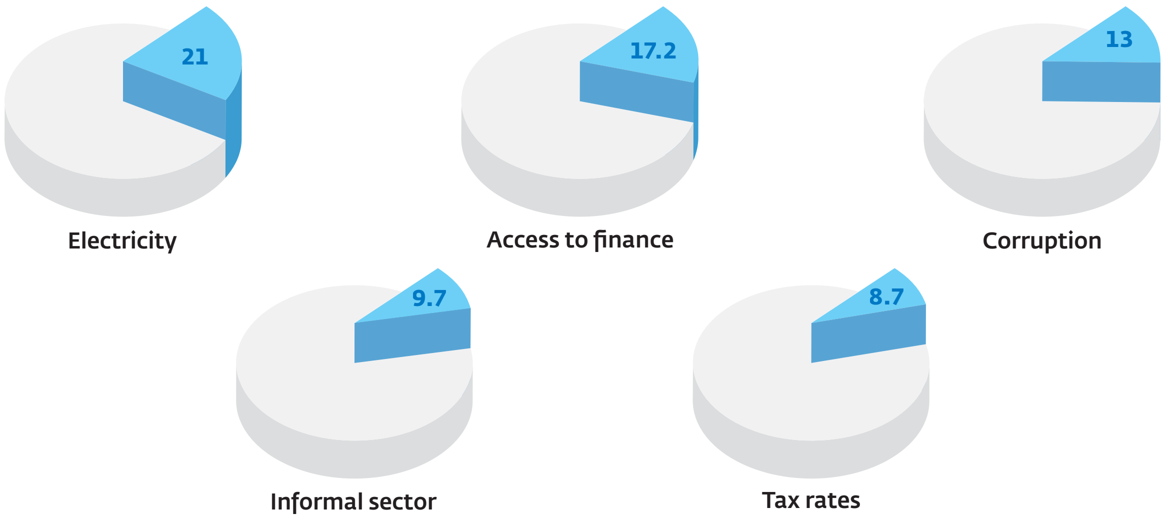


Source: World Bank 2022b.

Figure 1.6

Top five business environment obstacles

Share of firms choosing it as a top obstacle (%)



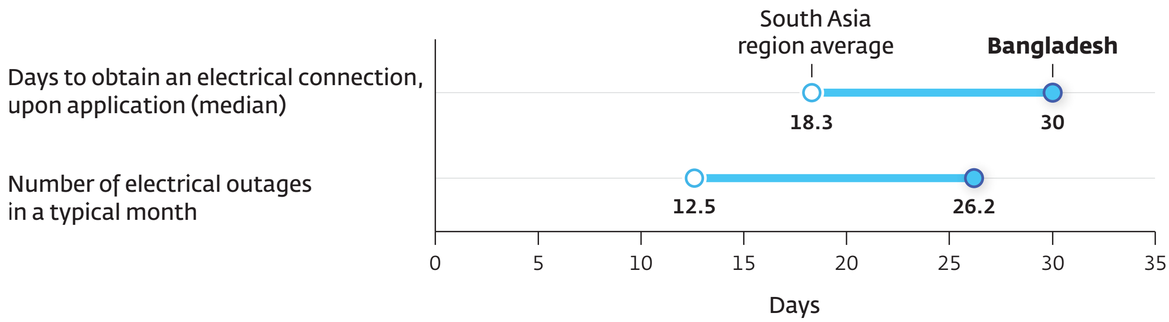
Source: World Bank 2022b.

firms in countries throughout the South Asia region, it takes Bangladeshi firms longer to obtain an electricity connection, and they experience more electrical outages, with an average of 26 outages in a typical month (figure 1.7). These outages can last 30 minutes for the median firm, which works out to 13 hours of production time lost or about two percent of annual sales. One quarter of firms occasionally rely on electrical generators instead of the grid. The country has also been facing a gas shortage, causing some firms to increase the use of diesel, which is more polluting and more expensive,[47] Power demand is estimated to grow 7 percent a year by in 2030.[48] Meeting this growing demand will require policy reforms,[49] a point emphasized in the Government's 8th Five-Year Plan to improve efficiency in power generation through exploration of domestic gas and alternative energy sources.

Firms identify access to finance as the second most pressing constraint to operating a business.[50] The financial sector is weak, and there has been limited competition from innovative providers; despite their broad reach to 70 percent of the population, mobile financial service providers are restricted to offer credit to customers.[51] As noted above, financial sector weaknesses are driven by high levels of non-performing loans, undercapitalized banks, and poor corporate governance of banks.[52] These weaknesses have greater impact on smaller, domestic firms, which face higher borrowing costs than foreign firms with access to international financing.[53] Bonds yields are high and

Figure 1.7

Firms are constrained by unreliable electricity supply



Source: World Bank Group 2024; World Bank 2022b.

capital markets are nascent, with a limited institutional investor base in both debt and equity markets.

Corruption is among the top five constraints to doing business cited by firms operating in Bangladesh. According to the Worldwide Governance Indicators,[54] Bangladesh is ranked 182nd out of 213 countries, and is in the 15th percentile globally, for "control of corruption." One in four Bangladeshi firms (23 percent) report having experienced at least one request for bribes; 35 percent of firms expect to give gifts to obtain an electrical connection or an operating license; 72 percent of firms expect to give gifts to get an import license; and 19 percent of firms expect to give gifts in meetings with tax officials. These incidences of corruption are about 50 percent higher than the South Asia regional average.[55] Bangladesh has anti-corruption policies and regulations, but their enforcement has been lacking.[56] There are reports that the Anti-Corruption Commission, the main government agency investigating briberies and corruption, has been used politically.[57]

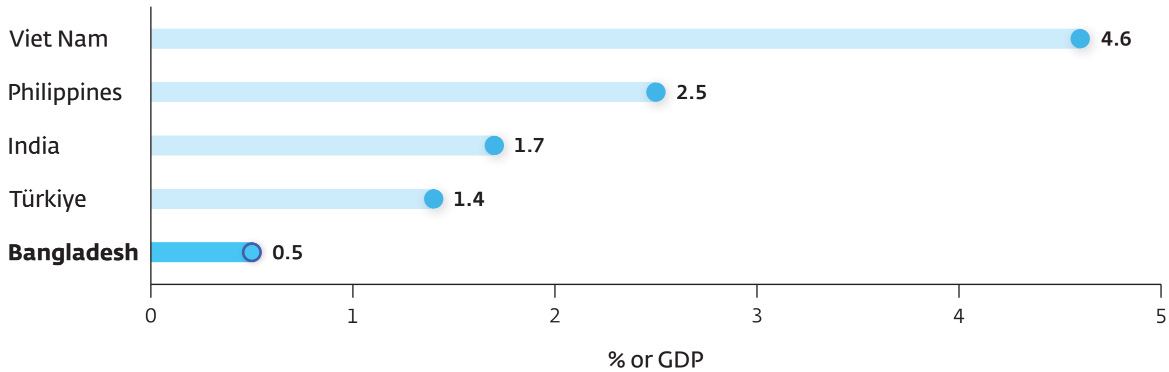
Competition from informal firms places additional pressure on operating costs. Informal firms can circumvent business regulations, avoid necessary business licenses and requirements, and pay lower wages. At the same time, there may have been improvements on governance and transparency with the new interim government who took over in 2024.

Bangladesh underperforms as a destination for foreign direct investment (FDI). A steady rise in inflows from the late 1990s, peaking at 1.7 percent of GDP in 2013, was followed by a slowdown that began in 2015, owing to political instability and regulatory uncertainty. FDI fell to just 0.5 percent of GDP from 2018–2022, the lowest among peers (figure 1.8). Most FDI in the last decade was in the energy sector (figure 1.9).[58] Much of the FDI was in the form of reinvestments by existing foreign affiliates operating in Bangladesh.

Figure 1.8

Bangladesh underperforms in FDI inflows relative to comparators

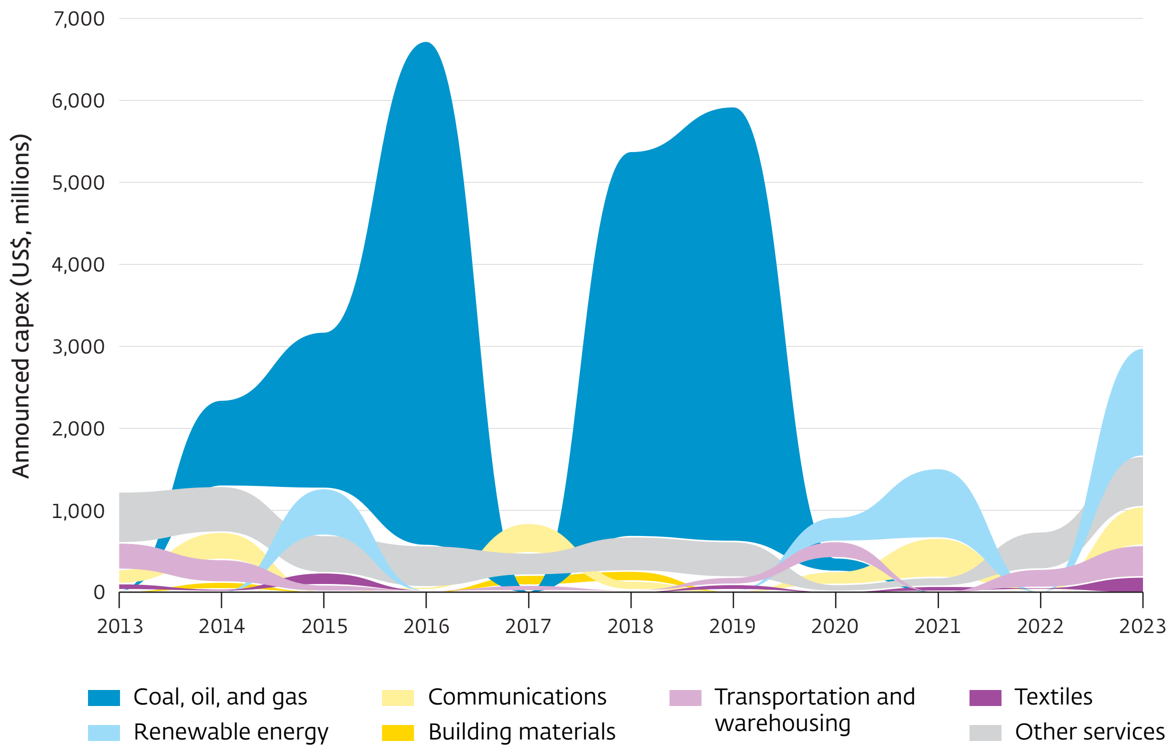
FDI net inflow, five-year average (2018–22)



Source: World Bank Group staff calculation using World Development Indicators.

Figure 1.9

FDI announcements dominated by energy sector, 2024



Source: Financial Times' FDI Markets for Bangladesh
Note: FDI = foreign direct investment. FDI Markets data covers cross border investment announcements, not actual FDI flows recorded in a country's capital accounts.

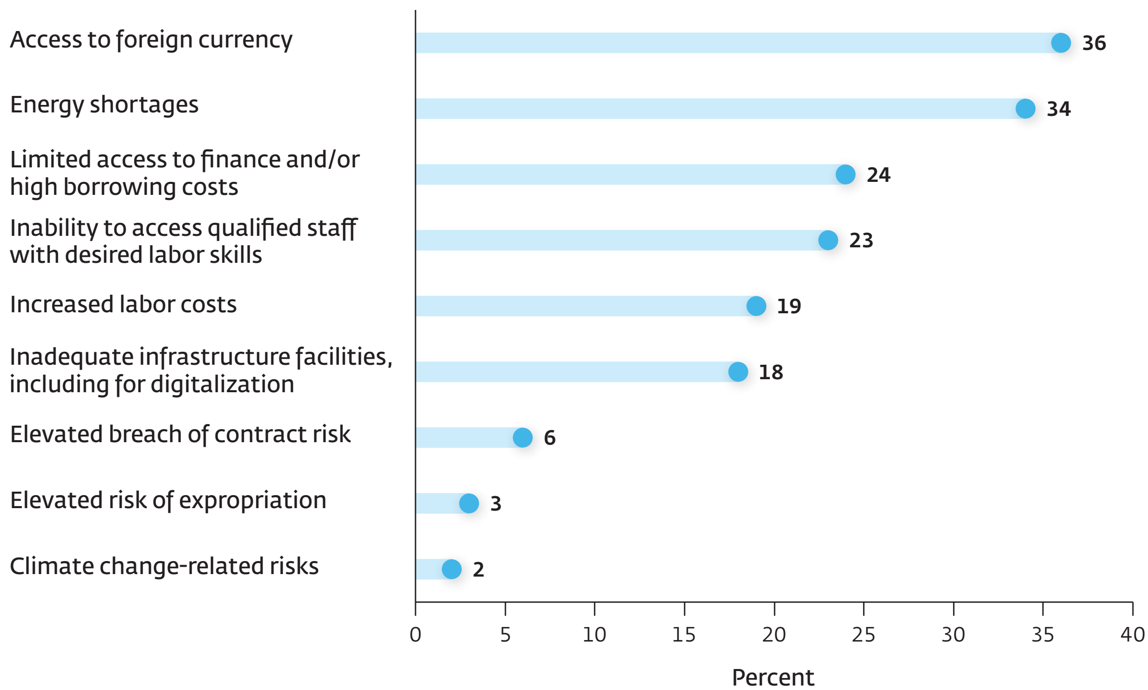
In a survey undertaken for this CPSD, foreign investors frequently cited access to foreign exchange, energy shortages, and limited access to finance or high borrowing costs as constraints to more FDIs (figure 1.10).[59] Many investors cite bureaucratic delays as the top constraint to expanding operations, ahead of frequent changes in FDI laws and regulations, and governance challenges (figure 1.11). Regulations to restrict electricity for businesses established outside economic zones further impede FDI.[60]

Bangladesh's expected graduation from least-developed country (LDC) status in 2026 poses a risk to the private sector.[61] An immediate effect of LDC graduation will be higher tariff rates faced in Bangladesh's major export markets (figure 1.12). The loss of trade preferences is expected to result in a 14 percent decline in exports.[62] Most of the reduction is expected in exports to the European Union, as exporters will no longer be eligible to the Generalized Scheme of Preferences (GSP). Bangladesh introduced a National Tariff Policy (NTP) in 2023, the country's first tariff policy, aligning import tariffs with the WTO-bound rates. The policy commits to reducing current high tariffs, which contributed to low diversification and a narrow export basket. To support competitiveness, the NTP seeks

Figure 1.10

Foreign currency access and energy shortages are top business challenges for foreign investors into Bangladesh

Top business challenges identified by foreign investors

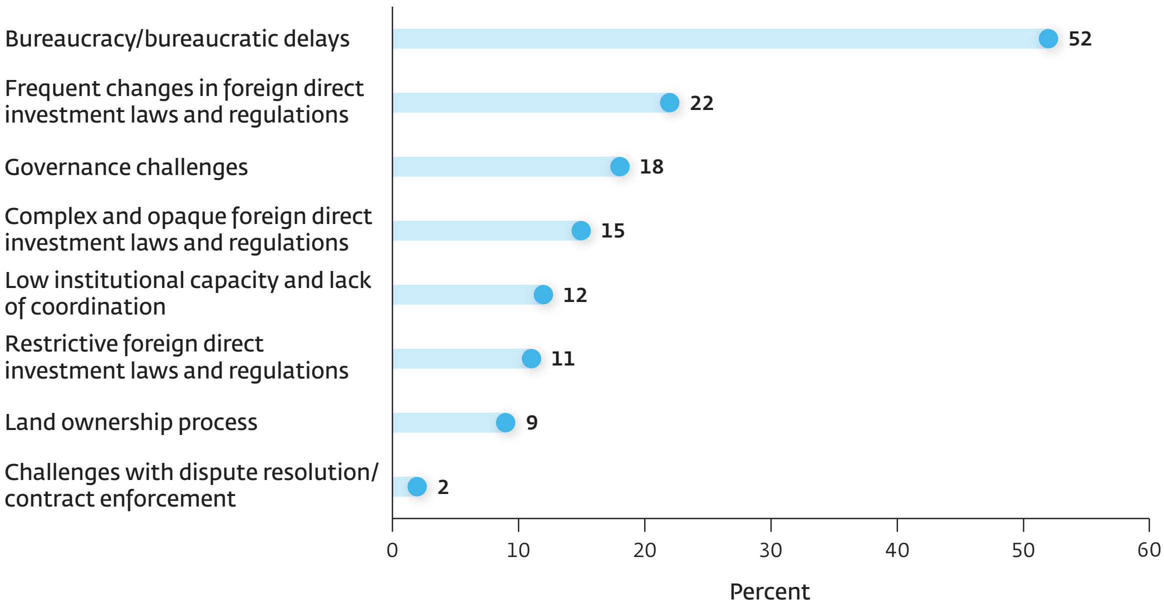


Source: 2024. Foreign Direct Investments (FDI) Survey. Bangladesh.

Figure 1.11

Bureaucratic delays and changes in FDI regulations are top regulatory challenges for foreign investors into Bangladesh

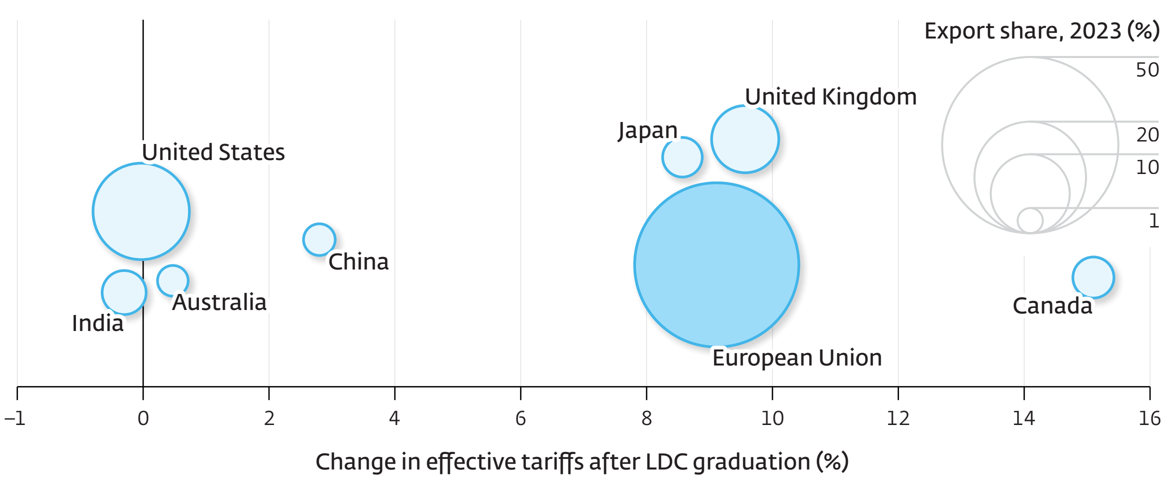
Top regulatory challenges identified by foreign investors



Source: 2024. Foreign Direct Investments (FDI) Survey. Bangladesh.

Figure 1.12

Bangladesh will face higher tariff rates after LDC graduation



Source: World Bank 2022a.
Note: Export share refers to share of exports to a given destination as a percentage of total exports from Bangladesh. The data presented are effective tariff rates (i.e., rates based on actual trade flows). Zeroes indicate little exports to those countries that attract tariff rates after LDC graduation.

to: streamline existing bond facilities; align import-level duties with the WTO committed rate; and maintain equitable duties for similar goods with increased transparency in customs procedures. This will require the customs authority to enhance its technical expertise in identifying and classifying certain imports. Currently, verification relies on lab testing or discretionary duty assessment, and misapplied tariffs can lead to disputes and shipment delays.

To mitigate LDC graduation–related challenges, Bangladesh will need to explore new trade agreements to maintain market access. Without duty-free exports to leading destinations such as the EU, Bangladesh will have to negotiate bilateral, regional, and/or multilateral agreements, such as those that it currently has with Canada, Australia, the United Kingdom that likely will require exporters to abide by higher environmental, social, and governance (ESG) standards. This means that existing and new firms will need to adopt advanced and clean technologies to increase energy efficiency and reduce emissions and waste.

Addressing these constraints will require ambitious cross-cutting policy reforms. However, such a reform package would require broad political support and—while hugely beneficial in the medium term—could have short-term adjustment costs. The slowdown in Bangladesh's economy may nonetheless increase the urgency of reforms, after the next general election. In the meantime, this CPSD presents specific reform recommendations in four sectors, which are politically feasible, and chosen because they could yield rapid benefits in terms of additional investment and thereby encourage broader efforts across other parts of the economy.

The recommendations developed in this study have broader economic relevance. The sectoral analysis in the following chapters reinforces the case for a more coherent import and export policy, modernization of the land registration process, development of a more efficient customs system and the expanded use of DFS to address informality. Clearly, these are issues that affect investment not only in RMG, housing, paints and dyes and DFS. This CPSD hopes to demonstrate that targeted policy reforms can yield rapid benefits, but also hold lessons for Bangladesh's broader policy and structural adjustment. The economic situation of the country today suggests that there is little time to waste.

2
Sector Selection

2 Sector Selection

A vibrant and innovative private sector is essential to boost productivity and improve the living standards of Bangladeshis.

This CPSD identifies four sectors of the economy where concrete policy actions can generate commercially viable opportunities for private investors that yield rapid returns with only minimal adjustment costs. This in turn has the potential to contribute to growth, jobs and development and encourage broader, systematic reforms (table 2.1). Sector selection criteria included:

1. Potential to attract private capital if constraints are mitigated.
2. Feasibility of removing key constraints.
3. Development impact.
4. Relatively solid political consensus around the need for reform.

Sector selection is not intended to be exhaustive. Entrepreneurs may well identify further profitable opportunities in other sectors. The focus here is on sectors where an identified constraint to private investment can feasibly be alleviated by public policy actions. The recommended actions are not necessarily sufficient on their own. Rather, these actions are highlighted as concrete and observable steps that would represent meaningful progress along the results chain from action to impact, and

Table 2.1

Sector selection with development impact potential

Sectors	Relevance
Ready-made garments	Largest manufacturing sector, exporter, and major employer. Urgent need to upgrade global competitiveness ahead of LDC graduation. Increasing sustainability focus and new regulations in consumer markets.
Housing for middle-income households	Rapid urbanization increasing demand for affordable housing in urban centers. Growing number of middle-income households.
Paint and dyes	Large and growing demand for paint and textile dyes from downstream sectors, such as construction and RMG. Developing the paint and dye industries can diversify manufacturing and export composition.
Digital financial services	Vibrant but nascent digital financial services ecosystem. Building on the adoption of mobile financial services and leveraging technology for data-driven lending could broaden access to credit, improve efficiency, and lower costs.

that can be taken in the next few years. The ultimate impacts on investment and job creation would be enhanced by complementary measures and capacity building, also noted in the body of this report that extend beyond such timeframe.

Employing 4 million workers, the RMG sector was the main recipient of foreign direct investment (FDI) into Bangladesh in 2023. Bangladesh is the world's second-largest RMG exporter (after China) with a 7.4 percent of the global market (2023).[63] Two-thirds of the sector's output are cotton garments[64] and there is potential to diversify into man-made fiber (MMF) products, which require less water and have lower greenhouse gas emissions compared to cotton. To maintain its market access and competitiveness, the

RMG sector will need to invest in upgrading its production to comply with the evolving requirements of major markets, including with respect to greening, sustainability, and labor standards. One way of achieving this is increasing production of MMF garments, which can be produced more efficiently using advanced and clean technologies.

Bangladesh's urban population has been rapidly growing, with over 40 percent of the population now living in cities, leading to increased demand for affordable housing. Cities grapple with limited and costly land, vacant and unused government plots, and low availability of mortgage finance, which has increased the price of housing. Private markets have been undersupplying housing, especially in the segments that may appeal to urban middle-class households. Policy actions affecting both the supply and demand for middle-income housing can help attract private investment to this sector.

Bangladesh's paint and dyes sectors have opportunities to expand manufacturing of "closer-to-the-customer" products rather than relying on intermediaries. For paint, growth in local demand in line with urbanization and construction growth presents a unique opportunity for the sector to supply the domestic market. For dyes, local demand is primarily satisfied by imports, but untapped investment opportunities for domestic production may exist due to proximity to the RMG manufacturing hub. If constraints over which the public sector has influence can be addressed, expansion of these sectors can foster diversification and boost participation in global value chains for RMG and construction industries.

Bangladesh's population and companies are underbanked with digital solutions holding the promise of enabling access and delivery of financial services at lower costs and at scale. Since its introduction in 2011, mobile financial services (MFS) has begun to address this challenge, but beyond mobile money and digital wallets, the adoption of digital finance in Bangladesh has been limited by restrictive regulation and underdeveloped credit information systems. In 2021, the largest MFS player received a significant foreign investment, signaling investors' interest in the sector and the market opportunity to expand digital financial services.

3

Green Ready-Made Garments

AT A GLANCE

- Bangladesh is the world's second-largest ready-made garments (RMG) exporter. To sustain sector growth and competitiveness, it will need to diversify its product range, particularly into man-made fiber products, and sustain is access to evolving export markets.
- Investment in advanced and clean technologies is crucial to meet evolving global standards for sustainability, labor, and environmental practices, especially as Bangladesh prepares to graduate from LDC status.
- To unlock investment for green RMG, targeted policy actions and capacity building will be required to promote circularity considerations and energy and resource efficiency.

3 Green Ready-Made Garments

3.1 Sector Context and Opportunity

Reaping profitable opportunities in Bangladesh's apparel sector (RMG including textile) requires investment in upgrading and diversifying its product and market range. Bangladesh is the world's second-largest RMG exporter (after China) with a 7.4 percent market share. The sector employs more than 4 million workers and earned export revenues of US$47 billion in FY23 (July 2022–June 2023), accounting for 85 percent of the country's export earnings.[65] Seventy percent of firms are small and medium size. The textile sector is the largest recipient of FDI in Bangladesh and attracted US$1.2 billion in FY23 from a range of sources, including from Korea, Hong Kong, SAR, China, and India.[66] More than 95 percent of RMG firms are locally owned, though there are a few foreign firms (from South Korea, China, United Kingdom, among others) located inside export processing zones.[67] Although the European Union remains the main market, exports to other markets (e.g., Australia, Japan, and India) grew by 10 percent on average, annually, between 2019 and 2023.[68]

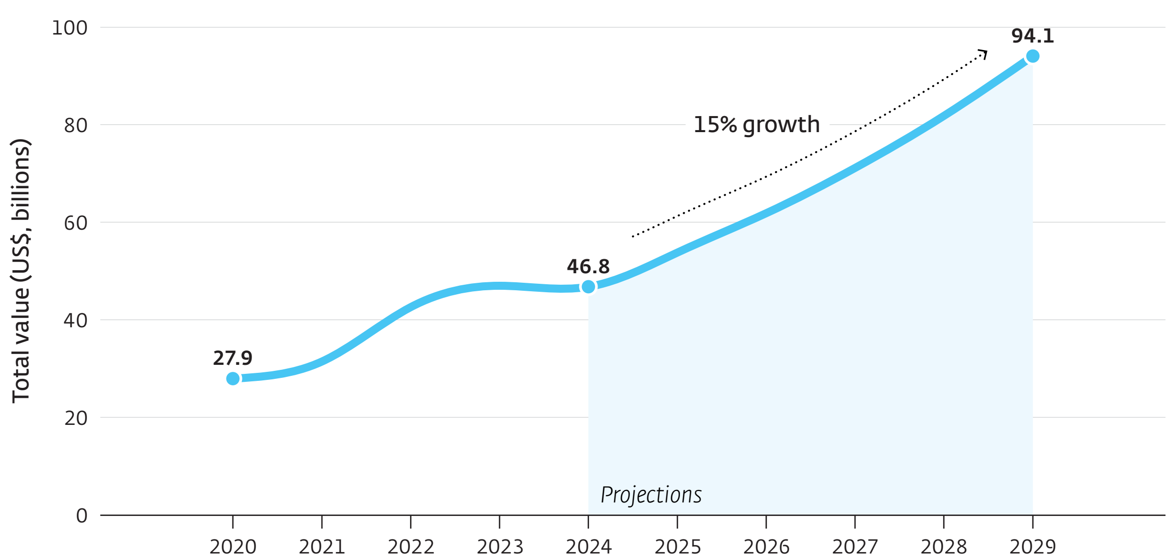
Investment opportunities are particularly promising in some less common product lines. Two thirds of the sector's output are cotton garments[69] but there is potential to diversify into man-made fiber (MMF) products, which require less water and have lower greenhouse gas emissions. Bangladesh Bank and the Bangladesh Garments Manufacturers and Exporters Association (BGMEA) estimates indicate that inclusion of

MMF and diversification into non-traditional markets could results in export growth of an average annual rate of 15 percent (up from 10.3 percent in 2019–2023), meaning RMG exports would reach US$94 billion by 2029 (figure 3.1).[70] Investors can capitalize on these opportunities by diversifying their product offerings and destination markets, thereby contributing to the sector's growth and sustainability.

To maintain its market access and competitiveness, the RMG sector will need to invest in upgrading its production to comply with evolving requirements in major markets, most notably with respect to greening, sustainability, and labor standards. While a few frontier firms are investing, others are constrained by lack of information and technical ability as well as the large volume of investment required for such improvements. Bangladesh will likely cease to have duty-free market access to the EU after 2029, three years after its expected graduation from LDC status. The EU will continue to offer duty-free access through the "*Everything But Arms*" scheme until 2029. To extend these benefits beyond 2029, Bangladesh will need to meet the conditions of the Generalized Scheme of Preferences Plus (GSP+) which has four core principles—human rights, labor rights, environmental standards, and good governance.[71] This will require reform to labor laws and the ratification by Bangladesh of additional EU conventions.

Figure 3.1

Official sector export projections suggest growth of 15% for Bangladesh's RMG sector



Source: Bangladesh Bank, June 2024. BGMEA, team research estimates (Bangladesh Bank 2024a).
Note: Projection may change based on revised export data officially published by the Export Promotion Bureau (EPB) in next FY. Due to lack of coordination among the EPB, the central bank, and the National Board of Revenue the annual export figures for the sector may experience downward revision. This revision will inevitably impact upcoming projections, potentially by US$10–15 billion by 2029. Furthermore, the ongoing political unrest has delayed official data availability and further data readjustments.

Beyond these legal requirements, RMG firms in Bangladesh face reputational risk and potential loss of markets if they are unable to meet acceptable worker health and safety standards. The 2013 Rana Plaza accident, in which more than 1,100 workers died following the collapse of an eight-floor factory due to structural failure, was a wake-up call for the industry and resulted in improvements in labor and safety standards among RMG companies.[72] A failure to anticipate and adapt to market expectations (including in terms of enforcement) represents a major risk for the RMG sector and associated private investors.

RMG firms can respond to changes in public sentiment and preferences for stronger environmental-social-governance (ESG) standards. The EU's Circular Economy Action Plan, Sustainable Textiles Strategy, Ecodesign for Sustainable Products Regulation (ESPR), the EU Green Deal and EU's Corporate Sustainability Due Diligence Directive or individual apparel brand commitment to greening will require greater investments in sustainable production practices by firms exporting RMG to the EU.

To meet the above challenges, firms will need advanced technologies to increase production and energy efficiency and reduce emissions and waste. As production costs rise (e.g., increase in wages,[73] energy and other inputs), firms need to invest in circularity (i.e., recycling and reusing resources), using MMF, renewable energy, production efficiency, and waste-reduction. Frontier firms in Bangladesh have started investing in advanced energy-efficient technologies and renewable energy across the RMG value chain to reduce emissions and improve production efficiency, but most of the industry has not adapted in any significant manner (figure 3.2).

Informality and a lack of regulations governing fabric waste result in missed investment opportunities. Waste materials that could be used locally are instead exported and re-imported for use in the same sector. The pre-consumer waste market, which is an investment opportunity and essential for circularity, remains informal and inefficient. Although there is some local demand for fabric scraps by fabric recyclers to produce yarn and fabrics, a substantial amount of the garment industry's annual textile waste of 577,000 tons is exported. The collection of fabric waste is largely captured by local vested interests (politically engaged middlemen collecting and selling these scraps) who control prices, making it difficult for textile recyclers to get necessary inputs. Only about 5 percent is recycled by a few RMG firms into materials like yarn and fabrics for export.[74]

Powerful and connected business organizations have had outsized influence over the policy environment. Public policies need to provide incentives for incumbents to innovate and a level playing field so that new firms, technologies, and product lines can develop. However, organizations like the BGMEA have a history of influencing policies that channel financing and provide incentives to support the sector. BGMEA is perceived to be resistant

Figure 3.2

Issues and resolutions in waste generation in Bangladesh

Bangladesh's apparel and textile mills produce about **577,000 tons** of waste each year

Annually, **250,000 tons** of waste is generated, half of which is recyclable cotton waste

The recyclable cotton waste is valued at approximately **$100 million**

Wet treatment and dyeing in textile production use about **164 liters** of groundwater per kilogram

SOLUTIONS

Cutting efficiency

AI-driven CAD machines can reduce fabric waste by **1.5% to 3% annually** through smarter cutting layouts.

Sewing energy use

Clutch motors (450W) run less efficiently than **servo motors, (250W)**, which produce less heat and minimal noise.

Waste traceability

Digital Product Passport requires tracing of raw materials used in apparel production. **RFID technology** helps identify non-recyclable materials like **plastics and metals**.

Sorting and recycling

Bangladeshi apparel factories **sort waste manually**. Few **collect pre-consumer waste** or recycle **PET bottles** into yarn.

Packaging shifts

Export factories are switching from **plastic to recyclable cardboard boxes**. **Marks & Spencer** diverts over **75%** of hangers from landfills, reusing 25% and recycling 75% into new hangers.

Source: Team analytics; Akter et al. 2022.

to adopting more transparent labor practices or environmental standards, which could deter foreign investors who are increasingly seeking to establish ethical supply chains. Additionally, excessive influence over government policies could undermine competition, making the sector less attractive to new investment.

In some areas, the RMG sector receives more favorable policy support than other sectors. Examples include the policy of "back-to-back" letters of credit and reduced corporate tax rates for RMG factories with green-certified RMG buildings (taxed at 10 percent versus 12 percent for other sectors). Bonded warehouse facilities, which allow duty-free import of raw materials for export-oriented factories, are in theory open to all sectors but in practice are most used by RMG, in large part because of the inability of government authorities to calculate and assess complex utilization declaration (units of each raw material needed for each unit of output) for other sectors. The RMG sector also receives cash incentives from the government—4 percent for RMG-exporting firms, 4 percent for small and medium factories, 3 percent for those expanding to new items or markets (excluding United States, Canada, United Arab Emirates), and 2 percent for exports to the EU on export volume.

3.2 Constraints to Private Investment in the RMG Sector and Recommendations

CONSTRAINT 1. Limited public sector capacity to design and implement policies to prepare for LDC graduation poses risks to Bangladesh's global market share, dissuading private investors. Although Bangladesh has already ratified the 27 EU conventions, the EU is likely to introduce environmental, climate and labor standards that will necessitate further changes to the operations of the RMG sector and its regulatory underpinnings.[75] The current Labor Law (2006) is insufficient to meet requirements with respect to labor rights and does not meet the commitments outlined in the National Action Plan[76] in the areas of, *inter alia*, workplace harassment, child labor, and freedom of association at the factory level. Policy changes in the Labor Law would need to be followed by effective implementation at the firm level. Bangladesh is also lagging in bilateral trade negotiations compared with its closest global competitor, Viet Nam, which has finalized its free trade agreement with the EU. As a result, Bangladesh risks losing market share to Viet Nam, whose free trade agreement grants zero-duty access into the EU by 2027, right when Bangladesh is losing its LDC status.[77]

RECOMMENDATION 1A. Adapt Labor Law (2006) to maintain EU market access after LDC graduation. Bangladesh needs to ensure it retains duty-free market access to the EU under GSP+ by amending and modernizing its Labor Law in the areas of, *inter alia*, workplace harassment, child labor, and labor unions/freedom of association at factory level, as well as by strengthening the implementation of Labor Law. This will also entail enhancing the capacity of the Ministry of Commerce to negotiate trade agreements with target countries for duty-free market access. Without GSP+ benefits, Bangladesh will lose competitiveness in the large EU market while its competitors will continue to enjoy duty-free access.

RECOMMENDATION 1B. Adopt the EU's recently approved ESPR and other green regulations through implementation of the Digital Product Passport (DPP),[78] and establish a DPP monitoring system. There is also a need to implement a comprehensive action plan to accelerate technology adoption by firms. This plan should include both public and private actions to introduce the latest technological innovations, such as artificial intelligence, Internet of Things, and Industry 4.0, in the sector through awareness and capacity building, skills formation, and long-term financing.

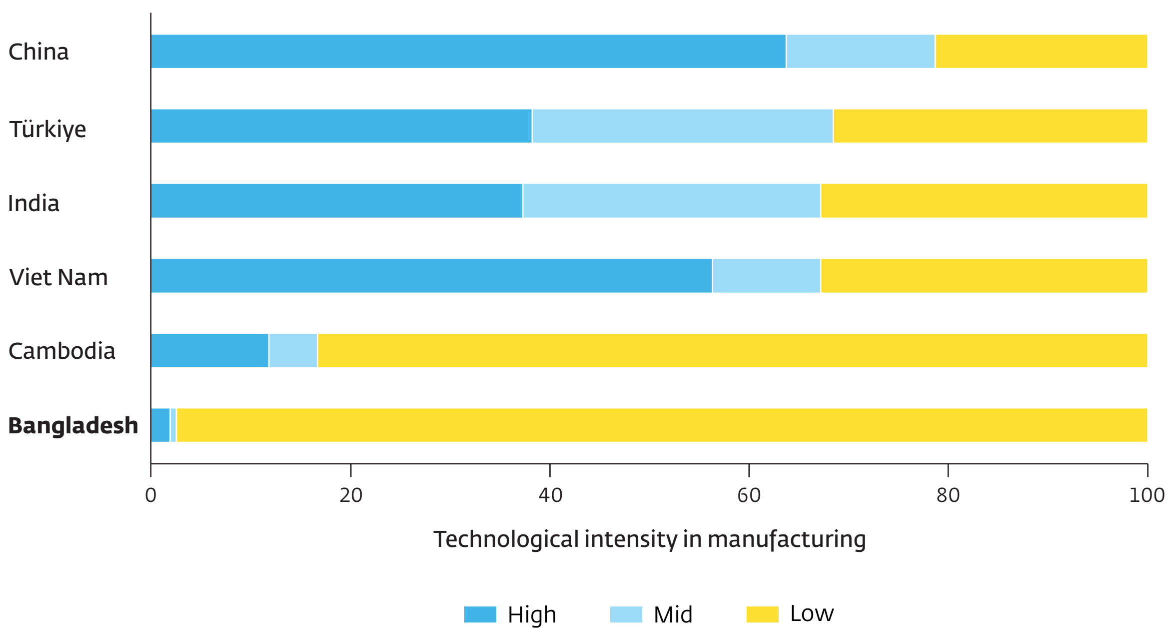
CONSTRAINT 2. Inadequate domestic supply of raw material limit investments in backward linkages of the MMF RMG industry. Domestic supply of raw materials for MMF is limited, as approximately 90 percent of the raw materials for MMF in Bangladesh are imported[79]; domestic demand for MMF is nearly 980 tons per day, yet local production is only 100 tons per day (local production occurs in 13 polyester staple fiber, factories with a combined production capacity of approximately 250,000 tons per year).[80] Despite this domestic demand, there is a 10 percent cash incentive on the export of plastic waste and flakes, which depletes the domestic supply of raw materials for MMF manufacturers.[81]

RECOMMENDATION 2. Remove the 10 percent cash incentive on polyethylene terephthalate (PET) bottle and flake exports. PET bottles and flakes are key inputs that are in short supply for MMF manufacturers, so exporting them should not be encouraged. Transitioning toward exporting products that use recyclable and man-made fibers is imperative to qualify for GSP+ facilities. A more coherent import and export policy for all fibers and key inputs will help streamline the import and export of raw materials and move toward manufacturing diversified high-value products by mixing multiple fibers.

CONSTRAINT 3. Low levels of technological sophistication in the production process impede the realization of efficiencies and limit investment in advanced technology. Bangladeshi RMG firms have low technological sophistication and rely mostly on semi-automated technologies, lagging competitors such as Indonesia and Viet Nam (figure 3.3).[82] Evolving garment industry trends like "fast fashion"[83] and "e-tailing"[84]

Figure 3.3

Bangladeshi RMG firms have low technology intensity relative to comparators



Source: World Bank Group calculation using United Nations Industrial Development Organization database.

necessitate the adoption of more advanced technologies such as automation and 3D knitting to stay competitive, reduce waste, and minimize environmental footprint. However, adoption in Bangladesh is impeded by low technology awareness in industry, high capital requirements for technology implementation, lack of skills, and limited research and development. As a result, only 15 percent of the Bangladeshi sector's manufacturing processes are mechanized. In contrast, in Viet Nam, approximately 20 percent of producers use advanced technologies, particularly software, for product design and production management, 70 percent use medium-level technologies, and 10 percent continue to use low-tech equipment.

RECOMMENDATION 3. Include advanced production technologies in the curriculum of national skills and training programs (e.g., automation, 3D knitting, design and production management). This should be done by the Bangladesh Technical Education Board and National Skills Development Authority, and will entail promoting collaboration between academic institutions, industry experts, and RMG firms.

CONSTRAINT 4. RMG firms underinvest in renewable energy and water conservation needed to meet buyers' compliance standards. Financing solar investment in RMG factories is difficult, in part due to disincentives in the current tariff structure. Additionally, lack of regulations and weak monitoring mechanisms for groundwater usage curtails firms' investments in water conservation measures.

To promote RMG firms' investment in renewable energy, water conservation and efficiency, the following actions are required:

RECOMMENDATION 4A. Equalize the duty for solar inverters (currently 37 percent) with the duty for solar panels (currently 1 percent) in a fiscally neutral manner.

RECOMMENDATION 4B. Introduce water efficiency certification for RMG firms to promote more efficient production (e.g., adoption of rainwater harvesting, process optimization, cooling system, recycling and reusing).

RECOMMENDATION 4C. Implement Government plan for the "Shadow Price of Water" for reducing groundwater usage in RMG sector.[85]

Table 3.1 outlines concrete, actionable recommendations that can be implemented in a relatively short period of time, with impact over the medium term. These actions hold potential to make the RMG sector more attractive to private investment. However, realizing the sector's full potential will require a wider range of measures. Maintaining a commitment to reform and enhancing capabilities and skills in the public sector, including with respect to the Government's trade negotiation proficiency, will be essential.

Table 3.1

Priority policy recommendations for increasing private investment in green ready-made garments

Constraint	Recommended actions
Limited institutional capacity in responding to LDC graduation challenges.	Adapt Labor Law (2006) to maintain EU market access after LDC graduation. Adopt the EU's recently approved ESPR and other green regulations through implementation of the Digital Product Passport (DPP) and establish a DPP monitoring system.
	Responsible government entities: Ministry of Commerce, Ministry of Labor and Employment.
Unfavorable business environment for MMF-based RMG production.	Targeted policy reforms for MMF-based RMG production include removing the 10 percent cash incentive on polyethylene terephthalate bottle and flake exports.
	Responsible government entities: Ministry of Finance, National Board of Revenue, Bangladesh Investment Development Authority, Bangladesh Bank.
Limited investment in tech adoption, renewable energy (e.g., solar panels) and water resource conservation.	Include advanced production technologies in the curriculum of the national skills and training programs. Equalize the duty for solar inverters (currently 37 percent) with the duty for solar panels (currently 1 percent) in a fiscally neutral manner. Introduce water efficiency certification for RMG firms to promote more efficient production. Implement Government plan for the "Shadow Price of Water" for reducing groundwater usage in RMG sector.
	Responsible government entities: National Skills Development Authority, Bangladesh Bank, National Board of Revenue, Ministry of Energy.

4

Housing for Middle-Income Households

AT A GLANCE

- Housing for middle-income households is both a necessity and investment opportunity given rapid urbanization and rising disposable income.
- A weak regulatory environment and complex interdependencies between numerous agencies need be addressed to seize untapped private investment potential in housing.
- Expanding to peripheral areas and amending building regulations (FAR and Green buildings) would make it easier to meet growing demand for housing units. Enacting a legal and regulatory framework to establish a mortgage refinance company would help buyers access financing.

4 Housing for Middle-Income Households

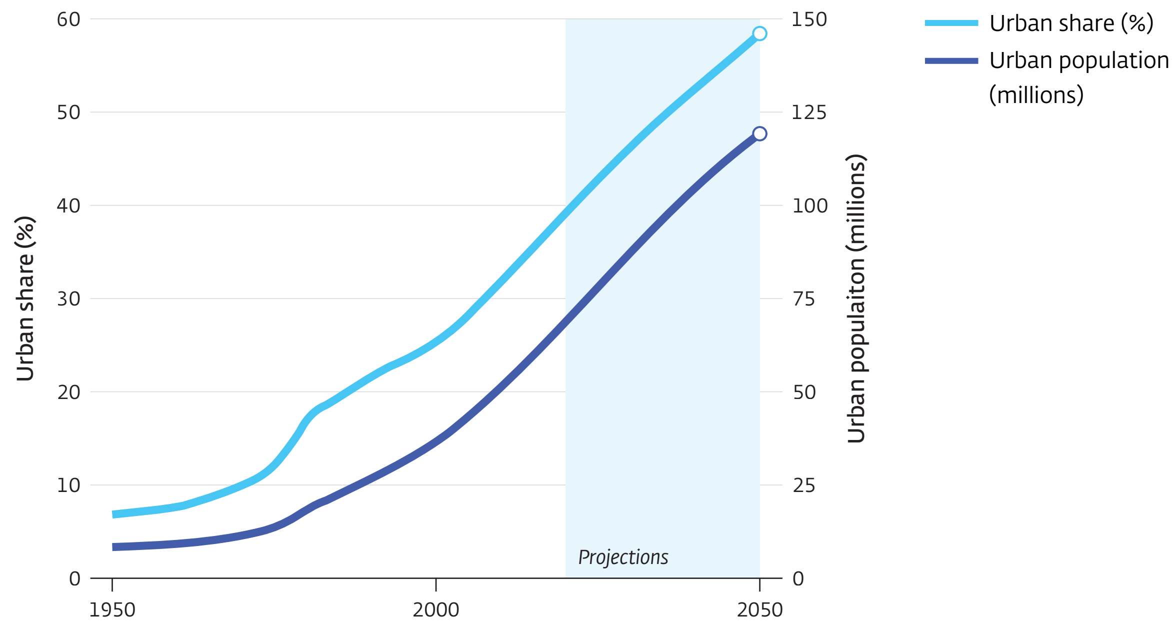
4.1 Sector Context and Opportunity

Bangladesh's rural-to-urban migration, rapid rise in disposable incomes, and growing middle-income households have driven up both the demand for and cost of housing. The number of urban inhabitants has more than doubled since 2000 to 67 million in 2022 (figure 4.1).[86] However, on average, only 30,000 apartments are constructed annually, with homeownership rates remaining low at 20.6 percent in major cities, while the majority of residents relying on rental housing. Rents are high and are not subject to controls, having risen more than sixfold in the capital over the past 15 years.[87] Scarcity of urban land, coupled with rising demand, has driven significant increases in land and apartment prices. The price of one katha[88] of land in Dhaka's Gulshan neighborhood surged 27 times in local currency between 2000 and 2021, while per capita income grew only sixfold at the same time.[89] Inadequate transport links and essential infrastructure in areas surrounding metropolitan cities place a premium on land in urban centers.

Housing creates additional investment opportunities through its extensive backward and forward linkages to the economy.[90] The sector is supported by an intricate value chain that encompasses upstream sectors like construction and manufacturing of building materials. Downstream, it includes services such as utilities integration (ensuring that newly constructed homes are equipped with necessary amenities like water, electricity, and sewage systems) and enablers like financial services, which facilitate funding for

Figure 4.1

Urban population in Bangladesh is projected to exceed 100 million by 2041



Source: Adapted from World Bank 2022a.

construction projects. The Bangladeshi construction sector, including residential building construction, contributed 9.3 percent of real GDP in 2022–23.[91]

Profitable opportunities that are not reliant on public support are largely concentrated in the top segment of the housing market, with untapped investment potential in housing aimed at middle-class households. Currently, the private sector primarily serves the affluent top decile of the income distribution, while the government, constrained by fiscal limitations, focuses on social housing at the lower end. To bridge this gap in the housing market, there are potentially profitable opportunities to boost housing construction (both for home ownership and rentals) for the urban middle-class.

Private investment to expand housing supply could target middle-income Bangladeshi households falling between the 70th to 95th income percentiles. Based on International Finance Corporation (IFC) income assessments, the typical household in the target population would be interested in owning or renting a 500 to 600 square foot apartment with two bedrooms.[92] With average monthly income ranging between US$390 and US$1,814,[93] this segment falls between the top 5th income percentile and those benefiting from social housing (bottom 45th percentile), as well as lower-middle-class households (between 46th and 69th percentile). The estimated cost of constructing a 500 square foot housing unit, based on the current prices of land, materials, and civil works, is approximately US$19,000. Home buyers can borrow up to 70 percent of home value from financial institutions (FIs).[94] Given the large housing demand, this is an investment potential for banks, non-banking financial companies, and microfinance institutions. Well-directed government actions can help remove obstacles to realizing this potential.[95]

Despite over 20 public sector stakeholders in the housing space, there is no champion for housing for middle-income households. The sector suffers from complex interdependencies between public and private stakeholders.[96] Implementation of the National Housing Policy 2016 has been weak. Bureaucratic inertia, due to unclear responsibilities among multiple government entities, has resulted in very slow inadequate reform. While Japan, Singapore, and China are planning to invest in green construction, the Real Estate and Housing Association of Bangladesh opposes such investments, fearing increased competition for domestic private construction companies.

4.2 Constraints and Recommendation for Private Investment

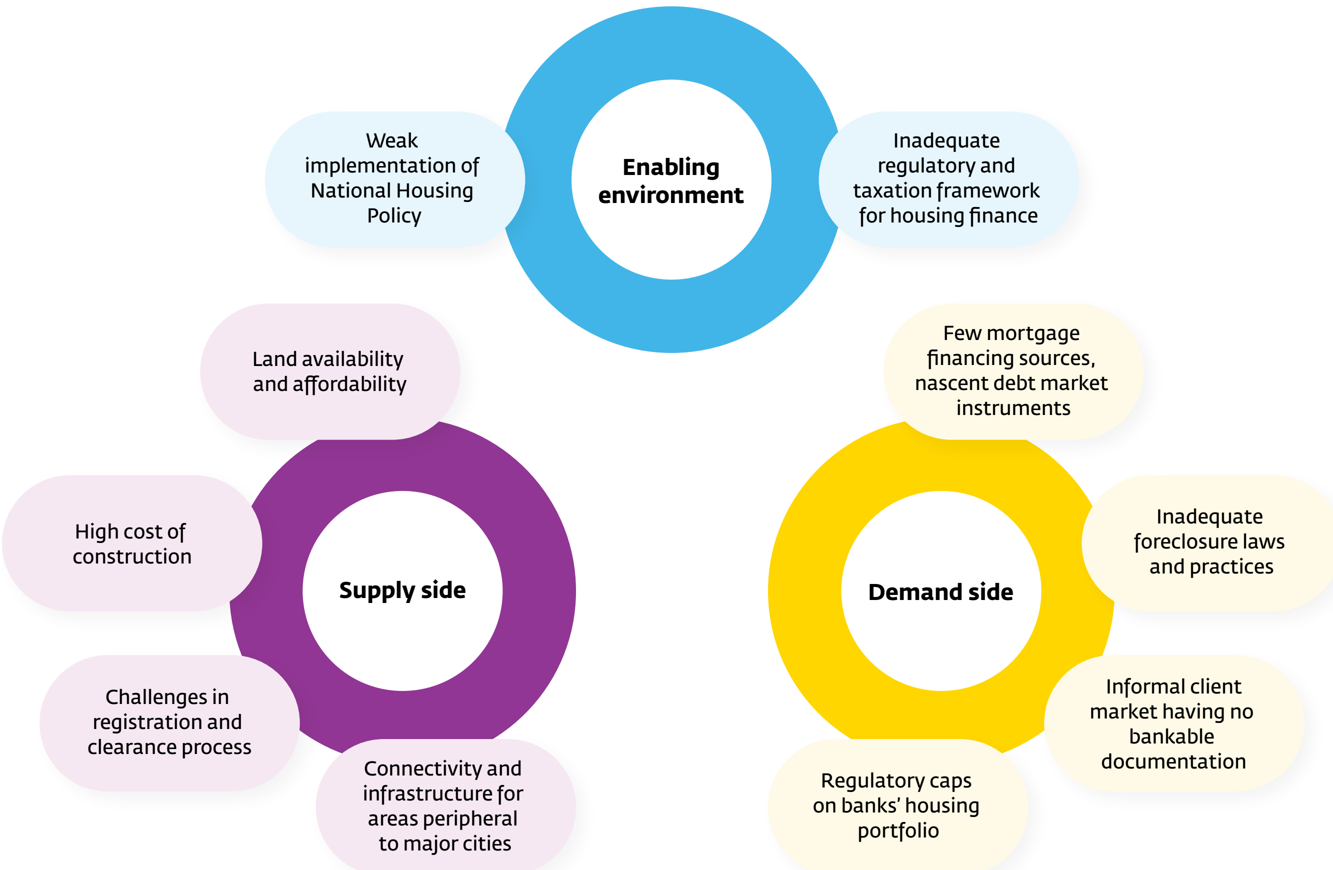
Private investments in the sector are currently hampered by numerous regulatory, supply side, and demand side constraints (figure 4.2).

CONSTRAINT 1. Housing development costs in urban areas are high and rapidly increasing. This is due to: (i) the scarcity and high cost of land suitable for residential housing,[97] which accounts for 40–55 percent of the total cost, (ii) the cost of construction materials (many of which are imported), which has gone up due to depreciating Bangladeshi taka,[98] and (iii) the overhead costs of transportation and workers' accommodation.[99] The high cost of land in urban centers[100] remains the most binding constraint for developers, and due to the high urban density, costly construction, and small plot sizes, developers typically enter joint development agreements with landowners.[101] Developers are generally required to adhere to a detailed area plan and floor area ratios (FARs) that constrain builder margins.[102] Undeveloped municipal infrastructure pose significant limitations to housing developments in peripheral urban areas (i.e., area surrounding urban cities like Dhaka). Most urban centers in Bangladesh struggle with inadequate municipal infrastructure services, including reliable water supply, sewerage systems, and waste management facilities. These deficiencies can lead to unsanitary living conditions, increased public health risks, and environmental pollution, undermining the sustainability and livability of housing projects. Inadequate infrastructure also imposes additional costs on project developers who may need to invest in standalone facilities, such as water treatment plants and waste management systems, to meet basic service needs.

RECOMMENDATION 1A. Use vacant government land for residential housing construction. Strategically allocating land, promoting public-private partnerships (PPPs)

Figure 4.2

Overcoming barriers to private investment in housing in Bangladesh



Source: Team analysis based on research validated by expert interviews.

and enabling access to finance for developers are essential to unlock land for affordable housing projects. PPPs can play a crucial role in addressing high land costs by leveraging public land for housing projects and sharing risks and rewards between public and private sector developers. However, the land selection must be done carefully to ensure it excludes char lands (areas along rivers and water bodies), and forested lands. For example, RAJUK has a few plots of land around Dhaka which can be allocated to PPP models in partnership with developers for affordable housing projects.

RECOMMENDATION 1B. Raise the FAR[103] to support construction of multi-story affordable homes in urban centers and peripheral areas. FAR is a critical factor in the development of affordable housing, as it can affect the number of units that can be built on a lot. Increasing the FAR would allow developers to build more units if a certain percentage of the units are designated as affordable. Furthermore, an accompanying increase is needed in the building code density parameter, which dictates how many people can live in a specific area of land. This density parameter should be increased to permit a higher proportion of people to live in a smaller area of land.

RECOMMENDATION 1C. Enhance municipal services to areas peripheral to urban centers. Project developers could adopt decentralized systems, such as rainwater harvesting, greywater recycling, and onsite waste treatment, to reduce dependence on municipal services while improving resource efficiency. Incorporating smart technologies for water and waste management could further enhance operational efficiency and align housing developments with global ESG standards.

CONSTRAINT 2. Complex legal requirements, unclear land titles, extensive paperwork, and bureaucratic delays make property transactions time-consuming and complicated for both buyers and sellers. Registration, clearance, and approval processes are costly and can extend up to six months. Land and apartment registration costs can range between 17 to 20 percent of the property value. This discourages buyers from registering their houses or incentivizes their registration at a lower valuation to save on tax payments. For properties in which people are already residing, Islamic inheritance laws and poorly documented ownership transfer make it difficult to prove legal ownership. Without property titles, buyers cannot obtain mortgages. With lower valuation, buyers are only able to borrow lower amounts (typically no more than 70 percent of valuation can be borrowed).

RECOMMENDATION 2. Digitize land registration and clearance processes. While there has been some improvement in digitization of land registries and in the regulations around automation of property ownership, more progress is required. In particular, comprehensive digital mapping and recording of land and apartment ownership is necessary. If this is done, a borrower will be eligible for a mortgage at a higher market value, rather than the lower value that is registered for tax purposes.

CONSTRAINT 3. Absence of regulations that support the mortgage and bond market result in limited housing finance available. Mortgage penetration is low at only 3 percent, compared to 12 percent in India, 4.9 percent in South Asia, and 8.9 percent in other emerging markets.[104] Many households do not have formal income sources or wealth to secure financing from FIs, and housing finance product offerings remain limited. There are only a few dedicated housing finance companies in Bangladesh.[105] The limited availability of long-term deposits for banks[106] and the nascent secondary market for mortgages lowers liquidity for banks and FIs and constrains lending to households. Commercial banks, for example, provide loans for housing apartments but are capped at US$160,000 per flat, regardless of the price of the flat. The bond market in Bangladesh is also underdeveloped and dominated by government bonds.[107] The insurance market in Bangladesh is still in its nascent stages with low insurance literacy among masses. Currently, the insurance penetration ratio stands at a mere 0.5 percent, which is significantly below regional counterparts.[108] There is limited uptake of housing insurance, reflecting the overall low coverage levels in the country. Few homes are insured, thereby increasing risks for lenders. Low financial literacy among homebuyers affects awareness and understanding of financial products and processes, making it difficult for them to navigate the financial system and access credit. Lack of clear income documentation, informal tenure, and the absence of a formal credit history exacerbate their exclusion.

RECOMMENDATION 3. Government to enact the legal and regulatory framework to establish a mortgage refinance company (MRC). This approach has been followed in several emerging markets (such as Kenya,[109] Tanzania,[110] West Africa,[111] and Pakistan[112]) to provide liquidity to primary mortgage lenders. Establishment of an MRC will enable banks and FIs to refinance existing mortgages, thereby mitigating risk, and enhancing liquidity for long-term financing. Banks in Bangladesh currently primarily rely on short-term deposits,[113] which makes lending for longer maturities difficult. This asset-liability mismatch risk can be overcome by establishing an MRC, which will ensure that banks have a steady flow of funds via mortgage refinancing and can extend long-term loans for housing. Over the longer term, having an MRC will also enable the creation of a secondary market for mortgage lenders. Bangladesh Bank should encourage banks and other FIs to introduce more housing finance products targeted at middle-income households.

CONSTRAINT 4. Ineffective foreclosure practices including complex legal frameworks for loan recovery stifle the market by making lenders reluctant to extend credit. Foreclosure in Bangladesh is plagued by time-consuming legal processes. The Artha Rin Adalat 2003 (Money Loan Court Act) sets time limits for debt recovery proceedings, yet in practice these time limits are commonly exceeded. Even after securing a verdict, FIs encounter hurdles in gaining possession of foreclosed properties. Defaulters often obtain stay orders from courts, making it arduous for banks to repossess houses, even in cases handled by special money loan courts. The lack of clarity and predictability in the foreclosure process undermines creditor confidence and has contributed to a low recovery rate for creditors, estimated to be less than half of that in India or Organisation for Economic Co-operation and Development countries. Moreover, enforcement delays further tie up capital for banks, creating reluctance to participate in the housing sector.

RECOMMENDATION 4. Amend the Money Loan Court Act (MLCA) to include non-judicial (i.e., out of court) settlements to expedite resolution. The foreclosure process in Bangladesh primarily operates through the MLCA, which allows only judicial foreclosure. In addition to the reforms needed in the MLCA, there is also a need to introduce legislation on professional enforcement officers, expand the number of money loan courts and develop practical guidelines on collateral redemption. Setting strict timelines for case resolution, creating specialized case management systems, and training judges in real estate, banking, and finance law are necessary to improve the foreclosure process.

CONSTRAINT 5. More cost effective and greener building materials are potentially available but have not been widely adopted. Traditional materials are costly in part due to import tariffs on raw materials. Most construction materials, notably steel and cement, are imported.[114] Although the brick industry employed 1 million people as of 2016, it is associated with poor working conditions and toxic fumes. Currently, about 56 million tons of coal are used for brick production across the country annually, resulting in the release of approximately 15.6 million tons of carbon dioxide every year. Recent innovations have increased the cost-effectiveness of green brick production,[115] which are made of clay, sand, or silt and do not require burning coal/wood,[116] thereby reducing negative environmental effects. Green bricks also have other economic benefits—the machines that make green bricks can be transported easily to the place where the mud is gathered, reducing the cost of transportation of bricks. In Bangladesh, concrete bricks, which are type of green bricks are becoming popular. Construction using concrete blocks requires less cement and sand thereby reducing the weight of the building, as well as construction time. The Housing and Building Research Institute (HBRI) estimates that compressed concrete and CSEB[117] bricks cost only BDT 6 (US$0.071) while traditional bricks costs BDT 11 (US$0.13), thus making CSEB bricks a good choice for lowering construction costs. However, thus far only two percent of firms have adopted green technologies in their brick production processes,[118] as Bangladesh's building codes do not explicitly mention green bricks as a raw material. The Bangladesh Brickmaking and Brick Field (Control) Act 2019 defines bricks loosely, which limited the adoption of green bricks by builders, many of whom were skeptical about investing in new machinery during COVID and the subsequent macroeconomic uncertainty.[119] Nonetheless, the government recognizes the cost and environmental advantages of green bricks and is advocating for their adoption. In November 2024, the interim government even went so far as to ban the use of traditional bricks[120] in construction and is determined to retire nearly all the brick kilns. Further housing projects are increasingly exposed to climate-related vulnerabilities and physical/environmental and social risks are particularly acute in low-lying urban areas where inadequate drainage systems and poor urban planning exacerbate the impact of extreme weather events.

RECOMMENDATION 5. The HBRI should revise building codes and construction guidelines to permit use of green bricks. With the recent ban on traditional bricks, the supply of green bricks should increase in the country. However, it is important that building codes and guidelines for developers include the use of green bricks as acceptable raw materials to ensure efficient utilization. This would entail incorporating specific sustainability requirements and guidelines into the official regulations that govern housing design, construction, and raw materials used for all new construction and renovation. As the cost of green bricks is much lower than conventional red bricks, it could reduce construction costs by as much as 20 to 30 percent.[121] Also, in the long run, green construction practices will prove to be cost-effective by lowering utility costs[122] (particularly electricity costs) and achieving substantial reductions in waste generation. Additionally, adaptation measures may address risk associated such projects, including adopting flood-resistant structures and efficient drainage systems for example, as well as collaborations with local governments and communities on climate adaptation measures, such as buffer zones or natural barriers.

Table 4.1

Priority policy recommendations for increasing private investment in housing for middle-income households

Constraint	Recommended actions
Housing development costs in urban cities are high and rapidly increasing due to high costs of land and construction. Regulations like FAR and limited connectivity of areas peripheral to urban centers also limit housing supply.	Use vacant government land for residential housing construction. Enhance municipal services to areas peripheral to urban centers. Raise floor area ratio to support construction of multi-story affordable homes in urban centers and peripheral areas.
	Responsible government entities: Ministry of Land, Ministry of Housing and Public Works, Urban Regulators such as RAJUK (Rajdhani Unnayan Kartripakkha) and other city development authorities, Bangladesh Bank, and the National Board of Revenue.
Complex legal requirements, unclear land titles, extensive paperwork, and bureaucratic delays make property transactions time-consuming and complicated for both buyers and sellers. Complicated land tenure and land ownership rights often make the process of acquiring land difficult.	Digitize land registration and clearance processes.
	Responsible government entities: Bangladesh Bank, Ministry of Finance, and Ministry of Law and Justice
Absence of regulations that support the mortgage and bond market result in limited housing finance, coupled with limited product diversification.	Government to enact the legal and regulatory framework to establish a mortgage refinance company.

(Table continues next page)

Table 4.1

Priority policy recommendations for increasing private investment in housing for middle-income households *(continued)*

Constraint	Recommended actions
	Responsible government entities: Bangladesh Bank Ministry of Finance, Ministry of Law and Justice, National Board of Revenue.
Ineffective foreclosure practices and complex legal frameworks for loan recovery stifle the market by making lenders reluctant to extend credit.	Amend the Money Loan Court Act to include non-judicial (i.e., out of court) settlements to expedite resolution. Set strict timelines for case resolution, create specialized case management systems, and train judges on real estate, banking, and finance laws.
	Responsible government entities: Ministry of Finance and Ministry of Law and Justice.
The high cost of importing construction raw materials drives up the overall cost of construction projects	Revise building codes and construction guidelines to permit use of green bricks.
	Responsible government entities: Housing and Building Research Institute.

5

Paint and Dyes

AT A GLANCE

- Driven by rapid urbanization, population growth, and increased industrialization, expected growth in local construction demand presents an opportunity for the paint sector to capitalize on the domestic market.
- Compared to other garment-exporting Asian countries, Bangladesh has the largest trade deficit in dyes. Strong demand from local RMG buyers presents an opportunity for investment in onshore dye production, which could generate efficiencies in the RMG supply chain.
- To unlock private investment in paint and textile dyes, several policy actions are needed. Such actions include remove duty disincentives for raw material imports, increase efficiency of imports and inputs, and revise the bonded warehouse policy to allow greater access for non-RMG firms.

5 Paint and Dyes

5.1 Sector Overview – Paint and Dyes

Bangladesh's paint and dyes sectors provide opportunities to expand manufacturing of "closer-to-the-customer" products. The paint sector is largely a captive market due to the localized nature of the industry, whereas dyes supply the large onshore RMG market. Expansion of these sectors can foster greater diversification and boost participation in global value chains for RMG and construction industries. With the paint industry serving the domestic market and dye manufacturing being primarily export-oriented, these sectors identify investment potential across markets.

Demand for paint in Bangladesh is expected to grow in line with rapid urbanization, income growth, and construction demand, providing an opportunity for investors. Currently, domestic demand is primarily met by local production (Bangladesh imports only 17 percent of its paint) (table 5.1). local mixing allows manufacturers to tailor paint formulations to regional climates and preferences, in addition to importing raw materials (e.g., pigments and resins) is often cheaper than transporting finished paint due to weight and volume and limited shelf life. However, local producers have yet to capture earlier segments of the paint value chain (see figure 5.1). Most of the inputs for paint manufacturing are imported—including edible oils, pigments, polymers, and solvents. Demand-driven growth can allow manufacturers to expand production capabilities and capitalize on profit-making opportunities along the supply chain for domestic end-use.

Table 5.1

Bangladesh produces paint domestically, whereas the local dye market is still nascent*

Bangladesh and regional competitors, 2023

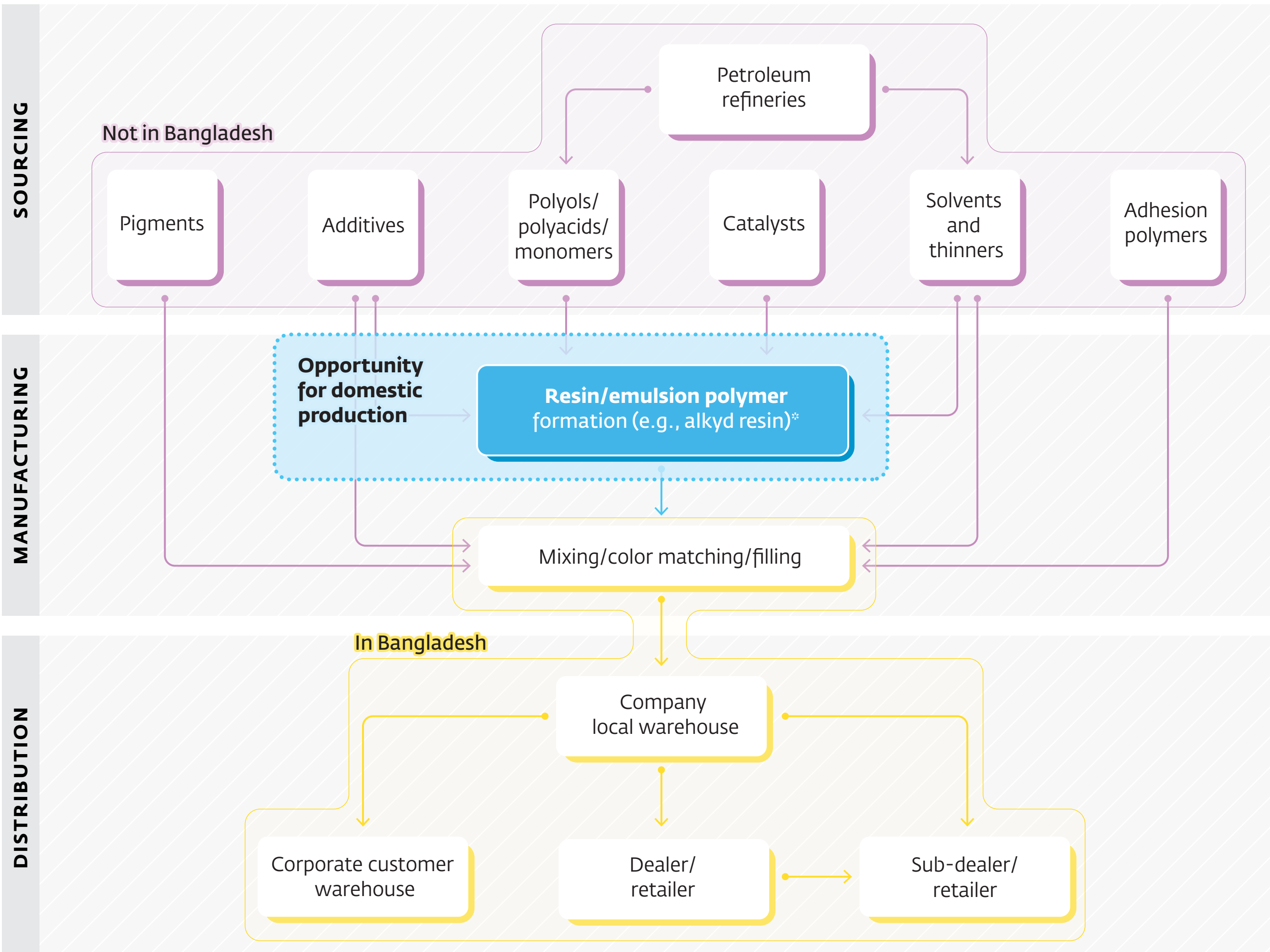
	Bangladesh	China	India	Indonesia	Malaysia	Viet Nam
Paints						
Production (US$, billions)	0.63	102.67	10.40	0.82	2.30	1.33
Market size (US$, billions)	0.88	116.10	15.30	1.10	2.20	1.90
Market size (% of GDP)	0.20	0.64	0.43	0.08	0.53	0.44
Exports (US$, billions)	0.00	2.28	2.50	0.10	0.72	0.30
Imports (US$, billions)	0.20	3.10	2.10	0.30	0.50	0.80
Dyes						
Production (US$, billions)	~0	23.60	14.10	0.83	n.a.	n.a.
Market size (US$, billions)	<1.0	20.50	25.20	1.74	n.a.	n.a.
Market size (% of GDP)	n.a.	0.11	0.70	0.13	n.a.	n.a.
Exports (US$, billions)	~0	7.06	2.92	0.30	n.a.	n.a.
Imports (US$, billions)	0.56	1.99	1.80	0.98	n.a.	n.a.

Source: Production, market size, import, and export data comes from Euromonitor. GDP figures come from World Bank database.
Note: For "dyes," data is based on Euromonitor's "dyes and pigments" category, which includes production of dyes and pigments from any source in basic form or as concentrate, products of a kind used as fluorescent brightening agents or as luminophores. Due to Euromonitor data limitations, Bangladesh "dyes" export and import data comes from BACI database using the relevant 6-digit HS codes for dyes and pigments. Production and market size are estimated based on interviews with sector experts. For "paints," data is based on Euromonitor's "paints and varnishes" category, which is an aggregation of paints, varnishes and driers, Prepared pigments, enamels and glazes and printing ink.
* Figures pertaining to "paints" in this table includes paints, prepared pigments, varnishes, enamels, glazes, and printing ink. Figures pertaining to "dyes" in this table include dyes and pigments in basic form or as concentrate. Due to data limitations, Bangladesh "dyes" export and import data comes from a different source (BACI) than data for competitors (Euromonitor). Bangladesh production and market size are estimated based on interviews with sector experts.

Demand for dyes in Bangladesh is primarily met by imports (table 5.1), but proximity to the RMG hub could present untapped investment opportunities. Currently, Bangladesh dye production is nascent and local RMG buyers continue to rely on foreign suppliers. However, the RMG industry may offer unexploited competitive advantages for domestic dye manufacturers.

Figure 5.1

Inadequate local manufacturing of alkyd resins leads firms to continue importing

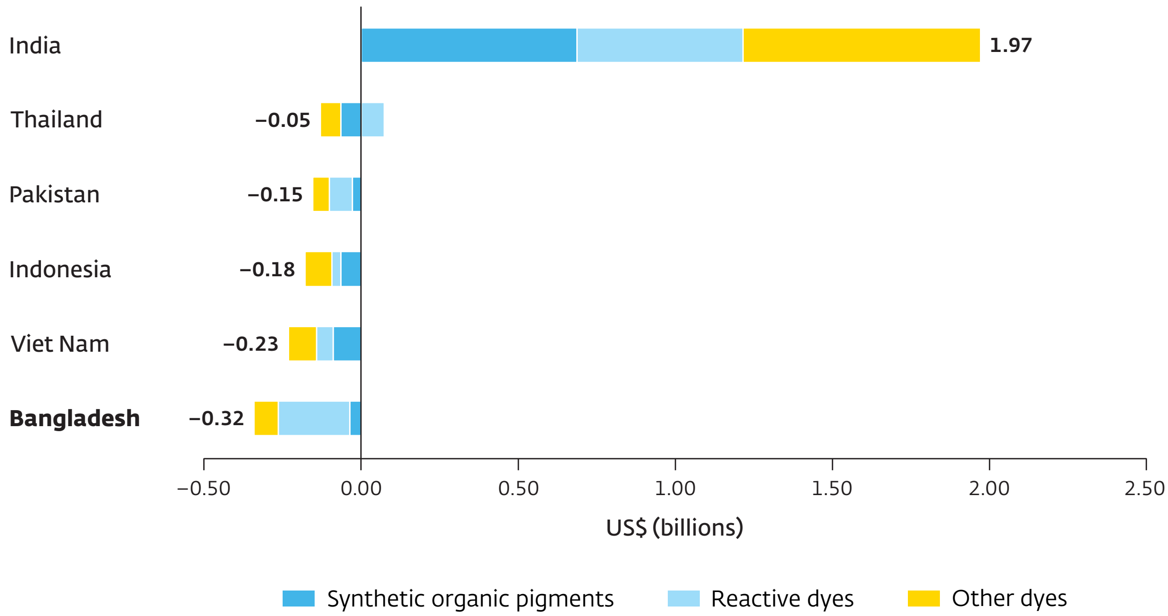


Source: World Bank Group analysis constructed based on data from manufacturers' association.
Note: Resins include alkyd resins, acrylic resins, epoxy resins, etc.; emulsions polymers include styrene-acrylic, acrylic emulsion polymers, etc.

While Bangladesh lacks large reserves of petroleum or gas needed for most dye and paint chemical manufacturing, opportunities to unlock growth potential of domestic production exist under the right policy regime. Countries such as South Korea, Japan, Singapore, and Switzerland have developed their industries without significant domestic petroleum reserves. While these countries have significant other advantages, such as technological advancements, they overcame natural resource constraints through effective supply chain management, trade agreements, and regional partnerships. Similarly, regional peers such as India and Thailand have limited crude oil reserves and yet both have positive trade balances in dyes (see figure 5.2) and well-developed paint sectors.

Figure 5.2

Bangladesh has a larger trade deficit in dyes compared to other garment-exporting Asian nations



Source: World Bank Group analysis using 2023 trade data from UN Comtrade.
Note: "Other dyes" includes vat dyes, synthetic organic luminophores, synthetic fluorescent brightener, synthetic organic coloring, direct dyes, basic dyes, acid and mordant dyes.

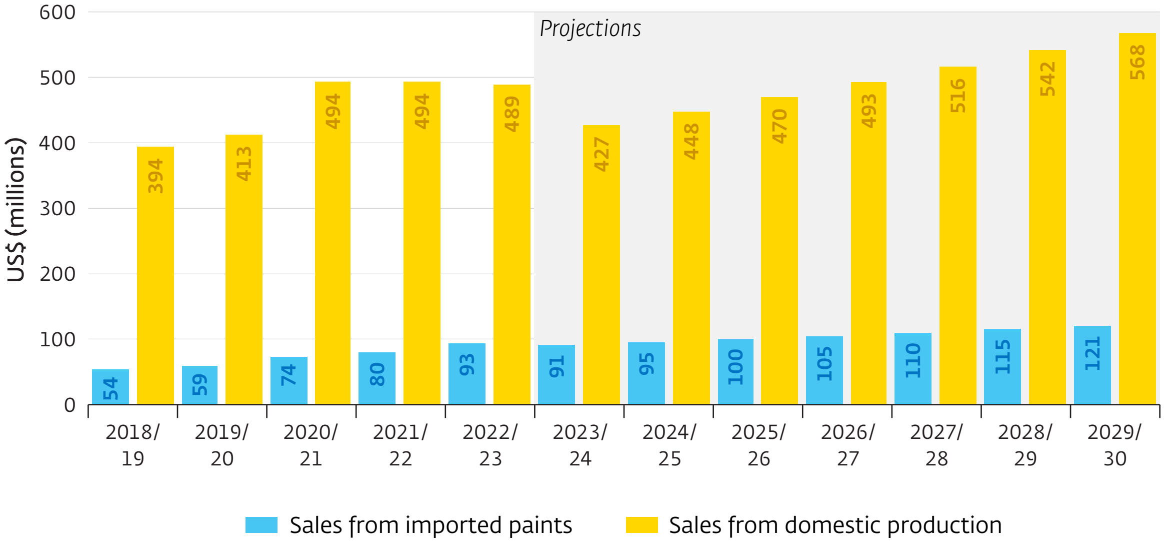
5.2 Sector Context and Opportunity – Paint

Demand for paints is mostly satisfied by domestic production using imported raw materials. This use of imports is constraining the sector's growth potential as market demand increases. The market in Bangladesh consumes 180,000 metric tons of paints per annum, valued at US$582 million, of which imports account for US$93 million (2022/23) (figure 5.3). More than half the paint that are imported come from regional competitors, including India and China.[123] Bangladesh can develop its competitiveness with an effective policy framework for the sector that supports domestic capabilities for raw materials and intermediates which, along with monomers and base polymers, are foundational in the production of everything from resins to protective coatings.

Large multinational companies have garnered the lion's share of the market (approximately 80 percent) but have not tapped into backward integration opportunities in the sector. While approximately 40 paint companies operate in Bangladesh, the market is dominated by six multinational paint manufacturers that benefit from the proprietary technologies of their parent companies and the ability to meet the sector's high initial costs, including establishing distribution networks, building

Figure 5.3

Paint sales in Bangladesh predominantly consist of domestically produced paint



Source: Fiscal year 2022/23 data comes from the manufacturers' association, with past and future fiscal years projected using growth rate estimates. Team calculation.
Note: Category includes paints, varnishes and similar coatings; it is an aggregation of paint, varnishes and driers, Prepared pigments, enamels and glazes. Does not include printing ink.

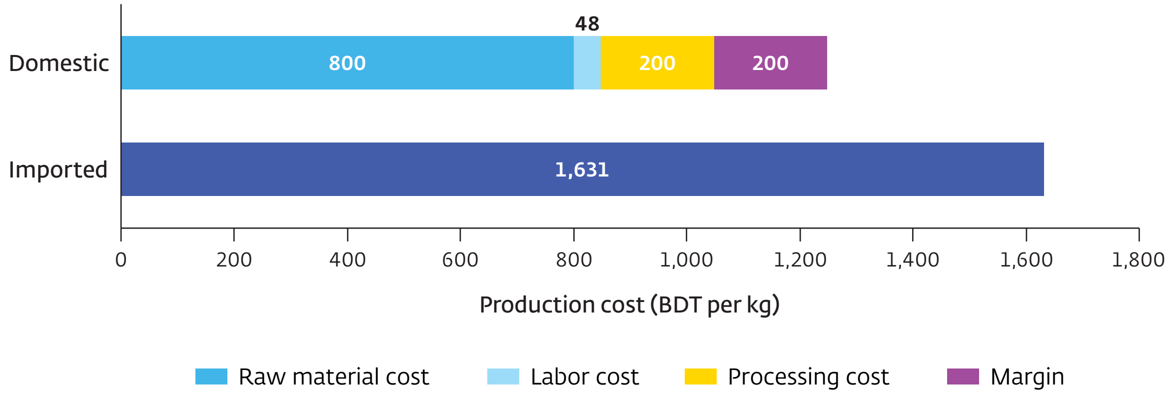
brand recognition, and investing in color tinting machines. These six firms import most intermediate chemicals required for paint manufacturing, including resins and polymers, which are core segments of the value chain (figure 5.1). Alkyd resin is one of the commonly used resins in paint, though domestic production remains limited. Analysis indicates that domestic production of alkyd resin could be cheaper than imports. There is a 30 percent difference between the landed cost of the imported resins (excluding taxes) and the cost of domestic production (figure 5.4). Most companies have not taken advantage of this backward integration potential due to several constraints that are explored in the next section.

5.3 Constraints and Recommendations for Private Investment – Paint

CONSTRAINT 1. The high share of inputs in paint production and the cost of inventory holdings impose capital constraints on domestic producers. Bangladeshi imports suffer from longer delays in consignment processing time and spend more time sitting in a port (see figures B.1 and B.2 in appendix B) than imports of regional peers, which is an economy-wide challenge but also specific to paint producers given the import intensity of production. The cost of raw materials, such as pigments, resins, and solvents,

Figure 5.4

Manufacturing alkyd resin locally has potential to be less expensive than importing



Source: Team analysis based on firm-level data collected through interviews.
Note: Both imported and domestic production costs includes customs duty, transaction charges, and local transport (but not other taxes). Domestic production cost does not include value-added tax.

can account for 60 to 70 percent of total cost (figure 5.4); in Bangladesh, raw material intensity translates to import intensity given the high share of raw materials that are imported—estimated at up to 90 percent. The import intensity—defined as the share of intermediate goods sourced from imports—of a leading paint firm is up to three times that of other firms in Bangladesh (see table B.1 in appendix B). Therefore, logistics delays at ports and higher costs due to demurrage and detention are particularly problematic for paint firms, which can import over 100 different raw materials. As a result, paint companies in Bangladesh maintain 1.5 to 2 times the raw material holdings (in volume) of comparable paint companies in India (see figure B3 in appendix B).[124, 125] This ties up firms' working capital with greater storage costs, risk of obsolescence, and reduced liquidity.

To increase control over supply chain management, some firms have started producing key raw materials locally given the cost advantage compared to imports. Most recently, JAT Holdings PLC, Sri Lanka's market leader in wood coatings and brushes, has opened an Alkyd Resin Plant to produce primary raw materials for paint and coatings. The company reports the Bangladesh plant lowers import costs and frees up working capital to support local manufacturing and exports of surplus materials.

RECOMMENDATION 1A. Digitize customs classifications on imported inputs for paint in order to expedite clearance. This would involve the use of automation to classify various raw materials and assign them harmonized system (HS) codes with standard chemical product definitions[126] across customs agents and importers. This process helps businesses comply with customs regulations and avoid penalties by calculating duties correctly and avoid delays due to misclassifications. This policy action would also be relevant for the import of inputs for dyes.

RECOMMENDATION 1B. Accept internationally reputable third-party laboratory testing results for customs purposes. Bangladesh Customs can increase turnaround times at ports by outsourcing laboratory testing to third-party providers, especially at key import points such as Chattogram Customs Lab.[127] Bangladesh Customs should also focus on training personnel on product-specific import procedures. This policy action would also be relevant for the import of inputs for dyes.

RECOMMENDATION 1C. Allow application of deferred duties for importing firms until raw materials are cleared or consumed. To help mitigate the high inventory holding costs, the National Board of Revenue (NBR) could allow for deferred duty payment for imported industrial raw materials. This would effectively de-link duty payments and customs clearance to facilitate faster processing. If Bangladeshi paint producers were able to defer import duties until their materials are cleared or consumed, this would significantly benefit cash flow management.

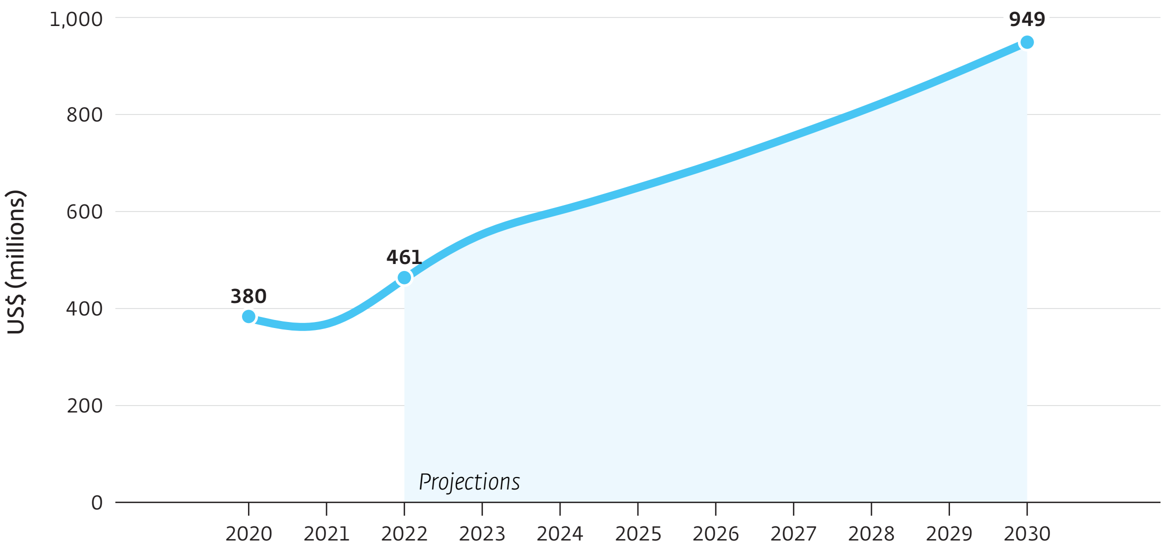
5.4 Sector Context and Opportunity – Dyes

Demand for dyes, both globally and in Bangladesh, is sizable and growing in line with RMG market growth. In Bangladesh, domestic sales of dyes were close to US$600 million in 2023 and projected to increase at a compound annual growth rate (CAGR) of eight percent until 2030 (figure 5.5). The global market for dyes reached more than US$42 billion in 2023 and is projected to grow at a CAGR of 5.1 percent from 2024 to 2032.[128] Bangladesh's faster dyes demand growth as compared to global trends presents significant potential for increased private investment. Further, the dye sector is not limited to the domestic RMG market; Bangladesh's production could unlock export opportunities in newly emerging RMG markets. Bangladesh can target companies that are moving their production from Asia to Africa, where the RMG market is growing in line with consumer demand and urbanization. The continent's current apparel exports are roughly US$15–16 billion a year and could triple over a decade, according to a UNESCO study.[129]

Despite demand growth, Bangladesh overwhelmingly relies on imported dyes with little backward integration among RMG manufacturers. Nearly 90 percent of dyes sales are imports, mainly from India, Singapore, and China.[130, 131] Among garment-exporting Asian countries, Bangladesh has the largest trade deficit in dyes (figure 5.2).[132] Dyes manufacturing is knowledge- and technology-intensive, especially given the increasing demand for sustainable production (which is more complex than the existing widespread non-sustainable methods), and Bangladesh's dyes manufacturing capacity is below its regional peers (see table 5.1).

Figure 5.5

Bangladesh market demand for dyes is projected to grow steadily through to the rest of the decade



Source: BCDMEA interview; World Bank Group analysis. Data before and after FY22 based on projections of RMG exports, which has historically grown in-line with the textile sector, excluding basic chemicals.
Note: Figures represent total domestic consumption of dyes.

5.5 Constraints and Recommendations for Private Investment – Dyes

CONSTRAINT 2. Benefits of bonded warehouse regime are largely unavailable for non-RMG sectors. Domestic firms that supply local RMG-exporting firms in Bangladesh are considered "deemed exporters" and are technically eligible to use bonded warehouses. In practice, however, deemed exporters in Bangladesh and international dye producers have struggled to access bonded warehouse facilities (with permits predominantly allocated to RMG firms). If local dye producers could access bonded warehouses, they would benefit from lower production costs (e.g., avoidance of import duties on imported intermediate goods used for finished dyes). This is particularly relevant given how complicated import procedures increase logistics and operating costs of manufacturing dyes onshore. Import delays related to long consignment processing times (see figure B.1 in appendix B) and high dwell times (see figure B.2 in appendix B) diminish potential competitiveness vis-à-vis foreign finished dye suppliers.

RECOMMENDATION 2. Revise the Bonded Warehouse policy to allow third-party operators to manage bonded warehouses, thereby increasing access for non-RMG firms. Currently, firms seeking access to bonded warehouse facilities must maintain their own storage facilities with a proper record-keeping system for duty-free imports. This can be burdensome, particularly for smaller firms. Instead, a third-party operator could manage a storage and tracking facility on behalf of multiple firms, purchasing in bulk and guaranteeing supply to the appropriate businesses. This would require the issuance of a statutory regulatory order by the NBR to modify the current Bonded Warehouse policy to accommodate third-party operators. The revised Bonded Warehouse policy should require third-party operators to establish a robust tracking system to prevent leakage of duty-free materials into the domestic market.

CONSTRAINT 3. The current tariff structure creates an incentive to import final goods for the RMG sector rather than inputs that could be used in local dye production. Imported dyes face a marginal import duty (5 percent) or no import duties. In contrast, for a commonly used reactive dye (black reactive dye CI5), import duties on raw materials range from 5 to 25 percent, with the effective duty averaging 8 percent (table 5.2). This inverted duty structure harms Bangladesh's competitiveness in producing local dyes.

RECOMMENDATION 3. Equalize customs duty of imports of raw materials used in dyes with those for finished dyes in a fiscally neutral manner. Illustrative analysis of a common reactive dye (black reactive dye CI5) indicates that landed cost estimates for domestic production would be in line with imports (figure 5.6) if raw material tariffs were harmonized with final goods rates. While customs duties appear as a relatively small share of total costs at 7 cents per kilogram, they are relatively large when compared to other costs (e.g., production, SGA) and increasingly significant as the industry scales.

There is a clear advantage for domestic production of dyes over importation of dyes under an import parity scenario. Domestic dye producers would offer reduced sourcing lead times to RMG manufacturers, allowing buyers to be more in tune with changing trends and adjust operations more quickly. Some international dye firms have already invested in local manufacturing of auxiliary chemicals for textiles and garments. These onshore advantages are even more relevant within the context of post-COVID-19 global supply chain disruptions and the increasing cost pressures likely to come with the loss of preferential market access once Bangladesh moves on from LDC status.

Table 5.3 outlines recommendations that can be implemented in the near term to foster private sector investment in the production of dyes and paints in Bangladesh. The table highlights recommendations on tariffs, inventory management, and skills based on potential impact and implementation feasibility. The table also elaborates on the underlying constraints, proposed actions, and risks associated with implementation, as well as the actors responsible for implementing the recommended measures.

While not included in the table of policy actions, it is critical to expand the supply of reliable energy to support domestic production of paints and dyes. To increase the

Table 5.2

Imported black reactive dye CI5 is subject to a lower customs duty (5%) than the raw materials required for local production (8%)

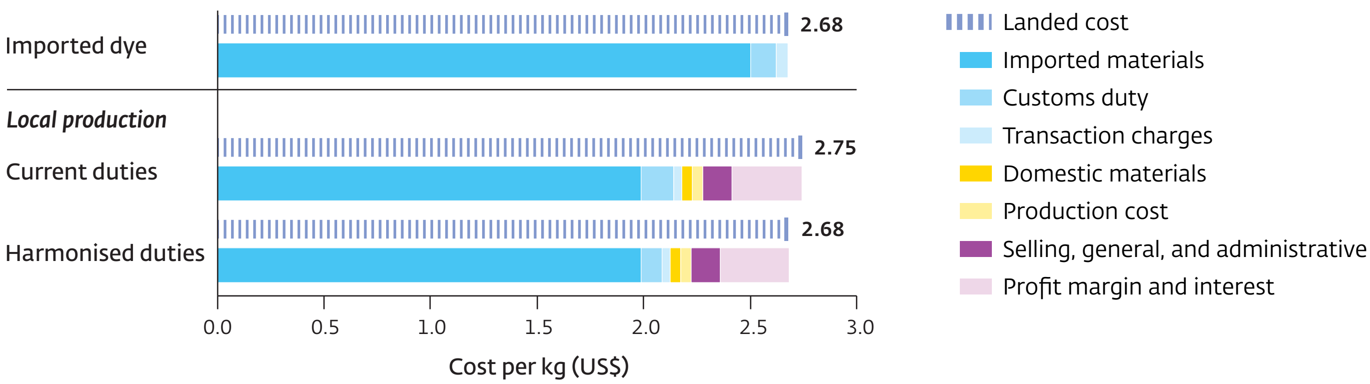
If imported directly	
Purchase value (%)	Customs duty (%)
100	5

If manufactured in Bangladesh		
Key raw materials	Share of material cost (%)	Customs duty (%)
H-acid	49.6	5.0
Vinyl sulphone ester	43.4	10.0
Sodium nitrate	2.8	5.0
Sodium bicarbonate	2.5	10.0
G salt	1.6	25.0
Total effective duty	100	8.0

Source: World Bank Group analysis based on experts' interviews.

Figure 5.6

With harmonized duties, domestically produced dyes could be competitive with imports



Source: World Bank Group analysis based on data from a leading dye firm.
Note: The data represents export-quality cost structures for black reactive dye. For reference, Indian exports of black reactive dye HS8 code have a unit value of US$3.7 per kg based on BACI, UN Comtrade and internal calculations. Reactive dyes imported by Bangladesh from India have a lower unit value than those imported from suppliers in other countries.

Table 5.3

Priority policy recommendations for increasing private investment in paint and dyes

Constraint	Recommended action
Paint and dyes	
There is inconsistent application of customs classifications on imports of inputs for paint and dyes.	Digitize customs classifications on imported inputs for paint and dye firms in order to expedite clearance. Accept internationally reputable third-party laboratory testing results for customs purposes.
	Responsible government entities: lead—Bangladesh Customs; others—Industry Associations, Trade and Tariff Commission, Ministry of Commerce.
Paint	
The cost of inventory holdings imposes capital constraints on domestic producers.	Allow application of deferred duties for importing firms until raw materials are cleared or consumed.
	Responsible government entities: lead—NBR; others—Ministry of Interior, Industry Associations.
Dyes	
Benefits of bonded warehouse regime are largely unavailable for non-RMG sectors.	Revise the Bonded Warehouse policy to allow third-party operators to manage bonded warehouses, thereby increasing access for non-RMG firms.
	Responsible government entities: lead—NBR; others—Ministry of Interior, Industry Associations.
Tariff structure incentivizes import of finished dyes over domestic production.	Equalize customs duty on imports of raw material used in dyes to be the same or lower than those for finished dyes in a fiscally neutral manner.
	Responsible government entities: lead—Bangladesh Trade and Tariff Commission, Ministry of Commerce; others—Ministry of Interior, NBR, Industry associations.

supply of reliable energy to industry, the Ministry of Power, Energy, and Mineral Resources will need to review the demand, availability, allocation, and pricing of energy resources.

5.6 Risks to Be Managed

Opportunities for private investment in paint and dye manufacturing must be weighed against the environmental and health and safety (E&HS) issues surrounding these sectors. E&HS challenges for paint and dyes production broadly span four key areas: (1) resource extraction and processing for input materials, (2) energy and water consumption during production, (3) chemical waste minimization, treatment and disposal, and (4) employee exposure to toxic chemicals. The latter two categories require special attention to industry-specific safeguards. Additionally, failure of local paint and dyes firms to adopt cutting edge technology can slow down environmental cleanup downstream (e.g., the use of azo-free dyes that are synthetic dyes that do not contain azo compounds, which can be harmful to human health and the environment).

Like most manufacturing firms in Bangladesh, paint and dyes firms depend heavily on limited groundwater resources due to the widespread pollution of rivers and surface water bodies. Despite existing regulations on groundwater extraction, enforcement remains weak, and the absence of zoning controls exacerbates the issue. This poses significant risks where industrial water use competes with local communities' needs. To mitigate these risks, the industry should implement water-efficient technologies and recycling systems. For factories located in industrial areas and export processing zones, the government should support and encourage transition to surface water use by developing shared infrastructure for water treatment and distribution. Additionally, stronger government regulations and the establishment of groundwater zoning would be essential to ensure sustainable water use, safeguarding local communities.

Water pollution from improper wastewater treatment is also a major environmental risk in paint and dyes manufacturing. Paint production releases waste paint and other intermediate chemicals via direct disposal or leaching from landfills, while dye production generates wastewater containing volatile and semi-organic compounds and heavy metals from rinsing and washing. Historically, the paint and dyes industry in Bangladesh lacks effective wastewater treatment systems meeting good international industry practice. While the larger factories and export-oriented units progressively invest in new waste management solutions with an attempt to meet global customer standards, local producers and non-export-oriented units are not capable to meet compliance. Government initiatives aimed at establishing common treatment facilities have largely been absent.

Weak enforcement has rendered the environmental management framework largely ineffective in reducing wastewater pollution from this sector. The introduction of new legislation, such as the Bangladesh Environment Conservation Rules (ECR) of 2023, has further imposed stricter standards, particularly for dye manufacturing, such as new limits on color in wastewater. However, significant enforcement gaps persist. Many high-risk "red" firms, as categorized under the ECR due to their potential for severe environmental harm (including paint and dyes firms), continue to operate with expired Environmental Clearance Certificates (ECCs). Between 2019 and 2021, approximately 40 percent of these firms operated without a valid ECC, and only 38 percent had applied for renewal.[133]

Tackling wastewater challenges will require investment in modern treatment technologies, the establishment of common treatment facilities in industrial zones, the adoption of sustainable practices, and strict enforcement of regulatory standards. Dye firms can also play a critical role in addressing wastewater challenges downstream. The most severe wastewater challenges arise in the textile dying industry. Innovative dye firms are developing products that reduce toxic wastewater generation during the application stage, particularly in textile dyeing. However, dye firms which are slow to offer innovative products risk stalling environmental progress and discouraging the adoption of green technologies in downstream industries.

The mismanagement of hazardous chemical waste is another key EHS concern in the paint and dyes sectors. Both industries use hazardous substances like solvents, pigments, heavy metals, and organic compounds, with paint production releasing harmful chemicals that degrade air quality and pose health risks to workers. There are presently no regulations in Bangladesh for managing hazardous chemicals and industrial wastes, and waste disposal is largely handled informally, creating serious risks to public health and the environment. Despite the lack of regulations, export-oriented units are reducing hazardous chemical use, adopting greener technologies, and pursuing sustainable practices. However, addressing this issue requires a comprehensive regulatory framework, proper waste management infrastructure, and strict enforcement.

Paint and dyes producers' ability to implement adequate safeguards, adopt innovative green technology, and remain competitive in the long run will depend critically on an enabling regulatory environment supporting green practices. As noted in the World Bank Group's (2022) Bangladesh Country Climate Development Report and Green and Climate Resilient Development Credit, improvement in legislative and institutional capacity for implementing climate regulations is one of the country's most pressing challenges. The Department of Environment should make substantive reforms around reducing existing regulatory gaps, strengthening enforcement capabilities, and ensuring adequate sanctions are in place to deter rule breaking.

6

Digital Financial Services

AT A GLANCE

- Bangladesh’s large population with low existing penetration of financial services presents an opportunity for innovative approaches to serve this growing market.
- Widespread use of mobile money shows people and businesses are willing to try new solutions on the demand side, while a vibrant but nascent fintech sector, partnerships of banks and MFS, and emerging embedded finance offerings demonstrate innovation potential on the supply side.
- To unlock private investment, policies should promote adoption of digital payments and development of credit information systems, support the entry of innovative fintech and embedded finance providers, and enable the investment structures needed to fund them.

6 Digital Financial Services

6.1 Sector Context and Opportunity

Bangladesh has a nascent but growing digital financial services (DFS)[134] market, centered around mobile financial services (MFS),[135] payment service providers (PSPs), and an increasing range of innovative services. The Central Bank's Cashless Bangladesh initiative is set to expand digital payments further. Digitization is also taking hold in business-to-business commerce, retail, logistics, and other areas. Encouraging the growth of fintech, bank digital lending, and embedded finance (EmFi)[136] could attract more investment.

Growth in this area is constrained by the challenges of transitioning from a cash-based economy to digital payments, still nascent use of data-driven lending, and regulatory and structural barriers to innovative fintech lending models. Data-driven lending, based on a broad set of digital data, is still in its infancy in Bangladesh, held back by regulatory barriers. Embracing the development of DFS would create opportunities to invest in a variety of players, including banks, nonbank financial institutions (FIs), fintech firms and digital platforms.

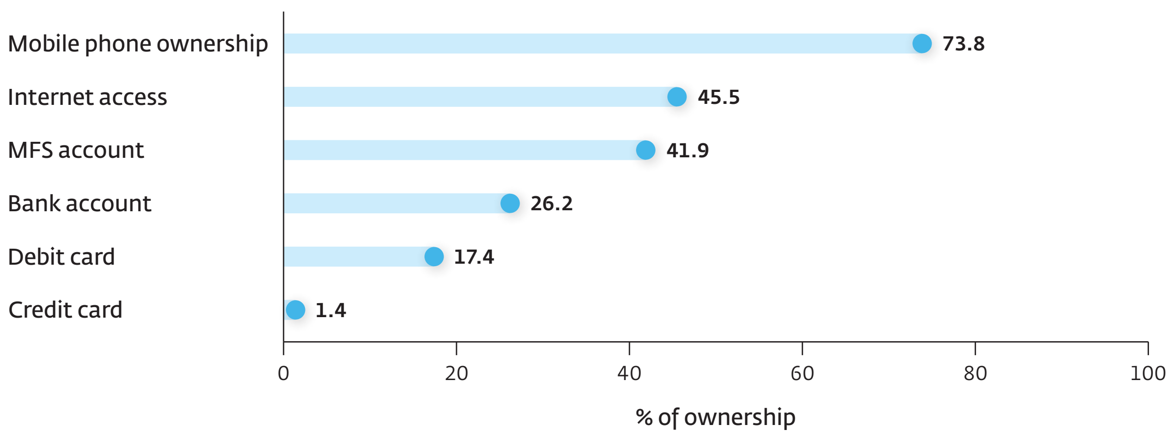
The challenges facing SOCBs in Bangladesh are not, at present, a major constraint on DFS. Rather, DFS enables financial services to efficiently and economically reach and serve more customers, including in rural areas, providing an alternative to the branch networks traditionally operated by SOCBs. Thus, the lack of dynamism of SOCBs has helped create market opportunities for more solvent and well-managed banks and for MFS providers.

Bangladesh's rapid digitization lays a foundation for new approaches to the application of DFS. Bangladesh has 186 million mobile subscriptions (against a population of 173 million), 129 million internet users, and 93 million smartphone users.[137] Many of these users make digital payments through MFS, which first emerged in 2011 and are now used by roughly 70 percent of adults, most of whom live in rural areas.[138] This rapid growth, from zero in 2011, 3 percent in 2014, and 70 percent of adults in 2023, signals the potential for mass market use of trusted digital finance products. As of 2024, the industry is comprised of 13 licensed operators and employs 1.8 million MFS agents.[139] A broader fintech sector, reported to include more than 300 companies,[140] has emerged in parallel. Fintech players have raised US$284 million in venture capital (VC)[141] and as of 2022 had posted an estimated US$450 million in annual revenue.[142] Incumbent financial services providers have also begun to offer digital products and services, including MFS.

Despite this, Bangladesh remains underbanked, suggesting there could be significant additional demand for DFS. Only 26.2 percent of adults have a bank account and 14 percent have access to formal credit. There are just 8.8 bank branches for every 100,000 adults (versus 14.4 in India), and only 28 percent of the country's small- and medium-sized businesses are served by formal FIs (figure 6.1).[143] Fintech could provide access to financial services at lower cost and at scale by using mobile and internet technology to expand reach. Digitized processes and advanced analytics can also reduce the cost-to-serve, making the provision of smaller loans and transactions economically viable through automated processes.

Figure 6.1

Bangladesh's key financial indicators on financial access, 2024



Source: Bangladesh Bank's Economic Data database.
Note: MFS accounts include mobile banking and mobile payments.

The government has played a key role in providing supportive digital public infrastructure. Bangladesh introduced a national digital ID, modernized the payment system and updated its regulatory architecture.[144] In 2022, the central bank created and launched the Interoperable Digital Transaction Platform (IDTP), thereby allowing real-time transfers across banks, MFS providers, and PSP platforms. Then, in January 2023, Bangladesh Bank launched a national QR payments system, Bangla QR, to provide interoperability for retail QR based payments across banks, MFS providers and PSPs.[145] Government has also promoted the Cashless Bangladesh initiative, which aims to make 30 percent of all transactions cashless by 2025, and 100 percent by 2031.[146] Government cash transfer payments and salaries have been digitized, and are now distributed via direct deposit or MFS. However, despite the IDTP, the payments system remains fragmented and concentrated, with three closed-loop providers handling over 80 percent of MFS transactions.[147]

Widespread availability of MFS accounts has not resulted in broad usage. Central bank data show that only 40 percent of the 230 million registered MFS accounts are active (table 6.1). Cash-in and cash-out (CICO) accounts for over half of all transactions, and person-to-person (P2P) transfers another 27 percent, which means that digital merchant payments, salaries and utility bill payments make up a small share of MFS transactions (figure 6.2). These data indicate that 75 to 90 percent of MFS transactions comprise the simple P2P use case of cash-in for a transfer and cash-out by the receiver.

Table 6.1

Mobile financial services are widely available but remain underutilized, 2024

Registered customers	230.1 million
Registered agents	1.8 million
Registered merchants	1.4 million
of which: merchant accounts	35%
Personal retail accounts	65%
Active accounts	90.6 million
Transactions per day	18.6 million
Value transacted per day	BDT 44,490.4 million
Average transaction value	BDT 2,389.3

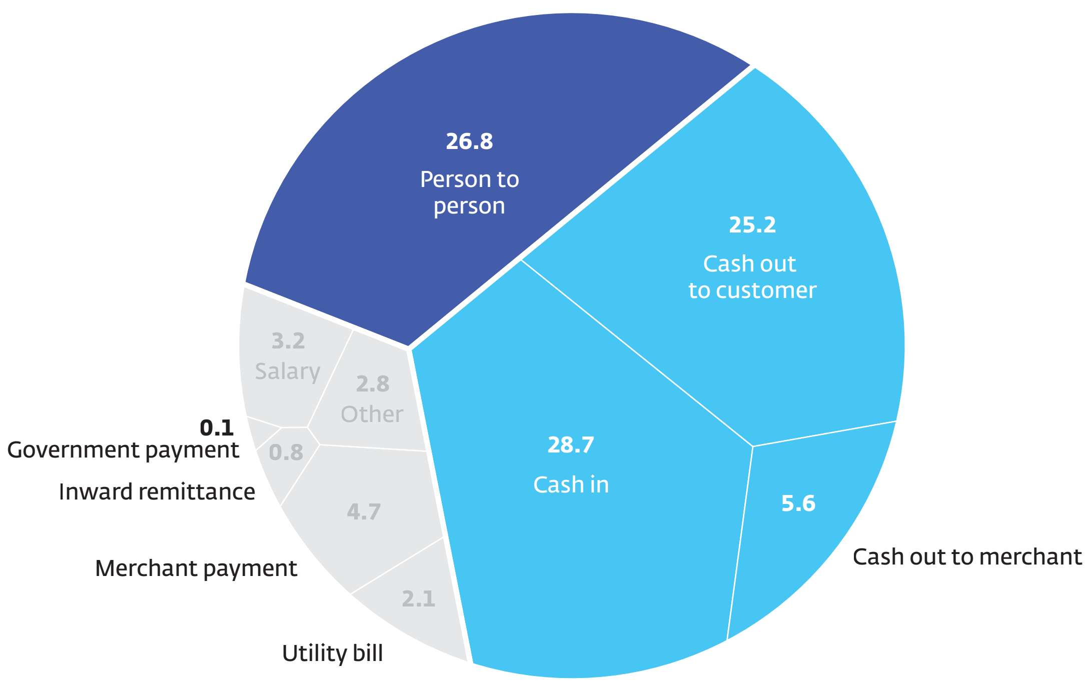
Source: Bangladesh Bank's Mobile Financial Services database.

Payments to merchants and utilities are only 7 percent of transactions. MFS accounts are non-interest-bearing with little incentive to hold balances beyond what is used for payment transactions. The average transaction size is BDT 2,390, roughly US$20. Two-thirds of the 1.4 million registered merchant accounts are informal or micro merchants using "personal retail accounts." While 15 percent of firms use MFS for payments, regular use is limited.[148]

MFS operators in Bangladesh are well positioned to offer broader financial services, including potentially credit, but the regulatory framework for digital finance is underdeveloped. In many emerging market and developing economies (EMDEs) where baseline traditional banking penetration is low, the proliferation of MFS accounts offers an on-ramp to additional digital finance products and services such as savings, loans, investment and insurance. In such markets, EmFi also emerges as non-financial businesses, especially digital platform businesses such as e-commerce and logistics platforms, adopt digital payments and provide working capital loans to customers based on the onboarding, business activity, and transaction data the platforms gather on each customer. While the capabilities to offer these products and services are in place, the market in Bangladesh has not yet developed (see Constraints 3 and 4 below).

Figure 6.2

Mobile financial services usage is dominated by cash-in and cash-out accounts, 2024



Source: Bangladesh Bank's Mobile Financial Services database.

Data on the flow of funds in and out of e-money wallets, as well as other data from phones and digital platforms, have proven to have predictive value for credit underwriting. This business model of using data for credit underwriting has attracted international investment in East Africa, India, and other markets. While in some markets fintech lending is permitted, in Bangladesh the regulatory framework for digital lending is underdeveloped, and MFS providers must partner with banks to provide financial services. Nano loans from banks, MFIs, and fintechs become economically viable when onboarding, scoring, disbursement and collections can be automated using digital channels. There is limited nano lending by mobile network operators in the form of in-call credit (where calls are allowed to continue after a pre-paid account has run out). In addition, buy-now-pay-later models have potential as a complement to digitized payments.[149] For micro, small and medium enterprises, the digitization of supply chains and customer payments creates a wealth of data which could be used to determine creditworthiness. As merchant acceptance of digital payments increases, the data needed for lending products such as merchant cash advances will be in place. Supply chain finance and receivables finance can also be facilitated by the digitization of wholesale order, delivery and payment processes. Emerging use cases in Bangladesh include acceleration of receivables earned for services through e-logistics platforms and financing of (or delayed payment for) inventory purchases by small retailers.

Credit information systems (CIS), and in particular the sharing of credit-relevant data across lenders, are critical for sound and responsible access to finance. CIS in Bangladesh has been concentrated in the Bangladesh Bank-run Credit Information Bureau, which contains only traditional loan information reported by banks, and covers only nine percent of the adult population, according to B-Ready 2024. In other countries, alternative credit data gleaned from payment providers and other sources have expanded the pool of potential borrowers. In Brazil, for example, using utility payment data increased the credit-visible population by 21 million people and improved credit scores for almost 80 percent of people already covered.[150] Other data sources could include tax records, everyday payment transactions, court records, business orders and inventory, patterns of movement, and social media footprint.

Bangladesh's new license system for private credit bureaus and the draft Personal Data Protection Act (PDPA) could make credit more accessible. In June 2024, Bangladesh Bank introduced licensing of private credit bureaus, which will be able to use alternative data as well as traditional credit information, potentially making more people eligible for loans.[151] Meanwhile, the PDPA gives people ownership of their own data and requires data holders to enable permissioned data portability. If passed, the bill would create a transparent framework for data sharing that lenders and credit bureaus could use to offer financial products.[152] Taken together, these initiatives can remediate the low coverage level of traditional credit information and improve access to credit in Bangladesh, by creating an open and competitive market for credit reporting and better leveraging the alternative data that are becoming increasingly available.

Private investment could bring more equity, debt funding or risk-sharing to fintechs and traditional banks looking to move into the digital services sector. There has been limited VC equity funding of Bangladesh's fintech sector, including from foreign investors. Around 90 percent of the US$284 million raised by fintech players cited earlier can be attributed to a single MFS deal. Debt finance will be particularly important to scale up lending by non-deposit taking lenders such as fintechs and EmFis, but such funding is limited by investor risk appetite and structural impediments. While most traditional banks remain dependent on their physical branches, signing up their clients in person[153] and relying on the existing credit bureau when making loans, there are fledgling partnerships between a few traditional FIs and fintechs. Some Bangladeshi banks see DFS and new kinds of data-driven lending as an opportunity to broaden their own loan portfolios. Doing so may require additional capital, liquidity, and risk-sharing facilities from investors.

Corruption, political interference, and regulatory uncertainty have posed challenges.[154] Lack of transparency and accountability in awarding contracts and licenses[155] discourages innovation and entrepreneurial ventures. For instance, in October 2023, digital banking licenses were issued to two of 52 applicants through an untransparent process that appeared to favor politically connected applicants. On a seemingly ad hoc basis the regulator promised additional licenses would be issued later to some applicants and offered an undefined "digital banking window" to some other applicants.[156]

6.2 Constraints to Private Investment and Recommendations

CONSTRAINT 1. There has been limited adoption of digital payments for wholesale transactions.

The Cashless Bangladesh initiative and the Bangla QR code have largely focused on payments between customers and retailers. Expanding the use of DFS will require bringing other parties, such as wholesalers, on board. Mobile wallets are ill-suited to pay wholesale suppliers because of transaction limits and the costs of transferring funds to bank accounts. If retailers cannot use digital payments with their suppliers, they will be reluctant to accept digital payments and will steer their customers toward cash payments so as to avoid having to convert digital money into cash to pay suppliers.

RECOMMENDATION 1. Bangladesh Bank should establish a protocol to enable MFS to issue and validate merchant/corporate wallets that have higher transaction limits, enabling their use for wholesale transactions. Reducing IDTP transactions charges for wholesale transfers between merchant/corporate wallets and bank accounts would further encourage adoption.[157]

CONSTRAINT 2. Price controls on digital payments prevent service providers from being able to recover their costs. For the private sector to invest in digital payment adoption, the cost of developing and servicing networks of retailers that can accept digital payments (acceptance networks) needs to be recoverable. The central bank has restricted the merchant discount rate that can be charged for Bangla QR payments, and prevented costs from being passed on to customers.[158] As a result, customers have been reported to use the free QR transactions to withdraw cash from merchants in order to avoid the transaction limits and fees they might incur at MFS agents.[159] This undermines the economics of the agent networks that enable MFS to function and reduces incentives to build and maintain digital payment acceptance networks. Cost differentials between transactions conducted as a merchant and transactions conducted as an agent create arbitrage opportunities for agent/merchants. MFS providers have gone so far as to separate merchant and agent activities to avoid arbitrage, despite the obvious potential synergies of merchants also being agents in terms of community presence, customer traffic, and cash handling.

As the economy moves away from cash, the economics of banking and MFS will change. For example, the costs of maintaining MFS agent networks may become burdensome for providers if value stays within the e-money system and CICO volumes fall off. Pricing regulation of payment services prevents market participants from adjusting the prices they charge to reflect the value they create for users. Since cash, bank transfers and other alternatives continue to exist, Bangladesh Bank should focus on fostering competition, while allowing dynamic markets to arrive at value-based price configurations that find broad acceptance among businesses and their customers.

RECOMMENDATION 2. Bangladesh Bank should publish its methodology if it sets any limits on merchant discount, interchange, or other fees. The methodology should consider the costs and cost-savings to all involved parties to ensure that adoption of digital payments is economically attractive to users and economically viable for providers.

CONSTRAINT 3. Gaps in the credit information system slow the adoption of data-driven lending.

While the authorization of new credit bureaus that may use alternative data could expand access to credit, it is not yet clear whether the regulator and supervisors will treat alternative credit scores the same as Credit Information Bureau credit reports with respect to banks' compliance with credit check requirements. Furthermore, as new lenders proliferate, credit information from traditional lenders alone will not reflect the full scope

Box 6.1

Longer term issues: digital payments adoption

Limited digital literacy, poor internet access, high costs and unreliable service have constrained widespread adoption of digital platforms, even though mobile phone ownership is high. The average cost of broadband in Bangladesh in 2024 is equivalent to US$13.7 per month, significantly higher than Viet Nam (US$8.7) and India (US$9.7).[a] Bangladesh ranked 147 out of 176 countries in the ICT Development Index 2023, indicating a need to upgrade the supporting infrastructure.[b] The country still experiences frequent power outages that discourage firms from relying on digital technologies.[c] Promoting women's use of these services would further increase the market size and the scope for profitable private investment in digital infrastructure.

Many MFS users convert their digital funds into cash for safekeeping. They lack trust in the financial stability and longevity of invisible systems holding their cash and may also be concerned about the security of their own accounts and the system as a whole from hackers. For a cashless economy to take hold, users will need to feel safe leaving value in the e-money system. They also need to trust that the payment system will work regardless of recipient, that they have somewhere to turn if problems arise, and that they can convert their digital funds to cash at will. Adopting international best practices on financial consumer protection, and offering financial literacy programs, can help build that trust. Clear policies on consumer rights, data protection, enhanced cybersecurity for the financial system and improved consumer grievance redress mechanisms for digital financial services would also help. The PDPA will improve data protection when implemented.

Although domestic providers have had considerable success, barriers to entry for international payment service providers may be preventing innovation in the sector, limiting global venture capital's ability to invest in Bangladesh. International payments are also highly restricted, with e-commerce transactions limited to US$4,300 per transaction. Pre-approvals are required if they exceed this amount.[d]

a. Cable.co.uk. 2024.
b. ITU 2023.
c. FAT survey. 2023. Bangladesh is the country with largest number of power outages (near 60 outages per month) among a set of 16 countries.
d. Bangladesh Bank 2020.

of a borrower's indebtedness. Debts owed to fintech firms or embedded finance providers may not show up on credit reports, making them less reliable measures of debt exposure. While new credit bureaus will be able to request data from a range of sources, that is not the same as mandatory sharing of credit exposure. Applicants may not acknowledge or voluntarily allow data sharing from all their non-traditional creditors.[160]

RECOMMENDATION 3A. Bangladesh Bank should confirm that alternative data scores (e.g., credit bureaus licensed under the June 2024 guidelines) are an acceptable alternative to traditional credit reports for bank lending.

RECOMMENDATION 3B. Bangladesh Bank should broaden the Credit Information Bureau's reporting and data access to include all commercial entities engaged in lending.

Box 6.2

Longer term issues: credit information

While there is a broadly used digital National Identity (NID) for individuals, there is no corresponding unique identifier for businesses. Tax ID can serve for larger enterprises, but micro and small enterprises often do not have a unique identifier that would both support signing up customers digitally[a] and enable linking data from different sources for credit analysis. For micro, small and medium enterprises that may not have a tax identity, the closest approximation of a unique identifier is the trade license obtained from the local authority. Trade license numbers, however, may not be unique, linked to a verified identity, or issued with the same standards and controls nationwide, leading to potential errors or misuse.

a. e-KYC (Electronic Know Your Customer) is only applicable to natural persons that possess an NID, see https://www.bb.org.bd/mediaroom/circulars/aml/jan082020bfiu25.pdf.

CONSTRAINT 4. There is at present no regulatory framework for fintech lending. MFS companies and others seeking to leverage their data and distribution channels to provide loans must partner with banks. There are few banks with the technical capabilities to conduct such partnerships soundly and efficiently. Even those that are able and willing to partner with fintechs have exposure and risk limits that may keep them from taking advantage of their partners' innovative distribution and underwriting abilities.

In some cases, embedded finance has been able to provide "loan-like" products by extending working capital to customers. In fact, all sellers who allow buyers to delay payment for goods or services, e.g., by invoicing on 30-day terms, are in effect providing a loan. The potential for digital platforms to offer these types of loans at large scale exposes a gap in the regulatory framework for lending. Bangladesh Bank is not alone among global regulators in facing the challenge of how to adjust the regulatory perimeters to enable sound innovation in lending.[161] Many of the new business models are potentially less risky than lending from traditional banks or nonbank FIs, due to the ability to leverage data and direct disbursement, and to embed the borrowing relationship into a broader business service.

Although Bangladesh Bank has introduced a digital banking license, few have been issued despite many applications (see also the political economy section). The central bank has not yet broadened its digital licensing to encompass non-bank fintechs and embedded finance providers. Such digital NBFIs are increasingly important providers of financial services, particularly to inclusive finance customer segments, in many EMDEs. A clear regulatory framework would help attract investment into fintech and embedded finance in Bangladesh.

RECOMMENDATION 4. Bangladesh Bank should adapt NBFI licensing to encompass fintechs, or create a new licensing category for fintech and embedded finance.

CONSTRAINT 5. Innovative non-deposit taking digital lenders lack debt funding structures to finance loan book growth. A key challenge facing non-deposit taking lenders such as fintech lenders and embedded finance providers is funding their loan books. The ability of innovative non-deposit-taking lenders to borrow is usually limited by shallow equity capital and by operating losses if they are still scaling and developing their infrastructure and client base. One well-established solution in many markets is structured finance using an off-balance sheet special purpose vehicle (SPV). Structured finance has not been widely used in Bangladesh due to technical implementation barriers, including limits on the ability of a SPV to borrow from overseas, and the National Board of Revenue practice of applying stamp duties and transfer taxes on movements between the originator and the SPV. When a SPV is used, loan assets are transferred from the originator to the SPV, which can borrow against those assets. The key benefit of this approach is that the SPV can have a higher credit rating than the loan originator,[162] thus attracting funding at lower rates.

Asset-based lending structures should be possible under the Asset Backed Securities Rules of 2004 and Debt Securities Rules of 2021, but structured finance has still not been widely used in Bangladesh. A recent survey identified only one prior transaction involving an off-balance-sheet receivables securitization, in 2006, which ended badly.[163] The transaction incurred high costs associated with the securitization process, including for registration of the SPV. In addition, the National Board of Revenue (NBR) deemed the structure liable for transfer taxes on the sales of assets between the lender and its captive SPV. NBR demanded taxes from the SPV for the previous years of its operation, leading to a lengthy Supreme Court proceeding.

This lack of tax neutrality renders most structured finance vehicles economically infeasible. Moreover, the exchange control regime for SPVs restricts their ability to attract specialist investors with the necessary skills and risk appetite for these assets, most of whom are offshore.

RECOMMENDATION 5A. NBR should eliminate transfer taxes on assets moved from originator to structured finance vehicles.

RECOMMENDATION 5B. Bangladesh Bank should explicitly articulate circumstances under which structured finance vehicles may take in offshore funding.

Box 6.3

Longer term issues: funding for innovators

Regulatory treatment of venture capital (VC) funds and foreign investment makes it difficult for startups to attract funding. Foreign investors often have trouble repatriating earnings. The requirement of pre-approval of sale valuation, and "fair value" restriction by Bangladesh Bank on the sale of shares from non-resident investors to residents, expose investments to depreciation risk and extends the time required for repatriation.[a] In addition, current tax policy categorizes VC funds as alternative investments, which require a lock-in of 3 years. Rules by Bangladesh Securities and Exchange Commission and Bangladesh Bank governing private equity, VC, and impact funds need to be amended to level the playing field between offshore and onshore funds. Complicated and lengthy fund repatriation processes, and the fragmented nature of various regulations, also need to be addressed to ease investment flows in innovative sectors such as fintech and the platforms that provide embedded finance.

International VCs, unless specifically focused on emerging market and developing economies, will only take on country risk for business models with potential for large scale adoption. The market overall in Bangladesh, including the many niche markets within the economy and society, could be better served by the development of a local VC base.

a. Bangladesh Bank 2018.

Table 6.2 summarizes the near-term recommendations to foster private sector investment in digital finance in Bangladesh.

Table 6.2

Priority policy recommendations to increase private investment in DFS

Constraint	Recommended actions
Limited adoption of digital payments for wholesale transactions—Retailers are reluctant to accept e-money from customers when the retailers need cash on hand to pay suppliers and wholesale deliveries. Wholesale and other corporate uses of e-money are constrained by wallet transaction limits that were based on consumer use, and the costs of transfers from wallet to bank.	Establish a protocol to enable mobile financial services to issue and validate merchant/corporate wallets that would have higher transaction limits, enabling their use for wholesale transactions.
	Responsible government entities: Bangladesh Bank.
Price controls on digital payments prevent cost recovery for acceptance networks—Costs of building acceptance networks and maintaining CICO networks needs to be recoverable; regulated levels of interchange need revision to support new investment and market growth.	Bangladesh Bank should publish its methodology if it sets any limits on merchant discount, interchange, or other fees. The methodology should consider the costs and cost-savings to all involved parties to ensure that adoption of digital payments is economically attractive to users and economically viable for providers.
	Responsible government entities: Bangladesh Bank.
Gaps in the credit information system (CIS) slow the adoption of data-driven lending and DFS growth. Despite the welcome expansion of the CIS with planned licensing of private credit bureaus that will use alternative data, credit information will still be fragmented and incomplete if credit reporting is only done by banks and regulated financial institutions and not also by other lenders.	Confirm that alternative data scores (e.g., from credit bureaus licensed under the June 2024 Guidelines) are acceptable alternatives to traditional credit reports for bank lending. Broaden the Credit Information Bureau's reporting and data access to include all commercial entities engaged in lending.
	Relevant public sector entities: Bangladesh Bank, Credit Information Bureau.
There is at present no regulatory framework for fintech lending. MFS and others seeking to leverage their data and distribution channels to provide loans must partner with banks. Bangladesh Bank has created a new category of digital banks. However, fintech and EmFi lending is not permitted unless done via partnership with a bank or subsumed under accounts receivable.	Adapt NBFI licensing to encompass fintech or create new licensing category for fintech and embedded finance.
	Responsible government entities: Bangladesh Bank.

(Table continues next page)

Table 6.2

Priority policy recommendations to increase private investment in DFS *(continued)*

Constraint	Recommended actions
Structured finance has not been widely used in Bangladesh, and innovative non-deposit taking digital lenders lack debt funding structures to finance loan book growth. A key challenge facing non-deposit taking lenders such as fintech lenders and embedded finance providers is funding their loan books. Asset-based lending structures otherwise should be possible under the Asset Backed Securities Rules of 2004 and Debt Securities Rules of 2021.	Eliminate transfer taxes on assets moved from originator to structured finance vehicles. Articulate circumstances under which structured finance vehicles may take in offshore funding. *Relevant public sector entities:* Bangladesh Bank, NBR.

Appendixes

Appendix A

Potential Increases in Private Investment and/or Jobs

A.1 Ready-Made Garments

Based on a recent study conducted by Bangladesh Garment Manufacturers and Exporters Association (BGMEA), the global RMG market is projected to reach nearly US$100 billion by 2030. Despite challenges, the RMG sector demonstrated resilience, achieving a CAGR of 12.46 percent during 2011–2018 and 10.33 percent during 2019–2023. Looking ahead, as the MMF segment is expected to gain momentum and investments in MMF-based textiles to increase, growth prospects remain robust, with an expected minimum of 10 percent growth rate in the coming years. Bangladesh's apparel sector stands to benefit from China's ongoing apparel transition, likely receiving a surge in orders during this phase. Diversification of product offerings and destinations is anticipated to drive additional export revenue. Adopting these recommendations would require overcoming the objections of powerful vested interests. Doing so could unlock more private investment, particularly from foreign investors looking for ethical supply chains.

A.2 Housing for Middle-Income Households

The Population and Housing Census 2022 reported 13.20 million urban households in Bangladesh. With an annual urban population growth rate of 3.9 percent, the number of urban households is estimated to have reached approximately 14.25 million in 2024.

The upper-middle-class income segment target market, comprising 25 percent of the urban population, includes 3.56 million households in 2024 and is projected to grow to 4.46 million households by 2030.[164] This growth translates to an average annual demand for an additional new 180,000 housing units.[165] Thus, the current supply of only 30,000 new units per year creates a demand-supply gap of 150,000 units annually within the target market. According to IFC income assessments, most households in the target market are likely to want to own or rent a 500 sq. ft. apartment with two bedrooms. Constructing such units, considering current land, materials, and construction costs, is estimated to cost around US$19,000 per unit. Given the current minimum down payment requirement of 30 percent, financial institutions can finance up to 70 percent of the cost. Hence, meeting the gap by supporting the construction of 150,000 units per year presents a financing opportunity worth approximately US$2 billion[166] annually. This creates a significant investment potential for various financial entities, including banks, non-banking financial companies, and microfinance institutions, as well as an opportunity to expand the construction sector. Supporting these housing loans can result in creation of an estimated 2.37 million jobs in construction and allied industries each year.[167]

A.3 Paint and Dyes

Without necessary policy actions, Bangladesh could see relatively smaller-sized investments (ranging from US$30 to 40 million) in these sectors, according to industry experts. However, if policymakers enact reforms to support the private sector and domestic production, there is potential for larger, high impact investments. With the implementation of recommended reforms, domestic paint production could increase by a cumulative total of up to US$1.26 billion between 2023 and 2030. Domestic dye production could expand by a cumulative total of up to US$180 million over the same period. This combined increase in production of US$1.4 billion would require private investment equal to 10 to 20 percent of the additional production volume, translating to an investment opportunity in the range of US$144 to 288 million.

The total number of formal jobs created per US$1 million of output in the chemical sector in Bangladesh is 461. This employment multiplier is computed based on a country-specific Social Accounting Matrix (SAM), taken from the Global Trade Analysis Project database for the year 2017. The SAM multiplier approach measures the economy-wide impact of increases in chemical sector output by US$1 million on value added. To translate increases in value added to job creation, IFC developed an approach that links the growth in value added obtained from the SAM multiplier with changes in employment. This is done by estimating the GDP-employment elasticity within the manufacturing sector in Bangladesh (using historical data) and then combining this with the estimated expansion in sectoral value. Using this methodology, a cumulative increase in domestic dye and paint production of US$1.4 billion would result in over 664,000 formal jobs. These investment opportunities can have a catalytic effect on the economy, generating substantial high-skilled jobs both within the sector and across a variety of adjacent sectors. The chemicals sector is technology-driven and capital-intensive, which requires highly trained workers for operations and maintenance, research, and development. The presence of chemical plants in each region triggers demand for increased education and vocational training. Many paint firms currently offer training programs of limited duration (e.g., 6 months) but would benefit from more prepared candidates entering the industry. Upgrading management-level skills is also necessary, given that many higher-skilled jobs are filled from abroad.

A.5 Digital Financial Services

DFS employment effects primarily operate by easing credit constraints for firms and creating new business opportunities. DFS impacts many areas, including poverty reduction and risk mitigation. This analysis focuses only on job creation and formalization. It examines how reforms that promote digital solutions and private investment affect employment. The analysis uses estimates from existing literature due to data limitations.

Easier access to credit for firms increases economic growth in developing countries. Beck et al. (2018) constructed a dynamic general equilibrium model to show the impact of M-Pesa, the major mobile money technology in Kenya, on entrepreneurs-supplier transactions. In Kenya, at the time of the paper, 32 percent of businesses were M-Pesa users, and 41 percent of them had trade credit with suppliers. In this context, the authors estimate that the value of such digital services was 1.2 percent of Kenyan GDP.

Recognizing the limitations of using a model developed for Kenya, we sought to provide estimates for Bangladesh. Due to the lower penetration of digital transactions among firms in Bangladesh (compared to firms in Kenya), the lower-bound scenario assumptions from Beck et al. (2018) are used. The general equilibrium model indicates that an important factor in how DFS contribute to growth is the easing of access to credit by firms. Under lower adoption rates in Bangladesh (relative to Kenya), and following the assumptions of the model, it would be expected that the contribution of digital credit mechanisms to GDP in Bangladesh would be 0.9 percent of GDP.

For each scenario of the model, we calculate the increases in jobs created by credit-led DFS in Bangladesh using the estimated elasticity of the Okun's law in Bangladesh by Amin and Lima (2019). The authors estimate that an increase of 1 percent in output is associated with a decrease of 0.1036 in the unemployment rate. This coefficient is lower than in developed countries due to the size of the informal economy. We multiply the coefficient by the potential contribution of DFS to GDP under different levels of adoption rates and credit-payment enforcement. Each of those estimates gives us an idea of how much the unemployment rate will fall under a higher contribution of DFS.

Reforms to increase adoption rates, enhance firms' credit access, and strengthen payment enforcement could expand job creation from 96,000 to 460,000 positions. In the current scenario, where DFS contributes 0.9 percent to GDP, the sector creates 96,000 jobs through reducing credit constraints and efficiency gains. Increasing adoption rates to match Kenya's 2018 levels would expand this to 128,000 jobs, with further adoption increases potentially reaching 182,000 jobs. A comprehensive reform that combines increased adoption with stronger credit-payment enforcement could generate up to 460,000 new jobs.

Aside from the additional jobs created by firms, DFS also help formalize existing jobs. A recent study in Bangladesh, India, and Pakistan shows that a 1 percent increase in mobile money transactions as a share of GDP reduces informality by between 0.081 percent and 0.092 percent. If the growth trajectory of mobile money transactions[168] is maintained during the next five years, this would result in the transformation of between 320,000 and 360,000 jobs from informal to formal positions.

Appendix B

Charts and Figures: Paints and Dyes

Table B.1

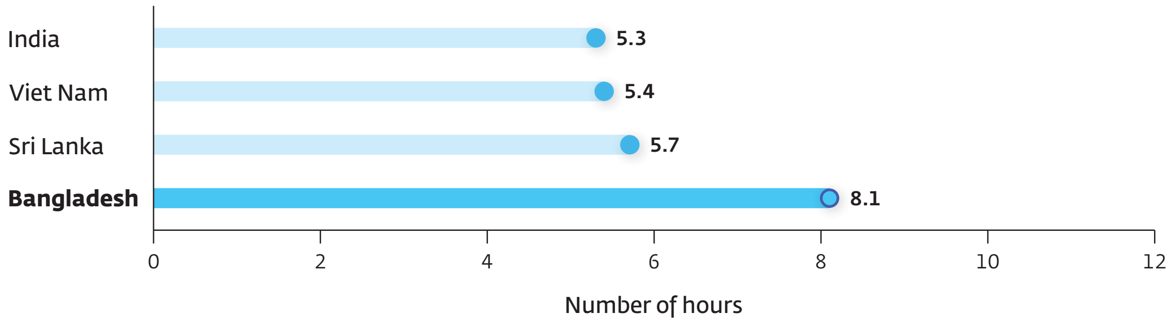
The paints sector is relatively import intensive compared to the rest of the economy

Cost of sales,* leading paint firm	
Intermediate inputs (annual)	US$16.57
Raw and packaging material	US$15.56 million
Raw materials, estimate**	US$13.69 million
Raw materials imported, estimate***	US$12.32 million
Import share of intermediate inputs	74%
Direct expenses, other overhead production, application charges	US$1.1 million
Import share vs. other sectors	
Import share of intermediate inputs, economy-wide	25%
Import intensity of paints (import share of intermediate inputs, paints/ import share of intermediate inputs, economy-wide)	2.974

* Cost of sales excludes administrative costs and cost of selling. "Direct expenses" and "other production overhead" include both input and non-input costs, meaning final import intensity is a lower-bound estimate. Data sourced from 2023 audited financial report from the Bangladesh subsidiary of a leading international paint firm and converted to US dollars, based on March 2024 exchange rate.
** Assumes 88 percent of "raw and packaging materials" are comprised of raw materials, based on financial statement figures from two leading international paint firms with operations in Bangladesh (disaggregation not available at the Bangladesh subsidiary level).
*** Estimate based on firm-level information from leading paint firm per Bangladesh Paints Manufacturer's Association, indicating that 90 percent of raw materials are imported. This compares to 40 percent of total raw material inputs utilized being imported by firms' economy-wide (source: 2020 Bangladesh Industrial Survey, Bangladesh National Statistics).
Note: Economy-wide import share of intermediate inputs is based on 2022 Bangladesh input-output tables from Asian Development Bank and World Bank Group calculations.

Figure B.1

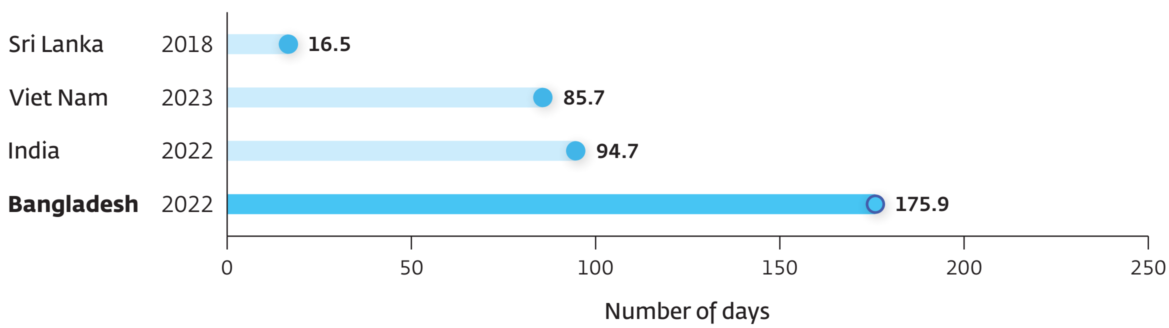
Time release for select seaports



Source: World Customs Organization Time Release Study Reports.
Note: Time release measures actual time for release and/or clearance of goods, from arrival until physical release of cargo. Time release measured for select items at select ports: RMG, food items, RMG raw materials, pharmaceuticals, and capital machineries at Chattogram, Dhaka and Benapole Custom Houses.

Figure B.2

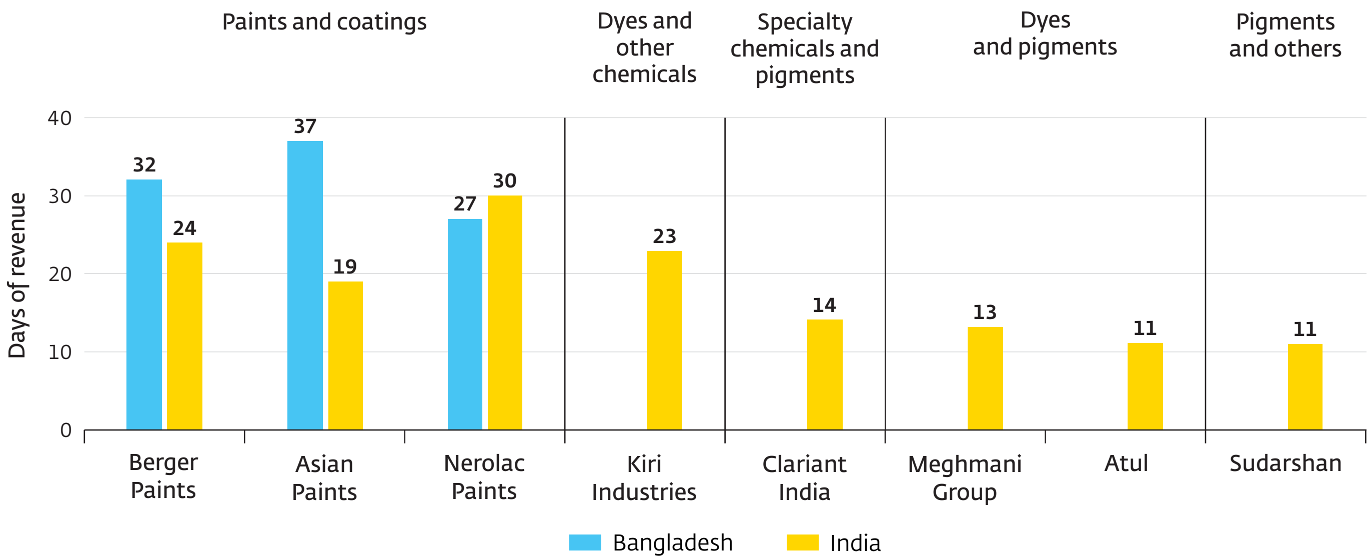
Dwell time for select seaports



Source: World Bank 2023 Logistics Performance Index.
Note: Dwell time is the time a container sits at port. Time release measured for select items at select ports: RMG, food items, RMG raw materials, pharmaceuticals, and capital machineries at Chattogram, Dhaka and Benapole Custom Houses.

Figure B.3

Paint companies in Bangladesh maintain 1.5 to 2 times raw material holdings (in volume) of comparable counterparts in India*



Source: Annual reports of selected paint companies.

* Figures were computed as average of two years' figures, based on the last published annual financial results (as of 2024). For example, if a company held 20 revenue days' inventory at the end of 2022 and 40 revenue days' inventory at end of 2023, its inventory days would be shown as 30 revenue days' inventory. Revenue days were calculated as (raw material inventory/revenue) × 365.

Table B.2

Intermediate inputs for dyes are significantly more import intensive compared to economy-wide

Black reactive dye, cost structure	
Intermediate inputs	US$2.2 per kg
Imported materials	US$2 per kg
Domestic materials	US$0.1 per kg
Production cost	US$0.1 per kg
Import share of intermediate inputs for black reactive dye	90%
Import intensity	
Import share of intermediate inputs, economy-wide	25%
Import intensity of dye sector	3.6

Note: Economy-wide import share of intermediate inputs is based on 2022 Bangladesh input-output tables from Asian Development Bank and internal calculations.

Acronyms

BCDMEA	Bangladesh Chemical and Dyestuff Manufacturers and Exporters Association
BDT	Bangladeshi taka (currency)
BGMEA	Bangladesh Garment Manufacturers and Exporters Association
CAGR	compound annual growth rate
CICO	cash-in and cash-out
CPSD	Country Private Sector Diagnostic
DFS	digital financial services
DPP	Digital Product Passport
E&HS	environmental, health, and safety
ECC	Environmental Clearance Certificate
ECR	Environmental Conservation Rules
EMDE	emerging market and developing economies
ESG	environmental, social and governance
ESPR	Ecodesign for Sustainable Products Regulation
EU	European Union
FAR	floor area ratios
FAT	Firm-level Adoption of Technology (Survey)
FDI	foreign direct investment
FIs	financial institutions
GDP	gross domestic product
GSP+	Generalized System of Preferences Plus
ICT	information and communication technology
IDTP	Interoperable Digital Transaction Platform
LDC	least-developed country
LEED	Leadership in Energy and Environmental Design
LNG	Liquid Natural Gas
LPI	Logistics Performance Index
MFS	mobile financial services
MLCA	Money Loan Court Act
MMF	man-made fiber

MRC	mortgage refinance company
NBR	National Board of Revenue
NTP	National Tariff Policy
P2P	person-to-person
PDPA	Personal Data Protection Act
PET	polyethylene terephthalate (polyester)
PSP	payment service provider
RAJUK	Rajdhani Unnayan Kartripakkha (Dhaka Urban Development Agency)
RMG	ready-made garments
UNESCO	United Nations Educational, Scientific and Cultural Organization
VC	venture capital
WTO	World Trade Organization

Notes

1. Based on the international poverty line of US$3.65 and US$2.15 per day (using 2017 purchasing power parity) for poverty and extreme poverty, respectively.
2. Despite significant GDP per capita growth (above LDC threshold for income), Bangladesh remained an LDC as the UN also considers human assets and economic vulnerability indexes in its classification.
3. World Bank (2024a).
4. IMF (2024).
5. The increase in part reflects tighter prudential norms and classification requirements and in part the deteriorating economic situation. See World Bank (2024) for an analysis of banking sector issues.
6. SOCBs had an average capital ratio of 6 percent compared to the regulatory benchmark of 10 percent (IMF 2024a).
7. World Bank (2022c).
8. Galal et al. (2025).
9. World Bank (2024a).
10. World Bank (2017).
11. Worldwide Governance Indicators (WGI) are a research dataset summarizing the views on the quality of governance provided by a large number of enterprises, citizens and expert survey respondents in industrial and developing countries. Data are gathered from survey institutes, think tanks, non-governmental organizations, international organizations, and private sector firms. The WGI do not reflect the official views of the World Bank, its Executive Directors, or the countries they represent. The WGI are not used by the World Bank Group to allocate resources.
12. Bertelsmann Stiftung (2024).
13. Estimate shared by Policy Research Institute, Bangladesh.
14. IFC estimates, see appendix A for more details.
15. IFC estimates, see appendix A for more details.
16. IFC estimates, see appendix A for more details.
17. Central Bank of Bangladesh, 2024.
18. Mobile financial services or MFS is another broad term that refers to a range of financial services that can be offered across the mobile phone. Three of the leading forms of MFS are mobile money transfer, mobile payments, and mobile banking. Firpo (2009).
19. Klapper (2024).
20. Estimates are based on Syed et al. (2021) using Bangladesh Central Bank mobile money growth rate between September 2023 and September 2024, and ILO estimate of 60 million people in informal employment in the country.
21. Due to similar macro indicators, the model selected Kenya as a comparator. Based on Bangladesh's lower adoption rates of DFS compared to Kenya and other assumptions, the model estimates digital credit's contribution to GDP, currently at 0.9 percent, to reach 4.3 percent, if the recommended credit adoption and payment enforcement reforms are implemented. Alternatively, the estimates on jobs are based on Okun's law elasticity, Amin and Lima (2019).

22. IMF (2024); World Economic Outlook Database.
23. World Bank (2022a).
24. World Bank (2022a).
25. Addressing many of these is beyond the scope of this report but figures prominently in other analytical work, including the Bank Group's Systemic Country Diagnostic (2021) for Bangladesh.
26. World Bank (2024a).
27. IMF (2024b).
28. World Bank (2022c).
29. SOCBs had an average capital ratio of 6 percent compared to the regulatory benchmark of 10 percent (IMF 2024a).
30. The total value of listed corporate bonds outstanding as reported by the Dhaka and Chittagong exchanges was US$538.3 million-equivalent as of January 2025.
31. World Federation of Exchanges database.
32. DSE (2024).
33. World Bank (2024a).
34. Cirera, Crisostomo, and Ding (2024).
35. Cirera, Crisostomo, and Ding (2024).
36. World Bank (2017).
37. Soh (2022).
38. World Bank (2022a).
39. Includes enterprises with direct or indirect government ownership up to 10 percent with data for 2019. See World Bank (2023) Business of the State and linked BOS dashboard.
40. Following the World Bank sector taxonomy by Dall'Olio et al. (2022), we distinguish between BOS operating in markets that are: (1) Competitive: activities that can be viable efficiently provided by the private sector, and therefore the risks of displacing the private sector are larger. Manufacturing of food and/or apparel are examples. (2) Partially contestable: economic activities that exhibit some market failure such as externalities that may lead to under provision of a service. Aviation and banking are examples of these markets. (3) Natural monopolies: activities that are not economically viable for more than one operator to provide the good or service.
41. The score captures the existence of institutions, regulations and service delivery to promote market competition.
42. The B-READY questionnaire asked the experts: "Is the Competition Authority operationally independent (i.e., 'when the Competition Authority decides and acts without the influence or necessary validation of external authorities or individuals') in practice?" Three out of four experts answered "Yes." This is consistent with the UNCTAD report, which stated that "public stakeholders interviewed emphasized that the BCC does not act under the direction of the Ministry of Commerce" (UNCTAD 2022).
43. The Competition Act of 2012 provides only one article regarding merger control (Section 21), but it does not specify any thresholds or merger review procedures. As of 2022, the BCC has neither reviewed nor prohibited any mergers, nor has it taken action against non-compliance. UNCTAD (2022).
44. Guidelines are soft law documents prepared by competition authorities that, given the broad nature of legal provisions, provide their interpretation, thereby offering greater legal certainty.
45. The B-READY questionnaire asked the experts: "Do these authorities have well-defined mandates in the areas of antitrust and merger control to avoid overlapping interventions?" Three out of four experts answered "Yes."
46. World Bank (2022b).

47. Diesel cost at BDT 34 per kilowatt-hour (kWh) compared to BDT 9.94 per kWh for gas and BDT 7.04 per kWh for grid electricity.
48. Integrated Energy and Power Master Plan (IEPMP) 2023. Ministry of Power, Energy and Mineral Resources Government of the People's Republic of Bangladesh.
49. World Bank (2024b).
50. World Bank Group (2024).
51. bKash is the only MFS that can offer credit through a cooperation with City Bank, and these loans are recorded on the balance sheet of City Bank.
52. World Bank (2024a).
53. Soh (2022).
54. Worldwide Governance Indicators (WGI) are a research dataset summarizing the views on the quality of governance provided by a large number of enterprises, citizens and expert survey respondents in industrial and developing countries. Data are gathered from survey institutes, think tanks, non-governmental organizations, international organizations, and private sector firms. The WGI do not reflect the official views of the World Bank, its Executive Directors, or the countries they represent. The WGI are not used by the World Bank Group to allocate resources.
55. World Bank (2022a).
56. Bertelsmann Stiftung (2024).
57. US State Department, 2024 Investment Climate Statements Bangladesh.
58. Bangladesh Bank (2023i). Based on cumulative new capital inflows by countries by sector from 2006 to 2022.
59. Economou and Ali (forthcoming). Based on a survey of 175 foreign companies in Bangladesh.
60. Bangladesh Bank (2024b). New industries outside economic zones are not provided electricity and gas, and banks are required to provide clearance from electricity and gas authorities for loans to industry outside economic zones.
61. World Bank (2022a).
62. WTO and EIF (2022).
63. WTO (2024).
64. The top export products are trousers, T-shirts, sweaters, shirts, blouses, and underwear.
65. Data may change based on revised export data officially published by the Export Promotion Bureau in next FY, as of January 2025.
66. Bangladesh Bank (2023i).
67. Kasem, Rahman, and Salam (2021).
68. Light Castle Partners (2024).
69. The top export products are trousers, t-shirts, sweaters, shirts, blouses, and underwear.
70. The projection includes effect of LDC graduation subject to inclusion of MMF in production and diversification into non-traditional markets.
71. European Commission (n.d.-b). GSP+ scheme is a "special incentive arrangement for Sustainable Development and Good Governance" for "vulnerable developing countries." This system grants full removal of tariffs on over 66 per cent of EU tariff lines.
72. ILO Better Work Program, and the greening textiles program PACT. Further, significant efforts have been implemented by two initiatives—the Accord on Fire and Building Safety in Bangladesh and the Alliance for Bangladesh Worker Safety. Accord is a legally binding agreement between largely European global brands and retailers, trade unions, and other organizations. American buyers were the signatories of Alliance.
73. Minimum wage in real BDT increased 56 percent between 2018–2023.
74. Textiles Today (2022).

75. National Adaption Plan of Bangladesh (2023–2025).
76. National Action Plan (NAP) on the Labor Sector of Bangladesh (2021–2026).
77. European Commission (n.d.-a).
78. Digital passport is a document that accompanies a product on its journey, consolidating data from material sourcing and extraction until end-of-life recycling, permanently affixed to each product in the form of an NFC chip, QR code, or RFID tag.
79. As per the recent Government order in the Budget FY24 to FY25, the main raw materials for MMF-purified terephthalic acid and mono ethylene glycol have import tariffs of 1 percent (lowered from earlier 5 percent).
80. RAPID (2024).
81. RAPID (2024).
82. Technology adoption results, 2024 Bangladesh Firm Adoption of Technologies Survey.
83. Fast fashion is a business model that focuses on bulk production of garments, and as quickly as possible, in response to current trends.
84. Electronic retailing.
85. Shadow Price of Water is a government plan to minimize the use of ground water by including an additional price that firms will have to pay on the amount of ground water that an industry is extracting and/or using. This plan is mentioned in the development plan of the Water Resources Planning Organization (WARPO 2021), under the Ministry of Water Resources.
86. World Bank, World Development Indicators.
87. Consumer Association of Bangladesh (2024).
88. Katha is a unit of area used for land measurement in South Asia. In Bangladesh, one katha is equal to 720 square feet (67 square meters).
89. The Business Standard (2021).
90. Doling, Vandenberg, and Tolentino (2013).
91. Bangladesh Bureau of Statistics' 2022 Bangladesh Statistical Yearbook.
92. IFC (2022a).
93. Computations using household income and expenditure survey 2022 data: BDT 1 = US$0.0094 in 2023 (source: period average exchange rate, International Financial Statistics, IMF).
94. As per current loan to value ratio requirements, downpayment requirement is 30 percent of the total asset value.
95. The analysis focuses on home ownership as rental market, although large, has been unpredictable with rents increase by 6 folds over last 15 years and absence of asset ownership. Rent-to-own models are also unlikely to be feasible in Bangladesh, given the high price of land and since rents have historically grown at a faster pace than mortgages would if housing finance for the middle class would become a viable segment (i.e., fixed rate mortgages for 15-year period like in other economies).
96. IDLC Finance (2023).
97. IDLC Finance (2023).
98. The Financial Express (2023a).
99. Often, workers travel from distant regions to build housing in urban centers, which increases the overall construction cost due to their travel and accommodation expenses.
100. The absence of essential infrastructure, including transport, education, and healthcare, combined with overcrowding of low and low-middle income households near workplaces, results in substandard, high-cost housing. This situation inflates land prices, impedes satellite city development, and leaves these households in overcrowded conditions.
101. A joint development agreement is a contract in which a landowner supplies land, and a developer

manages the property's development, with profits or property units divided according to a pre-set ratio.

102. For a given piece of land, developers can build only a certain square footage under the current floor area ratio guidelines.
103. For example, if the FAR is 2.0, a developer can build a two-story building that covers 100 percent of the lot or a four-story building that covers 50 percent of the lot. The FAR varies depending on the zoning district and the type of land use.
104. Housing Finance Information Network database 2024. Mortgage penetration is defined as the amount of outstanding housing loans as a proportion of GDP (see Funnel and Khan 2022); Bangladesh and India data is from 2021; South Asia and emerging markets average from IFC.
105. There are some microfinance institutions providing housing mortgages but the overall portfolio size of these is very small.
106. Approximately 75 percent of commercial bank deposits have terms under one year, causing asset-liability mismatches that restrict long-term lending capabilities.
107. Prince and Alo (2024). The government bond market in Bangladesh is relatively underdeveloped, with government securities making up only 11.5 percent of the country's GDP, significantly lower compared to other Asian countries like Malaysia (125 percent), China (107 percent), and South Korea (150 percent).
108. Bangladesh's insurance penetration ratio is behind neighboring countries such as India (4.0), Sri Lanka (1.2), and Pakistan (0.8). Paul (2024).
109. IFC (2021a).
110. IFC (2023). IFC Invests in Bangladeshi Green Bond to Tackle Climate Change and Boost Economic Growth.
111. IFC (2021c).
112. World Bank (2023b).
113. Prince and Alo (2024). Since approximately 75 percent of banks' deposits are short-term, they encounter various types of crises when making long-term investments.
114. Taxes on bricks range from BDT 450 (per thousand) to BDT 800 (per thousand) depending on the brick type (e.g., machine made vs. non-machine made, regular vs. Grade 1: with three holes, ten holes, seventeen holes and multi-colored bricks).
115. Green bricks are alternative bricks made from eco-friendly materials such as dredged river sand, stone dust and a small percentage of cement, rather than agricultural topsoil, and do not need coal or wood to dry.
116. List of eco-friendly brick types specified by Housing and Building Research Institute, Bangladesh: https://hbri.gov.bd/site/page/9419818b-4231-46ae-9334-8e647dcb4d4c/-.
117. Compressed stabilized earth blocks are a sustainable building material made from soil, sand, and a small amount of cement or lime. They are an alternative to concrete blocks and burnt clay bricks.
118. Cirera, Crisostomo, and Ding (2024b).
119. According to the Bangladesh Brickmaking and Brick Field (Control) Act 2019, a "brick" means a thing that is made from soil, sand and cement. The existing brickmaking law has incorporated several things that indirectly discourage conventional brickmaking, rather than encouraging modern brickmaking technology and alternative bricks.
120. Views Bangladesh (2024).
121. HBRI (2018).
122. Green construction with concrete bricks is known to retain heat and make homes more energy efficient.
123. IFC calculation based on BACI database using HS codes for paints and varnishes, pigments used in

paints, and driers.

124. World Bank Group analysis and industry experts' interviews.

125. India is used as a comparison country here because they are the top paint supplier to Bangladesh. IFC calculation based on BACI database using HS codes for paints and varnishes, pigments used in paints, and driers.

126. While HS classification systems are already being utilized, delays often arise due to manual processing and inconsistencies in interpretation.

127. Further detailed analysis on the list of raw materials and related specific challenges faced during import clearance is needed in addition to coordination with the Bangladesh Standard Testing Institution and border clearance agencies.

128. Fortune Business Insights (2023; 2024). S&P Global (2024) projects a more conservative metric of 3.0 percent growth per year.

129. UNESCO (2023).

130. Volza Grow Global (2023).

131. Domestic sales of dyes amounted to US$500 million in 2022, of which US$463 million were imported.

132. Based on UN Comtrade 2021 trade data. World Bank Group analysis: Compared to India, Thailand, Pakistan, Indonesia, and Viet Nam.

133. World Bank (2023a). Metrics are based on survey data conducted by Transparency International Bangladesh based on 353 industries in Dhaka and Chattogram metropolitan areas.

134. Digital financial services (DFS) are financial services that rely on digital technologies for their delivery and utilization by consumers. These services leverage digital platforms, such as mobile devices and the internet to provide convenient, accessible, and secure financial solutions. DFS encompass a wide range of financial activities and products, including electronic money, digital wallets, digital payment platforms, loans, savings, insurance, and investment. A DFS provider is a financial service provider that delivers digital financial services to customers. This may include traditional financial sector intermediaries like banks and insurance companies, as well as electronic money issuers, fintech firms, and other regulated entities delivering DFS. https://digitalfinance.worldbank.org/topics/dfs-overview.

135. MFS is regulated and defined by the Bangladesh Mobile Financial Services (MFS) Regulations of 2022 (PSD Circular No: 04/2022, 15 February 2022). MFS is defined as "e-money services provided against a particular mobile/cell phone number of a client (termed as mobile account), where the record of funds is stored on the electronic general ledger. These services can be draw-down through specific payment instructions to be issued from the bearer's mobile phone or through alternative digital process or device by ensuring authenticity of the transaction." MFS accounts may be accessed via messaging interfaces on a feature phone or an app on a smart phone. MFS is analogous to the term "mobile money" used in other markets and is distinct from mobile access (e.g., via a smartphone app) to a traditional bank account.

136. Embedded finance is the integration of financial services within a product or service provided by a non-financial firm. See, e.g., https://www.bain.com/insights/embedded-finance.

137. Arafat (2023).

138. The share of adults with an MFS account rose significantly from 3 percent in 2014 to 70 percent in 2023 (highest in Asia) with 60 percent of MFS users in rural areas. GSMA (2024).

139. Bangladesh Bank (2024d). The Bangladesh Mobile Financial Services (MFS) Regulations of 2022 (see, https://www.bb.org.bd/mediaroom/circulars/psd/feb152022psd04e.pdf) defines an agent as an entity authorized by a MFS provider to carry out MFS transactions on behalf of the MFS provider. Agents are the primary contact points for mobile money users. Depending on the market,

they provide registration, basic Know Your Customer, cash in/cash out, and other services. Agents usually conduct this activity alongside other activities that drive customer footfall, e.g., operating a consumer goods kiosk, shop, beauty salon, restaurant etc.

140. Tracxn (2024) logged 317 companies as of December 2, 2024.
141. Ibid.
142. Based on bKash revenue as of September 30, 2022, and its estimated market share of the MFS market.
143. Department of Statistics, Government of Bangladesh, 2022.
144. The Financial Express (2024).
145. The Paypers (2023).
146. The Business Standard (2023e); The Daily Star (2024).
147. Arafat (2024).
148. Based on World Bank 2023 Bangladesh Firm Adoption of Technologies Survey. The survey was conducted on 1,938 establishments in Bangladesh.
149. Research and Markets (2024).
150. Brazil Association of Credit Bureaus data.
151. https://www.bb.org.bd/mediaroom/circulars/psd/jun052024psd05.pdf.
152. PDPA will establish a framework for data governance that should supersede any other law in Bangladesh. However, market participants anticipate that data privacy provisions will be transposed and incorporated into sector regulators' industry-specific directives, guidelines, and licensing provisions. Such transpositions may introduce differences in application across sectors or activities.
153. https://www.bb.org.bd/mediaroom/circulars/aml/jan082020bfiu25.pdf.
154. MCCI (2024). Findings on Business Environment: 68 percent of respondents identified high corruption as a key challenge in 2023, and over 70 percent noted frequent regulatory changes by the government in the past 24 months, impacting their businesses.
155. MCCI (2023). Findings on Public Contracts and Licenses: 58.6 percent of respondents reported that bribes are common in awarding public contracts and licenses, an increase from 54.3 percent in 2022.
156. The Business Standard (2023d).
157. Further industry consultations and cost analysis will be required to determine appropriate charges that balance the need for IDTP cost recovery relative to the need to make wholesale digital payments competitive relative to available alternatives.
158. "Acquirers are strictly advised to make sure that the cost of Merchant Discount Rate shall not be passed on to the customer" (Bank of Bangladesh 2021, 8).
159. Islam (2023).
160. This gap is not unique to Bangladesh. For example, Indonesia has a thriving P2P lending sector and until recently P2P lenders were only voluntary reporters to SLIK, the credit bureau. In July 2024, OJK, the Indonesian financial regulator, issued a circular requiring that P2P lenders, credit insurance, and guarantee companies report to the SLIK credit bureau.
161. See Feyen, Natarajan, and Saal (2023).
162. Addition risk mitigants are typically defined in the structure, including overcollateralization, first loss or equity tranche from the originator, asset diversification, financial condition triggers for wind-down, and backup servicing arrangements.
163. Alliance Magazine (2006).
164. Given the annual urban population growth rate of 3.9 percent.
165. Increase between 2025 to 2030 = 4.46 to 3.56 million units = 900,000 units or 180,000 units annually.

166. 150,000 units × 70 percent × US$19,000 = US$1.995 billion or approximately US$2 billion.

167. Estimates from IFC's model show that in Bangladesh a total of 15.8 jobs will be created per newly constructed housing unit financed. Source: AIMM analysis for the BRAC Housing Investment Project.

168. This calculation uses the growth rate of mobile money transactions reported by the Bangladesh Bank between September 2023 and September 2024 and maintains it constant for 5 years. Using the mean values reported in Syed et al. (2021), the share of MM transactions for the following five years is then calculated using a real GDP growth rate of 6 percent. ILO estimates that 60 million people in Bangladesh are in informal employment.

References

3Di Systems. 2023. "The Impact of Transportation on Access to Affordable Housing." *3Di Insights* (blog), June 8, 2023. Accessed October 30, 2024, https://blog.3disystems.com/the-impact-of-transportation-on-access-to-affordable-housing.

Akter, M. M. K., Haq, U. N., Islam, M. M., and Uddin, M. A. 2022. "Textile-Apparel Manufacturing and Material Waste Management in the Circular Economy: A Conceptual Model to Achieve Sustainable Development Goal (SDG) 12 for Bangladesh." *Cleaner Environmental Systems* 4 (March): 100070.

Alliance Magazine. 2006. "Case study – BRAC launches world's first microcredit securitization." *Alliance Magazine* 11(3). https://www.alliancemagazine.org/feature/case-study-brac-launches-world-s-first-microcredit-securitization/.

Amin, S., and M. Lima. 2019. "Testing Okun's Law in Bangladesh Economy: A Co-Integration Approach." Journal of Business Studies XL (1): 85–106.

Asian Development Bank. 2023. *E-commerce Evolution in Asia Pacific*. Manila, Philippines: Asian Development Bank. Accessed November 7, 2024, https://www.adb.org/publications/e-commerce-evolution-asia-pacific-opportunities-challenges.

Arafat, Y. 2023. "Unveiling the Lucrative Fintech Landscape in Bangladesh." Insights, Payments and Commerce Market Intelligence. https://paymentscmi.com/insights/fintech-landscape-bangladesh/.

——. 2024. "Navigating Bangladesh's P2P Payment Revolution." Insights, Payments and Commerce Market Intelligence. https://paymentscmi.com/insights/bangladesh-p2p-payments/.

Bangladesh Auto Industry. 2023. *Local Assembly and Imports of Automotive Paints in Bangladesh*. Dhaka: Bangladesh Auto Industry.

——. 2018. *Foreign Investment Guideline*, Chapter 9, Section 1. Dhaka, Bangladesh: Bangladesh Bank. Accessed November 7, 2024. https://www.bb.org.bd/aboutus/regulationguideline/foreignexchange/fegv1cont.php.

——. 2020. *Circular on Use of International Card for Online Banking*.

——. 2021. *Guidelines for 'Bangla QR' Code Based Payments*. Dhaka: Bangladesh Bank. https://www.bb.org.bd/mediaroom/circulars/psd/jan062021psd01.pdf.

——. 2022. *Foreign Direct Investment and External Debt, July–December 2022*. Dhaka: Bangladesh Bank.

——. 2023a. *Asset-Liability Mismatches in Banks*. Dhaka: Bangladesh Bank.

——. 2023b. *Down Payment Requirements for Housing Loans*. Dhaka: Bangladesh Bank.

——. 2023c. *Floor Area Ratio Guidelines for Developers*. Dhaka: Bangladesh Bank.

——. 2023d. *Government Expenditure on Residential Construction*. Dhaka: Bangladesh Bank.

——. 2023e. *Interest Rate on Housing Finance Loans*. Dhaka: Bangladesh Bank.

——. 2023f. *Loan-to-Value Ratio Requirements for Housing Loans*. Dhaka: Bangladesh Bank.

——. 2023g. *Low VOC Paints and Environmental Impact*. Dhaka: Bangladesh Bank.

——. 2023h. *Overcrowded Housing and Land Prices*. Dhaka: Bangladesh Bank.

——. 2023i. *Foreign Direct Investment and External Debt, July-December 2023*. Dhaka: Bangladesh Bank.

——. 2024a. *A Quarterly Review on Readymade Garments (RMG): October–December of FY'24*. Dhaka: Bangladesh Bank.

——. 2024b. *Circular on New Industries Outside Economic Zones*. Dhaka: Bangladesh Bank.

——. 2024c. *Economic Data*. Dhaka: Bangladesh Bank.

——. 2024d. *MFS Statistics*. Dhaka: Bangladesh Bank.
Bangladesh Bureau of Statistics. 2022. *Bangladesh Statistical Yearbook*. Dhaka: Bangladesh Bureau of Statistics.
——. 2023. *Bangladesh Sample Vital Statistics*. Dhaka: Bangladesh Bureau of Statistics. Accessed October 29, 2024. http://nsds.bbs.gov.bd/storage/files/1/Publications/SVRS/SVRS percent202023 percent20Final percent20Report_web.pdf.
Bangladesh Business Climate Index. 2023. *Business Climate Index Report*. Dhaka: Bangladesh Business Climate Initiative.
Bangladesh Business Environment Index. 2023. *Bribes in Public Contracts and Licenses: Insights into Bangladesh's Business Environment*. Dhaka: Bangladesh Business Environment Initiative.
Bangladesh Securities Exchange Commission. 2015. *Alternative Investment Rules*. Dhaka: Bangladesh Securities Exchange Commission.
Behr, Kilian, Sugata Kapur, and Jeff Martin. 2021. *Introducing the Adequate Housing Index: A New Approach to Estimate the Adequate Housing Deficit within and across Emerging Economies*. Washington, DC: International Finance Corporation.
Bertelsmann Stiftung. 2024. *BTI 2024 Country Report- Bangladesh.* Gütersloh: Bertelsmann Stiftung.
BGMEA (Bangladesh Garment Manufacturers and Exporters Association). 2023. *The Apparel Story (July to October 2023)*. Dhaka: BGMEA.
Centre for Policy Dialogue. 2023. Estimates: Data and Analysis from April 2023. Dhaka: Centre for Policy Dialogue.
Cirera, Xavier, Diego Comin, and Marcio Cruz. 2022. "Bridging the Technological Divide: Technology Adoption by Firms in Developing Countries." Overview booklet. World Bank, Washington, DC. License: Creative Commons Attribution CC BY 3.0 IGO. https://documents1.worldbank.org/curated/en/099825206302231586/pdf/P1708820640c0e0c8092c3056b707badd27.pdf.
Cirera, Xavier, Ma. Charmaine Crisostomo, and Yuheng Ding. 2024a. *Firm-level Adoption of Technologies in Bangladesh*. Washington, DC: The World Bank.
——. 2024b. "Bangladesh Sector Notes for CPSD." Washington, DC: The World Bank.
Dall'Olio, A., T. Goodwin, M. Martinez Licetti, A. Alonso Soria, M. Drozd, J. Orlowski, F. Patino Peña, and D. Sanchez-Navarro. 2022. Are All State-Owned Enterprises Equal ? A Taxonomy of Economic Activities to Assess SOE Presence in the Economy (English). Policy Research Working Paper 10262. World Bank Group, Washington, D.C. https://documents.worldbank.org/en/publication/documents-reports/documentdetail/099951412132222133/idu0e7057cdf09fa8044eb09d8a058ea7dfe2831.
DSE (Dhaka Stock Exchange PLC). 2024. *Dhaka Stock Exchange 2023–24 Annual Report.* Dhaka: DSE. https://www.dsebd.org/download/Annual_Report_2023-2024.pdf.
Doling, John, Paul Vandenberg, and Jade Tolentino. 2013. "Housing and Housing Finance: A Review of the Links to Economic Development and Poverty Reduction." Asian Development Bank Economics Working Paper Series No. 362. Manila: Asian Development Bank.
Economou, Persephone, and Miah Rahmat Ali. Forthcoming. "FDI in Bangladesh." Draft paper. World Bank, Washington, DC.
ECR (Environment Compliance Regulations). 2023a. *New Limits on Textile Wastewater*. Dhaka: ECR.
——. 2023b. *Updates Include New Limits and Sanctions on Excessive Emissions of VOCs and Heavy Metals*. Dhaka: ECR.
Estate Intel. 2021. "IFC Investment in West African Mortgage Refinancing Company." *Estate Intel*, February19,2021.https://www.africacapitaldigest.com/2017/02/19/ifc-backs-west-african-mortgage-company-with-2mln/.
European Commission. n.d.-a. "EU-Viet Nam Free Trade Agreement." Accessed October 30, 2024. https://trade.ec.europa.eu/doclib/press/index.cfm?id=1437.

——. n.d.-b. “Generalized Scheme of Preferences Plus (GSP+).” Accessed October 30, 2024. https://trade.ec.europa.eu/access-to-markets/en/content/generalised-scheme-preferences-plus-gsp#:~:text=The percent20EU’s percent20Generalised percent20Scheme percent20of,sustainable percent20development percent20and percent20good percent20governance.&text=In percent20return percent2C percent20the percent20EU percent20cuts,tariff percent20lines percent20of percent20their percent20exports.&text=Expiry percent3A percent20The percent20current percent20GSP percent2B percent20is percent20valid percent20until percent202027.

Fairwork Project. 2023. *Fairwork Bangladesh Ratings 2023: Is it Time for a Regulatory Framework?* Oxford and Berlin: Oxford Internet Institute and WZB Berlin Social Science Center. https://fair.work/en/fw/publications/fairwork-bangladesh-ratings-2023-is-it-time-for-a-regulatory-framework/.

BBS (Bangladesh Bureau of Statistics). 2023. “FAT Survey 2023: Bangladesh Technology Adoption Results.” BBS, Dhaka.

BBS (Bangladesh Bureau of Statistics). 2024. “FAT Survey 2024: Bangladesh Technology Adoption Results.” BBS, Dhaka.

Feyen, E., H. Natarajan, and M. Saal. 2023. *Fintech and the Future of Finance: Market and Policy Implications*. Washington, DC: World Bank Group.

Financial Express. 2024. “Challenges to Implement Tariff Policy.” *Financial Express*, January 15, 2024. Accessed October 30, 2024. https://www.thefinancialexpress.com.bd/views/challenges-to-implement-tariff-policy-1610700000.

Firpo, Janine. 2009. “E-Money – Mobile Money – Mobile Banking – What’s the difference?” *Private Sector Development* (blog), January 21, 2009. https://blogs.worldbank.org/en/psd/e-money-mobile-money-mobile-banking-what-s-the-difference.

Fortune Business Insights. 2023. “Global Market Analysis Report.” *Fortune Business Insights*, May 2023. Accessed October 30, 2024. https://www.fortunebusinessinsights.com/industry-reports/global-market-analysis-report-2023-10001.

——. 2024. “S&P Projects a More Conservative Metric of 3.0 percent Growth per Year.” *Fortune Business Insights*, January 2024. Accessed October 28, 2024. https://www.fortunebusinessinsights.com/press-release/sp-projects-3-percent-growth-2024-10002.

Funnell, C., and A. Khan. 2022. “The Quest for Affordable Housing in Bangladesh.” International Finance Corporation, Washinton, DC. https://www.ifc.org/en/stories/2022/affordable-housing-bangladesh#:~:text=Bangladesh’s%20mortgage%20penetration%20rate%20is,8.9%20percent%20in%20emerging%20markets.

Galal, Rami, Marc Schiffbauer, Alice Rossignol, and Gharam Dexter. 2025. *Frontier Firms and Job Creation in Bangladesh.* Washington, DC: World Bank.

Germanwatch. 2021. “Global Climate Risk Index 2021: Who Suffers Most from Extreme Weather Events? Weather-Related Loss Events in 2019 and 2000-2019.” Berlin: Germanwatch. Accessed October 30, 2024.https://www.germanwatch.org/sites/germanwatch.org/files/2021-01/cri-2021_table_10_countries_most_affected_from_2000_to_2019.jpg.

Government of Bangladesh. 2021a. National Action Plan (NAP) on the Labor Sector of Bangladesh (2021–2026). Dhaka: Ministry of Labor and Employment.

——. 2021b. National Solar Energy Roadmap 2021–2041 (Draft).

——. 2023. National Adaptation Plan of Bangladesh (2023–2025). Dhaka: Ministry of Environment, Forest and Climate Change.

GSMA (Global System for Mobile Communications Association). 2024. *State of Industry Report on Mobile Money*. London: GSMA. Accessed October 30, 2024.https://www.gsma.com/sotir/wp-content/uploads/2024/03/GSMA-SOTIR-2024_Report.pdf.

HBRI (Housing and Building Research Institute). 2018. *Special Report 2018*. Edited by Md. Akhter Hossain Sarker. Dhaka: Bangladesh Ministry of Housing and Public Works. https://hbri.portal.gov.bd/sites/default/files/files/hbri.portal.gov.bd/page/de15d2ee_3d2f_40bd_a512_0d3b4b044ba9/2022-08-24-05-22-f39f740ffc3f959ae51f210a50ff1fa1.pdf.

HSBC Global Research. 2022. *Flying Dutchman Report: Asia's Shoppers in 2030*. Hong Kong: HSBC Global Research.

IDC (International Data Corporation). 2023. *Report on Payments in Asia Pacific: Insights into Payment Trends and Developments across the Asia Pacific Region*. Framingham, MA: International Data Corporation.

IDLC Finance. 2023. "Monthly Business Review." Dhaka: IDLC Finance Ltd. https://idlc.com/?id=389.

IESE (Instituto de Estudios Superiores de la Empresa; Institute of Higher Business Studies) Business School. 2023. *Venture Capital and Private Equity Country Attractiveness Index*. Barcelona: University of Navarra. Accessed October 30, 2024. https://blog.iese.edu/vcpeindex/.

IFC (International Finance Corporation). 2020. *Building Competitive Sectors for Export Diversification: Opportunities and Policy Priorities for Bangladesh*. Washington, DC: IFC.

——. 2021a. *A Kenyan Home of One's Own*. Washington, DC: IFC. Accessed October 30, 2024. https://www.ifc.org/en/stories/2021/affordable-housing-kenya.

——. 2021b. *EDGE (Excellence in Design for Greater Efficiencies) Green Building Certification*. Washington, DC: IFC. Accessed October 30, 2024. https://edgebuildings.com.

——. 2021c. "IFC Invests $2 Million in West African Mortgage Refinancing Company." *International Finance Corporation Newsroom*, February 2021. Accessed October 30, 2024. https://www.ifc.org/en/pressroom/2021/ifc-invests-in-bond-to-support-access-to-affordable-housing-in-tanzania.

——. 2022a. *Affordable Housing Sector: Bangladesh Roadmap Development*. Washington, DC: IFC.

——. 2022b. *Mortgage Penetration in Bangladesh and India*. Washington, DC: IFC. Accessed October 30, 2024. https://www.ifc.org/en/stories/2022/affordable-housing-bangladesh#:~:text=Bangladesh's percent20mortgage percent20penetration percent20rate percent20is,8.9 percent20percent percent20in percent20emerging percent20markets.

International Labour Organization (ILO). *Better Work Program and Greening Textiles Program (PaCT)*. Geneva: ILO.

IMF (International Monetary Fund). 2024a. "Bangladesh: Second Reviews Under the Extended Credit Facility Arrangement and the Arrangement Under the Extended Fund Facility, and Requests for Rephasing of Access, a Waiver of Nonobservance of a Performance Criterion, and Modifications of a Performance Criterion, and Second Review Under the Resilience and Sustainability Facility Arrangement-Press Release; Staff Report; and Statement by the Executive Director for Bangladesh." IMF Staff Country Reports 2024, 186 (2024). Accessed February 19, 2025. https://doi.org/10.5089/9798400281433.002.

——. 2024b. "Executive Board Concludes the Second Review Under the Extended Credit Facility, Extended Fund Facility, Resilience and Sustainability Facility for Bangladesh." Press release, June 24, 2024. https://www.imf.org/en/News/Articles/2024/06/24/pr24234-bangladesh-imf-exec-board-concludes-2nd-review-ecf-eff-rsf.

——. 2024c. World Economic Outlook Database. Washington, DC: IMF.

Islam, M. 2023. "BB mulls imposing charges on Bangla QR transactions." *The Finance Today*, December, 31, 2023. https://www.thefinancetoday.net/article/bank/23610/BB-mulls-imposing-charges-on-Bangla-QR-transactions.

ITU (International Telecommunication Union). 2023. *Measuring Digital Development: ICT Development Index*. Geneva: ITU.

Joint Development Agreement. 2023. *Legal Framework for Landowners and Developers*. Dhaka: Government of Bangladesh.

Kasem, Mahmood Ibne, Mokhlesur Rahman, and Urme Binte Salam. 2021. Skill Development of the Youth in RMG: An Analysis of the Existing Training System. Cabinet Division, Government of Bangladesh.

Katha Unit. 2023. *Land Measurement in Bangladesh*. Dhaka: Ministry of Land.

Klapper, Leora. 2024. "Expanding Financial Inclusion through Digital Financial Services: A Literature Review." Policy Research Working Paper 11008, World Bank Group, Washington, D.C. http://documents.worldbank.org/curated/en/099415112192435594/IDU1eb12eb3f1c2d2145ad1b1b612a3f9ec30262.

KPMG. 2023. *Fintech Survey 2023*. London: KPMG. Accessed October 30, 2024. https://home.kpmg/xx/en/home/insights/2023/01/fintech-survey-2023.html.

LightCastle Partners. 2023. *Startup Investment Report*. Dhaka: LightCastle Partners. Accessed October 30, 2024. https://www.lightcastlebd.com/insights/2023/02/startup-investment-report.

LightCastle Partners. 2024. Analytics. Dhaka: LightCastle Partners.

MCCI (Metropolitan Chamber of Commerce and Industry). 2023. Bangladesh Business Climate Index (BBX) 2022-23. Dhaka: MCCI.

——. 2024. Bangladesh Business Climate Index (BBX) 2023-24. Dhaka: MCCI.

Microfinance Institutions. 2023. *Housing Mortgage Portfolio Size in Bangladesh*. Dhaka: Microfinance Institutions.

Nikkei Asia. 2024. "Bangladesh Offers 'Win-Win' Deals for Offshore Gas Exploration." *Nikkei Asia*, March 15, 2024.

Paul, P. 20204. "Bangladesh's Insurance Landscape: Progress and Prospects." *The Daily Star*, March 1, 2024. https://www.thedailystar.net/supplements/national-insurance-day-2024/news/bangladeshs-insurance-landscape-progress-and-prospects-3556131.

Policy Insights. 2023. *Rapid Urbanization and Affordable Housing in Bangladesh*. Dhaka: Policy Insights. Accessed October 30, 2024. https://policyinsightsonline.com/2023/01/rapid-urbanisation-and-growing-demand-for-affordable-housing-in-bangladesh/.

Prince, S., and J. Alo. 2024. "Bangladesh's bond market one of the smallest in Asia. What will strengthen it?" *The Business Standard*, January 25, 2024. https://www.tbsnews.net/bangladesh/bangladeshs-bond-market-one-smallest-asia-what-will-strengthen-it-780926.

PwC (PricewaterhouseCoopers). 2018. *Fintech Market Assessment in Bangladesh, October*. Dhaka: PwC.

RAPID (Research and Policy Integration for Development). 2024. "Upscaling the RMG Sector." RAPID, Dhaka.

Research and Markets. 2024. *Bangladesh Buy Now Pay Later Business and Investment Opportunities Databook*.

S&P Global. 2024. *Dyes Chemical Economics Handbook*. New York: S&P Global.

Soh, William. 2022. Draft. *Key Findings from Enterprise Surveys in Bangladesh*. Bangladesh enterprise Survey, 2022. Accessed October 30, 2024. https://www.enterprisesurveys.org/content/dam/enterprisesurveys/documents/country/Bangladesh-2022.pdf.

Startup Summit Investment Report. 2023. *Fintech Investment in Bangladesh*. Dhaka: Startup Summit.

Syed, A. A., F. Ahmed, M. A. Kamal, and J. E. Trinidad Segovia. 2021. "Assessing the Role of Digital Finance on Shadow Economy and Financial Instability: An Empirical Analysis of Selected South Asian Countries." Mathematics 9 (23): 3018. https://doi.org/10.3390/math9233018.

Technote Global News. 2023. "Funding Changes in Indonesia, December." *Technote Global News*, December 2023.

Textiles Today. 2022. "Bangladesh Can Earn US $6.0bn by Textile Garment Waste Textiles Today." *Textiles Today*, February 2022. Accessed October 30, 2024. https://www.textiletoday.com.bd/bangladesh-can-earn-us-6-0bn-by-textile-garment-waste.

The Business Standard. 2021. "Land Price Hike in Dhaka." *The Business Standard*, July 12, 2021. https://www.tbsnews.net/economy/2700-land-price-hike-two-decades-makes-owning-home-dhaka-elusive-507510.

——. 2023a. "Bangladesh's Bond Market." *The Business Standard*, January 15, 2023. https://www.tbsnews.net/bangladesh/bangladeshs-bond-market-one-smallest-asia-what-will-strengthen-it-780926.

——. 2023b. "Black Money Investments in Real Estate." *The Business Standard*, March 10, 2023. https://www.tbsnews.net/economy/nbr-now-considers-ending-black-money-investment-real-estate-943886.

——. 2023c. "Foreign Investors in Bangladesh Real Estate." *The Business Standard*, April 25, 2023. https://www.tbsnews.net/economy/foreign-investors-put-tk30kcr-real-estate-more-come-500170.

——. 2023d. "Nagad, Kori get license for digital banking." *The Business Standard*, October 22, 2023. https://www.tbsnews.net/economy/banking/bb-grants-digital-banking-licences-nagad-digital-bank-plc-acis-kori-digital-plc.

——. 2023e. "BB starts programme to promote 'Cashless Bangladesh' initiative." *The Business Standard*, March 21, 2023. https://www.tbsnews.net/node/603322.

The Daily Star. 2024. "Govt aims for a cashless economy by 2031." *The Daily Star*. March 24, 2024.

The Financial Express. 2023a. "Escalating Construction Costs." *The Financial Express*, June 5, 2023. https://thefinancialexpress.com.bd/views/columns/bad-time-for-construction-1669394221#google_vignette.

——. 2023b. "Global Supply Chain Disruptions." *The Financial Express*, August 15, 2023.

——. 2023c. "Rising House Rent and Quality of Life." *The Financial Express*, September 10, 2023. https://today.thefinancialexpress.com.bd/editorial/rising-house-rent-affects-quality-of-life-1725113156#google_vignette.

——. 2024. "Payment and Settlement System Bill, 2024 passed." *The Financial Express*, July 3, 2024. https://today.thefinancialexpress.com.bd/first-page/payment-and-settlement-system-bill-2024-passed-1719939469#google_vignette.

The Law Firm. 2023. *Insolvency System Reform in Bangladesh*. Dhaka: The Law Firm. Accessed October 30, 2024. https://lawfirm.com.bd/how-insolvency-system-reform-may-open-bangladeshs-investment-bottleneck/.

The Paypers. 2023. "Bangladesh central bank launches national QR code payments system." *The Paypers*, January 25, 2023. https://thepaypers.com/mobile-payments/bangladesh-central-bank-launches-national-qr-code-payments-system--1260006.

Tracxn. 2023. SEA Funding of Startups. Bangalore: Tracxn.

——. 2024. "FinTech Sector in Bangladesh." Overview. Bangalore: Tracxn. https://tracxn.com/d/explore/fintech-startups-in-bangladesh/__yCpaKPFTlkZqAiiUSM-AyrEsF2-AV0GX0Pns2szwiXA#top-companies.

Transparency International Bangladesh. 2023. *Survey of 353 Industries in Dhaka and Chattogram Metropolitan Areas.* Reported in World Bank Group, 2023. Dhaka: Transparency International Bangladesh.

U.S. Green Building Council. 2021. *LEED (Leadership in Energy and Environmental Design) Green Building Certification*. Washington, DC: U.S. Green Building Council. https://www.usgbc.org/leed.

UCL (University College London). 2019. "Brickonomics extra: Relocating the value in land." UCL, London.

UNCTAD (United Nations Trade and Development). 2022. "Voluntary Peer Review of Competition Law and Policy: Bangladesh." https://unctad.org/system/files/official-document/ditcclp2022d1_en.pdf.

UNEP (United Nations Environment Programme). 2023a. *Green Homes and Energy Efficiency in Bangladesh*. Nairobi : United Nations Environment Program.

UNEP. 2023b. *Nationally Determined Contributions (NDCs) Targets of Bangladesh*. Nairobi: United Nations

Environment Program. https://www.unep.org/ndc/action-area/bangladesh.

UNESCO (United Nations Educational, Scientific and Cultural Organization). 2023. *The African Fashion Sector: Trends, Challenges, and Opportunities for Growth*. Paris: UNESCO.

United Nations. 2023. Population Projections. New York: United Nations Department of Economic and Social Affairs. Accessed October 30, 2024. https://www.population-trends-asiapacific.org/data/BGD.

Views Bangladesh. 2024. "Govt to ban using bricks in projects: Adviser Rizwana." View Bangladesh, November15,2024.https://viewsbangladesh.com/en/govt-to-ban-using-bricks-in-projects-adviser-rizwana/.

Volza Grow Global. 2023. "Textile Dye Import in Bangladesh." Accessed October 30, 2024. https://www.volza.com/p/textile-dye/import/import-in-bangladesh/.

WARPO (Water Resources Planning Organization). 2021. Ministry of Water Resources, Bangladesh. *Shadow Price of Water World Bank Database*. Dhaka: WARPO.

World Bank. 2016. *Towards New Sources of Competitiveness in Bangladesh*. Washington, DC: World Bank.

——. 2017. *Bangladesh Jobs Diagnostic*. Washington, DC: World Bank.

——. 2022a. *Bangladesh Country Economic Memorandum: Change of Fabric*. Washington, DC: World Bank.

——. 2022b. *Bangladesh Enterprise Survey*. Washington, DC: World Bank Group. https://www.enterprisesurveys.org/en/data/exploreeconomies/2022/bangladesh.

——. 2022c. *The World Bank Group in Bangladesh, Fiscal Years 2011–20*. Independent Evaluation Group. Washington, DC: World Bank. https://ieg.worldbankgroup.org/sites/default/files/Data/Evaluation/files/Bangladesh_CPE_0.pdf.

——. 2023a. Building Back a Greener Bangladesh: Country Environmental Analysis. Washington, DC: World Bank.

——. 2023b. *Pakistan Housing Finance Project: Additional Financing*. Washington, DC: World Bank. https://documents1.worldbank.org/curated/en/197991647441987950/pdf/Pakistan-Housing-Finance-Project-Additional-Financing.pdf.

——. 2024a. *Bangladesh Development Update - Special Focus: Creating Jobs for a Better Future.* Bangladesh Development Update Washington, D.C. : World Bank Group. http://documents.worldbank.org/curated/en/099104310142425439.

——. 2024b. *Framework for Implementing Green Growth in Bangladesh. Washington, DC: World Bank*. Washington, DC: World Bank Group.

World Bank Group. 2020. *Moving Forward: Connectivity and Logistics to Sustain Bangladesh's Success.*

——. 2021. *Bangladesh Country Private Sector Diagnostic*. Washington, DC: World Bank Group. Washington, DC: World Bank Group.

——. 2022. *Bangladesh - Country Climate and Development Report*. Washington, DC: World Bank Group. http://documents.worldbank.org/curated/en/099510110202254063.

——. 2024. *Bangladesh B-Ready*. Washington, DC: World Bank Group.

WTO and EIF (World Trade Organization and Enhanced Integrated Framework). 2022. *Trade Impacts of LDC Graduation*. Geneva: WTO and EIF.

WTO (World Trade Organization). 2024. "World Trade Statistics 2023: Key Insights and Trends." WTO, Geneva.

Photo credits: *Cover:* K.M. Asas/World Bank; *page 1*: Social Media HUB/Shutterstock; *page 18*: Hit1912/Shutterstock; *page 22*: zakir1346/Shutterstock; *page 41*: Krista/Adobe Stock; *page 55*: Beautiful Think/Shutterstock.

Interior design: Patrick Ibay, https://www.designed-for-humans.com/.

SCAN TO
DOWNLOAD

WORLD BANK GROUP

THE WORLD BANK
IBRD • IDA

IFC International Finance Corporation

MIGA Multilateral Investment Guarantee Agency