Impact Assessment and Coping up Strategies of Graduation from LDC Status for Bangladesh

General Economics Division (GED)
Bangladesh Planning Commission
Ministry of Planning
Government of the People's Republic of Bangladesh

March 2020

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Minister
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Message

I am happy to know that General Economics Division (GED) of Bangladesh Planning Commission has conducted this study titled 'Impact Assessment and Coping up Strategies of Graduation from LDC Status for Bangladesh'. This is a timely initiative and graduation from LDC is our long cherished desire. Our government will get necessary policy support from this study to tackle the challenges and will help to grasp the bundle of opportunities arisen out of graduation.

Through the visionary, dynamic and pragmatic leadership of the Hon'ble Prime Minister Sheikh Hasina, Bangladesh has been experiencing rapid socio-economic development and its economy is gradually transforming from rural and agrarian to a more urban and industrial/service oriented economy. The country has become a remarkable achiever in the global arena of development within this decade by managing sound macroeconomic policy. In the same vain, by World Bank directive Bangladesh secured lower middle income status in 2015. Bangladesh's significant success in achieving MDGs and strong policy alignment towards 2030 Agenda has augmented the process of graduation from the LDC status and at the first time we have fulfilled all the criteria of graduating from LDC to developing one which is a major milestone for the country. It is the reflection of the economy's resilience and recognition by the international community that Bangladesh's internal capacities to face the global competitive challenges are increasing.

The successful move towards LDC graduation implies that the some special benefits like general support related International support, trade related international support specially preferential market access and development assistance related international support enjoyed by Bangladesh from the global community as an LDC will come to an end after graduation. On the other hand, graduation is expected to enhance country image, build capacity and attract Foreign Direct

Investment (FDI). Therefore, to address the probable graduation impacts on the country and realize the opportunities, Government of Bangladesh has assigned the GED of the Bangladesh Planning Commission to conduct this study. The study report has identified the probable impacts of LDC graduation and suggested appropriate strategies and policies to equipoise these costs through comprehensive policies and reform initiatives. It is highly expected that through implementation of the given recommendations of the study report, Bangladesh will be able to cope up with the challenges of forthcoming graduation in one hand and on the other hand the country will be turn into one of the lucrative Foreign Direct Investment (FDI) destination in the South Asian region.

I congratulate GED for accomplishing such an important study and hope that concerned public and private entities will be benefitted from this study in preparing their respective strategies, policies and measures. I wish wider circulation of this study.

(M. A. Mannan, MP)

Member (Senior Secretary)
General Economics Division
Bangladesh Planning Commission

Preface

Bangladesh has climbed a long way up the development ladder since independence. Under the visionary and prudent leadership of Hon'ble Prime Minister Sheikh Hasina, the country has successfully attained Millennium Development Goals, crossed into the threshold of Lower Middle Income Country (LMIC) status in 2015 and fulfilled all the criteria, for the first time in 2018, to be graduating from UN defined list of least developed countries (LDCs). The presumptive year for formal graduation out of LDC status is 2024, after going through the standard process of approval and announcement under the UN system and the graduation from LDC will be treated as a significant milestone in the history of the country and as an independent and sovereign nation, Bangladesh should be justifiably proud of the achievement.

Graduation from LDCs has both challenges and opportunities. The main challenges for Bangladesh due to LDC graduation are centered to erosion of preferential market access, loss of LDC-specific special and differential treatment and flexibilities under WTO rules in the area of goods specially presently enjoying pharmaceutical products. Again, the LDC graduation is coming at a time when the global environment for trade is becoming more constrained due to de-globalization trends from avowed nationalism and protectionist policies in some developed countries, while the onset of the Forth Industrialization Revolution (4IR) is posing a major challenge for employment owing to technology-driven capital intensity of production and automation. The challenges may be threatening with the infrastructural weakness and comparatively inefficient human resources by which the country may fall into the 'middle income trap', consequentially failing to achieve the targets of SDGs by 2030 and high income country status by 2041.

The changing global scenarios, economic milieu and perspectives allied with LDC graduation can render new scopes and open up new vistas of opportunities that can truly facilitate Bangladesh to take necessary steps with a fresh endeavor to become an upper middle-income country by 2031 and high-income country by 2041. Through the upgraded status as a developing country the internationally reputed firms will be attracted and they will bring cutting edge technological capability as well as skilled human resources with its venture capital. The strength of the country lies on a highly-diversified economy with boosting domestic demands for various products. The competiveness in the export performance and continuous robust growth of remittance inflows are playing vital role in the economy. The country has a vibrant private sector with strong entrepreneurial skills. The social fabric is dynamic. The formation of human capital has taken roots. All these dometic and external sectors changes in the external sector will need to be managed deftly starting from now in order to be well prepared for a smooth transition to post LDC Bangladesh. Therefore, with further policy reforms in the area of resource mobilization, cross- border greater connectivity with trade of goods and services, regional trade agreements and investments in human capital, technology and institutions may lead to march forward on the road of development to achieve the above mentioned targets and goals.

The study is a thorough and indepth one and was inspired by the Hon'ble Planning Minister Mr. M. A. Mannan, MP and the Vice Chairman of Bangladesh Planning Commission, in conducting this study. Dr. Mashiur Rahman, Hon'ble Economic Affairs Adviser to the Prime Minister provided necessary guidance to conduct the study successfully and perused the final draft and provided comments for improvement. I am very much grateful to the relevant ministries, divisions, agencies, business organizations who commented on the draft of this report in writing. I also acknowledge with deep sense of appreciation to the concerned officials of GED who put their best efforts in the consultation process. I owe to all of them for excellent team work to accomplish this study.

(**Dr. Shamsul Alam)**

Table of Contents

List of Tables

List of Figures

List of Boxes

Abbreviations

ADB	Asian Development Bank
AoA	Agreement on Agriculture
APTA	Asia Pacific Trade Agreement
ASEAN	Association of Southeast Asian Nations
BB	Bangladesh Bank
BIDA	Bangladesh Investment Development Authority
CPTPP	Comprehensive and Progressive Agreement for Trans-Pacific Partnership
DAC	Development Assistance Committee
DFQF	Duty-Free Quota-Free
EBA	Everything But Arms
EU	European Union
FDI	Foreign Direct Investment
FTA	Free Trade Agreement
FY	Fiscal Year
GATS	General Agreement on Trade in Services
GCCA	Global Climate Change Alliance
GDP	Gross Domestic Product
GED	General Economics Division
GNI	Gross National Income
GSP	Generalized System of Preferences
GSTP	Global System of Trade Preferences
GCF	Green Climate Fund
HIC	High Income Country
IDA	International Development Association
IPCC	Intergovernmental Panel on Climate Change
IPR	Intellectual Property Rights
IR4	Fourth Industrial Revolution
ISM	International Support Measures

LDC	Least Developed Countries
LDCF	Least Developed Countries Fund
LMIC	Lower Middle-Income Country
MoC	Ministry of Commerce
MoE	Ministry of Education
MoF	Ministry of Finance
MoI	Ministry of Industries
MoPEMR	Ministry of Power, Energy and Mineral Resources
MoRTB	Ministry of Road Transport and Bridges
MoST	Ministry of Science and Technology
NBR	National Board of Revenue
NPL	Non-Performing Loans
ODA	Official Development Assistance
OECD	Organisation for Economic Co-operation and Development
PP2041	Perspective Plan 2041
RCEP	Regional Comprehensive Economic Partnership
RMG	Readymade Garments
SAFTA	South Asian Free Trade Area
SCM	Agreement on Subsidies and Countervailing Measures
TRIMS	Agreement on Trade-Related Investment Measures
TRIPS	Agreement on Trade-Related Intellectual Property Rights
UMIC	Upper Middle-Income Country
UN	United Nations
UNCDF	United Nations Capital Development Fund
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCC	United Nations Framework for Climate Challenge
UNICEF	United Nations International Children's Emergency Fund
WFP	World Food Programme
WTO	World Trade Organization

Executive Summary

Development Context

Since independence, Bangladesh has climbed a long way up the development ladder. The progress measured in terms of income, poverty and human development is truly impressive. Development progress has been particularly rapid since 2009 under the dynamic leadership of Prime Minister Sheikh Hasina, particularly in terms of acceleration of GDP growth. Continuing on its path of growth hike, per capita income has risen to $1909 in FY 2019, which is over 20 times the per capita income at independence. In 2015, Bangladesh crossed the threshold of the World Bank-defined lower middle-income country (LMIC). In 2018 it also crossed the threshold for graduation from the UN-defined list of Least Developed Countries (LDC). The presumptive date for formal graduation out of LDC status is 01 January 2024, after going through the standard process of approval and announcement under the UN system.

This progress with development and its international recognition are welcome news. International analysts are now describing Bangladesh as the "poster-child" of development, a significant upgrade from the 1970s ubiquitous stamp of "a test case of development". Bangladesh today is regarded as an example of a development miracle, having earned international acclaim on its tremendous success in attaining MDGs, particularly in the areas of poverty alleviation, food security, gender parity in primary and secondary education, infant and under-five mortality, and maternal mortality. The gains in human development could now further fuel economic growth through a virtual cycle and positive synergies. Thus, the economy is poised for higher attainments. Importantly, this has set the stage for Bangladesh to aspire to reach upper middle-income status by FY2031 and high-income status by FY2041.

But progress brings its own challenges that have to be addressed effectively as the country aspires to move forward further. The successful move towards LDC graduation implies that the special benefits enjoyed by Bangladesh in its international trade and financial relations with the global community as an LDC will also come to an end after graduation. Some of the LDC benefits have been very helpful for Bangladesh, especially the duty-free access to exports in the European markets. The readymade garments sector (RMG) has prospered globally but particularly in the European Union (EU) country markets with the support of this duty-free access under the Everything But Arms (EBA) facility. The Bangladesh pharmaceutical sector has benefited and flourished into a vibrant industry thanks to the flexibility for LDCs in the application of the World Trade Organization (WTO) Agreement on Trade Related Intellectual Property Rights (TRIPS). These are the most important benefits, but there are others. Perhaps Bangladesh is the LDC that was able to leverage the International Support Measures (ISM) the most.

In recognition of the importance of these preferential export market access, the LDC graduation process allows a fair amount of time for the formal graduation. The formal graduation is set for

2024. The Bangladesh government is keen to utilize this transition period to develop a comprehensive strategy for LDC graduation with a view to ensuring that the graduation costs in terms of loss of benefits are well understood and appropriate strategies and policies are in place to allow a smooth transition from LDC status. As a first step, the government has asked the General Economics Division (GED) of the Planning Commission to conduct an in-depth analysis of the costs and consequences of LDC and suggest appropriate strategies and policies to offset these costs through compensatory domestic policies and reforms. This report provides an analysis of the costs of LDC graduation and provides suggested strategies and policies to mitigate those costs and move forward along the path of the development articulated in the Perspective Plan 2041 (PP2041).

Loss of LDC Benefits

The International Support Measures Portal for Least Developed Countries of the United Nations Committee for Development Policy lists the ISMs in three categories: (I) General Support related International Support Measures; (II) Development Assistance related International Support Measures; and (III) Trade related International Support Measures.

General Support- related International Support Measures (ISMs): One of the major components of General Support ISMs for LDCs is the financial support in the form of scholarships and travel grants for research, which are provided to citizens from this group of countries. The organizations offering such opportunities to citizens to LDCs range from specialized agencies like the United Nations Educational, Scientific and Cultural Organization (UNESCO) to international organizations like the Intergovernmental Panel on Climate Change (IPCC). In addition, academic institutions like the Berkeley Law School and the Leipzig Graduate School of Management also provide scholarships to deserving students.

The most important institutional support is the assistance provided to prepare a strategy for a smooth transition after graduation from LDC status. This smooth transition is of vital importance since a country which is no longer an LDC will stop enjoying trade related support measures like preferential market access. Another support measure is the cap on the contribution of an LDC member country to the UN's total budget at 0.01% regardless of the country GNI. For example, in 2015, the amount was capped at $271,356. In 2018, eight LDCs used this measure to determine their contribution to the UN budget, including Bangladesh. At the same time, the countries have to make a minimum contribution of 0.001% to the UN – in 2015 it was $27,136. The LDCs are entitled to a discount of 90% on their contributions to peacekeeping operations.

Development Assistance-related ISMs: Official Development Assistance, or the ODA is integral component of the special support measures to the LDC economies. Development Assistance Committee (DAC) of the Organization for Economic Co-operation and Development (OECD) uses the term ODA to measure aid. Since LDCs face numerous structural challenges, their economies are vulnerable and exposed to natural as well as human-made shocks, ODAs provide some degree of secured assistance to these countries. There is a longstanding

commitment by developed countries, reiterated in the 2030 Agenda for Sustainable Development, the Addis Ababa Action Agenda of the Third International Conference on Financing for Development and the Programme of Action for the Least Developed Countries for the Decade 2011-2020 (Istanbul Programme of Action), to provide the equivalent of 0.15 to 0.20 percent of their gross national income (GNI) in the form of ODA to LDCs. This is in parallel to a commitment to provide the equivalent of 0.7 percent of GNI in ODA to developing countries. Unfortunately, as of 2016, only 6 countries were able to fulfill their 0.7 percent ODA/GNI ratio, and 0.15-0.20 percent GNI/ODA ratio has not been achieved yet.

Another aspect of ODA is in 2001 the OECD countries decided to untie aid for LDCs. Apart from South Korea and a few Eastern European countries, 22 DAC members have been able to untie their LDC specific ODA between 90%-100%. But there are questions regarding transparency of actual untied support measures. Several OECD member countries provide development assistance as grants or on concessional terms to LDCs.

In addition to bilateral assistance by the member countries, assistance is also provided to the LDCs through the UN's specialized agencies like the United Nations Development Programme (UNDP), United Nations International Children's Emergency Fund (UNICEF) and the World Food Programme (WFP). The UNDP and UNICEF target at least 60% of their regular assistance to the LDCs while the WFP allocates 50% of their funds for the same. At the same time, the World Bank provides loans on concessional terms like lower interest rates and longer grace periods through its International Development Association (IDA) to countries whose per-capita incomes fall below a certain threshold (defined by World Bank as low-income countries).

There are also a number of specialized funds and programmes that seek to support specific aspects of LDC needs or vulnerabilities. These include: The Least Developed Countries Fund (LDCF) under the United Nations Framework for Climate Challenge (UNFCC) to help fight climate change; the Global Climate Change Alliance (GCCA) of the EU that also supports LDC effort to fight climate change; and the United Nations Capital Development Fund (UNCDF) that seeks to promote small enterprises in LDCs.

Trade-related ISMs: Most of the International Support Measures for the LDCs are trade related. The trade related ISMs for LDCs are mainly based on three categories: (i) preferential access to markets; (ii) special treatment regarding the World Trade Organization (WTO) obligations; and (iii) building of trade-related capacities. So far, sixteen countries and the European Union have granted LDCs preferential access to their markets: (i) Turkey; (ii) Switzerland; (iii) Japan; (iv) Iceland; (v) Morocco; (vi) China; (vii) Chile; (viii) the European Union; (ix) New Zealand; (x) Norway; (xi) Thailand; (xii) India; (xiii) the Eurasian Customs Union (consisting of Russia, Kazakhstan and Belarus); (xiv) Australia; (xv) Canada; (xvi) the United States; and (xvii) the Republic of Korea. This preferential access is given under two schemes: The Generalized System of Preferences (GSP) – under which the countries benefitting from it are not bound to reciprocate; and (ii) the Global System of Trade Preferences (GSTP) –

under which the countries benefitting are supposed to reciprocate. In addition, regional trade agreements like the South Asian Free Trade Area (SAFTA) and the Asia Pacific Trade Agreement (APTA) also provide concessions on access to markets for the LDCs.

In the European Union (EU) countries, Bangladesh enjoys a comprehensive duty-free and quota-free (DFQF) market access for its merchandise exports. This preference is provided to all LDCs under the EU's "Everything But Arms" (EBA) scheme, which is the most generous among the three different GSP schemes provided by the EU for different groups of developing countries. Bangladesh is the largest beneficiary of the scheme; in 2017-18, it accounted for 64.1 percent of all EU imports under EBA, and 9.5 percent of the EU's total import under preferential treatment. Bangladesh enjoys on average a 9-12 percent preference margin under the EBA for its exports of apparels to EU. The current EBA scheme is likely to continue for three years after LDC graduation, till 2027.

Apart from the EU, the list of countries providing preferential market access to Bangladesh exports includes Australia, Belarus, Canada (98.6%; except: dairy, eggs and poultry), Liechtenstein, Japan (97.9%; except: rice, sugar, fishery products, articles of leather), New Zealand, Norway, Russian Federation (38.1%), Switzerland, and Turkey (79.7%; except: meat, fish, food, steel etc.). In addition, there are some special and partial DFQF facilities provided by a handful of developing countries including China (61.5%), Chile (99.5%), Korea Republic (90.4%), Chinese Taipei (31%). It is important to note that Bangladesh does not enjoy any type of GSP facilities in the largest developed economy market of the world, the USA. Bangladesh used to receive some limited US GSP facilities, which remained suspended from 2013, but never had any preferential access for its apparel exports to the U.S. market.

Loss of Specialized and Differential Treatment Regarding WTO-related Measures: There are a range of restrictive WTO rules and agreements that have been temporarily waived for LDCs as a special concession. These are included within the Agreement of Subsidies and Countervailing Measures (SCMs); Agreement on Agriculture (AoA); General Agreement on Trade in Services (GATS); Agreement on Trade Related Investment Measures (TRIMS); and Trade Related Intellectual Property Rights (TRIPS). Compliance with these agreements will all be obligatory on Bangladesh after the LDC graduation. In particular, compliance with SCMs, AoA, and the termination of TRIPS transition period can be challenging for Bangladesh.

Estimated loss from LDC Graduation: While the access to scholarships and concessional subscription to UN membership has been useful, the financial impact of loss of access to General Support ISMs is not significant when seen in the context of the potential loss of export earnings. Regarding the loss of access to subsidized ODA and grants, this is important but not a huge source of concern in financial terms presently. At the early stages of development up to the 1990s, like other LDCs Bangladesh benefitted a lot from concessional ODA. But as development proceeded over 2000-2019, the reliance on ODA as well as the concessional component fell significantly. Reduction in the share of concessional lending is an outcome of increases in per

capita income and not directly linked to LDC graduation. Yet, post-LDC graduation, this trend will continue and concessional aid will eventually disappear. Bangladesh will have to increase its reliance on market-based commercial borrowing. So, the average interest cost of foreign borrowing will increase. Simulation exercise done in the report shows that this would cause an increase in debt-servicing payment, but debt sustainability will not be threatened if a prudent approach to foreign borrowing is preserved. There will also be some losses of grants post-LDC graduation, estimated at around $700 million, of which $400 million is for the government and $300 million for NGOs. These grants are not growing much and the losses are very small relative to export earnings during the graduation period (FY24-27). Similarly, the loss of access to special climate funds for LDCs is not a worrisome factor. The benefits are small in financial terms. Moreover, Bangladesh will continue to have access to the Green Climate Fund (GCF), which is presently underutilized.

Not surprisingly, the biggest source of loss comes from the withdrawal of trade-related ISMs. The preferential access to markets at zero or very low tariffs has been a big boost for Bangladesh exports. In FY 2017, about 75 percent of Bangladesh's total export earnings came from countries that provided some degree of preferential access. Of these, the EU market accounted for 72%. Therefore, the loss of EBA facility will be an important loss. These losses in RMG exports could range from $1.0 billion (low price elasticity) to $4 billion (high price elasticity) in terms of the FY2018 export base. In percentage terms, they amount to a low of 2.8% of total exports in FY2018 to a high of 11.1%. The most likely loss will be about $1.8 billion (price elasticity of 1), which is 5% of export earnings in FY2018. The absolute dollar values will be larger depending upon the timing of LDC graduation. For example, using the PP2041 macroeconomic framework and unitary price elasticity assumptions, the projected loss of exports could be in the range of $7 billion in FY2027. These are not overwhelming losses compared to the export base but neither are they very small. Also, the loses will be higher if import price elasticity of demand for RMG is higher. Additionally, as noted below, there are other adverse implications of LDC graduation related to the end of special treatment under WTO provisions that can create important challenges. So, unless these losses are over-turned with coping policy measures, the cumulative losses over the years could be large.

It is not possible to quantify the loss emerging from the phasing away of the specialized and differential treatment of WTO provisions. These loses will emerge over time and can be substantial depending upon the institution of offsetting supportive measures and responses from the private sector. The challenge for Bangladesh is to use this opportunity of LDC graduation to modernize its trade and industrialization policy so that it is ready to compete more effectively in the global market without LDC-type concessions and meet all its WTO obligations with least cost.

Socioeconomic impact: If the export loses are not countered with timely measures, the estimated socioeconomic impact can be substantial. Simulation results show that the direct and multiplier effects of the export shock can cause an average GDP loss of 0.4% to 1.4% per year

depending upon the price elasticity of demand for RMG exports. The GDP loss would be higher if policies are not in place to tackle the challenges emerging from the withdrawal of specialized and differential treatment of WTO regulations. These will have adverse effects on employment and poverty reduction. Importantly, Bangladesh will go off-track on the PP2041 development path. It will not be able to reach UMIC target by FY2030 and HIC target by FY2041. The goals of eliminating extreme poverty by FY2030 and reducing absolute poverty to 5% or less by FY2041 will not be possible. Hence, the acceleration of policy reforms to counter the potential losses from LDC graduation is essential.

The Way Forward

Graduation from LDC is a major milestone and Bangladesh should be justifiably proud of the achievement. It is both a reflection of the economy's resilience and recognition by the international community that Bangladesh's internal capacities to face the global competitive challenges are increasing. So, the march towards the development goals of PP2041 must continue. The loss of LDC benefits will create important challenges in terms of potential loss of exports and the end of special and differential treatment under WTO that could affect tariff protection, export subsidies, agriculture sector, pharmaceuticals and the services sector. Additionally, the LDC graduation is coming at a time when the global environment for trade is becoming more constrained due to deglobalization trends from economic nationalism and protectionist policies in the USA and some other OECD countries, while the onset of the Forth Industrialization Revolution (4IR) is posing a major challenge for employment owing to technology-driven capital intensity of production and automation. All these changes in the external sector will need to be managed deftly starting from now in order to be well prepared for a smooth transition to post LDC Bangladesh.

In responding to the challenges of the Multi-Fibre Agreement (MFA) phase out in 2005 and the Global Food Price and Financial Crises of 2008-10, Bangladesh demonstrated its abilities to reform and adapt effectively to the realities of the global economy. The economy emerged stronger over the FY2010-FY2019 periods. In preparation to face the upcoming LDC Graduation and other development challenges related to climate change and water management, the government has already initiated major strategies and associated reform programmes. Thus, the PP2041 development strategy and the associated macroeconomic framework and the Delta Plan are both well-thought out and balanced development strategies. Their solid implementation can help overcome the challenges posed by LDC graduation as well as the challenges and vulnerabilities emerging from climate change

The specific reforms that need to be implemented to avoid the export and GDP shock from LDC graduation are summarized in the Policy Matrix attached at the end of the Executive Summary. They include the following:

Strengthen the implementation of a prudent macroeconomic framework: Bangladesh has generally followed a prudent macroeconomic framework that has served the country well in

terms of low inflation, low interest rates, stable balance of payments and exchange rate and comfortable public debt situation. The macroeconomy has come under stress recently owing to weak public resource mobilization, over-valuation of the real exchange rate, and growing non-performing loans (NPLs) of the banking sector. These imbalances must be addressed and removed quickly to put the macroeconomy on track as envisaged under the 7th Plan and PP2041. If these are not addressed comprehensively now, the LDC graduation costs could overwhelm macroeconomic management and jeopardize the growth momentum. Addressing the public resource mobilization challenge to sharply increase the tax to GDP ratio from the present 8.7% to at least 10% by FY21 and undertaking banking reforms to lower NPLs in a sustainable manner by addressing the root causes are the two top most macroeconomic priority for the immediate future. Once the immediate macroeconomic imbalances are reduced, the macroeconomic management must be aligned to the PP2041 macroeconomic framework in order to offset the macroeconomic effects of LDC graduation and support the acceleration of the GDP growth rate to 8-9 %. Fiscal reforms, especially the tax reforms, will be the most critical challenge.

Reform trade and exchange rate policies: The best way to counter the probable export losses from LDC graduation is to increase the rate of growth of exports by diversifying the export base. Diversification of the exports base requires a host of measures, but the two most important reforms are: reducing trade protection in order to minimize anti-export bias of trade policies and avoiding the over-valuation of the real exchange rate. Exports growth has slowed down considerably in the past 5 years as compared to the growth between FY2000-FY2014. Export concentration on RMG products has also increased. The lack of export diversification has contributed to the slowdown of export growth.

The importance of proper management of the exchange rate for export diversification and growth cannot be over-emphasized. Flexible management of the exchange rate has been an important enabler of export growth in Bangladesh, but the recent real appreciation is hurting exports. A policy of compensation through subsidies or tax breaks is not sustainable and could also amount to use of multiple currency practices. Bangladesh should best pursue a pragmatic flexible management of exchange rate such that real appreciation should not happen. To avoid increase in import prices this flexibility in nominal exchange rate management could be combined with reduction in tariff.

Research shows that export diversification has not happened mainly because the trade regime is biased against exports. Large trade protection through tariffs and para tariffs has provided strong incentives to production for domestic market where rates of return are much higher than exports owing to protection. Additionally, the over-valuation of the real exchange rate since 2008 has hurt exports. The RMG sector has been sheltered through a range of support measures like duty-free imports of inputs through bonded warehouse, export subsidies and income tax break that is not generally available to all exports. A sharp reduction in trade protection along with a supportive real exchange rate will be very important to help export diversification. Moreover, trade protection and export subsidy issues will need to be addressed comprehensively in any case

to comply with the WTO rules once the special treatment provisions are eliminated in a post LDC graduation world.

Address behind-the-border issues: The private sector is engine of growth for Bangladesh. It has come a long way since the early 1990s based on a series of trade and investment deregulation measures. The private investment rate surged from less than 10% of GDP in FY1990 to 22% in FY2010. Since then, however, the private investment rate has stagnated at around 22-23% of GDP. Productivity improvement of private investment has helped boost growth in the interim period along with better capacity utilization. But export growth of 12% based on diversification and GDP growth in the 9% range as envisaged in PP2041 will not be possible without an increase in the private investment rate to the 27-32% of GDP range over the next 10-12 years. Despite solid progress with development, Bangladesh has not attracted adequate foreign direct investment (FDI). Overall FDI in Bangladesh reached a mere $2.2 billion in 2017, as compared with $134 billion in China, $40 billion in India and $14 billion in Vietnam. Moreover, most FDI investments are outside manufacturing.

A range of behind the border issues will need to be addressed to spur the growth of FDI and domestic private investment. These include: strengthening electricity and transport infrastructure; improving trade logistics focused on enhancing the efficiency and timeliness of port clearances; improving the investment climate by reducing the cost of doing business related to licensing and clearances, access to serviced land, property registration, ease of foreign currency transactions, ease of tax payments, ease of contract enforcements, and bankruptcy laws; improving technology transfer, skills and market access through partnership and joint ventures with FDI; investment in research and development to support innovation and adoption of new production technologies; strengthening labour productivity through investments in human capital; fostering trade facilitation and competitiveness with customs modernization; and strengthening institutions for trade and industry. Reforms in these areas will also strengthen export competitiveness that is essential to penetrate markets in the post-LDC world. Detailed reforms in each of these areas are contained in chapters 6-7 of this Report and also in the PP2041. Implementation of these reforms will be critical to ensure a smooth and successful transition from LDC graduation to the PP2041 growth path.

Adapt to the world of the Fourth Industrial Revolution (IR4): As Bangladesh is set to graduate out of the LDC status, a global scale fourth industrial revolution powered by cutting-edge technology is also on the horizon. As 21st century world prepares for a new age economic transformation, mechanisation or automation has arrived as a credible problem for job creation that requires preparation. In order to remain competitive in the global market, Bangladesh will also need to adapt to the new production technologies in all spheres of production, especially in manufacturing and modern services. Bangladesh economy is already showing signs of first stage automation. Modernization of the RMG industry over past several years has increased the capital intensity of production and raised productivity but it has slowed down employment growth.

Despite this employment challenge, automation is inevitable, and there should be no hesitancy in promoting competitiveness by supporting technological up-gradation, particularly for export sectors. In some cases, technological advancement can lead to improvements in product quality with prospects for export expansion. Non-export and import-competing sectors also need to embrace more capital-intensive production techniques. Investment in machinery and equipment, as measured by import data, per unit of labour is much lower in Bangladesh, compared to Cambodia, Viet Nam or China. To balance this automation of production trend with job creation, the best response is to promote export growth and diversification that will create more jobs through the scale effects. Additionally, backward linkages to export-led manufacturing will help create jobs in modern services. This will have to be supported by strong effort to raise labour force education and skills. Automation will eliminate many jobs now done manually with low skills, but it will also create new jobs that are technical in nature and are skill intensive.

Moving forward, two specific reform actions that will be very important are first the need to develop and adopt a sound technology strategy and policies; the second is the need to develop a solid job creation strategy and policies, both geared to the adoption to the 4IR. These strategies should be developed on a priority basis and then followed through with specific Action Plans for implementation. Additionally, policy attention will need to intensify the implementation of the skills development strategy highlighted in the PP2041.

Trade agreements with regional communities: Barring the USA, the vast majority of WTO member countries would like to see a reformed and more effective multilateral trading system. Bangladesh, which has benefited from the multilateral regime as an LDC, may use the special dispensation for LDCs for the remaining years (until 2024) but will have to prepare for the stiffer competition in the global market, once the preferential access provisions evaporate following graduation. Furthermore, it must seek market access under various bilateral and regional trade and investment agreements. Markets in Asia are growing faster than any other region of the world and the ADB projects that by 2050 some 50% of global GDP will be in Asia. Two regional trading arrangements that hold tremendous potential for trade and investment are RCEP (ASEAN+) and CPTPP which together will constitute the bulk of Asian market of the future. Bangladesh would be well advised to seek membership or FTAs with these groupings. But that could be an uphill task give the current high tariff regime in Bangladesh and the enormous resistance from domestic import substitution industries to any reduction of protective tariffs. The political economy challenge is considerable but a breakthrough is essential.

The Government of Bangladesh has received proposals for potential bilateral trade arrangements from several countries including China, Malaysia and Thailand in recent years. Some analysts suggest that under current unorthodox protectionist approaches by US and some European governments to trade negotiations, Bangladesh would be an attractive country for a potential bilateral deal. Post-LDC Bangladesh may have to negotiate a trading arrangement with the EU along with the possibility of an FTA with the post-Brexit United Kingdom. But as it stands today, Bangladesh neither has the adequate capacities or experiences for strong trade

negotiations and signing comprehensive FTAs. Urgent attention should be given to enhancing trade policy capacity including negotiating FTAs.

Preparing the transition strategy for post-LDC full WTO compliance: Getting ready to comply with the full range of WTO regulations can be very challenging and an early start is essential. As a first step, a clear understanding of the implications of each of the relevant WTO regulations (especially SCMs, AoA and TRIPS Waiver) for the Bangladesh economy is necessary. Early preparation can help phase in compliance with these agreements over a period of time along with implementation of required policy reforms to counter any negative impact on Bangladesh. Of particular importance is to focus on how to deal with export subsidies as an instrument for export promotion in the post LDC graduation world. Similarly, the pharmaceutical industry's adjustments to the conclusion of the TRIPs Waiver could be a significant undertaking for Bangladesh. It is important to undertake a sector-specific detailed assessment to analyse all relevant implications. Such a study should also be able to gather information on the nature of production and exports (e.g. by patent status) to offer relevant policy recommendations.

Developing trade policy capacity: While LDC graduation has major adjustment costs, it also provides an opportunity to upgrade and modernize Bangladesh's trade policy and industrialization strategy and related capacities. Presently trade policy is the responsibility of the Ministry of Commerce. Industrialization Policy is the responsibility of the Ministry of Industries. Tariff setting de-facto is done by the National Board of Revenue (NBR). There is very little coordination between these three agencies in the setting of a coherent trade and industrialization policy. As an example, the tariff policy including regulatory and supplementary duties is almost entirely set by the NBR primarily based on revenue considerations. Similarly, when domestic protection is considered, this is done based on the influence of powerful lobbies rather than on objective assessment of the likely impact on investment, production and employment. A sea change is needed in the setting up of trade and industrialization policy based on a clear industrial strategy focused on investment, job creation, production and exports. Tariff and para-tariffs structure must be revisited to make them consistent with this trade and industrialization strategy. Proper coordination between the three agencies is essential to secure this.

More broadly, as the primary institution responsible for trade policy, the institutional capacity of the Ministry of Commerce must be sharply raised to prepare the necessary ground work for addressing the trade-related LDC graduation issues. The task ahead is immense including: development of trade protection policies; export promotion strategies; time path for adherence to all WTO policies including TRIPS, TRIMs, SCMs, AoA and GATS; and strategies for FTAs. Detailed studies and research might be needed in each specific area to develop action plans for implementation. In this regard, the Ministry can develop partnerships with local research institutions as well as seek technical assistance from WTO and donors.

Policy Matrix for Coping up with LDC Graduation

Reform Area	Proposed Policy Action	Outcome	Timeline	Implementing Agency
Fiscal Policy	Implement the fiscal policy framework of Perspective Plan 2041 (PP2041)	--Raise tax to GDP ratio to 10% by FY2021 -- Increase tax/GDP ratio to 15% by FY2031 --Fiscal deficit at below 5% of GDP	FY2021-FY2031	Ministry of Finance (MoF) / the National Board of Revenue (NBR)
Monetary Policy	Manage expansion of money supply (M2) in line with GDP growth and inflation targets	Keep inflation rate at 5% or below.	FY2021-FY2031	Bangladesh Bank in coordination with MoF
Exchange Rate Management	Maintain flexibility of nominal exchange rate	Stability of the real exchange rate	FY2021-FY2031	Bangladesh Bank
External Debt	Maintain prudent external borrowing commensurate with development needs	--External debt to GDP ratio below 15% --External debt service to total exports and remittances below 10%.	FY2021-FY2031	MoF and Bangladesh Bank
Financial Sector	Sharply strengthen banking supervision and implementation of full prudential norms for all banks	NPL of banking sector reduced to 7% or below by FY2021 in a sustainable manner	FY2021	Bangladesh Bank and MoF
Trade Policy	Sharply reduce trade protection with a view to eliminating anti export bias of trade policy	--Average nominal protection rate (NPR) for final consumer goods reduced from 46% in FY2019 to 10% by FY2025 and 5% by FY2031 --Average NPR for intermediate goods reduced from 14% in FY2019 to 5% by FY2025	FY2021-FY2031	Ministry of Commerce and NBR
Trade and Industrialization Policy	Develop and implement sound trade and industrialization strategy that seeks to promote private investment, increase manufacturing value-added and increase exports	--Trade and industrialization strategy ready by FY2021 -- Policies developed and implementation starts in FY2022	FY2021-FY2022	Ministry of Commerce, Ministry of Industry and NBR.
Trade-related Capacity Building	Develop trade policy capacity in Ministry of commerce with a view to addressing all trade-related issues from LDC graduation	--Research/analysis on implications of WTO regulations for the Bangladesh economy relating to TRIPS, TRIMs, SCMs, AoA and GATS ready by FY2022 --Time path / Action plan for implementation ready by FY2023 --Develop at least 2-3 major FTA proposals by FY2022	FY2021-FY2023	Ministry of Commerce

Reform Area	Proposed Policy Action	Outcome	Timeline	Implementing Agency
		--Implementation of at least 2 major FTAs by FY2023.		
Investment Climate	Develop and implement a comprehensive Action Plan for improving the investment climate for domestic and foreign private sector	--Improve ranking of World Bank Doing Business Indicators from 176 in 2019 to 150 by 2021, 100 by 2023 and 75 by 2024 --Increase private investment rate from 23% of GDP to 29% of GDP by FY2025 and 32% of GDP by FY2031 --Increase FDI inflows from $2.3 billion in 2018 to $10 billion by 2022.	FY2021-FY2025	BIDA, Ministry of Finance, Bangladesh Bank
Infrastructure	--Strengthen power and energy policy and develop transport infrastructure strategy and policies --Develop and implement an Action Plan to strengthen transport sector project implementation capacity	-- Sound implementation of the PP2041 power sector strategy --Increase access to power from 92% in FY2019 to 100% by FY2022 --Sound implementation of the PP2041 transport sector strategy -- Timely completion of all major projects. --Accelerated implementation of PPP-based transport projects --Increase transport infrastructure ranking as defined under World Bank LPI rankings from 121 in 2018 to 100 by FY2023 and 60 by FY2031	FY2021-FY2031	Ministry of Energy and Power; Ministry of Transport
Education and Training	Sharply improve labour skills through investment in education quality and training	--Implement the education and training strategy of the PP2041 --Increase education spending from 1.8% of GDP in FY2019 to 2.5% of GDP by FY2021 and 3.5% by FY2031	FY2021-FY2025	Ministry of Education and MoF
Technology	Develop a sound technology strategy	--Develop a technology strategy by FY2021 --Develop an Action Plan for implementation by FY2022	FY2021-FY2022	Ministry of Science and Technology, Ministry of Industry and MoF
Employment	Develop and implement a sound employment policy that balances technology for enhanced productivity with employment	--Develop a sound employment strategy that balances technology for enhanced productivity with employment by FY2022 --Develop an Action Plan and initiate implementation by FY2023	FY2022-FY2023	General Economics Division of the Planning Commission and line Ministries

Chapter 1

Development Progress and the LDC Graduation Challenge

1.1. Overview

Bangladesh has come a long way along the development ladder since independence. A snapshot of this progress against key development indicators is shown in Table 1.1. The development progress measured in terms of income, poverty and human development is truly impressive. This progress gained momentum after 2009 under the dynamic leadership of Prime Minister Sheikh Hasina, especially in terms of acceleration of GDP growth. In 2015, Bangladesh crossed the threshold of the World Bank-defined lower middle-income country (LMIC). In 2018 it also crossed the threshold for graduation from the list of UN-defined least developing countries (LDC).

Table 1.1: Development Performance 1980-2018

Indicators	1980	2000	2018
GNI per capita ($)	140	581	1909[1]
Poverty (UPL) (%)	58.5[2]	52.3	21.8
Life expectancy (years)	54.8	63.6	72.3
Infant mortality (%)	111.5	58.0	22.0
Adult Literacy (%)	29.2	52.8	73.9
Population growth rate (%)	2.35	1.41	1.2

Source: Bangladesh Bureau of Statistics

The LDC graduation is a game-changer for Bangladesh economy and society. In the early years of independence international critics thought Bangladesh was an international basket case. The development progress leading to the readiness for LDC graduation has proven that with strong commitment, good economic management and resilient economic progress under heavy odds is very much possible. Bangladesh is now considered a solid model for socio-economic progress with many positive lessons for other developing countries. In addition to the remarkable progress with human development and poverty reduction, the rapid rate of GDP growth is amongst the fastest in the world today.

But progress brings its own challenges as Bangladesh aspires to move forward further to achieve upper middle income status by FY2031 and high income status by FY2041. The successful move towards LDC graduation implies that the special benefits enjoyed by Bangladesh in its

[1] Refers to FY2019
[2] Refers to 1983

international trade and financial relations with the global community as an LDC will also come to an end after graduation. It must be acknowledged that Bangladesh has made the most of the International Support Measures (ISMs) accorded to LDCs. Some of the LDC benefits have been particularly propitious for Bangladesh, especially the duty-free access to exports in the European markets under the Everything but Arms (EBA) scheme. The readymade garments sector (RMG) got a tremendous boost in the European Union (EU) country markets with the support of this special GSP facility for LDCs. This is the most important benefit, but there are others.

But Bangladesh is not new to challenges stemming from external developments. The MFA phaseout was a watershed moment in 2005 that many anlysts thought would spell disaster for the RMG industry. Yet, it was the strong competitiveness of the sector that ensured a firm footing in the global market. Likewise, given the strong record of resilience of the Bangladesh economy and its critical actors, we may surprise analysts again in rising to the challenge of post-graduation and moving forward on a steady path of growth towards Upper-Middle Income Country (UMIC) status by 2031. However, there should not be any ground for complacency. This report highlights the scope and extent of the possible emerging challenges and offers policy guidance for addressing them in order to stay on course of steady economic progress as planned.

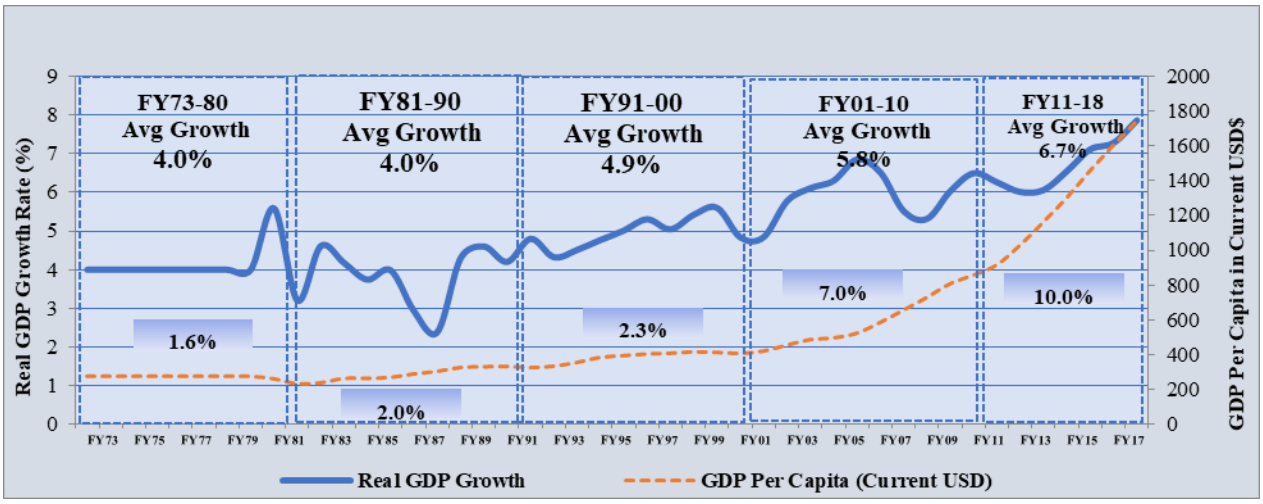
In recognition of the importance of these preferential export market access, the LDC graduation process allows a fair amount of time for the formal graduation expected in 2024. The Bangladesh government is keen to utilize this transition period to develop a comprehensive strategy for LDC graduation with a view to ensuring that the graduation costs in terms of loss of benefits are well understood and appropriate strategies and policies are in place to allow a smooth transition from LDC status. As a first step, the government has asked the General Economics Division (GED) of the Planning Commission to conduct an in-depth analysis of the costs and consequences of LDC graduation and suggest appropriate strategies and policies to offset these costs through compensatory domestic policies and reforms.

This study provides an analysis of the costs of LDC graduation and strategies and policies to mitigate those costs and move forward steadily along the path of development articulated in the Perspective Plan 2041 (PP2041). The Report is organized as follows. In this first chapter, an analysis of progress with development and emerging issues and challenges in light of LDC graduation are provided. Chapter 2 contains an analysis of main benefits offered by the international community to support LDCs. Chapter 3 deals with major post-graduation challenges in light of the loss of LDC benefits and their likely impact. Chapter 4 reviews the globalization trends facing Bangladesh in a post-LDC environment. Chapter 5 analyses the macroeconomic strategies for post-LDC graduation adjustments. Chapter 6 reviews trade policies and strategies for smooth adjustment to the LDC graduation phase. In Chapter 7, analysis of behind-the-border issues to strengthen competition and gain market access in a post LDC-graduation environment are analysed. Finally, Chapter 8 provides an analysis of socioeconomic impacts of LDC graduation.

1.2. Growth and Structural Transformation

GDP and GNI growth: In the first two decades after independence, the Bangladesh economy performed at a low level in terms of real GDP growth, investment and savings rates. Average real GDP growth was less than 4%. Coupled with high population growth rate, this lackluster economic growth led to virtual stagnation in per capita real GDP. The growth in per capita GDP in dollar terms hovered between 1% to 1.5% (Figure 1.1). Per capita GDP started to grow modestly during 1990s, but still remained tepid at an average rate of 2.3% during the decade. Economic growth accelerated after 2000, while population growth rate slowed. These factors along with a stable exchange rate caused per capita GDP in dollar terms to surge from $400 in FY01 to $900 in FY11, and the annual average growth rate of GDP per capita in dollar terms accelerated to 7% during the decade. During FY11 to FY17, per capita GDP in dollar terms doubled to $1800, as the growth rate in per capita GDP in dollar terms accelerated further to 10%.

Figure 1.1: Historical Trend of Real GDP and GDP per Capita (Current USD$)



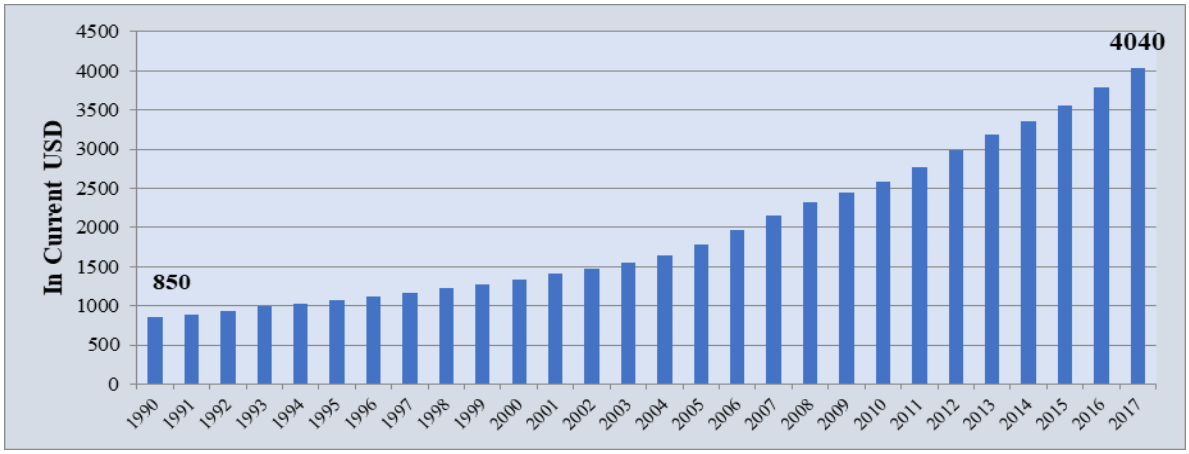
Source: Bangladesh Bureau of Statistics

A review of Bangladesh's growth experience indicates that, real GDP growth increased steadily over the decades since 1980s, and the growth rate generally accelerated on average by about one percentage point per decade. The growth rate has been stable and without much cyclical variation. This is another remarkable feature of the Bangladesh growth experience.

The accelerating economic growth, combined with macroeconomic and exchange rate stability, declining population growth rate, and growing foreign remittances contributed to an acceleration in per capita gross national income (GNI). Whereas it took more than 20 years for per capita income to double in dollar terms from $200 in 1980 to $400 in 2002, it took only 7 years to double from $600 in 2007 to close to $1200 in 2014. In 2015 Bangladesh crossed a major

milestone by moving out of the World Bank defined low income country to a lower middle-income country. The per capita GNI in FY19 reached $1909 in current dollar terms, pointing to further acceleration in recent years. In terms of Purchasing Power Parity (PPP), Bangladesh's per capita GNI increased by almost 5-fold since 1990 (Figure 1.2).

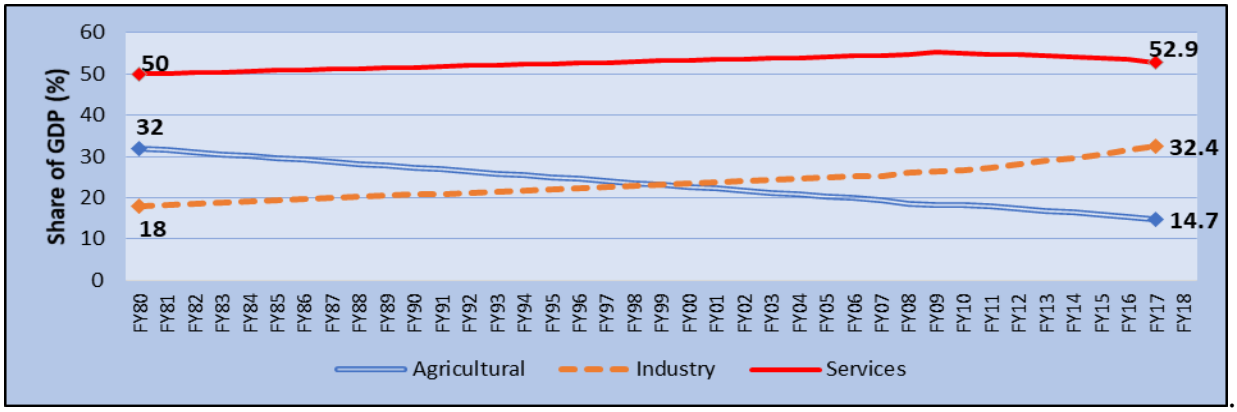
Figure 1.2: GNI Per Capita, PPP (current US $)



Source: ***World Bank database***

Structural change in production: Since end-1980s, the growth was driven by exports of RMG products thus contributing to the increasing share of manufacturing/industries over the last three decades. As the share of agriculture in GDP declined from 32% in FY80 to 14.7% in FY18, the share of industries increased correspondingly by 14.4 percentage points to 32.4% of GDP in FY18 (Figure 1.3). The share of service sector remained broadly stable at around 50% of GDP, but there were important qualitative changes. Many modern services activities have been emerging over the last two decade or so in banking, insurance, information communications technology (ICT), transport, healthcare, hospitality industry and education. Nevertheless, informal activities still remain dominant in the services sector.

Figure 1.3: Structural Transformation of Gross Value Added



Source: Bangladesh Bureau of Statistics

Despite its declining share in GDP, agriculture continued to grow at a respectable pace of 3%-4% per annum throughout this period and Bangladesh secured virtual food self-sufficiency in rice, with rice production increasing to 34.7 million ton in FY15 surging from only about 13 million ton in 1970s. This remarkable increase in rice production is primarily attributable to irrigation, fertilizer and the introduction of high-yielding variety (HYV) rice since mid-1970s. This seed-fertilizer-water technology led to a surge in the production of dry season boro rice, which grew by11 times (Table 1.2). Wheat output also increased, although it still accounts for a very small proportion of total food grain production. This surge in food production was instrumental in eliminating hunger from Bangladesh and contributed handsomely to the reduction of poverty.

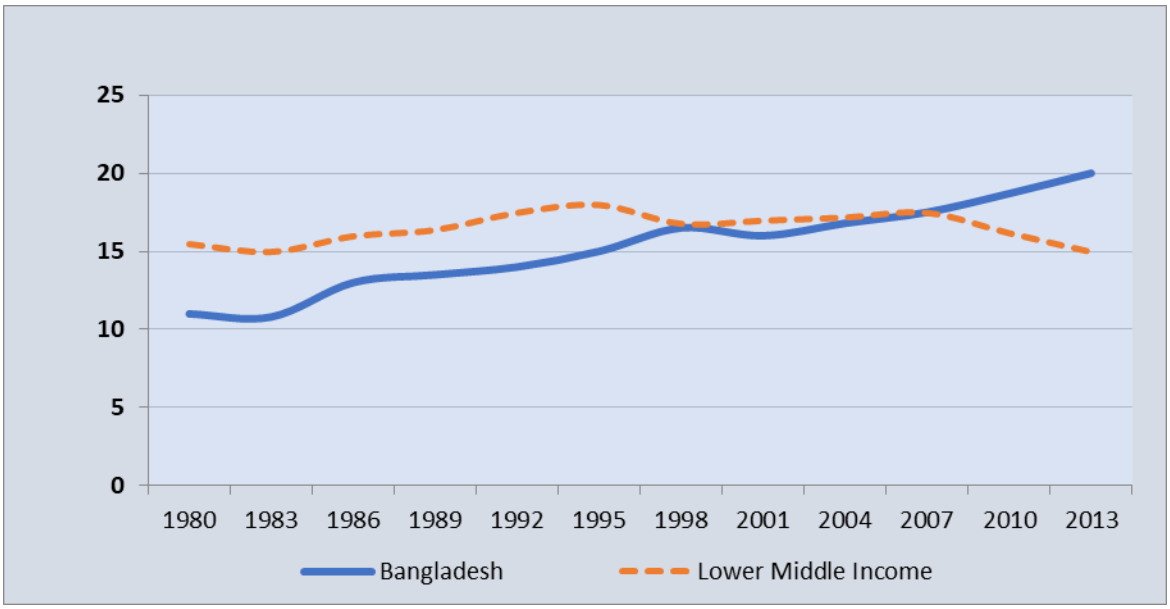
Table 1.2: Index of Food Grain Production (FY72=100)

	Aus Rice	Aman Rice	Boro Rice	Wheat
FY72	100	100	100	100
FY80	120	128.2	139.6	731.9
FY90	105.7	161.6	347.1	787.6
FY00	74.1	181	634.5	1628.3
FY08	64.4	169.7	1022	746.9
FY09	80.9	203.9	1024.7	751.3
FY10	73	214.3	1039.1	797.3
FY11	91.1	161	1071.2	860.2
FY12	99.4	161	1080.2	886.3
FY13	92.3	161.2	1080.2	1120.9
FY14	99.4	161.3	1093.7	1160.0
FY15	99.4	161.3	1102.7	1199.1
FY16	97.7	164.9	1088.1	1199.3
FY17	91.1	167.0	1035.1	1199.3

Source: Bangladesh Bureau of Statistics

As a result of the rapid growth of the manufacturing sector, supported by export-oriented RMG and other domestic demand-based manufacturing outputs, Bangladesh's share of manufacturing in GDP has grown. It now exceeds the average of lower middle-income countries (LMIC). This indicates that Bangladesh manufacturing has performed better than the average LMIC. This is a positive development and, if sustained and further augmented, this dynamic manufacturing sector will propel Bangladesh towards the UMIC country status as envisaged under the PP2041.

Figure 1.4: Share of Manufacturing in GDP (%)



Source: Bangladesh Bureau of Statistics

1.3. Sources of Growth

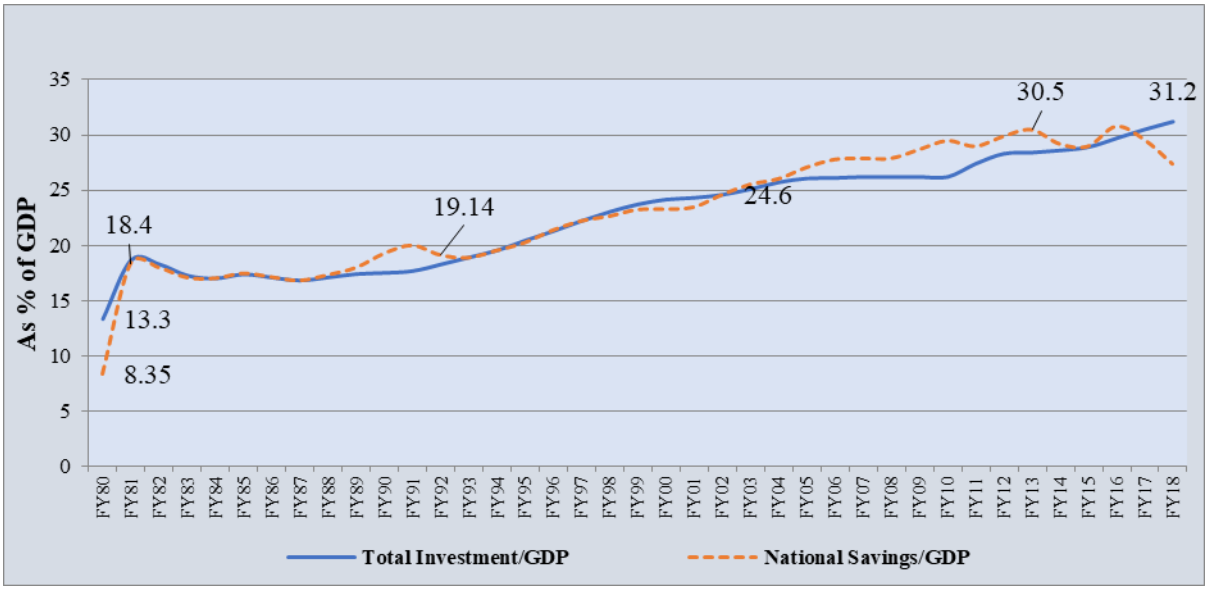
Bangladesh's impressive performance in terms of income and domestic output has been supported by several growth drivers. These include: capital accumulation financed by increased domestic savings and remittance inflows that boosted the national savings rate; a growing labour force that was supported by job creation based on growing demand; and the growth in exports fueled by the Ready-made Garments (RMG) revolution.

Bangladesh's national savings rate used to be less than 10% of GDP until it jumped to around 18% of GDP in FY82, supported by increased inflow of workers' remittances. It hovered around that level throughout the 1980s (Figure 1.5). The national savings rate continued to steadily increase after 1990 and reached a peak of 30.5% of GDP in FY13. It has dipped a bit since then due to the slowdown in the growth of foreign remittances. On average, the expansion of national savings has tremendously benefitted from the rapid inflow of workers' remittances, which at times exceeded 12% of GDP and currently accounts more than 7% of GDP.

Gross National Investment closely followed the trend in Gross National Savings during most of the period, indicating a sustained increase in investment supported almost entirely by national savings. Accordingly, the investment rate increased from a low of 13.3% of GDP in FY80 to 31.2% of GDP in FY18. This accumulation of capital (capital deepening) in recent decades has underpinned the pickup in the real GDP growth rate almost in a parallel path. The level of national investment was generally at or below the level of national savings, indicating that

current investment was domestically financed and the external current account balance was in virtual balance or small surplus during most of the last three decade ensuring sustainability of the investment and growth momentum.

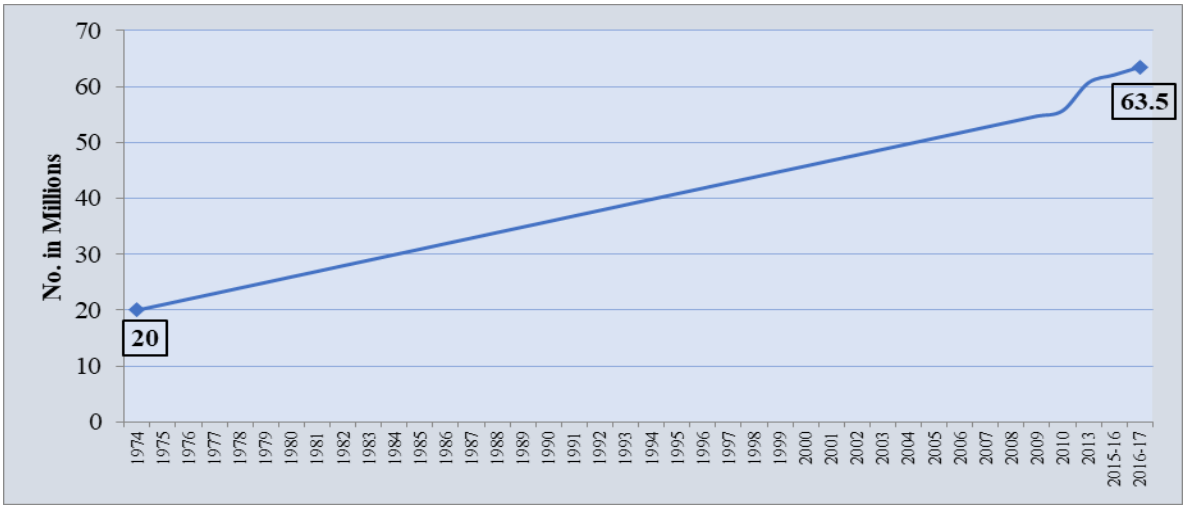
Figure 1.5: Historical Trends in National Savings and Investment Rates FY80-FY18



Source: Bangladesh Bureau of Statistics

Growth in the number of working age population, increased participation of women in the labour force, and increases in labour productivity were the other drivers of growth in Bangladesh. Total working age population increased more than 3-fold since 1974 from around 20 million to 63.5 million in FY17 (Figure 1.6). The growth dynamics was also supported by the increasing participation of women in the labour force (Figure 1.7).

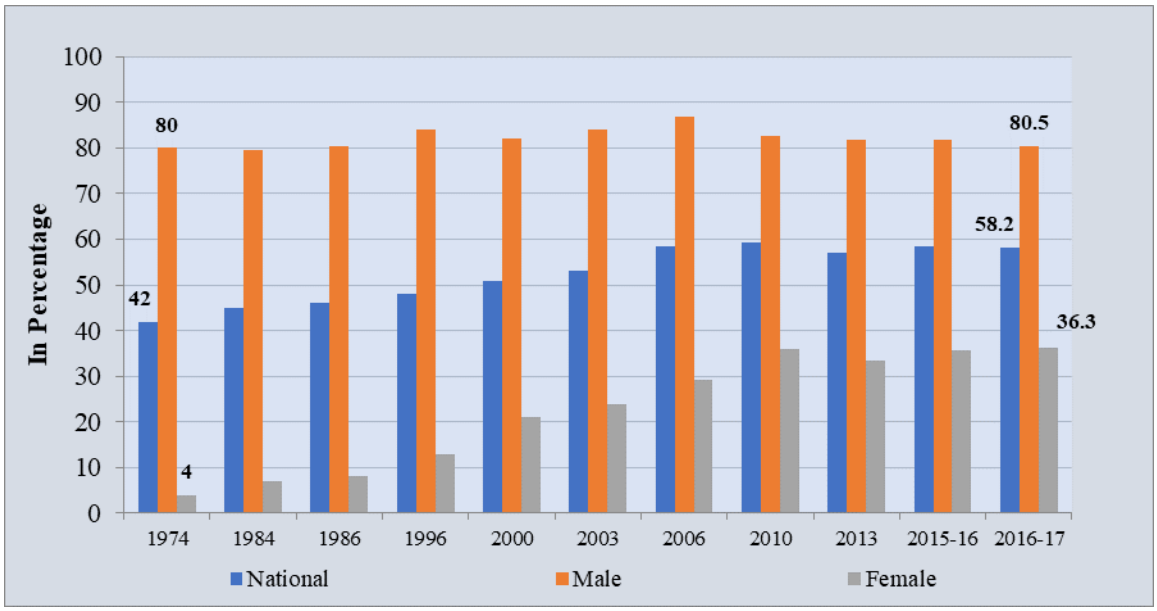
Figure 1.6: Trend in Economically Active Population/Labour Force



Source: Bangladesh Bureau of Statistics

Because of the growing participation of women, the share of female labour in the total labour force has been rising from only 4% in 1974 to more than 36% in FY17. While participation of male in the workforce has remained broadly unchanged at around 80% since 1974, the national participation rate increased from 42% in 1974 to 58.2% in 2016-17, reflecting the increasing participation of female labour. At 36.3% the female labour force participation rate is still quite low, indicating further scope for labour force expansion in the coming years.

Figure 1.7: Trend in Labour Force Participation



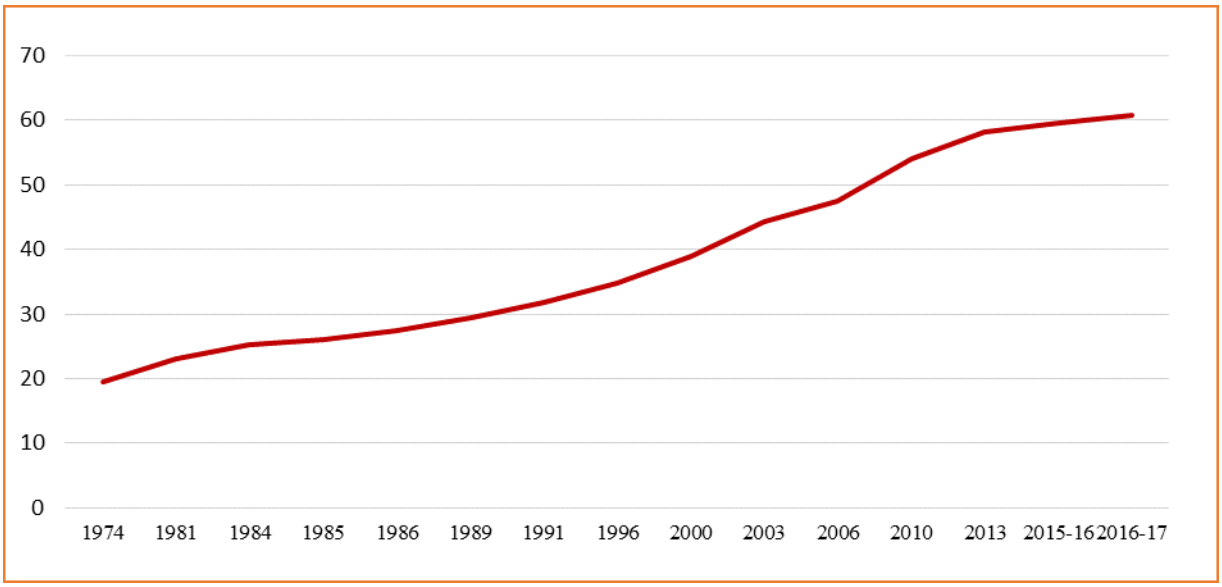
Source: Bangladesh Bureau of Statistics

The growing labour force contributed to a favorable labour supply situation thereby avoiding pressure on real wages. On the demand side, exports, investments and consumption growths all contributed to a growing demand for labour that supported an expansion in domestic employment. On average employment grew by 2.9% per year between 1974 and 2013 (Figure 1.8). Along with export of workers abroad, the overall employment situation remained comfortable for most of the years except recently (2013-2017).

In a developing country like Bangladesh where formal employment and associated worker protection benefits are limited, open unemployment tends to be low as people cannot afford to stay unemployed and will take up any job in the informal sector at low real wages. So, along with total employment, the structure of employment is also very important. The changing structure of production noted above did support an improving employment structure. Workers on average tend to be compensated less owing to low productivity in agriculture and informal services relative to manufacturing and formal services. The structural change in employment is illustrated in Figure 1.9. Slowly but steadily, the employment share of manufacturing has grown from 8% in 1974 to 20 % in 2016-17, while the employment shares in agriculture has fallen from 78% to 41% over the same periods. The employment share of services rose markedly from 14%

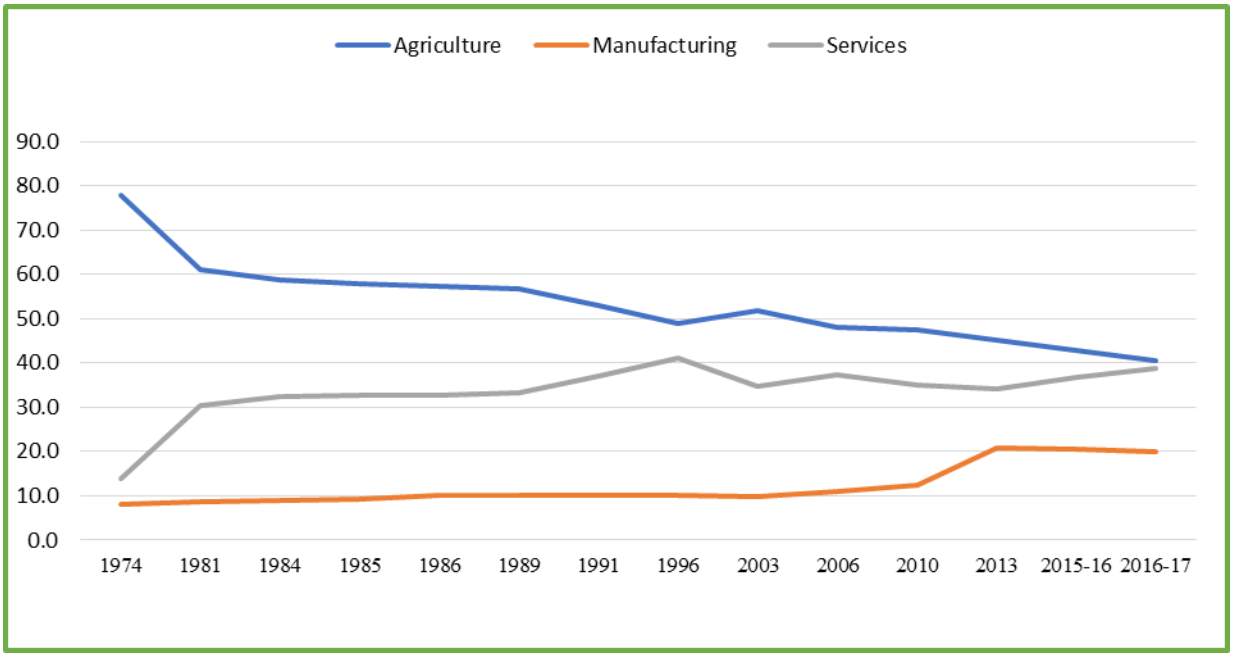
in 1974 to 40% in 2016-17. This structural transformation has been accompanied by rising real wages in both agriculture and manufacturing that has contributed strongly to poverty reduction.

Figure 1.8: Trend in Employment (million workers)



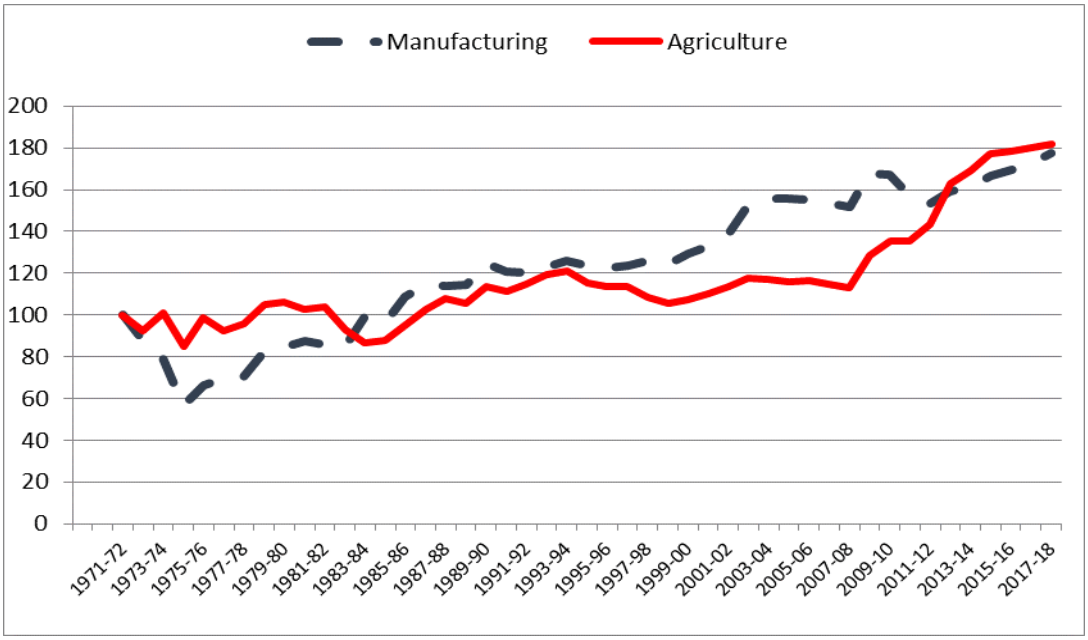
Source: Bangladesh Bureau of Statistics

Figure 1.9: Structural Change in Employment



Source: Bangladesh Bureau of Statistics

Figure 1.10: Trend in Real Wages (1971-72=100)



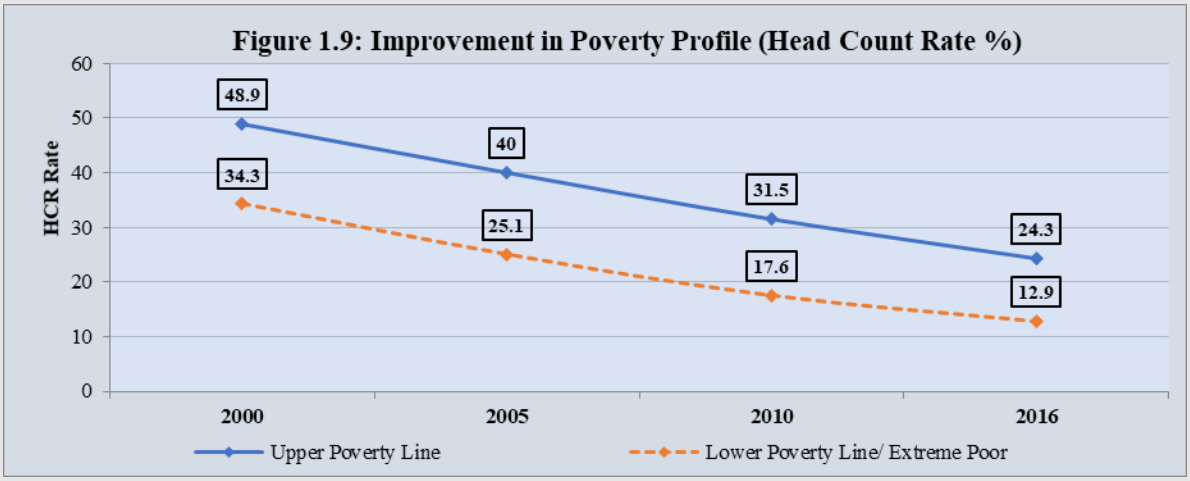
Source: Bangladesh Bureau of statistics

While the long-term story on employment and real wages is positive, there are some recent developments on the employment front that need to be managed. This concerns the recent slowdown in job creation, especially in manufacturing. The pace of employment growth in manufacturing in recent years is much slower than is necessary to absorb the growing labour force emerging from the demographic transition including higher participation of the female labour force, and to further reduce under-employment in agriculture and informal services. Technology changes in manufacturing and construction are slowing down job creation. Also, skills are a serious problem.

1.4. Distribution of the Gains from the Growth

The positive developments in real economic growth also led to improvements in various socio-economic indicators. As indicated in Table 1.1, in early 1970s, Bangladesh's poverty level in terms of the upper poverty line was as high as 74%. By the year 2000, the poverty level in terms of upper poverty line declined to 48.9% of the total population but still almost half of the population remained poor. As economic growth gained momentum, the poverty rate was further cut by half to 24.3 percent by 2016 (Figure 1.9). Similar progress was made in terms of reduction in the incidence of extreme poverty, which declined by almost two-thirds to 12.9% in 2016, compared with 34.3% of population in 2000. A rapid expansion of income from rural non-farm activity and remittances, which currently account for more than 60% of rural household income, has contributed to this reduction in poverty across Bangladesh.

Box 1.1: Progress with Poverty and Food Intake



Source: Household Income and Expenditure Survey, BBS- Various Years

Along with progress on the poverty front, Bangladesh also made remarkable progress in terms of food security and nutrition intake. As discussed above in the context of agriculture sector performance, Bangladesh has already achieved self-sufficiency in rice production in a normal year when production is not impacted by devastating floods. Moreover, non-crop agriculture like eggs and poultry, fish, milk and livestock production has expanded rapidly contributing towards the restoration of nutritional balance in the daily intake of essential foods. As the daily intake of protein, dairy, vegetables, and fruits increased rapidly, per capita daily intake of rice started to decline steadily in a predictable manner. The nutritional rebalancing is important for preventing stunting and malnutrition among children of poor and uninformed households. Bangladesh has made good progress in this direction, but still has some way to go particularly to address the stunting and malnutrition of children among the ultra-poor households.

Table 1.3: Per Capita per day Intake of Major Food Items (Grams)

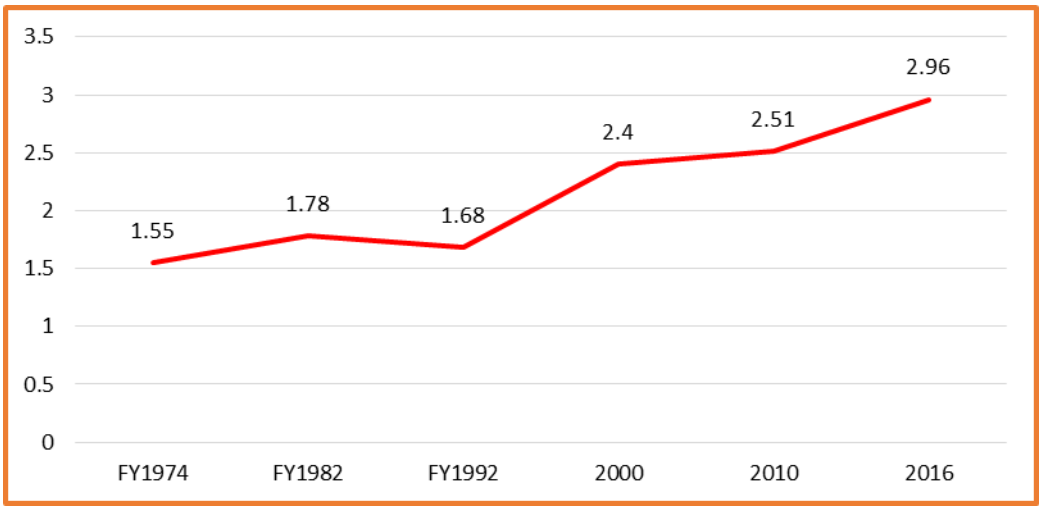
Items	1995-96	2000	2005	2010	2016
Total	**913.8**	**893**	**947.8**	**1000**	**976**
Rice	464.3	458.5	439.6	416.0	367.2
Protein-based food	58.6	57.0	62.5	75.4	101.6
Vegetables, Dairy and Others	390.9	377.5	445.6	508.6	506.8

Source: BBS, HIES- Various Years

While the progress with poverty reduction, the elimination of hunger and increase in food nutrition are all major wins for the welfare of the Bangladeshi population, one worrisome negative development is the growing incidence of income inequality that has also tended to lower the poverty impact of growth. Income inequality as measured by the traditional gini coefficient has been creeping up in Bangladesh over the years. A more reliable indicator of income inequality is the Palma Ratio that calculates the ratio of the share of income of the top 10^{th} percentile of the population divided by the share of the bottom 40^{th} percentile. The richest 10^{th} percentile of the population had income that was 1.7 times higher than the combined

incomes of the bottom 40 percentile of the population in 1992. This soared to a high of around three times in 2016. Clearly, income inequality is on the rise and sharply so as reflected by the Palma Ratio (Figure 1.11). Rising income inequality not only reduces the poverty impact of growth it also leads to social unrest. It also goes against the spirit of the government's philosophy to promote prosperity and inclusiveness. Addressing the income inequality is a major policy challenge moving forward.

Figure 1.11: Income Inequality (the Palma Ratio %)



Source: Bangladesh Bureau of Statistics

The other important downside that needs careful management is the recent slowdown in job creation, especially in manufacturing. According to the latest round of the labour force survey (LFS 2017), job creation has been rather modest, despite rapid GDP growth. Compared with average GDP growth of 6.6% per year, employment has grown slowly at the rate of 1.7% between 2010 and 2017. This suggests a very low elasticity of employment to GDP growth (0.26). On the positive side, the employment share of agriculture has fallen from 48% to 41% while the employment share of manufacturing has increased from 12% to 20%. Technology changes in manufacturing and construction are slowing down job creation. Also, skills are a serious problem.

1.5. Bangladesh's Remarkable Journey Toward LDC Graduation

Evolution of the LDC status

The Least Developed Countries, as defined by the United Nations Committee for Development Policy (UNCDP) are a group of countries that exhibit the lowest indicators of socioeconomic development. The concept of LDCs emerged way back in the late 1960s during the review of the International Development Strategy of the first Development Decade (IDS-I) of the UN. During that period, there was growing consensus regarding the inadequacy of the conventional or historical methods to facilitate economic development in most vulnerable countries. As a result,

the global community started to acknowledge the necessity of special attention and a strong framework for it. Finally, in November 1971, 25 countries were listed together as LDCs in UN resolution 2768 (XXVI).[3] Table 1.4 provides a brief history of the inception of the LDC group with a list of events.

Consequently, the International Development Strategy for the second UN Development Decade (IDS-II) in the 1970s incorporated special measures in favour of the LDCs. Later at different stages, 28 more countries were added to this group. Bangladesh became a member in 1975, along with the Gambia and the Central African Republic. Since 1994 to 2018, only five countries have successfully managed to graduate out of the LDC status. One noticeable factor is that these countries were either small island nations or have an abundance of natural resources, which eased their position in the global export market for primary goods.[4]

Currently, there are 47 countries in the LDC group. These LDCs consists of 986 million people but account for only 1.3 percent of the global economic production and 0.9 percent of global trade. These simple numbers clearly indicate how productivity and financial progression remains obstructed in LDCs, owing to a mixture of structural or natural factors. To understand the evolution of LDC status, it is important to probe through the LDC member selection criteria. Since the inception in 1971, the LDC member selection criteria has changed seven times. The original LDC simple identification criteria only accounted for "low-income countries that face structural handicaps", while indicators included GDP per capita, adult literacy rate and share of manufacturing sector in the economy. The indicators have changed as well as the identification criteria. According to the latest round of updates made by UNCDP in 2017, LDCs are low-income countries suffering from the most severe structural impediments to sustainable development. The indicators include GNI per capita, Human Assets Index (HAI), and Economic Vulnerability Index (EVI). The evolution of LDC criteria is indicated in Table 1.5, while Figure 1.12 provides detailed information regarding HAI and EVI.

[3] These countries included Afghanistan, Bhutan, Botswana, Burundi, Chad, Dahomey (later Benin), Ethiopia, Guinea, Haiti, Laos (later Lao PDR), Lesotho, Malawi, Maldives, Mali, Nepal, Niger, Rwanda, Kingdom of Sikkim (later part of India), Somalia, Sudan, Uganda, United Republic of Tanzania, Upper Volta (later Burkina-Faso), Western Samoa (later Samoa) and Yemen.

[4] Among those five countries, Botswana graduated in 1994 with 91% valuable natural stones in export basket. Cape Verde (graduated in 2007), Maldives (graduated in 2011), Samoa (graduated in 2014) are small island nations with each containing less than half a million population. Crude oil exporting Equatorial Guinea became the only LDC to graduate out by income-only criteria in 2017.

Table 1.4: Timeline of Events for Least Developed Countries

December 1971	**26th session of the United Nations General Assembly**
	Formally endorsed the list of the 25 LDCs
March 1971	**7th session of the Committee for Developing Planning (CDP)**
	Determined the initial criteria for identification of LDCs to be low per capita gross domestic product (GDP) and the presence of structural impediments to growth
	Identified a tentative list of 25 countries as LDCs based on these criteria
December 1970	**25th session of the United Nations General Assembly**
	Reiterated the urgency of formal identification of LDCs
March 1970	6th session of the Committee for Developing Planning (CDP)
	Formed a working group to define the methodology for identifying LDCs
December 1969	24th session of the United Nations General Assembly
	Acknowledged the need to alleviate the problems of underdevelopment in the less developed countries
	Requested the Secretary-General to carry out a comprehensive examination of the special problems of the LDCs and to recommend special measures for dealing with them
January-March 1968	Second session of the United Nations Conference on Trade and Development
	Acknowledged the need to alleviate the problems of underdevelopment in the less developed countries
	Requested the Secretary-General to carry out a comprehensive examination of the special problems of the LDCs and to recommend special measures for dealing with them
March-June 1964	First session of the United Nations Conference on Trade and Development
	UNCTAD member States agreed that special attention was to be "paid to the less developed among the developing countries, as an effective means of ensuring sustained growth with equitable opportunity for each developing country"

Source: UNDESA 2018

Table 1.5: Evolution of LDC Definition and LDC-Selection Criteria

LDCs are low-income countries suffering from the most severe structural impediments to sustainable development			
2017	**GNI per capita**	**Human assets index (HAI)**	**Economic vulnerability index (EVI)**
		• Under-five mortality rate • Percentage of population undernourished • **Maternal mortality ratio** • Gross secondary school enrolment ratio • Adult literacy rate	• Population • Remoteness • Merchandise export concentration • Share of agriculture, forestry and fishing in GDP • Share of population in low elevated coastal zones • Instability of exports of goods and services • Victims of natural disasters Instability of agricultural production
LDCs are low-income countries suffering from the most severe structural impediments to sustainable development			
2011	**GNI per capita**	**Human assets index (HAI)**	**Economic vulnerability index (EVI)**
		• Percentage of population undernourished • Under five mortality rates • Gross secondary school enrolment ratio • Adult literacy rate	• Population • Remoteness • Merchandise export concentration • Share of agriculture, forestry and fishing in GDP • Instability of exports of goods & services • **Victims of natural disaster** • **Share of population in low elevated coastal zones**
LDCs are low-income countries suffering from low level of human resources and a high degree of economic vulnerability			
2007	**GNI per capita**	**Human assets index (HAI)**	**Economic vulnerability index (EVI)**
		• Percentage of population undernourished	• Population • **Remoteness**

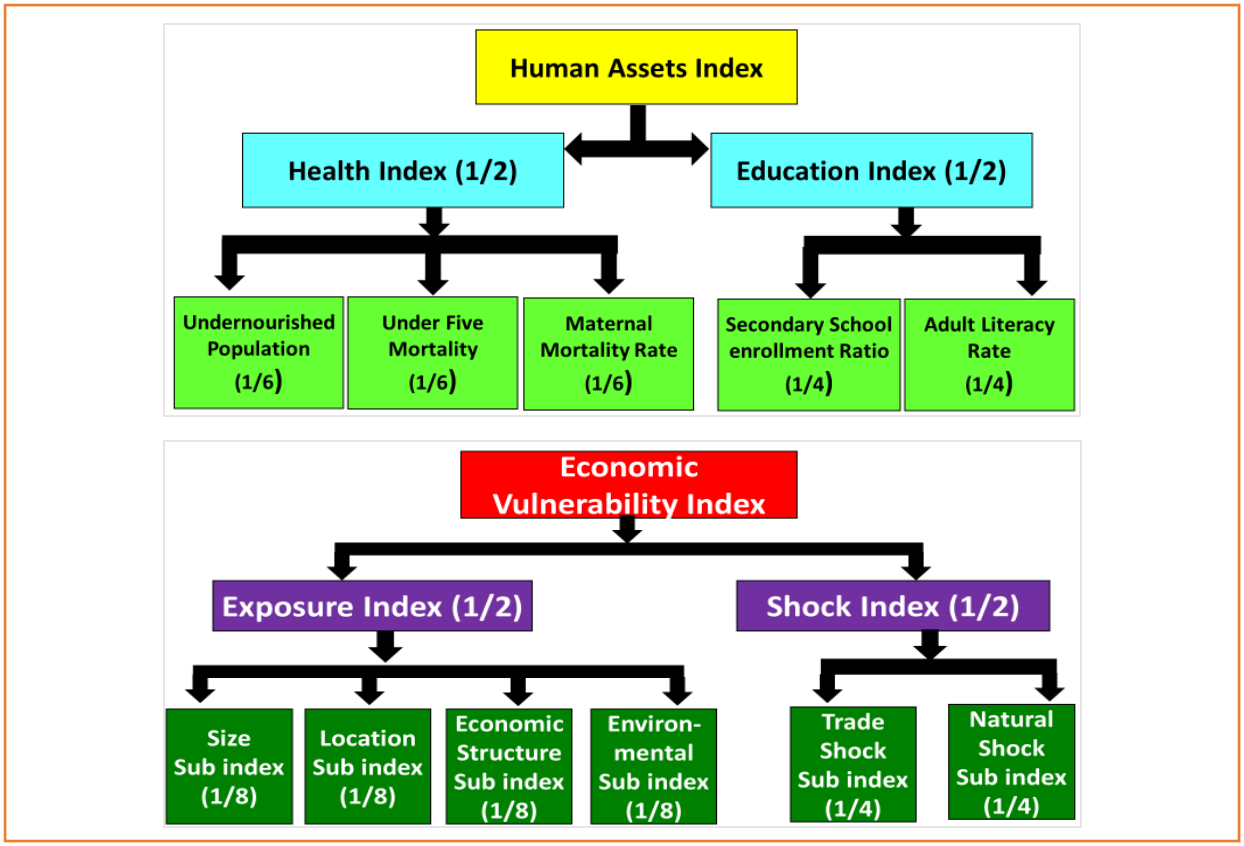
		• Under five mortality rates • Gross secondary school enrolment ratio • Adult literacy rate	• Merchandise export concentration • **Share of agriculture, forestry and fishing in GDP** • Instability of exports of goods & services • **Homelessness due to disasters** • Instability of agricultural production
LDCs are low-income countries suffering from low level of human resources and a high degree of economic vulnerability			
2002	**GNI per capita**	**Human assets index (HAI)**	**Economic vulnerability index (EVI)**
		• Percentage of population undernourished • Under five mortality rates • **Gross secondary school enrolment ratio** • Adult literacy rate	• Population size • Export concentration • Share of manufacturing and modern services in GDP. • Instability of exports of goods & services • Instability of agricultural production
LDCs are low-income countries suffering from low level of human resources and a high degree of economic vulnerability			
1999	**GDP per capita**	**Human assets index (HAI)**	**Economic vulnerability index (EVI)**
		• **Under five mortality rates** • **Average calorie intake per capita as a percentage of the requirement** • Combined Primary and secondary school enrolment ratio • Adult literacy rate	• **Population size** • Export concentration • **Share of manufacturing and modern services in GDP.** • **Instability of exports of goods & services** • **Instability of agricultural production**
LDCs are low-income countries suffering from long-term handicaps to growth, in particular, low levels of human resource development and/or severe structural weaknesses			
1991	**GDP per capita**	**Human assets index (HAI)**	**Economic vulnerability index (EVI)**
		• **Life expectancy at birth** • **Combined Primary and secondary school enrolment ratio** • **Per capita calorie supply**	• **Export concentration ratio** • Share of manufacturing in GDP • **Share of employment in industry** • **Share of per capita electricity**

		• Adult literacy rate	**consumption**
LDCs are countries with very low levels of per capita gross domestic product facing the most severe obstacles to development			
1971	**GDP per capita**	**Human assets index (HAI)**	**Economic vulnerability index (EVI)**
		• **Adult literacy rate**	• **Share of manufacturing in GDP**

Source: UNDESA 2018

The Human Assets Index or HAI is a measure of the level of human capital. A lower HAI represents a lower development of human capital. It is often believed that low levels of human assets indicate major structural impediments to sustainable development. As a result, UNCDP started using absolute thresholds for the HAI to determine inclusion and graduation eligibility. HAI is divided into two sections. The health index consisting percentage of the undernourished population, under-five mortality and maternal mortality rate carries half of the weights. On the other hand, education index including secondary school enrollment ratio between girls and boys, and adult literacy rate carries rest of the weight for HAI.

Figure 1.12: Human Assets Index (HAI) and the Economic Vulnerability Index (EVI)



Source: UNDESA 2018

The Economic Vulnerability Index (EVI) is a measure of structural vulnerability to economic and environmental shocks. Exposure to high vulnerability is closely related with higher economic vulnerability in landlocked countries or small economies. It also indicates major structural impediments to sustainable development. EVI is a composition of Exposure index and Shock index, each carrying equal weights. The Exposure index includes size sub-index (population), location sub-index (remoteness), structure sub-index (merchandise export concentration and share of agriculture, forestry, fishing in GDP) and the environment sub-index (population at low-lying coastal areas). The shock index contains trade shock sub-index (instability of export items) and natural shock sub-index (victims of natural disaster and instability of agriculture production).

It is worth noticing that, the UN Committee for Development Policy (CDP) in 1991 decided that countries with a population over 75 million should not be considered for inclusion in the LDC category. The only countries with populations over 75 million that were admitted to the list of LDCs before 1991 - Bangladesh and Ethiopia - were allowed to stay in the list. However, there is no provision for any country for reverting back to LDC status after it has graduated out. This should not be a concern for Bangladesh. Prior to graduation in 2024, it is highly unlikely that in the upcoming years Bangladesh will experience extremely adverse economic conditions, resulting in poor scores for GNI per capita, HAI and EVI index and thereby postponing graduation. So, effectively, barring a disaster situation, Bangladesh will likely graduate from LDC status in 2024 and it can never have the LDC status again. In any case, the idea that Bangladesh will stay as an LDC after 2024 is inconsistent with the government's development target to achieve upper middle-income status by FY2031.

Bangladesh LDC Graduation Process

The UN set up a *Committee for Development Policy* (CDP) that updates the criteria for graduation and also reviews the progress of LDCs every three years to determine which countries are eligible for graduation. As it currently stands, a country must surpass any two of these three-eligibility criteria- a) Per capita GNI above $1,230; b) HAI score of 66 or above and c) EVI of 32 or below (Table 1.6) But there is another alternative criterion for graduation which is known as the income only criteria. Following that, an LDC can be considered for graduation if it has a per capita GNI of $2,460 or above, even if it does not fulfil other criteria. During UNCDP's 2018 triannual review meeting, Bangladesh had a HAI of 72.8, EVI of 25.2 and GNI of $1,274 (Table 1.6). It means Bangladesh has now successfully met all three criteria for graduation. The graduation process for Bangladesh has been long but steady, and the country is firmly on course to receive official Developing Country status by 2024. As noted, Bangladesh already secured the

status of World Bank-defined LMIC status in 2015 and has now embarked on its journey to achieve UMIC by 2031[5].

Table 1.6: Eligibility Criteria for LDC-graduation

	Per Capita Gross National Income	Human Assets Index	Economic Vulnerability Index
Required	$1,230 or above	66 or above	32 or below
Income Only Criteria	GNI of $2,460 or above		
Bangladesh Score at 2018	$1,274	72.8	25.2

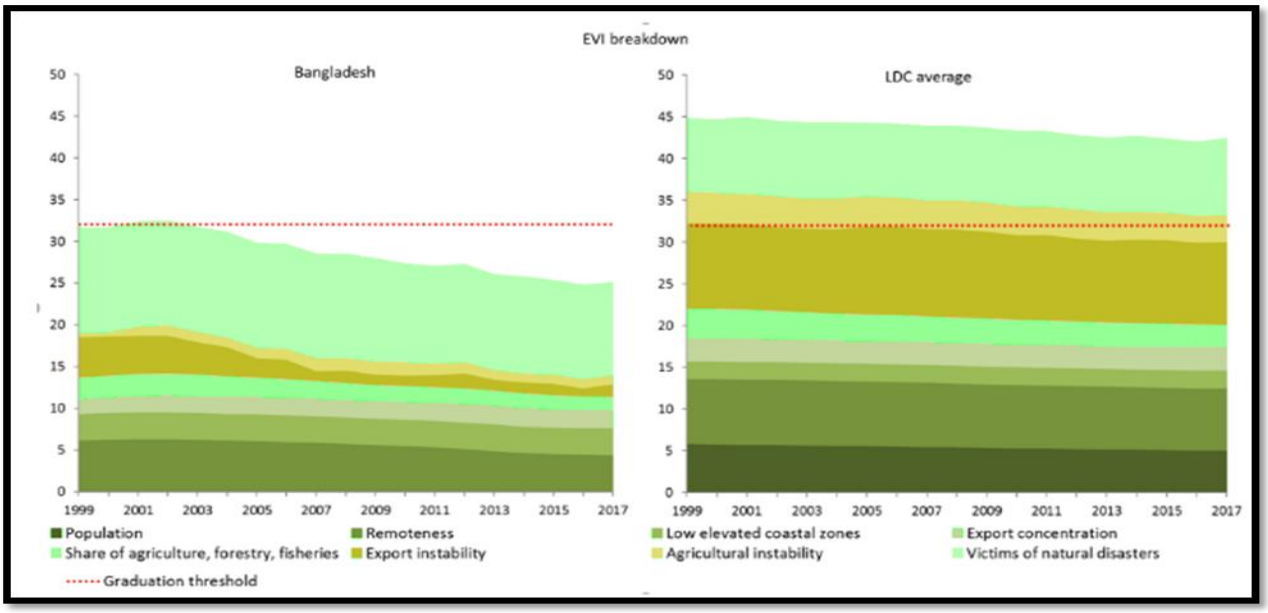
Source: UNDESA 2018

Fulfillment of the HAI criteria: Bangladesh's stellar performance in achieving the Millennium Development Goals (MDGs), which focused on human development indicators, enabled it to achieve HAI of 72.8 compared with the graduation threshold of 66 and above. In three out of four indicators taken into account for calculating HAI, Bangladesh outperformed many countries in its peer group and exceeded the overall HAI score comfortably.

Fulfillment of EVI criteria: Although Bangladesh is considered to be an environmentally vulnerable country in terms of climate change, the economic vulnerability index (EVI) for Bangladesh has consistently been decreasing since 2003 (Figure 1.13), the first year it fell below the CDP's official threshold. The remarkably low EVI for Bangladesh is primarily attributable to stability and growth of its exports and agricultural production, the rapidly declining share of agriculture in GDP, and a rapid deceleration of population growth helped contribute to a much lower EVI for Bangladesh compared with the UNCDP threshold for LDCs. While the average EVI for the LDCs remained well above the threshold level of 32 for many decades without much of a downward trend, the same for Bangladesh has precipitously fallen below the threshold since 2003 and consistently declined almost every year since then.

Figure 1.13: Economic Vulnerability Index, Bangladesh and LDC average, 1999-2017

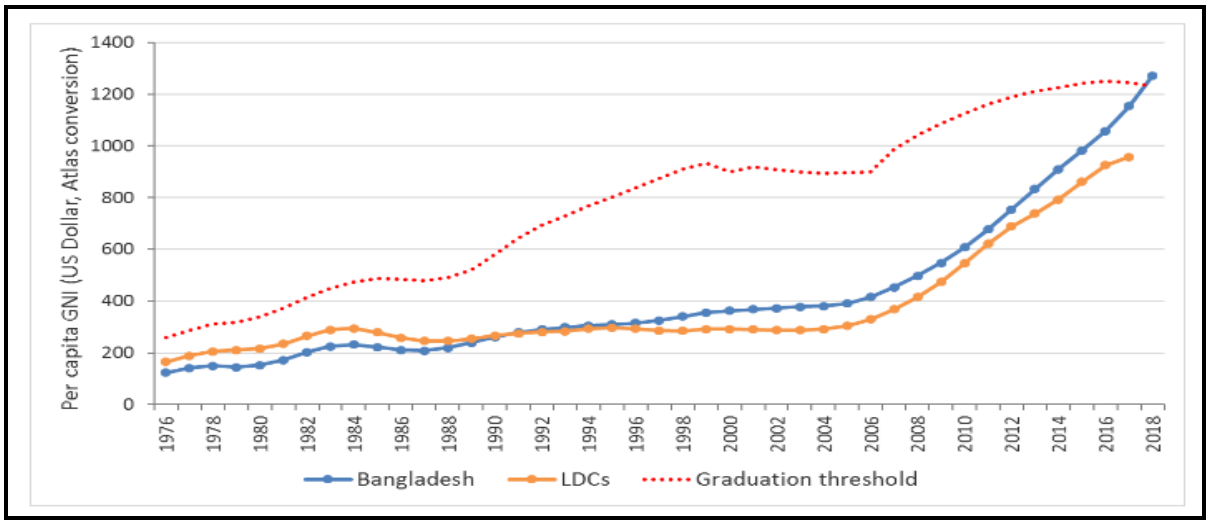
[5] The World Bank country classification is based solely on per-capita income thresholds using the so-called Atlas Method. Income is only one variable under the UN country classification of LDCs.



Source: GED estimations

Fulfillment of the income criteria: One criterion where Bangladesh significantly lagged in terms of LDC graduation over the years was the threshold for per capita gross national income using the World Bank *Atlas* method (Figure 1.14). Even though Bangladesh has consistently outstripped the LDC average since 1996, only after 2006, when the average growth rate approached close to 6% in real terms and the exchange rate remained stable for a long time, the gap between the graduation threshold and Bangladesh's GNI per capita (based on Atlas method) started to narrow markedly, and eventually has risen above the threshold used by the CDP in 2018. Bangladesh's success comes on the back of six straight years when economic growth exceeded 6%, culminating in some of the fastest growth rates in the world in recent years.

Figure 1.14: Per Capita GNI, US$, Atlas Conversion, 1976-2018 (3-year averages)



Source: World Bank Database

The transition period: But graduation is not a simple task of crossing a certain mark for once, the question of sustainability is closely intertwined with LDC graduation. And as graduation elevates the status of former least developed countries into other developing countries (ODCs), it must remain competent in pursuing further economic progression. As UNCTAD (2016) mentions in their LDC report that graduation is a milestone, not a winning post. Henceforth, LDC's are given three years to hold onto their achievements of crossing the thresholds. If an LDC can continuously stay above at least two of the three eligibility criteria for three years, the country is considered for graduation over the next two triannual reviews.

The UNCDP's next triannual review meeting in 2021 will decide if Bangladesh will successfully stay above those thresholds. If it manages to do so, then Bangladesh will be given another three years before it completely graduates out from the LDC status to the ODC status in 2024. It is also worth mentioning that Bangladesh's graduation is unique in the sense that it would be the only LDC to graduate on all three indices in one go, while for the graduation purpose achieving any two out of the three criteria is considered adequate. Although formal graduation from the LDC status is still 5 years ahead, given Bangladesh's robust growth performance (more than 7% average real growth in recent years) backed by double-digit manufacturing growth, strong export growth and sustained improvement in the HDI, by all reasonable expectations the gains made over the last several decades are not likely to be reversed in the course of the next two rounds of reviews by UNCDP and the UN General Assembly, respectively.

1.6. The Way Forward

The development process leading to LDC graduation is clearly remarkable and suggests a big win for Bangladesh. But it also gives rise to concerns about potentially sizeable economic costs because of the loss of access to various International Support Measures (ISM) associated with LDC status. The available support measures for LDCs encompass a range of concessions, commitments and provisions made by international agencies and development partners across the fields of development finance, trade, technology and technical assistance. The magnitude of any costs will depend on the extent to which a country is benefited from such measures prior to graduation. Hence, for Bangladesh, while graduation out of LDC status inspires hope of greater prosperity, the transition also comes with the potential of economic shocks that must be addressed systematically. Therefore, it is very important that policy makers have before them an assessment of possible country-wide impacts and make timely preparation for addressing any emerging challenges. The next 7 chapters of this report provide an analysis of the estimated costs of LDC graduation and the way forward.

Chapter 2

Key LDC International Support Measures

2.1. Overview

The official graduation from LDC status will certainly enhance Bangladesh's status in the global community of nations, but at the same time, Bangladesh will lose some benefits, inter alia, in the form of duty and quota free access to developed country markets and a number of preferential and favourable provisions as provided under Word Trade Organisation rules and regulations. Accordingly, Bangladesh's challenge is to prepare itself fully as a middle-income developing country after the formal graduation expected in 2024, and sustain its march towards upper middle-income country along with achievement of SDG targets by 2030 and a high-income country by 2041.

While the achievement of economic progress leading to Bangladesh's graduation is clearly beneficial, the loss of LDC status at graduation may give rise to potentially important economic costs as a result of the loss of access to the International Support Measures (ISMs) associated with the LDC status. In the Bangladesh context, export success in RMG has, in large part, been driven by the existence of trade preferences, particularly in the EU market. Having very successfully utilized the benefits from ISMs (duty-free access, in particular) their absence post-graduation has the potential of leaving a major dent in the economy's internal and external balances, unless suitably addressed well ahead of the impending event.

The Support Measures Portal for Least Developed Countries of the United Nations Committee for Development Policy lists the ISMs in three categories[6]: (I) General Support related International Support Measures; (II) Development Assistance related International Support Measures; and (III) Trade related International Support Measures. The Annex to Chapter 2 provides a complete listing of these ISMs. The significant ISMs related to Bangladesh are discussed below.

2.2. General Support-related ISMs

One of the major components of General Support ISMs for LDCs is the financial support in the form of scholarships and travel grants for research related purposes, which are provided to citizens from this group of countries. The organizations offering such opportunities to citizens to LDCs range from specialized agencies like the *United Nations Educational, Scientific and Cultural Organization* (UNESCO) to international organizations like the *Intergovernmental*

[6] *Support Measures Portal for Least Developed Countries.* (n.d.). Retrieved January 21, 2019, from https://www.un.org/ldcportal/

Panel on Climate Change (IPCC). In addition, academic institutions like the Berkeley Law School and the Leipzig Graduate School of Management also provide scholarships to deserving students. Member states like the Republic of Korea, Japan and Israel have worked with UNESCO to cosponsor fellowships. Offering opportunities of education, research and training has far reaching impacts since they directly benefit a large number of people who can enhance their skills.

Financial support for travel is also available for (i) up to five representatives of every LDC member country attending a regular session of the General Assembly; (ii) one representative of every LDC attending a special or emergency session of the General Assembly; and (iii) one member of every LDC's Permanent Mission in New York designated as its representative or alternate to a session of the General Assembly. In recent years, very few LDCs have availed this opportunity – most of whom are island nations in the Pacific Ocean.

The most important institutional support is the assistance provided to prepare a strategy for a smooth transition after graduation from LDC status. This smooth transition is of vital importance since a country that is no longer an LDC will gradually stop enjoying trade related support measures like preferential market access to other countries. Four of the countries who have graduated from LDC status (Cape Verde, Equatorial Guinea, Maldives and Samoa) have utilized this support measure. Another notable support measure is the cap on the contribution of an LDC member country' to the UN's total budget at 0.01% regardless of the country's GNI. For example, in 2015, the amount was capped at $271,356. In 2018, eight LDCs used this measure to determine their contribution to the UN budget, including Bangladesh. At the same time, the countries have to make a minimum contribution of 0.001% to the UN – in 2015 it was $27,136. The LDCs are entitled to a discount of 90% on their contributions to peacekeeping operations.

2.3. Development Assistance -related ISMs

Official Development Assistance, or the ODA is integral component of the special support measures to the LDC economies. Development Assistance Committee (DAC) of the Organisation for Economic Co-operation and Development (OECD) uses the term ODA to measure aid. Since LDCs face numerous structural challenges, their economies are vulnerable and exposed to natural as well as man-made shocks, ODAs provide some degree of secured assistance to these countries. There is a longstanding commitment by developed countries, reiterated in the 2030 Agenda for Sustainable Development Goals and the Addis Ababa Action Agenda of the Third International Conference on Financing for Development and the Programme of Action for the Least Developed Countries for the Decade 2011-2020 (Istanbul Programme of Action), to provide the equivalent of 0.15 to 0.20 percent of their gross national income (GNI) in the form of ODA to LDCs. This is in parallel to a commitment to provide the equivalent of 0.7 percent of GNI in ODA to developing countries.

Unfortunately, only six countries were able to fulfill their 0.7 percent ODA/GNI ratio, on the other hand, the target of 0.15-0.20 percent ODA/GNI ratio to LDCs has not been achieved.

Global aid scenarios are often very tricky and depend on various and evolving geo-political political factors. This means the LDC criterion has hardly been used by donors in allocating foreign aid. However, there were provisions that aimed to make ODA more useful and less stringent for LDCs. For example, the 1978 Recommendation on the Terms and Conditions of Aid calls for the average grant element in the ODA to LDCs should be either 90 per cent of a given donor's annual commitment to all LDCs or at least 86 per cent of the donor's commitments to each individual LDCs over a period of three years. This has been done to lessen the burden of loans and interest repayment for LDCs. Data from the OECD's Creditor Reporting System show that in 2017 approximately 82% of ODA commitments and 90% of disbursements by DAC countries to LDCs were in the form of grants.

Another development with regard to ODA was that OECD countries in 2001 decided to untie aid for LDCs. Tied aid meant obliged official grants or loans were to be used for procuring goods and services from companies in the donor country or in a small group of countries. Untied aid removes these complications and helps recipient LDCs obtain good value for money for services, goods, or works in terms of ODA. Apart from South Korea and a few Eastern European countries, 22 DAC members have been able to untie their LDC specific ODA between 90%-100%, according to the OECD Development Co-operation Report, (2018), although there are questions regarding transparency of actual untied support measures as the Report on the Untying Recommendation (OECD, 2018) suggested 65 percent of contracts funded by ODA from LDCs went to donor countries in 2015 and 2016.[7]

In addition to bilateral assistance by the member countries, assistance is also provided to the LDCs through the UN's specialized agencies like the *United Nations Development Programme* (UNDP), *United Nations International Children's Emergency Fund* (UNICEF) and the *World Food Programme* (WFP). In fact, the UNDP and UNICEF target to provide at least 60% of their regular assistance to the LDCs while the WFP allocates 50% of their funds for the same. In 2010-11, the UNICEF allocated $3.2 billion (51% of its resources) to LDCs, while the WFP contributed $2.6 billion (i.e. 70% of its resources). Bangladesh is likely to have benefitted from such LDC targeted budgetary practices by UNDP, UNICEF and WFP, amongst others. Since these budgetary allocations are considered at an aggregate LDC-group level rather than the individual country level, it is difficult to ascertain the increased flow of ODA to individual LDCs due to these LDC-favourable allocation principles. For the same reason, it is not possible to provide an estimate on the potential impact of LDC graduation. One of the most important sources of funds is the World Bank, which provides loans on concessional terms such as lower interest rates and longer grace periods through its International Development Association (IDA) window to countries whose per-capita incomes fall below a certain threshold ($1,175 in 2012).

[7] Indeed, in 2001, there was an understanding between the largest bilateral donor countries and the international organizations that development assistance should gradually be untied – meaning that funds can be used to purchase goods as part of a project from any country, not just the country which provided the assistance in the first place. In line with this commitment, 83% of the development assistance provided by OECD member countries was untied in 2012.

These are Low-Income Countries (LIC) under the World Bank classification, many of whom are classified as LDCs by the UN. However, it is important to note that the World Bank follows its own classification system rather than the UN criterion of LDCs as a guiding principle for allocating aid resources. Many donor agencies and bilateral partners often follow World Bank income classification of countries in providing development assistance.

The *United Nations Framework Convention on Climate change* (UNFCCC) had recognized the need of financial and technological support to LDCs for adapting to climate change. Keeping in mind the gradual and irreversible impacts of climate change on the nature of and livelihoods of people living in LDCs like Bangladesh, the *Least Developed Countries Fund* (LDCF) was established under the UNFCCC in order to assist these vulnerable countries in preparing and implementing the *National Adaption Programmes of Action* (NAPA). Operated by the Global Environmental Facility (GEF), the LDCF has provided more than $1 billion to support 140 projects in 46 LDCs. The *European Union* (EU) has initiated the *Global Climate Change Alliance* (GCCA), aiming to strengthen cooperation and dialogue between developing countries which are most vulnerable to climate change, with focus on the LDCs and the Small Island Development States (SIDS). The GCCA also works to provide financial and technical support to the climate change vulnerable countries – having provided €316.5 million for 51 projects in 38 countries. Despite these attempts, the access of LDCs to climate finance remains limited. More than half of the climate funds approved in 2014 were concentrated in 10 countries, none of which were LDCs. Adaption finance is more positively skewed towards the LDCs, 69% of $1.33 billion. That money however is concentrated in 10 LDCs, including Bangladesh. The estimated needs are more than $5 billion, so there remains a scope for multilateral climate funds.

An UN agency working specifically for the LDCs and the developing countries is the U*nited Nations Capital Development Fund* (UNCDF). The UNCDF works to create new opportunities for people by promoting small businesses through schemes like microfinance. At present the UNCDF works in 39 countries, including 30 LDCs like Bangladesh. In addition to the IDA Scheme of the World Bank, several OECD member countries also provide grants and concessional loans to the LDCs – for example, Germany, Japan and the Republic of Korea. The *Federal Ministry for Economic Cooperation and Development* (BMZ) of Germany provides grants and concessional loans to the LDCs, while the *KfW Entwicklungsbank*, an arm of the government-owned development bank for cooperating with developing countries, has been providing non-repayable grants for the LDCs since 1978. The *Japan International Cooperation Agency* (JICA) provides loans to countries with a per-capita income of less than $1,025 at an interest rate of 0.01% with a repayment period of 40 years and an additional grace period of 10 years. Development assistance from the Republic of Korea to the LDCs have witnessed a steady increase, from more than $85 million in 2004 to more than $580 million in 2015 – in fact 40% of Korea's ODA has been to the LDCs. More than half of development assistance from Seoul have been for four LDCs including Bangladesh.

Finally, we should not ignore the positive aspects of graduation as a process of progression towards an Upper-Middle Income Country (UMIC) leading to improved access to global capital markets. The fact that Bangladesh crossed the World Bank threshold of LIC in 2015 and is poised to graduate out of LDC group in 2024 does raise the confidence of global lenders in the creditworthiness of the country and its private firms, many of which are displaying world class competitive potential. Though we are yet to issue a sovereign bond with sovereign guarantee, IFC, the private sector arm of the World Bank Group, has played the facilitator for the recent floating of $10 million Bangla Bond in the London Stock Exchange. In a global capital market of record low interest rates, lenders are seeking out bonafide borrowers in developing and emerging markets while Bangladeshi firms are looking for low-cost credit. In this instance, IFC played the catalyst to channel private capital to a local firm through this Taka Bond where the lender took the foreign exchange risk from any future exchange depreciation. Hopefully, this will lead to many more such instruments to access the global capital market of low interest rates as the country progresses to become a UMIC.

2.4. Trade-related ISMs: Preferential and Special Market Access for Bangladesh under Different Initiatives

Most of the International Support Measures for the LDCs are trade related. This is of no surprise given the widely accepted notion that the most effective way of improving the level of economic and human development in a country and help it graduate from the LDC status is through international trade. Considering this, various trade preferences and concessional terms in international trade rules and regulations have been granted for LDCs.

The decision of differential and more favourable treatment and fuller participation of developing countries is the primary legal basis for developed country WTO members to grant preferential market access. Known as the enabling clause, it was adopted in 1979 by the members of the former General Agreement on Tariffs and Trade (GATT). Without imposing any time constraints, this agreement allowed developed countries to depart from their MFN obligation with respect to all developing countries, including LDCs. In developing country markets, trade preferences for LDCs are allowed under the waiver to the MFN obligation under the decision on preferential-tariff treatment for least developed countries, originally adopted in 1999. More recently, in the Hong Kong Ministerial conference of the WTO, the "Decision on Measures in Favour of Least-Developed Countries" was adopted outlining the commitments for developed and 'developing countries in a position to do so' to implement DFQF market access for products originating from LDCs. Failure to conclude the Doha Round means these commitments are not yet being implemented under the auspices of the WTO.

However, the GATT's "Enabling Clause" acts as the WTO's legal basis for the Generalized System of Preferences (GSP). Under the GSP, developed countries offer non-reciprocal preferential treatment (such as zero or low duties on imports) to products originating in developing countries. Preference-giving countries unilaterally determine which countries and

which products are included in their schemes. The same Enabling Clause is also the legal basis for LDC specific preferential access in regional trade arrangements among developing countries and for the Global System of Trade Preferences (GSTP). A number of developing countries exchange trade concessions among themselves under GSTP in different trade negotiations.

The trade related ISMs for LDCs are mainly based on three categories: (i) preferential access to markets; (ii) special treatment regarding the *World Trade Organization* (WTO) obligations; and (iii) building of trade-related capacities. So far, sixteen countries and the European Union have granted LDCs preferential access to their markets: (i) Turkey; (ii) Switzerland; (iii) Japan; (iv) Iceland; (v) Morocco; (vi) China; (vii) Chile; (viii) the European Union; (ix) New Zealand; (x) Norway; (xi) Thailand; (xii) India; (xiii) the Eurasian Customs Union (*consisting of Russia, Kazakhstan and Belarus*); (xiv) Australia; (xv) Canada; (xvi) the United States; and (xvii) the Republic of Korea.[8] This preferential access is given under two schemes: The *Generalized System of Preferences* (GSP) – under which the countries benefitting from it are not bound to reciprocate; and (ii) the *Global System of Trade Preferences* (GSTP) – under which the countries benefitting are supposed to reciprocate. In addition, regional trade agreements like the *South Asian Free Trade Area* (SAFTA) and the *Asia Pacific Trade Agreement* (APTA) also provide concessions on access to markets for the LDCs.

Unilateral Schemes of Preferential Access

Because of the LDC status, Bangladesh enjoys preferential market access and tariff concessions in several developed and developing economies. While these emerged as part of multilateral trade negotiations between developed and developing-least developed countries in the WTO, the offered schemes do not require reciprocity from the preference receiving countries. Being unilateral trade preference schemes, these are regulated by donors and currently are not bound in the WTO. The coverage of different schemes differs significantly. Rules of origin criteria for accessing these preferential schemes also vary widely between preference-granting countries.

Everything But Arms

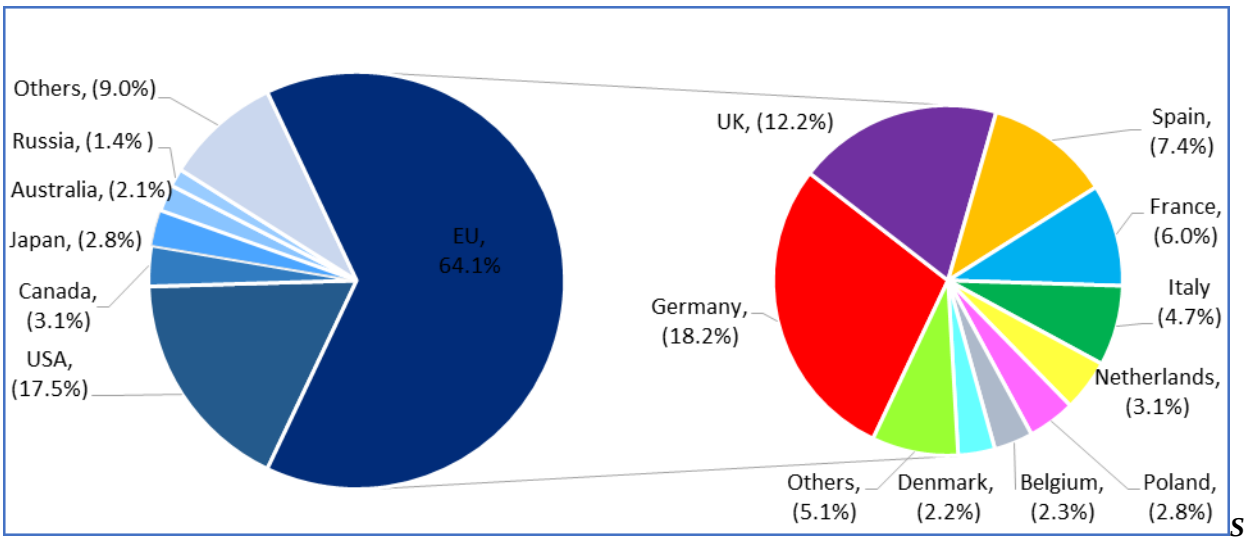
In the European Union, Bangladesh enjoys a comprehensive duty-free and quota-free market access for its merchandise exports. This preference is provided to any LDCs under the EU's "Everything But Arms" (EBA) scheme and is the most generous of among the three different GSP schemes provided by the EU for different groups of developing countries. Bangladesh is the largest beneficiary of the scheme; in 2017-18, it accounted for 64.1 percent of all EU imports under EBA, and 9.5 percent of the EU's total imports under preferential treatment.[9] As discussed later in this chapter, Bangladesh enjoys on average a 9-12 percent preference margin under the

[8] However, not all donors provide the same benefits to all LDCs. For example, the United States has not provided GSP facilities to a number of Asian LDCs.

[9] Read more on Bangladesh-EU trade on: http://ec.europa.eu/trade/policy/countries-and-regions/development/generalised-scheme-of-preferences/

EBA for its exports of apparels to EU. The current EBA scheme is likely to continue for three years after LDC graduation, i.e. until 2027.[10]

Figure 2.1: Export Destination of Bangladesh



ource: Based on ERD data

Other Non-reciprocal Preferential Access

Currently Bangladesh enjoys GSP facilities in 38 countries. Apart from the EU, the list includes preferential access in Australia, Belarus, Canada (98.6%; except: dairy, eggs and poultry), Liechtenstein, Japan (97.9%; except: rice, sugar, fishery products, articles of leather), New Zealand, Norway, Russian Federation (38.1%), Switzerland, and Turkey (79.7%; except: meat, fish, food, steel etc.). In addition, there are some special and partial DFQF facilities provided by a handful of developing countries including China (61.5%), Chile (99.5%), Korea Republic (90.4%), Chinese Taipei (31%). It is important to note that Bangladesh does not enjoy any type of GSP facilities in the world's largest developed economy market, the USA. Bangladesh used to receive some limited US GSP facilities, which remained suspended from 2013, but never had any preferential access for its apparel exports to the U.S. market. Table 2.1 lists Bangladesh's all export destinations with preferential accesses and amount of export in these countries during FY17.

[10] As a developing country, Bangladesh could be eligible for GSP status after graduation. This will cause a significant preference erosion.

Table 2.1: General System of Preference on Bangladeshi Exports

Provider	Name of preferential access	Acronym	Original date	FY 17 exports ($billions)
Australia	Generalized System of Preferences – Australia	GSP	1/1/1974	**0.658**
Armenia	Generalized System of Preferences – Armenia	GSP	6/4/2016	**0.002**
Canada	Generalized System of Preferences – Canada	GSP	7/1/1974	**1.079**
European Union (EU) + UK	Generalized System of Preferences (GSP)- EU	GSP	7/1/1971	**20.313**
Iceland	Generalized System of Preferences – Iceland	GSP	1/29/2002	**0.0005**
Japan	Generalized System of Preferences – Japan	GSP	8/1/1971	**1.013**
Kazakhstan	Generalized System of Preferences – Kazakhstan	GSP	1/1/2010	**0.008**
New Zealand	Generalized System of Preferences - New Zealand	GSP	1/1/1972	**0.068**
Norway	Generalized System of Preferences – Norway	GSP	10/1/1971	**0.121**
Russian Federation	Generalized System of Preferences - Russian Federation	GSP	1/1/2010	**0.465**
Switzerland	Generalized System of Preferences – Switzerland	GSP	3/1/1972	**0.120**
Turkey	Generalized System of Preferences – Turkey	GSP	1/1/2002	**0.631**
India	Duty-Free Tariff Preference Scheme for LDCs	LDC-specific	8/13/2008	**0.672**
Chile	Duty-free treatment for LDCs – Chile	LDC-specific	2/28/2014	**0.064**
China	Duty-free treatment for LDCs – China	LDC-specific	7/1/2010	**0.949**
Chinese Taipei	Duty-free treatment for LDCs - Chinese Taipei	LDC-specific	12/7/2003	**0.000**
Kyrgyz Republic	Duty-free treatment for LDCs - Kyrgyz Republic	LDC-specific	3/29/2006	**0.000**
Thailand	Duty-free treatment for LDCs – Thailand	LDC-specific	4/9/2015	**0.049**
South Korea	Preferential Tariff for LDCs - Republic of Korea	LDC-specific	1/1/2000	**0.238**

Source: UNCTAD Handbook of Generalized System of Preference and Export Promotion Bureau, 2016-2017

In FY 2017, about 75 percent of Bangladesh's total export earnings came from countries that provided some degree of preferential access. Of these, the EU market has been by far the most important destination. In fact, Bangladesh's share of export enjoying preferential access kept rising over the years. While this does not imply that all of these exports can be solely contributed to unilateral preferential accesses, they certainly played a crucial role in export growth over the years.

Regional Trade Agreements with LDC-specific Preferential Access

Although WTO led multilateralism is the primary system of trade arrangement, it moves at a slow pace given that all 164 members require to be consulted for reaching an agreement, most often by consensus. Countries also aim to expand the scope of negotiations considering unexplored areas in multilateral engagements and deepening the scope of new trade opening. Furthermore, there are geopolitical issues in promoting greater economic and trade cooperation between certain countries. All this makes regional trade agreements (RTAs) quite appealing. RTAs contain many different types of agreements, from bilateral to sub-regional to pan-

continental. The most common type is Free Trade Agreements (FTAs) but there are also Customs Unions where a group of countries agree on a common external tariff within a free trading area among them. As of October 2018, 288 physically active RTAs were in force, and WTO received notifications on a total 675 active/inactive RTAs.

Bangladesh is a signatory in different regional free trade agreements (RTA/FTA) or preferential trade agreements (PTA). Despite having several bilateral PTAs and MoUs, Bangladesh is yet to become a member of a fully operational bilateral FTA. Among the regional trade agreements, Bangladesh is a signatory to the South Asian Free Trade Agreement (SAFTA), Asia Pacific Regional Treading Agreement (APTA), Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) and Trade Preferential System among the OIC Members (TPS-OIC). Amongst these, SAFTA and APTA are so far the most prominent for Bangladesh.

South Asian Free Trade Agreement (SAFTA)

The SAFTA provides less-stringent rules of origin (ROO) for LDCs. The ROO criteria for SAFTA have two dimensions: general and the product specific rules (PSR). The general rule itself applies in two separate sections: a) single country items, b) SAARC cumulation. Under the general rule, for any single country items, the value addition requirement is Change of Tariff Heading (CTH)+30 percent for LDCs, CTH+40 percent for non-LDCs; and in the case of SAARC cumulation, along with CTH regional content requirement of 40 percent for LDCs, 50 percent for non-LDCs, 20 percent extra value addition is required from the exporting country. Again, under the PSR rules of origin, 191 HS Codes (at 6-digit level) are subject to PSRs for securing tariff preference. Some 189 HS codes out of 191 are subject to CTH+30 percent value addition and the rest 2 items are subject to only CTH.

SAFTA follows a sensitive list approach. This means members identify products that will not be considered for tariff concessions for partner country. LDCs are provided with more flexibility in terms of having more extensive sensitive lists. Table 2.2 provides a summary of the current SAFTA sensitive.

Trade flow progress under SAFTA has been very slow. Despite concessions, Bangladesh did not benefit much in expanding exports through SAFTA benefits. In 2016, Bangladesh imported more than $5.66 billion worth of goods from India, while exporting to it $677 million. Although trade with Pakistan and Sri Lanka is relatively small, both the countries' exports to Bangladesh are significantly more than their respective imports from Bangladesh. Bangladesh had a trade deficit of $608 million against Pakistan and $90 million against Sri Lanka.

Table 2.2: Sensitive List for SAFTA

Member countries	Number of Products in the current Sensitive Lists
Afghanistan	850
Bangladesh	987 (LDCs),993 (NLDCs)
Bhutan	156
India	25 (LDCs),614 (NLDCs)
Maldives	154
Nepal	998 (LDCs), 1,036 (NLDCs)
Pakistan	936
Sri Lanka	837 (LDCs), 963 (NLDCs)

Source: Ministry of Commerce, FTA wing
https://www.bangladeshtradeportal.gov.bd/?r=site/display&id=121

Asia Pacific Regional Trade Agreement (APTA)

APTA is an important agreement for Bangladesh as it is the gateway to large East-Asian markets such as China, South Korea and new Asian markets such as Mongolia or Lao PDR. APTA provides differential treatment for countries with special needs, such as the LDCs and island nation of Sri Lanka. Bangladesh, being an LDC member, enjoys some degree of duty-free quota free (DFQF) market access to the member states. But, APTA's Rules of Origin are stricter than those of SAFTA. The general criterion of APTA rules of origin is 45 percent value addition for non-LDCs, while the value addition threshold for LDCs is 35 percent. Regional cumulation is allowed under APTA where the regional value addition requirement is 60 percent for non-LDCs and 50 percent for LDCs.

As LDC-APTA member, Bangladesh gets DFQF access on 876 items in South Korea. Bangladesh currently gets APTA's LDC-specific preferential access in Chinese market. But China provides a separate DFQF for all LDCs. To access that, Bangladesh will have to forgo current preferences in APTA. Since Bangladesh, Sri Lanka and India are also SAFTA members, they maintain SAFTA specific tariff concessions among them. Table 2.3 provides information regarding tariff concessions under APTA.

Table 2.3: A Summary of Tariff Preferences under APTA

Countries	To all member states		To LDC members	
	Number of products	Margin of preference	Number of products	Margin of preference
Bangladesh	598	10%-70%s	4	20%-50%
China	2,191	5%-100% (19 DF)	181	0%-12.5%
India	3,334	5%- 100% (205 DF)	47	14%-100% (16 duty-free)

South Korea	2,796	10%-50%	961 (for Bangladesh)	20%-100% (876 duty-free)
Sri Lanka	585	5%-62.5%	75	10-50%
Lao PDR	999	20%-37.5%	Nil	Nil
Mongolia	333	10%-30%	Nil	Nil

Source: Ministry of Commerce, FTA Wing

In 2016, Bangladesh's exports to APTA countries was $1.83 billion where imports were a staggering $21.24 billion (two-thirds of which were from China). Therefore, deeper future commitments in APTA and their implementation are extremely desirable for Bangladesh. Currently, Bangladesh enters into the Chinese market using APTA preferences. But China has recently started providing unilateral DFQF preferences to LDCs in for 97 percent tariff lines. Bangladesh is currently in the process of unveiling this support measure. But to do so, it may have to forgo APTA's LDC specific preferences from China.

2.5. Rules of Origin after LDC graduation

Discussions about favourable post-graduation ROOs are only applicable if i) a destination country provides transition schemes for developing countries; ii) If Bangladesh has an RTA with the country in question through which non-LDC preferences can be availed. Table 2.4 provides a summary of ROO requirements before and after LDC graduation in importing countries where Bangladesh has significant exports.

Table 2.4: Rules of Origin requirements in prominent export destinations

Destination	Description	FTA/ RTA	Rules of Origin as LDC	Rules of Origin Post-Graduation
China	LDC specific DFQF (95%-97% of tariff line)	APTA	VA: CTH+40%	
	APTA-LDC (61.5% of tariff line for Bangladesh); Non-LDC APTA preference on 1,697products with 26.7% preference margin		VA 35% (APTA)	VA 45% (APTA)
			RC-VA 50% (APTA)	RC-VA 60% (APTA)
Republic of Korea	LDC-DFQF for 95% of tariff line;	APTA	VA 40% (DFQF)	-
	Non-LDC APTA preference on 1,367 products with 35.4% preference margin		VA 35% (APTA)	VA 45% (APTA)
			RC-VA 50% (APTA)	RC-VA 60% (APTA)
India	DFTPI-LDC on 98% of tariff line	SAFTA	VA 30% (DFTPI)	MFN
	SAFTA-LDC DFQF for all (except 25 products)		VA: CTH+30% (SAFTA)	VA: CTH+40% (SAFTA)
	Non-LDC SAFTA preference (except 614 products)		RC-VA: CTH+40% (SAFTA)	RC-VA: CTH+50% (SAFTA)

European Union[11]	EBA-DFQF for LDCs	-	Single transformation of textiles and RMG. For other goods VA is 30%	Double transformation for textiles and clothing. For all other goods, 40% value addition
	GSP+ and Standard GSP	-	-	Double transformation of textiles and RMG. For other goods VA has to be 50%
Canada[12]	LDCT		VA 40%	-
	GPT for developing countries	-	-	VA 60%
Norway	DFQF	-	Substantial transformation[13]	-
	GSP+ only for graduating LDCs with population less than 75 million		-	Bangladesh ineligible

Abbreviations: VA= Value-Addition, RC VA=Regional Cumulation Value-Addition, CTH= Change in Tariff Heading
Source: Based on UNCTAD's Handbook on Duty-Free and Quota-Free Market Access and Rules of Origin for Least Developed Countries (part I and part II), EPB and official sources of GSP/DFQF providing countries.

Among major GSP providing export destinations, only Canada (GPT), the EU (GSP+ and standard GSP) and Norway (GSP+) provide preferential market access for developing countries. But the ROOs will be stricter upon graduation. For example, in the case of EU, the principle of double transformation in textile and clothing is followed while for other products a minimum value addition of 40 per cent is need. Bangladesh will be ineligible for the GSP+ provision offered by Norway (Elliot, 2019) since the scheme is available for graduating LDCs with a population of less than 75 million. In China and South Korea, Bangladesh can avail some degree of preferential access after graduation through APTA, but the value addition requirement increases significantly. In India, post-graduation preferential access can be availed through SAFTA, but non-LDC developing countries have a more stringent provision of adding higher domestic value addition of 50 per cent. There are no explicit smooth transition provisions in the GSP/DFQF schemes of Australia, Japan, Russian Federation, New Zealand, and Switzerland.

2.6. Trade Related Aspects of Intellectual Property Rights

Concessions from Trade Related Aspects of Intellectual Property Rights, which are primarily known as the TRIPS waiver- is another significant support measure for LDCs. In today's world where intellectual property rights (IPR) are becoming a topic of heated debates and diplomatic contentions between the developed and developing economies, the TRIPS waiver exempts least developed countries from obliging certain strict regulations of intellectual property rights. TRIPS and its waiver to the least developed countries are binding legal agreement between all the

[11] Regional cumulation laws in the EU states- for Bangladesh, if the final exported items use components from regional group III (Bhutan, India, Nepal, Pakistan and Sri Lanka) they can be considered as originating from Bangladesh under designated level of value addition. The same rule applies if the product incorporates raw materials from the EU countries.
[12] For Canadian LDCT, 60% value addition can include value of products from Canadian raw materials or raw materials imported from another LDCT recipient country. For GPT, 60% value addition can include value of products from Canadian raw materials or raw materials imported from another GPT recipient country.
[13] For Norway, a product is sufficiently transformed if the HS tariff heading (first four digits) of the non-originating material is different from the tariff heading of the finished product.

member nations of the WTO. TRIPS was negotiated at the end of the Uruguay Round of the GATT negotiation. It includes flexibilities regarding IPR protection of pharmaceutical products, especially for ensuring access to affordable medicines for the developing and LDCs. The current TRIPS waiver regime will remain in place until January 01, 2033 or graduation from the LDC status, whichever comes first.

According to the original TRIPS agreement, LDCs were given the opportunity of making necessary changes to their national legal framework and issue compulsory licensing. When a government allows an external entity to produce a patented product or process without the consent of the right holder or plans to use the patent-protected invention itself, it is called compulsory licensing of the drug. Article 31(f) of the agreement stated the act of compulsory licensing is "predominantly for the supply of the domestic market" and included the term "national emergency or extreme urgency" to validate. But later in the Doha Declaration, it was declared that WTO members have full freedom to determine the context of using compulsory licensing, both for domestic consumption and exports. An Amended version of the TRIPS agreement which came into effect from 2017 also reassures this facility for the LDCs. No LDCs have ever used it for domestic production and exporting. Most LDCs report that they find it too difficult or cumbersome, or they simply lack capacity to utilize the facility (UNCDP, 2016).

Although Article 66.2 of the agreement emphasizes the need for transfer of technology to the developing world, and members undertook initiatives to cooperate in paying special attention to capacity building, the attention of donors have been on providing support that safeguards interests of right holders through improved IPR enforcement standards. Therefore, despite the fact TRIPS agreement does allows a high degree of flexibility and concession for LDCs, materialising tangible benefits from them has been extremely difficult. As explained earlier, least developed economies have many structural deficiencies and making best use of high-end technologies is very challenging for them. As a result, the pharmaceutical aspects of the TRIPS waiver are substantially underutilised by LDCs.

Bangladesh, as an LDC has not received any significant support under the provision of the transfer of technology (Article 66.2) clause. It is difficult to conceive what constitutes "transfer of technology". While private technology transfer can take place in some industries as aftermath of FDI inflows, it is also difficult capture them due to the absence of a proper reporting mechanism. In many cases, any transferred technology can be confined to one or a few firms thereby limiting the benefits. Moreover, the direct legal obligation in article 66.2 is on the governments of the signatory countries, not the private firms.[14] Bangladesh has taken part in WTO-arranged annual workshops, which helps for a better understanding of the operation of Article 66.2 and facilitates dialogue between LDC beneficiaries and donors. In more recent years, Bangladesh has received governance related support to strengthen property rights law or

[14] The Article says: "Developed country members shall provide incentives to enterprises and institutions in their territories for the purpose of promoting and encouraging technology transfer to LDC members in order to enable them to create a sound and viable technological base."

framework from the EU and the USA. WIPO also provides technical cooperation in these respects. While these supports can carry importance for the purpose they are meant to, in a broader sense, technology transfer received by any LDCs under Article 66.2 remains elusive. As Bangladesh suffers from significant gaps or capacity constraints in protecting IPRs, copyrights and trademarks, the government can ask for further assistance in preparing for graduation. It is expected that bilateral support as technical assistance will continue to improve IPR regime in the country.

2.7. Special and Differential Treatment of LDCs Regarding WTO-related Measures

The WTO is an intergovernmental regulatory body of the multilateral trading system with its fundamental objectives being: to achieve free trade through negotiation; trade without discrimination; promote fair competition with binding agreements and transparency; and encourage development and economic reforms via free trade. It brings its 164 member-states with different interests in one platform to formulate the terms of global trade. It also provides a mechanism for trade-related dispute settlement between members and enforce the outcomes.

Bangladesh's participation in the multilateral trading system has generated enormous positive gains. The WTO's "enabling clause" allowed developed country members to provide most generous preferential treatment to imports from LDCs, as discussed earlier. There are several WTO agreements that takes contextual realities of LDCs into account and offers some special and differential treatments (S&DT) for them. These special provisions include, for example, longer time periods for implementing Agreements and commitments or measures to increase trading opportunities for the LDCs. Some selected such S&DT are discussed below.

Agreement on Subsidies and Countervailing Measures

The agreement on Subsidies and Countervailing Measures (SCM) addresses two separates but closely related topics: multilateral disciplines regulating the provision of subsidies, and the use of countervailing measures to offset injury caused by subsidized imports. Multilateral disciplines are the rules regarding whether or not a subsidy may be provided by a Member. They are enforced through invocation of the WTO dispute settlement mechanism. Countervailing duties are a unilateral instrument, which may be applied by a Member after an investigation by that Member and a determination that the criteria set forth in the SCM Agreement are satisfied.

According to this agreement, a measure falls under the definition of subsidy if it contains the three following elements: (a) a financial contribution; (b) provided by a government or any public body within the territory of a member state; and (c) the contribution confers a benefit. In principle, the WTO-led multilateralism believes "specific" subsidies distort the allocation of resources in global economic system, and therefore should be subject to international regulatory discipline. Article 3 to 6 of SCM Agreement delineates about prohibited and actionable subsidies, and possible remedies to challenge them. Four kinds of subsidies can be considered

distortionary: enterprise-specific, industry-specific, region-specific and subsidies that are completely prohibited by international agreements (such as export performance-based subsidies and subsidies that depend on local content bias).

The text of SCM agreement acknowledges three different types of damages which can allow a party to take legal retributions-either unilateral measures (countervailing duties on imports) or seek multilateral support through WTO's dispute settlement system. First, if a domestic industry complains about subsidized imports in the territory of the complaining Member. This is the sole basis for countervailing action. Second, there is "serious prejudice", which usually arises as a result of adverse effects (e.g., export displacement) in the market of the subsidizing Member or in a third country market. Thus, unlike injury, it can serve as the basis for a complaint related to harm to a Member's export interests. Finally, there is nullification or impairment of benefits accruing under the GATT 1994. Nullification or impairment arises most typically where the improved market access presumed to flow from a bound tariff reduction is undercut by subsidization.

The Article 27 provides S&DT to developing signatories of the WTO. This part of the agreement acknowledges that subsidies (especially export oriented) can play crucial role in economic development and trade expansion in developing countries. Therefore, the Agreement on SCM exempts any LDCs and developing countries (Annex VII countries) with GNP per capita lower than $1,000 at 1990 prices from abiding by prohibitive subsidies unless the product is globally competitive (has 3.25% share of global export). When an Annex VII country has reached export competitiveness in one or more products, export subsidies on such products shall be gradually phased out over a period of eight years. Bangladesh has already gained global competitiveness in RMG and continues to provide export subsidies.

Apart from LDCs, pre-defined and original members of Annex VII countries are: Bolivia, Cameroon, Congo, Côte d'Ivoire, Dominican Republic, Egypt, Ghana, Guatemala, Guyana, India, Indonesia, Kenya, Morocco, Nicaragua, Nigeria, Pakistan, Philippines, Senegal, Sri Lanka and Zimbabwe. But only Côte d'Ivoire; Ghana; Honduras; Kenya; Nicaragua; Nigeria; Pakistan; Senegal; and Zimbabwe are now considered de-facto members of Annex VII group along with LDCs. Because other countries have crossed the income threshold with GNI per capita of $1,000 for three consecutive years.

Bangladesh, as an LDC, enjoys several of these benefits under SCM concessions. The agreement contains a grey area about what happens when a country eventually graduates out of LDC status. Given the current provisions, it is not clear if a graduating LDCs (with per capita income less than $1,000 in 1990 prices) will be automatically considered as a member of Annex VII country group. Bangladesh has already raised the issue in WTO for clarification and a further extension as Annex VII developing country after graduation. It needs to be pointed out that given the current growth trajectory, Bangladesh will cross the per capita income threshold of $1,000 in 1990 prices by the time it graduates out in 2024. Therefore, automatic consideration of

graduating LDCs as Annex VII countries may not provide any benefits for Bangladesh. Another issue is that, according to paragraph 27.8, serious prejudice falls under S&DT exemption. Therefore, these Annex VII member countries can still face repercussions for violating SCMs under serious prejudice. While no developed or developing country has ever acted against any LDC based on this particular ground, that favourable consideration is likely to change with a country's graduation. Therefore, Bangladesh will have to carefully consider its export support policy options in the post- graduation period.

Agreement on Agriculture

The WTO's Agreement on Agriculture or AoA is the primary multilateral framework for global trade of agricultural items and products. The terms of agreement were negotiated at the Uruguay round of multilateral trade negotiations and it entered into force with the establishment of the WTO on January 1, 1995. As a founding member of the WTO, Bangladesh has been a partner of the AoA from the very beginning. With help of this agreement, the WTO seeks to minimise distortions in global trade in agricultural and food products. These distortions took place in numerous ways including tariff restrictions or export incentives in the form of cash, market-access barriers, or giving undue advantages by offering massive levels of subsidies to the producers for their agricultural products. Through AoA, the WTO provided a framework for the long-term reform of agricultural trade and domestic policies. In a sense that was a move towards the objective of increased market orientation in agricultural trade.

The AoA has three primary pillars. The first one is the Market Access, which refers to the reduction of tariffs or NTBs (non-tariff barriers) to trade by WTO members. Developed countries were given a goal to cut down tariffs by 36 percent, while developing countries were to cut it down by 24 percent. LDCs did not have to make any commitments on tariff cuts. Market access provision also include the elements of tariffication and special safeguard measures. Tariffication is the process whereby NTBs are converted into trade tariff equivalents. Some of the NTBs have been excluded from the AoA, such as general safeguard measures (Article XIX of GATT), Sanitary and Phyto-sanitary measures (SPS) and Technical Barriers to Trade (TBT) for health and other concerns. All members are obliged to follow this provision.

The second pillar is domestic support in agriculture. AoA uses a traffic light approach to define domestic supports. The supports that fall into amber box are directly linked with production levels, hence considered distortionary and thus actionable. The blue box of supports is production limiting programmes that still distort trade, but not actionable because members could not agree upon them. And finally, the green box of support measures improves productivity, contains assistance for development purposes with minimal distortionary impacts. While payments in the amber box had to be reduced, those in the green box were exempt from reduction commitments. And according to Annex 2 of AoA, all members must abide by the fundamental requirement of not using government-funded programme involving transfers from consumers or any format of price support to producers.

The third pillar is export subsidies. Initially in 1995, the AoA required developed countries to reduce export subsidies by at least 36 percent (by value) or by 21 percent (by volume) over six years. For developing countries, the agreement required cuts were 14 percent (by volume) and 24 percent (by value) over ten years. But in the Nairobi package of 2015 (10th Ministerial Conference), all members finally agreed upon termination of export subsidies. The Nairobi package stated "developed country members shall immediately eliminate their remaining scheduled export subsidy entitlements as of the date of adoption of this decision" and "developing country members shall eliminate their export subsidy entitlements by the end of 2018." LDCs are exempt from making on cuts on export subsidies. But all WTO members also agreed upon "undertake not to provide export credit, export credit guarantees, or insurance programs" for agricultural products.

The Nairobi package is important for LDCs for several reasons. First, on market access, the decision calls for cotton from LDCs to be given DFQF access to the markets of developed countries and to those of developing countries declaring that they are capable of accepting it (from 1 January 2016). Second, the domestic support part of the cotton decision acknowledges members' reforms in their domestic cotton policies and stresses that more efforts remain to be made. Third, on export competition for cotton, the decision mandates that developed countries prohibit cotton export subsidies immediately and developing countries do so at a later date.

The Nairobi package allowed LDCs and Net Food Importing Developing Countries (NFIDCs) to provide certain forms of agricultural export subsidies until 2030. Apart from 48 LDCs, countries in that list are: Barbados, Côte d'Ivoire, Dominican Republic, Egypt, Honduras, Jamaica, Kenya, Mauritius, Morocco, Peru, Saint Lucia, Senegal, Sri Lanka, Trinidad and Tobago, Tunisia and Venezuela. Bangladesh can apply to be included in that group after graduation.

As it stands, apart from subsidies on agro-processing, agricultural support (subsidies) provided by the government is within the limits of AoA for any developed or developing country members. Domestic support measures, such as subsidies provided in fuel for irrigation, fertilizers are well below the accepted minimal level of 10%. In fact, the value of such domestic support measures is estimated to be less than 5 percent of the value of total agricultural production of the country. Therefore, Bangladesh will only have to deal with agro-processing export subsidies after graduation to remain consistent with AoA.

Trade-Related Investment Measures

The Agreement on Trade Related Investment Measures or TRIMs is another WTO agreement which was negotiated during the Uruguay round, and applies to measures that affects trade in goods. As different kinds of investment activities may end up creating trade-restrictive and distortionary impacts on global economy, TRIMs attempt to avoid negative impacts by following a unified guideline by the WTO. Signatories of this agreement have decided upon avoiding measures that are prohibited by the provisions of GATT Article III (national treatment) or Article XI (quantitative restrictions).

During 1980s, some recipients of foreign investments imposed numerous restrictions to protect and foster domestic industries and to prevent the outflow of foreign exchange reserves. Examples of these restrictions include local content requirements (forcing locally-produced goods be purchased or used with investment), manufacturing requirements (certain components be domestically manufactured), trade balancing requirements, domestic sales requirements, technology transfer requirements, export performance requirements (requiring a specified percentage of production volume be exported), local equity restrictions, foreign exchange restrictions, remittance restrictions, licensing requirements, and employment restrictions. These restrictions are glaring violations of Article III and XI.

To combat these issues, an illustrative list of TRIMs agreed to be inconsistent with these articles is appended to the agreement. The list includes measures which require particular levels of local procurement by an enterprise (local content requirements), or which restrict the volume or value of imports such an enterprise can purchase or use to an amount related to the level of products it exports (trade balancing requirements). The agreement requires mandatory notification of all non-conforming TRIMs and their elimination within two years for developed countries, within five years for developing countries and within seven years for LDCs. Like any other core WTO agreement, it offers a system of dispute settlement where members can act against violators. And LDCs are provided with all necessary technical support in such dispute settlements with low or no cost.

Table 2.4: Explicitly prohibited measures as defined by TRIMS

Local content requirement (Violation of GATT Article III:4)	**Trade balancing requirement (Violation of GATT Article III:4 and XI:1)**	**Foreign exchange restrictions (Violation of GATT Article XI:1)**	**Export restrictions /domestic sales requirement (Violation of GATT Article XI:1)**
Including terms that forces investor to use domestic products.	i. Forcing to buy imported products/raw materials used in production. ii. Imposing restriction on imported items used in production.	Restricting access or imposing limits to use of foreign exchange for importing raw materials	Forcing enterprise to sell products in domestic markets, have quota to sell in domestic market, or imposing restriction on export of products.

Source: Agreement on TRIMS

As per the decisions of the Hong Kong Ministerial Conference (2005), LDCs were asked to notify the WTO of their TRIMS-inconsistent measures. This unveiled extended period of exemptions for the TRIMS-inconsistent measures until 2020. Bangladesh did not notify WTO about any such inconsistent or prohibited measures. Bangladesh needs to carefully evaluate any current trade-related investment measures and address any WTO-inconsistent practices as part of the preparation for LDC graduation.

General Agreement on Trade in Services

The General Agreement on Trade in Services or GATS is WTO led multilateral agreement for all service-related international trade. This agreement is also a result of negotiations from the Uruguay round. GATS agreement contains three main themes. The first is a framework Agreement containing basic obligations which apply to all member countries. The second concerns national schedules of commitments containing specific further national commitments which will be the subject of a continuing process of liberalization. The third is a number of annexes addressing the special situations of individual services sectors.

The GATS agreement covers four modes of supply for the delivery of services in cross-border trade based on kind of service provided and presence of suppliers, as shown in Table 2.5. There are 12 sectors of services which are negotiated under GATS. They are business; communication; construction and engineering; distribution; education; environment; financial; health; tourism and travel; recreation, cultural, and sporting; transport and others (MTN.GNS/W/120).

Table 2.5: The Mode of Supplies for Services According to GATS

Mode	Criteria	Supplier Presence
Mode 1: Cross-border supply	Service delivered within the territory of the Member, from the territory of another Member	Service supplier not present within the territory of the member
Mode 2: Consumption abroad	Service delivered outside the territory of the Member, in the territory of another Member, to a service consumer of the Member	
Mode 3: Commercial presence	Service delivered within the territory of the Member, through the commercial presence of the supplier	Service supplier present within the territory of the Member
Mode 4: Presence of a natural person	Service delivered within the territory of the Member, with supplier present as a natural person	

Source: The General Agreement of Trade in Services, WTO

In 2011 Members reached an agreement to allow preferential treatment for services and service suppliers from LDCs, which effectively operates as a new LDC-specific "Enabling Clause for services".

In 2014, LDCs submitted a collective request for ensuring preferential commitments from members in service modalities. Although WTO members opposed the process in beginning, after a high-committee meeting in 2015, over 25 developed and developing countries indicated sectors and modes of supply where they intend to provide preferential treatment to LDC services and service suppliers. The preferences provided under this shall continue till 2030.

Since LDCs face difficulties for commercial presence under Mode 3 and movement of service providers under Mode 4, the collective request provides more emphasis on them. Four main themes of this requests are i) market access and national treatment; ii) Visa, work or residence

permit measures, iii) Recognition, qualifications and accreditation matters; iv) LDC specific professions of interest to be considered for preference. Unfortunately, until now no LDCs have been able to obtain any tangible benefits of the services waiver. Almost all services waiver provided by developed countries are dealt on a bilateral basis, and not open to all LDCs. The model of operation of these preferences are not clearly defined. Since the waiver could not be operationalized, Bangladesh will not face much any erosion of preferences or adjustment-related difficulties after graduation.

Trade Facilitation Agreement

In the 2013 Bali ministerial conference, a *plurilateral* agreement was negotiated among member nations regarding trade facilitation. The Trade Facilitation Agreement or TFA entered into force on 22 February 2017 following its ratification by two-thirds of the WTO membership. Bangladesh is one of the signatories of this agreement. Bureaucratic delays or red tape barriers pose a substantial burden for moving goods across borders all over the world. This creates significant distortion in the global trading system. TFA seeks to address these issues for simplification, modernization and harmonization of global trade. The agreement contains provisions for expediting the movement, release and clearance of goods, including goods in transit. It also sets out measures for effective cooperation between customs and other appropriate authorities on trade facilitation and customs compliance issues.

TFA is especially important for LDCs and developing countries. WTO estimates show that the full implementation of the TFA could reduce trade costs by an average of 14.3% and boost global trade by up to $1 trillion per year, with some of the significant gains to be accrued to the poorest countries.

The TFA contains approximately a large number of (35 in total) technical measures for implementation. These provisions have been included to achieve the core objectives of the agreement, namely to expedite movement, release and clearance of goods; to improve governance through disciplines, rules and decision-making processes; to implement streamlined border procedures; and to enhance the movement of goods in transit. The requirement of implementing the Agreement is directly linked to the capacity of the country to do so. A Trade Facilitation Agreement Facility (TFAF) has been created to help ensure developing and least-developed countries obtain the assistance needed to reap the full benefits of the TFA. The agreement contains the Special and Differential Treatment (S&DT) provision based on the understanding that, without external financial and technical assistance, developing and least-developed countries may not be able to implement some or all of the technical measures. Also, members themselves determine what support they require and when they will be able to implement the measures.

In implementation, developed countries have committed to apply the substantive portions of the TFA from the date it takes effect. Developing countries and LDCs made their own commitments about provisions of TFA based on their own country specific capacities. They also announced

timelines for implementations when TFA came into effect. LDCs were given an additional year to do so. These commitments are set out in the submitted Category A notifications.

Category B notifications from developing countries and LDCs list the provisions that these WTO members will implement after a transitional period following the entry into force of the TFA. Category C notifications contain provisions that a developing country or LDC designates for implementation on a date after a transition period and requiring the acquisition of implementation capacity through the provision and assistance of capacity building. LDCs can also unveil any technical support or expertise to implement any items in Category C notifications from WTO.

Graduating from the group of LDCs itself should not be major concern for obtaining assistance for trade facilitation support. However, the main issue is that the support for trade facilitation remain at a low level. The financial assistance from development partners for implementing TFA remains a part of the overall ODA budget and the OECD data show that just about $1 billion per year is being spent on trade facilitation support in developing countries (including LDCs). This is quite small against the needs of the developing countries.

2.8. LDC-related Technical Assistance and Other Support Measures

Aid for Trade

Since its inception in 2005, the Aid-for Trade (AfT) initiative has achieved a great deal of attention in developing and least developed economies. It has raised global awareness about the positive role that trade can play in economic growth and development, which in turn has contributed to an increase in the mainstreaming of trade-related priorities in partner countries' national development strategies. The AfT initiative duly emphasized on addressing supply-side capacities in in LDCs and other capacity-constrained developing countries. Estimates suggests that an increase in the volume of trade of 10 percent raises per capita income by over 5 percent on average for a country (Feyrer, 2009). But LDCs and developing countries are constrained by lack of supply capacity including weak and inadequate hard and soft infrastructure, weakening trade response. Given AfT's receiving ever-increasing global attention, bilateral and multilateral donors prioritised concessional and non-concessional financing for trade-related infrastructure or other facilities. Until 2017, more than $300 billion has been disbursed for aid-for-trade programmes and projects with 27 percent of this support going to least-developed countries (WTO, 2017).

The main components of AfT support include trade policy and regulation; trade-related infrastructure; productive capacity; and trade-related adjustment (TRA). The WTO conducts the biennial Global Review of Aid for Trade with the purpose of strengthening the monitoring and evaluation of the support provided.

There is evidence to suggest that in certain cases AfT has been effective in reducing cost of trading thereby improving competitiveness of some recipient countries (Razzaque and Te Velde, 2013). It has been found that a one dollar in aid for trade is associated with an increase of nearly 8 dollars in additional exports (WTO, 2013). However, the AfT impact for achieving structural transformation and export diversification remains weak (Cirera and Winters, 2015). Although global trade has experienced sluggish growth since the Global Financial Crisis of 2008 and more recently since 2012, the attention to Aid for Trade support remains prominent. As regards the issue of the prospects of benefiting from the AfT in the future, it is unlikely that any adverse implications would be borne because of LDC graduation. The fact is that AfT is part of ODA, allocation of which is not explicitly linked to the LDC status. Effective implementation of aid-funded projects is also a critical challenge in most LDCs and their graduation would not automatically imply improved implementation capacity.

One important issue is to be noted here that one critical component of the Aid for Trade was supposed to be the assistance provided for trade-related adjustment support to developing countries. However, until today AfT support has not provided much attention to this, as less than 0.5 percent of AfT budget is allocated to adjustment assistance. Graduation means LDCs will have to go through significant adjustments because of forgone preferential market access and loss of policy space, as highlighted above. Therefore, it would be important for graduating LDCs including Bangladesh to proactively engage with the WTO process so that more AfT assistance can be secured considering the need for trade-related adjustments in the run up to graduation and beyond.

Istanbul Programme of Action for the LDCs: The Istanbul Programme of Action (IPoA) for LDCs was adopted in the fourth UN conference on LDCs in 2011. To help LDCs confront the challenges associated with their socio-economic vulnerability, the United Nations has since 1981 hosted once-a-decade such conferences on LDCs. Like its predecessor, held in Brussels in 2001, the Istanbul Conference also adopted a Programme of Action, the IPoA, for the decade 2011–20 to be implemented by LDCs themselves and development partners.

The IPOA acknowledges LDCs' limited productive and governance capacities, and their severe need for improving human and social development. It represents enhanced commitments of the LDCs and their development partners to a renewed and strengthened global partnership. It specifically aims to enable half of the LDCs to meet the criteria for graduation. The IPoA identified eight (as in Table 2.6) interlinked priority areas where LDCs and their development partner should undertake coordinated actions/measures to ameliorate the situation. Overall, the IPoA calls for more integrated actions from all parties, including development partners; renewed and strengthened North-South and South-South partnerships to step up efforts in improving socio-economic conditions of LDCs; setting up an overarching goal of achieving the structural transformation of LDCs.

Table 2.6: Announced Priority Working Areas in the Istanbul Programme of Action	
A. ***Productive capacity*** Infrastructure Energy Science, technology and innovation Private sector development ***B. Agriculture, food security and rural development*** ***C. Human and social development*** Education and training Population and primary health Youth development Shelter Water and sanitation Gender equality and empowerment of women Social protection	***D. Trade*** ***E. Commodities*** ***F. Multiple crises and other emerging challenges*** Economic shocks Climate change and environmental sustainability Disaster risk reduction **G. Mobilizing financial resources for development and capacity-building** Domestic resource mobilization Official development assistance External debt Foreign direct investment Remittances ***H. Good governance at all levels***

Source: UNCTAD, 2018

Bangladesh remains an active party of IPoA, which will come to the end in 2020, and the UN, will undertake the fifth LDC conference in 2021 to consider an appraisal of the implementation of the IPoA and perhaps launch a new round of support measures. As Bangladesh is to graduate in 2024, it will not remain as a target country of support for the entire period of the next Action Programme for LDCs. It however should not be a cause for concern. To begin with many actions stated in the document were largely 'best endeavours' in nature rather than explicit commitments by development partners. In some cases, there has been serious failure in meeting certain targets, For example, despite Bangladesh's doing well, the IPoA target (subsequently adopted in SDGs as well) of Doubling the share of LDC exports in global exports by 2020 and the commitment to ensure timely implementation of duty-free, quota-free (DFQF) market access on a lasting basis for all LDCs have not materialized. Then, the target of enhancing the share of assistance to LDCs by the development partners for Aid for Trade has also been missed for most individual LDCs. Furthermore, a large number of actions programmes remain vaguely defined; therefore, measuring the actual implementation progress on them is almost impossible. Besides, the IPOA has also so far failed to secure the longstanding commitment by developed countries – reiterated in the 2030 Agenda for Sustainable Development and the Addis Ababa Action Agenda of the Third International Conference on Financing for Development – to provide the equivalent of 0.15 to 0.20 percent of their gross national income (GNI) in the form of ODA to LDCs (in parallel to a commitment to provide the equivalent of 0.7 per cent of GNI in ODA to developing countries). Currently, the ODA from the Development Assistance Committee (DAC) countries – that provide the largest share of ODA – to LDCs expressed as a percentage of provider countries'

gross national income stands at just 0.09 percent (OECD Development Co-operation Report, 2018).

In one of the perhaps most innovative measures, the IPoA called for the establishment of a "Technology Bank and Science, Technology and Information supporting mechanism", dedicated to LDCs. This would have helped improve the beneficiary countries' scientific research and innovation base, promote networking among researchers and research institutions, access and utilize critical technologies, and draw together bilateral initiatives and support by multilateral institutions and the private sector, building on the existing international initiatives. The full operationalization of the Technology Bank was included as part of target 17.8 of the Sustainable Development Goals.

The Technology Bank was established by the General Assembly in December 2015 with its premises being officially inaugurated in 2018 in Gebze, Turkey. It is supposed to implement projects and activities in the LDCs and serve as a knowledge hub connecting LDCs' Science, Technology and Innovation (STI) needs, available resources, and actors who can respond to these needs. The first stage of operations includes activities aimed at improving the access of scientists and researchers to publications, data, research and technical knowledge (TBLDC, 2018). It is still early days to assess the facility's effectiveness. As per the agreed provision, after graduation from the LDC category, countries will continue to have access to the LDC Technology Bank for a period of five years.

LDC Policy and Global Advocacy-Related Technical Assistance

Under this category of assistance schemes for LDCs, the Enhanced Integrated Framework (EIF) for Trade-Related Assistance for the Least Developed Countries (commonly abbreviated as EIF) should be considered as an important one. Its objective is to support LDCs to better integrate into the global trading system and to make trade a driver for development. The second phase of this the multi donor multilateral technical cooperation programme as currently in operation will continue until 2023. EIF helps to mainstream trade into national development strategies, establish national structure to coordinate trade-related technical support and improve capacity building for trade by addressing supply side constraints. With help of EIF, LDCs can make a solid case for more aid for trade. In Bangladesh, EIF has supported the preparation of the Diagnostic Trade Integration Study (DITS) in 2015. EIF is also assisting to produce the analytical work necessary to support sectoral strategies, including in leather, fisheries and agriculture.

A significant source of other LDC policy-related technical assistance and support measures is due to UNCTAD. It provides research and extensive technical cooperation assistance to LDCs in policy development including assessing impact and developing recommendations on such issues as Aid for Trade, market access, trade in services, devising and developing capacities on trade-related standards, supporting policy analysis using integrated database and quantitative tools. As UNCTAD also undertakes an elabourate work programme for developing countries, LDC

graduation is unlikely to cause any major change in terms of the benefits received from its technical assistance. Finally, The United Nations Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and the Small Island Developing States (UN-OHRLLS) oversees the implementation of the IPoA and undertakes some global advocacy work for LDCs. LDC graduation means its work programme in the future might not be relevant to Bangladesh. However, given its currently not-very-significant and tangible assistance, this should not be a major issue for Bangladesh in the post-graduation period.

Since UNCTAD also supports developing countries, it is unlikely that Bangladesh will lose the above-mentioned support significantly.

Chapter 3

Post-Graduation Challenges and their Estimated Impacts

3.1. Overview

The review of International Support Measures for LDCs in Chapter 2 suggests that a fairly comprehensive package of enabling support is available for LDCs to push development through better access to export markets, other trade-related concessions and technical assistance programmes. Unlike most LDCs, Bangladesh has been able to make use of many of these facilities, helping its development process. Therefore, the withdrawal of access to these ISMs in the post-graduation phase can have some real costs. It is therefore important to understand which of the ISMs matter most for Bangladesh and the likely consequences of forgoing them. The analysis here is not about providing precise quantitative estimates since: (a) the implications will depend on the various assumptions underlying the quantitative framework being used; and (b) in some cases the lack of data and uncertainties about likely impact also means that the assessments will have to be qualitative in nature. Therefore, this chapter aims to identify all potential areas that could have a negative impact on the Bangladesh economy; provide a quantitative assessment of costs wherever possible; provide policy makers a broad sense of the likely implications and the nature of policy challenges in mitigating any adverse consequences.

3.2. Preference Erosion and their Impacts

Bangladesh faces a unique post-graduation challenge in the international market when it comes to preference erosion in trade. In FY18, Bangladesh accounted for approximately a quarter of total merchandise exports by all LDCs ($36.66 billion out of a total of $145.44 billion from all LDCs combined). Compared to any other LDCs, Bangladesh has a higher dependence on preferential market access for its exports.

The loss of preferences in the markets of European Union Canada, Australia, Japan, India and China in 2024 (the year which will mark the end of preferences for Bangladesh if the country can officially graduate from the LDC status in 2024) might lead to a reduction in total exports of Bangladesh.

Much of the preference erosion or loss of preferences will originate from the fact that Bangladesh will no longer be considered for concessional tariff rates as it enjoys as an LDC. But, in most cases, there are transitionary preferences between tariff rates for LDCs and MFN tariffs, implying that tariff escalations could be significant after graduation. Besides, many of the exemptions of WTO provisions will no longer be available after 2024 Potentially undermining

external competitiveness further. Table 3.1 provides a summary of various benefits Bangladesh's now avail vis-à-vis the provisions available in the post-graduation era.

Table 3.1: LDC-specific Preferences Before and After Graduation in Prominent Export Destinations

Countries	LDC-Specific Schemes	Applicable schemes after graduation*
European Union	Everything But Arms (DFQF)	Standard GSP or GSP+ (after 3-year smooth transition)
Turkey	Everything But Arms (DFQF)	Standard GSP or GSP+ (after 3-year smooth transition)
USA	GSP for LDCs (Bangladesh currently received no preferences)	Standard GSP; AGOA for African states. **Bangladesh will continue to face MFN tariffs.**
China	Preferential tariffs for LDCs	MFN for WTO members, general duty rates for non-members
Japan	GSP for LDCs	Standard GSP (no transition support)
Canada	GSP for LDCs	Standard GSP (no transition support)
Republic of Korea	Preferential tariffs for LDCs	MFN
India	Preferential tariffs for LDCs	MFN (Bangladesh to face SAFTA tariffs)
Switzerland	GSP for LDCs	Standard GSP
Russia	GSP for LDCs	Standard GSP
Australia	GSP for LDCs	Standard GSP/ MFN tariff

Source: **UNCDP 2018.**

*Note: GSP for LDCs are more generous that general or standard GSP. Apart from the EU and Turkey, the transition period support is not guaranteed. Exceptions are only made due to successful trade negotiations and are subject to compatibility with WTO rules.

It is anticipated that the highest impact of preference erosion will generate from the EU market. The EU is the destination for approximately two-thirds of all goods exported from Bangladesh. On the other hand, no impact of LDC-graduation is likely to be felt in the US market given that Bangladesh presently does not get any preferences in that market. Among other developed country markets, Canada, Japan, Australia, Switzerland and Russia under their respective standard GSP schemes do not cover an important part of Bangladesh's exports, which will face MFN tariffs (UNDESA, 2019). But the biggest issue with post-graduation preferential systems like standard GSP in developed country markets (including in the EU) is that Bangladesh would no longer be able to use dedicated rules of origin for LDCs, making it more difficult to use preferences for the tariff lines covered by the standard GSPs than it is to use GSP for LDCs.

In the case of Bangladesh's two other largest trading partners, viz. India and China, Bangladesh can export to India under the South Asian Free Trade Agreement and to China under the Asia-

Pacific Trade Agreement[15]. The tariff lines and preferences granted by Turkey aligns with the EU. In other countries, exporters will be subject to MFN tariffs (e.g. South Korea). These countries however account for very insignificant amount of export earnings than advanced economies. Therefore, post-graduation export impacts are likely to be trivial.

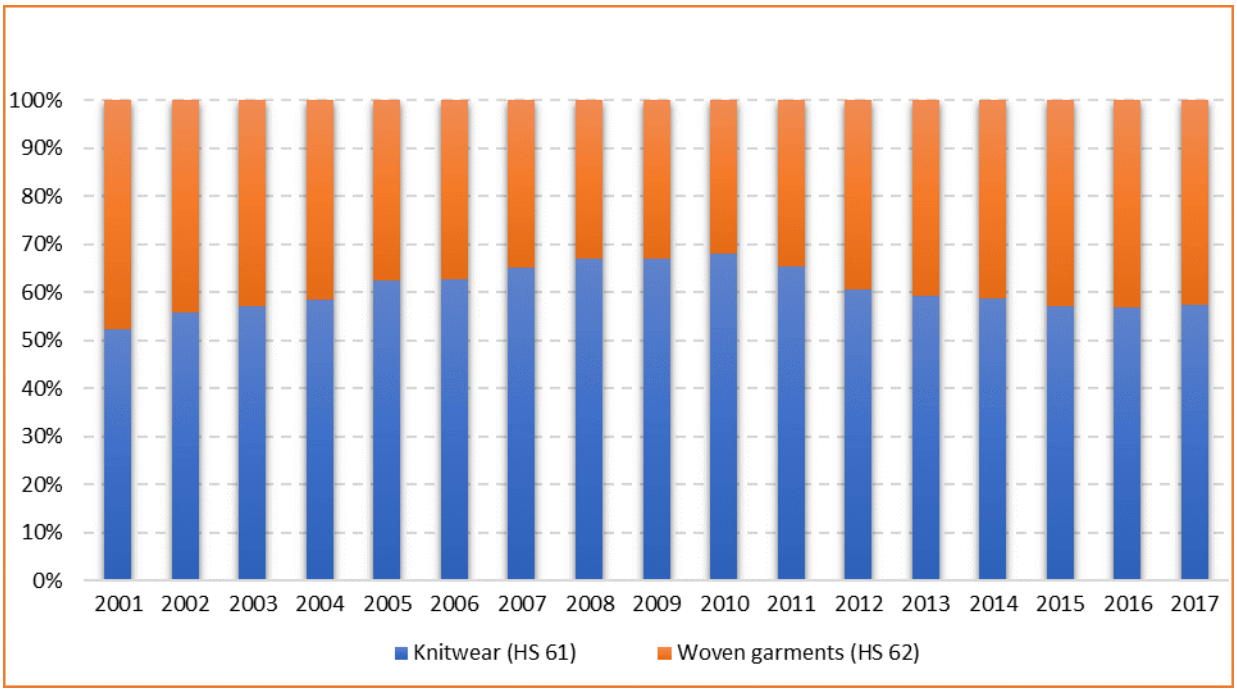
Significance of the European Union Market for Bangladesh

The Everything But Arms (EBA) preferential market access to LDCs offered by the European Union has played a key role in boosting export growth of Bangladesh. The EU is the largest market for Bangladeshi export products. In FY2018, out of $36.66 billion, the EU alone accounted for more than $21 billion. Out of which, $19.6 billion were income from apparel exports to the EU market (62 percent of total apparel exports from Bangladesh). It is worth noting that Bangladesh is a dominant supplier in the EU market as an apparel exporter. Over the past decade (since 2008) its average yearly growth in exports to the EU was 12 percent. While at the same time, apparel exports by rest of the world to EU grew at a rate of only 2.4 percent per annum (Razzaque and Rahman 2019).

Owing to strong backward linkages, Bangladesh's apparel exports to the EU are dominated by knitwear items under the Harmonized System (HS) of product classification category 61, accounting for a share of about 57 percent in 2018, which was around 68 percent in 2001. While EBA itself has been an active preferential system since 2001, it initially specified rules of origin (ROO) requirements with a 'double transformation' for clothing items as a precondition for tariff-free market access. Although knitwear did well in the EU, for woven apparels (under HS 62), this would imply domestically produced fabrics to be used in garment making, hindering Bangladesh's capacity to utilise EU preferences. The derogation of EU ROO in 2011 allowed single transformation for LDC clothing exports, prompting reinvigorated supply response from the woven garment sector. As shown in Figure 3.1, following a noticeable decline in relative significance between 2001 and 2010, the share of woven exports to the EU bounced back after 2011 when the rules of origin changed.

15 In FY18, Bangladesh export to India accounted for $873.27 million. All of it came from the DFQF preferences provided by India to LDC countries. During the same period, Bangladesh exported $694.47 million to China, where Bangladesh got LDC specific preference for 35 percent (1,251) of tariff lines under APTA. China allows LDC-specific preference for LDCs up to 97 percent (8,036) of tariff line. Bangladesh is currently negotiating to obtain the same preference.

Figure 3.1: Structure of Bangladesh's Apparel Exports to the EU



Source: Razzaque and Rahman 2019

The derogated ROO of EBA preferential system is one of the most favourable preferential treatments enjoyed by Bangladesh. In the post-graduation era, Bangladesh can apply for two lesser preferential systems in the EU, the GSP+ and general GSP. The GSP+ system will be quite favourable for Bangladesh in terms of tariff rates (zero tariffs for 66 percent of tariff line) with preferences for apparel exports. However, the ROO system of GSP+ is much stricter than EBA, requiring double transformation of textile goods. The general GSP system is the least preferential. Although it provides zero tariff on 66 percent of the EU tariff line, apparel items are subject to substantially higher levels of tariffs than those under the EBA regime. At the same time, they must fulfill double transformation ROO. For any other exported items, local value addition has to be 50 percent or more, under both GSP+ and GSP. Table 3.2 provides detailed information about tariff levels that local exporters are likely to face in EU market after graduation.

Table 3.2: Post-graduation Tariff Rates in the European Union

HS Chapter	Product	Share of total exports to the EU (2016)	Post-graduation tariffs		
			Under ***GSP***	Under ***GSP+***	Under ***MFN***
61	Knitwear	53 percent	6.4%-9.6% under ***GSP***. **9.6% for most products**, including all or most products within HS 6109, 6110, 6104, 6105, 6111 and 6108; which together account for approximately 90% of Bangladesh exports to the EU under HS 61.	0% under ***GSP+***	12 percent for most products
62	Woven garments	38 percent	5%- 9.6% under ***GSP.*** **9.6% for most products**, including all products within HS 6203, 6204, 6205, 6206, which together account for approximately 85% of exports to the EU under HS 62.	0% under ***GSP+***	12 percent for most products
64	Footwear	2 percent	0%-11.9% under ***GSP*** **4.5% on most products in HS 6403 (62% of exports in this group)**. 11.9% on all products in HS 6404 (18% of exports) and 6402 (16% of exports).	0% under ***GSP+***	8 or 17 percent for most products
63	Home textiles	2 percent	1.6%-9.6% under ***GSP***. **9.6% for most products in HS 6302 and 6303 (77% of exports to the EU under 63).** Lower (1.6-5.7%) for most products in HS 6305 (16% of exports to the EU under chapter 63).	0% under ***GSP+***	12 percent for most products
03	Fish; Crustace-ans	2 percent	0%-18.5%. Most exports are under HS 030617. Within that group, **GSP tariffs on most products are 4.2%**; 7% in one product; 14.5% in another product.	0% under ***GSP+***	12-20 percent for most products

Source: Based on UNDESA 2019

According to the guidelines of the European Union, any export vulnerable/developing country must fulfill three criteria before applying for the GSP+ status. They are shown in Table 3.3. Bangladesh strongly satisfies the third criteria as two major EU imports from Bangladesh alone accounts for the necessary 75 percent mark. Bangladesh can ratify the Minimum Age for Admission to Employment convention before graduating out of LDC status, and thereby is likely to satisfy the first criterion as well. Bangladesh has already ratified and implemented the other 26 conventions. However, Bangladesh is unlikely to be able to satisfy the second criterion, which says that the share in GSP-covered imports from preference receiving country has to be less than 6.5 percent of total GSP-covered imports by the EU. Therefore, as it stands, the most plausible scenario for Bangladesh is that after graduation in 2024, it will enjoy a 3-year transition period granted by the EU. From 2027 Bangladesh will be eligible for EU preferential market access under the standard GSP regime.

Table 3.3: Criteria for the GSP+

No	Criteria	Current status of Bangladesh
1	Must ratify and effectively implement 27 international conventions on labour rights, human rights, environmental protection and good governance.	✗ Convention of the Minimum Age for Admission to Employment is yet to be ratified by Bangladesh.
2	Has a share in GSP-covered imports of less than 6.5 percent of GSP-covered imports of all GSP countries	✗ GSP-covered imports from Bangladesh is more than 17 percent of all EU GSP-covered imports
3	Has at least 75 per cent of its total GSP imports coming from the seven largest sections of GSP-covered imports.	✔ Bangladesh fulfills this criterion without facing any problem.

Source: Based on the European Commission guidelines for preferential market access.

3.3. Impact Assessment of Preference Erosion Through Quantitative Analysis

There is some apprehension regarding the potential consequences of preference erosion. A detailed quantitative impact of loss of LDC status on exports, macroeconomic balances, and socioeconomic impact is carried in this report. Chapter 8 provides the details of the analytical model used to capture the impact on exports, GDP growth, employment and poverty. Chapter 6 looks into the impact of loss of exports and GDP on current account balance and debt servicing. Below, the report analyses the potential direct impact of this preference erosion on loss of exports using a partial equilibrium model. Details of this model can be found in Razzaque and Rahman (2019). Only the results are summarized here.

Loss of Export Earnings

The partial equilibrium is a condition of economic equilibrium, which takes the price change of a single component in consideration, with prices of all other products are held fixed. It implies, the analysis only considers effects of a given action in the market (in this case changes in price after loss of preference) that are directly affected. It does not account for the economic interactions between the various markets in a given economy. Holding everything else constant, this partial equilibrium estimates the impact on exports due to price changes emanating from forgone tariff preferences in the destination market.

The main advantage of the partial equilibrium approach to market access analysis is its minimal data requirement. In fact, it only requires data for the trade flows, the trade policy (tariff), and a behavioral parameter like elasticities. It uses only one sector while disregarding its interactions with others – a feature that general equilibrium models (GEMs) deal with. However, in contrast to general equilibrium models, this approach employed in this model makes use of trade and tariff data at highly disaggregated levels.

The potential impact of LDC-graduation in this model is transmitted through the following path:

- Price effects: An increase in price of exported goods from Bangladesh, which is caused by higher tariff rates in the post-graduation era.
- This will result in potential substitution between exports from graduate and nongraduate countries.
- The results are dependent on market share elasticities and therefore the extent of price sensitivities.

The trade effects of graduation from LDC status can be estimated by comparing the unit price received by the preference-receiving country with that of the MFN exporters. Using a standard partial equilibrium model and alternative values of the price elasticity of demand between 0.5 and 2, possible implications arising from Bangladesh's losing EBA preferences and being subject to EU Standard GSP scheme can be simulated.

The estimated potential loss of exports depends upon the price elasticity of demand for Bangladesh's exports and whether Bangladesh gets a standard GSP preference or faces MFN tariffs after graduation. The higher the price elasticity, the higher is the potential loss of export earnings. On the other hand, obtaining Standard GSP will lower the likely loses in comparison with the situation of being subject to MFN tariffs. In the most likely scenario of unitary price elasticity of demand and replacing duty-free access with the Standard GSP regime, the result would show a potential loss of export earnings for Bangladesh by $1.6 billion.[16] This amounts to 9.5 percent of average export revenues from the EU during 2015-17 (Table 3.4). While the forgone revenues due to woven garments would be lower than $700 million, the comparable figure for knitwear would be close to $1 billion.

Table 3.4: Potential Loss of Apparel Export Earnings in EU Due to Tariff Rise (million $)

Price Elasticity of Demand	If Bangladesh gets standard GSP preference (million $)	If Bangladesh faces MFN tariff (million $)
0.5	800.8	1,001.0
1.0	1,601.6	2,002.0
1.5	2,402.4	3,003.0
2.0	***3,203.2***	***4,004.0***

Source: Razzaque and Rahman 2019

[16] Most partial equilibrium models generally use a value of the price elasticity of demand of at least one if not higher. A value lower than one will make the good in question price inelastic. Goods that have close substitutes cannot have price elasticities less than one. A price elasticity value less than 1 means, the country in question will have very strong market power. In one of the most influential paper on demand elasticity, it has been found that price elasticities for RMG products tend to be very high (Panagariya, Shah and Mishra, 2001). It is true that the product categories that Bangladesh exports have many close substitutes. Therefore, it is only realistic to consider that Bangladesh cannot command a price inelastic export demand for its garment items.

As Bangladesh will lose from preference erosion, other competing countries will grab any potential market share lost by Bangladesh. China is likely to gain highest amount (above half billion) from preference erosion of Bangladesh.[17] Among others, Cambodia, China, India, Turkey, and Vietnam stand to gain. When disaggregated by knitwear and woven apparels, China, Turkey, India and Cambodia seem to benefit more from increased exports of knitwear, while export rises of Pakistan, Morocco, Tunisia and Vietnam are dominated by woven garments.

The same modelling exercise has been carried out for measuring potential implications of loss of preferential access in two more countries (Canada and Australia) using the assumption of unit elasticity of demand for RMG products. In Canada, Bangladesh is likely to receive the standard General Preferential Treatment (GPT) upon LDC-graduation without any transition period. Bangladesh's average export to Canadian market under LDC-specific preference between 2015-17 was just over a billion dollar ($1,030 million). Under the GPT tariff regime for developing countries, exported items will be subjected to a substantial 17 percent tariff rate on average. This change from replacing the duty-free access with the GPT would result in a potential loss of $175 million export revenues by Bangladesh. This loss is equivalent to 17 percent of average export revenues from the Canada during 2015-17.

In Australian market, Bangladesh post-graduation may be subjected to the MFN tariff regime, which will result in about 5 percent tariff hike on average to exported items. In that case, Bangladesh's export incomes will face a loss of $29 million, about 5 percent of $524 million exports to Australia between 2015-17. Considering the three markets (Australia, Canada and the EU) together, a total of $1.8 billion potential loss of export incomes is obtained (Table 3.5).

Table 3.5: Potential Loss of Export Earnings Due to Tariff Rise After Graduation

Export destination	Scenarios	Average tariff faced (%)	Potential loss of export receipts ($ millions)
EU	Bangladesh received Standard GSP	9.5	1,602
Canada	Bangladesh received GPT for developing countries	17.0	175
Australia	Bangladesh faced MFN tariffs	5.0	29
Total	Post-graduation most likely tariff regimes in individual markets	9.6*	1,806

*Considers weighted average of tariffs in the three markets.

Source: Case-study prepared by Razzaque (2019) for UNDESA 2019. EU trade data are from the Comext database. Bangladesh's exports to Canada and Australia are from Trade Map database of the International Trade Centre.

- The potential limitations of this approach are that it assumes constant import price elasticities, i.e. if the price of a given item declines, each producer adapts in the same way

[17] However, note that this model does not consider the fact that wages are rising in China and as such it is likely to face competitiveness pressure from other rivals.

regardless of different adaptation measures within the structure of production. In any case, the potential shifts in exports may depend on producers' supply capacities and competitiveness, which are not captured in this market share-based approach.[18] It needs to be pointed out models simplify complex matters of the real world, and the derived results depend on certain assumptions to make the model operational. There are so many factors involved in actual market situations that the results need to be interpreted with caution. The derived results thus represent potential consequences. One of the most fundamental tenets of international trade is that imposition of tariffs leads to reduced imports and thus lower revenues for the concerned exporters, other things remaining constant.[19] The modelling framework used and results obtained are compatible with this basic principle. Similarly, the results obtained are consistent with the underlying reason why a country seeks duty-free market access in the first place. LDCs' demand for duty-free, quota-free market access for their products in developed and relatively advanced developing countries has been a salient feature of multilateral trade negotiations. The principle behind it is that preferential market access will make their exports more competitive and thus they will be able to export more. Conversely, from a situation of duty-free market access to being subject to tariffs would undermine export competitiveness and thus potentially reduce export earnings.

Other Notable Estimations

Since issue of LDC-graduation has generated a lot of interest, corresponding research work is still unfolding regarding this issue. Couple of other estimations are mentioned here.

- UNCTAD (2016) calculated, for all LDCs, the effects of preference losses related to LDC graduation in G20 countries, considering a scenario in which only the country in question graduates and another in which all LDCs graduate. For Bangladesh, it estimated a reduction in exports of close to 7 per cent in the first scenario and a little over 5 per cent in

[18] It is to be noted that one popular approach to impact assessment due to trade policy changes is through the application of the general equilibrium models. One advantage of the GEMs is to allow interactions between sectors and markets. However, for operational purposes GEMs usually consider one aggregate product rather than disaggregated items and tariff rates as used in the partial equilibrium analysis. The most popular general equilibrium framework for assessing trade impact is due to the so-called GTAP (Global Trade Analysis Project) model. However, one problem is that such models use many restrictive assumptions and imposes certain analytical structures that are often not plausible. Furthermore, these models consider instantaneous adjustments as a result of which the resultants effects are sometimes overly exaggerated. For this study, a GTAP-based modelling exercise was also undertaken. This however generated a potential loss of export earnings that appeared to be excessively high. Prior to the MFA phase out in 2005, GTAP models were used by amongst others the IMF and WTO that produced very alarming scenarios of Bangladesh's apparel exports being wiped out substantially. Having acknowledged this problem, this study has refrained from using the GTAP results. It remains an area of further research to analyse the GEMs carefully and employing various sensitivity analysis.

[19] That tariff hikes affect exports has also been reflected in the on-going USA-China trade war. An UNCTAD study shows that US tariffs caused a 25 per cent export loss, inflicting a US$35 billion blow to Chinese exports in the US market for tariffed goods in the first half of 2019.
(https://unctad.org/en/pages/newsdetails.aspx?OriginalVersionID=2226).

the second scenario. Amongst others, for Vanuatu, the estimated adverse consequences are around 15 per cent, for Tanzania 9 per cent, Cambodia 11 per cent, and so on.

- Rahman and Bari (2018) estimate that Bangladesh would face additional tariffs of about 6.7 per cent in absence of LDC preferential treatment, resulting in a possible export loss of US$ 2.7 billion in view of potential earnings (equivalent to 8.7 per cent of Bangladesh's exports in FY2014-15).

Summary of Export Income Loss

There is no doubt that the removal of LDC trade preferences will hurt Bangladesh's export competitiveness. This could result in losses ranging from $1.0 billion (low price elasticity) to $4.00 billion (high price elasticity). In percentage terms, they amount to a low of 2.8% of total exports in FY2018 to 11.1%. The most likely loss will be about $1.8 billion, which is 5% of export earnings in FY2018. The absolute dollar values will be larger depending upon the timing of LDC graduation. These are not overwhelming losses but neither are they very small. Unless these losses are over-turned with coping policy measures, the cumulative losses over the years could be large. Additionally, there are other adverse implications of LDC graduation related to the end of special treatment under WTO provisions that are not easily quantifiable but can create important challenges. Importantly, the direct and multiplier effects of these export lose on GDP, employment and poverty reduction can be substantial as explained in detail in Chapter 8.

3.4. End of Special Treatment Under WTO Provisions

As differential WTO preferences will end for Bangladesh with LDC graduation, the country will face some unique challenges in the post-graduation era. Some of these challenges are likely to be more difficult than others. But they also present an opportunity to modernize trade policy based on a comprehensive reform that prepares Bangladesh to operate within the full rules and regulations of the WTO. Importantly, compliance with WTO regulations will also require building institutions, acquiring modern technology, improving labour skills and increasing productivity to increase global competitiveness.

Impact on Agreement of Subsidies and Countervailing Measures (SCM)

As explained in Chapter 2, the agreement of SCM deals with consistency of subsidies and international provision for using countervailing measures. As an LDC, Bangladesh is exempt from maintaining the high standards of self-restrain regarding trade distortionary subsidies. At the same time, the country is eligible for receiving free technical assistance support in the WTO's dispute settlement process.

The biggest impact Bangladesh is likely to face is for using the prohibited or actionable subsidies, or any subsidies that are provided upon export performance. The government of Bangladesh currently provides cash subsidies on exports. Since this is done to incentivize exports, it falls under the prohibited subsidies. According to the WTO Trade Policy Review of

Bangladesh (2019), these take the form of cash incentives, and are provided to exporters who do not avail of the duty drawback facility or the bonded warehousing facility. It needs to be pointed out that duty-drawback and bonded warehouse facilities should not be regarded as export subsidies. However, the problem is when cash assistance is provided to exporters that are not using duty drawbacks and bonded warehouses, it is difficult to assess the genuine subsidy elements in the scheme. Therefore, although not the entire cash assistance can be regarded as export subsidies, any WTO member could raise the question about the current policy of supporting export as being non-compliant with WTO rules. In FY18, the government provided around $560 million as export subsidy to 36 items, with nearly half of it going to the apparel industry. In addition to that, the government also makes several industry or sector specific fiscal contribution including grants and tax holidays.

In post-graduation era, these subsidies will be considered actionable. Any WTO member will be able to lodge official complaints against Bangladesh. Recent developments in the WTO suggest that developed countries are proactively pursing legal actions against developing economies that violate restraints on such prohibited or actionable subsidies. In 2018, USA lodged official complaint against India about the latter's supporting garment and some other exports, stating that India provides actionable subsidies in special economic zones, which are not in line with Article 3.1(a) of SCM agreement. This has now been a subject of dispute settlement (DS541). WTO members have generally been reluctant about raising complaints against LDCs with a very few exceptions. However, after graduation such a situation can change dramatically.

Bangladesh needs to closely study such issues and learn what can be done about making the export support policy regime WTO-consistent. Government authorities and other stakeholders should prepare for phasing out export subsidies and other actionable subsidies. Since subsidies will remain important and necessary for incentivizing trade, all concerned bodies should work closely to find out areas of subsidy provisions which are not consistent with WTO's SCM and other agreements.

Currently, it is very difficult to ascertain what portion of cash assistance to exporters can be considered as 'true' subsidies (as mentioned above, these subsidies are often available for firms that do not use bonded warehouses and duty drawback facilities). The cash assistance rates also differ between export sectors. One way of assessing the potential impact of discontinuing cash assistance support is to make use of two assumptions: first, to consider the 'true' subsidy element in the export policy, and second, to consider that export subsidy rates can be treated as equivalent of tariff rates (since both of them promote export competitiveness). If it is assumed that half of the total cash assistance in 2018 (i.e. $280 million), then using the same partial equilibrium model referred to above (Razzaque and Rahman, 2019) it can be estimated that the potential export loss could be to the tune of $131 million or 0.36 percent of total exports in 2018.

Impact for Agreement on Agriculture

As per the WTO's Agreement on Agriculture (AoA), Bangladesh will have to address a few issues. A primary concern will emerge from subsidies that falls under the so-called amber box. Agricultural subsidies in terms of price support will have to be completely avoided in the future. In FY19, the government proposed an agricultural subsidy package of approximately $1.1 billion. These subsidies do not include any type of price support. But they are mostly implicit support on fertilizers, seeds and fuels used for irrigation. There are also subsidies on farming techniques, farming production, agricultural export, agriculture processing, etc. According to AoA, members cannot provide subsidies on agricultural processing for exporting or agricultural exports. They are considered as violation of the agreement and treated as such by other members.

After graduation, Bangladesh might have to undertake lowering bound tariff rates for agricultural items. With the average bound tariff rates of around 200 percent for agriculture, the applied MFN tariffs (around 25 percent) are much less than those of the bound rates. Unlike for other developing and developed country members of the WTO, Bangladesh did not have to make any cut or pledge in the earlier stage of AoA negotiations. Nonetheless, given the huge water in the tariff, any required adjustments in the bound tariff rates for agricultural items should not present any major issue for Bangladesh (i.e. there is hardly going to be any discernible impact for domestic producers).

Another issue is the Aggregate Measurement of Support (AMS). It is the indicator of the domestic support on which discipline for the AoA is required. The AMS calculation depends on the value of products and market prices. Developing countries, including LDCs are allowed to provide domestic supports up to 10% (*de minimis* ceiling) of the value of total agricultural production. Estimates from early 2000's suggests that Bangladesh's product subsidy (PS-AMS) is negative, while non-product subsidy (NPS-AMS) is around 1 percent of value of production (VoP) (FAO, 2002). While this may indicate Bangladesh has some wiggling room in terms of AMS and subsidy provision, it is also true that a lot of support that is currently provided are not included in AMS. Nevertheless, it is generally recognised that the total amount of these subsidies is below 5% of the value of total agricultural production of the country. Therefore, the domestic support Bangladesh is now providing in agriculture sector is well within the *de minimis* ceiling, i.e., 10%. This should allow Bangladesh to continue with subsidies in fertilizer, irrigation fuel, etc.

As regards agricultural export subsidies, LDCs and the Net Food Importing Developing Countries (NFIDCs) are allowed to provide certain forms of export subsidies until 2030, according to the decision taken in the Nairobi Ministerial Conference of the WTO. One issue for Bangladesh is if after graduation from LDCs it will be automatically included in the list of NFIDC. This is a matter of a clarification from the WTO. If Bangladesh is admitted to the group of NFIDC, maintaining export subsidies on agricultural products until 2030 would be a possibility. In any case, the relative significance of agricultural exports in Bangladesh's total

exports is quite small and thus any relevant changes in the policy issues are unlikely to generate a significant impact.

Impact on General Agreement on Trade in Services

Non-factor services export from Bangladesh remains around 10 percent of total export from the country. In FY18, Bangladesh exported services worth of $3.7 billion. So far as it seems, the impact of LDC-graduation on GATS agreement and trade in services are going to be negligible. However, recent developments regarding global services export suggests that Bangladesh is probably going to miss out a window of opportunity in post-graduation era.

So far, 25 countries have announced certain services areas for special treatment of LDCs. These opportunities have just started opening up. LDCs often lack technical capacity to understand what these opportunities really mean and how to operationalize these opportunities through legal procedures.

The countries granting the waiver 'must' notify the Council for Trade in Services, which will conduct an annual review and assess whether the exceptional circumstances that justify the waiver still exist or not. The provision calls for non-discriminatory participation of LDCs. Since the process is cumbersome, developed countries are more interested in dealing with these issues under curtain provisions, without notifying the WTO, and only offering opportunities to some selected LDCs. Effective implementation of LDC-specific services waiver is quite uncertain at this moment. Therefore, Bangladesh needs to remain vigilant in the WTO if any opportunities arise. Bangladesh has a significant potential for expanded exports in certain services sectors. IT, banking and financial sector, transportation, tourism and hospitalities are areas where service exports can utilise any LDC specific support measures until graduation in 2024.

Impact on Other Agreements

Impact of LDC-graduation on other WTO agreements are likely to be minimal, or non-existent for Bangladesh. The Agreement on TRIMs does not have massive LDC-specific implications for Bangladesh. But successfully graduating out of LDC status will surely require reviewing provisions carefully and reevaluating options for investment-related engagements in the private sector. Among other agreements, the TFA has some LDC-specific support measures of Bangladesh's interest. According to Article 18 and 20 of TFA, LDC members can avail 3 years additional implementation time for certain facilitation act. Bangladesh has already pledged timelines for implementation in category A, B and C. The National Board of Revenue (NBR) is currently working on developing the Authorized Economic Operator/ Trusted Traders system in Bangladesh, as part of customs modernization programme. A National Enquiry Point has been established and an MoU has been signed for the National Single Window. If necessary, Bangladesh can unveil technical support for any facilitation project. Bangladesh already has the capacity to materialise commitments under category A. Implementation of activities in category

B and category C must be sped up and finished before LDC graduation, if necessary, by utilizing available window for special support.

Preparedness for TRIPS Waiver Phase-Out

The primary impact of TRIPS waiver phase-out is likely to be felt in the pharmaceutical sector of the country. Unlike other LDCs, Bangladesh has a unique and highly functioning pharmaceutical export sector. While most least developed economies suffer from technological capacity constraints and shortage of skilled manpower to effectively produce medicines domestically, Bangladesh has acquired a large capacity in fulfilling more than 90 percent of the local market demands for drugs. Owing to the flexibilities offered by WTO TRIPS agreement and the support granted by the National Drug Control Ordinance (1982), local firms have enjoyed advantageous provisions, boosting domestic pharmaceutical production with import substitution and thus saving foreign currency on pharmaceutical imports. The current pharmaceutical industry of Bangladesh is valued at more than $2.5 billion, which is about 1 percent of GDP. In FY18, the export of drugs from Bangladesh exceeded $100 million mark. The end of TRIPS waiver will likely trigger two types of potential consequences for the industry: production and export related impacts and significant changes in the local legal framework to make it compatible with the WTO regime.

On economic impacts, several things could happen. The current industry of Bangladesh mostly depends on exporting generic drugs, or patented versions of generic drugs. In simple terms, since Bangladesh is a member of the LDC group, it is allowed to produce drugs and export them regardless of active patents. In post-LDC era, local firms may face cutbacks in production and export of patented generics because that will be the violation of TRIPS argument. This may lead to a loss of some export earnings for local manufacturers. There needs to be more empirical research on this issue to find out exact potential impact on market as it is not known to what extent patented drugs are produced and exported.

The potential impacts of graduation can also affect prices of drugs and market concentration, and they both can affect each other. The demand for medicines is price inelastic and largely influenced by physicians and retail pharmacies. As Rahman and Farin (2018) indicate, while impact on prices are somewhat unpredictable, they will be determined by net effect of different forces and are likely to vary across genres of medicines. But if productions of generic drugs are hampered, then price of such drugs would go up. It is important to notice that, for some life-saving drugs (such as those related to cancer & HIV/AIDS), local producers can sell drugs at a fraction of the price of patent holders. They may not be able to do so in post-TRIPS era. Since local producers now manufacture 97 percent drugs demanded by Bangladeshi consumers, market may get unstable. Drugs that already have their patents expired are not likely to cause abrupt price changes.

For market concentration, there is a chance that smaller firms may become unprofitable and lose their market share. Bigger firms are likely to get a bigger grip on market as they have the technological knowhow and ability to invest in research & development to produce new drugs.

They are more prepared for TRIPS waiver phasing out after LDC graduation. The pharmaceutical market is already quite concentrated in Bangladesh as the top 20 companies together account for a close to 90 percent of market share. Foreign multinationals currently hold 9.4 percent of the industry. Their share is expected to grow in post-TRIPS era as government will be forced to make changes in legal framework, allowing them opportunities to invest and do business at more liberal terms.

As regards the changes in legal framework, there needs to some significant adjustments. Currently, the **Patent and Designs Act, 1911**. provides patent for only 16 years. A TRIPS-consistent regime will require a 20-year patent life instead. So, the law requires an amendment. As it stands, Bangladesh does not provide patent for medicines if they have not been produced domestically for four years. This will also have to be extended to 20 years, regardless of production status. Also, Bangladesh does not provide patent for foreign medicines, domestic producers can produce patented foreign medicine if they want. All patents for foreign medicines are being currently being ignored under the exemptions allowed by the TRIPS-pharmaceutical waiver.

Another change that is imminent after graduation is the amendments to the National Drug Control Ordinance, which currently does not offer multinational companies to operate without a production facility in Bangladesh, with collabouration of another Bangladeshi pharmaceutical firm. If a drug has three close substitutes available in the domestic market, they are not allowed to be imported either. Imported medicines cannot be advertised under current regulations. These provisions may have to change to remove discriminatory practices against the multinational pharmaceutical firms. They will also have to be provided with protection for test data and formulaic information for imported drugs, which have to unveiled mandatorily according to current law.

Overall, the legal changes for consistency with TRIPS will have to include: i) protection of patented pharmaceutical products and processes for 20 years; ii) opening mailbox and activating patents; iii) allowing single ownership of firms and investment by multinational firms; iv) granting marketing approval for imported items; v) allowing import drugs items even if they are manufactured locally; vi) distribution and sales of imported drugs even if the owner firm in question does not have any production facility in Bangladesh; vii) providing protection for test data and formulaic information; viii) provision of cash-subsidy on pharmaceutical exports or Active Pharmaceutical Ingredients (API).

Therefore, adjusting to the conclusion of the TRIPs Waiver could be a significant undertaking for Bangladesh. It is important to undertake a sector-specific detailed assessment to analyse all relevant implications. Such a study should also be able to gather information on the nature of production and exports (e.g. by patent status) to offer relevant policy recommendations. There is often the argument of seeking an extension of the TRIPs waiver for Bangladesh beyond the graduation on the ground that this not a purely trade issue, rather this is a public health issues for

which the Doha Declaration indicated certain flexibilities. As part of the preparedness for LDC graduation, the pharmaceutical industry and the implications of forgoing TRIPS waiver will require serious attention.

Quite apart from the impact on the pharmaceutical industry, one other implication needs to be recognized. In fact, there are two exemptions for LDCs under the TRIPS Agreement. One is general exemption and the other is related to pharmaceutical products. The general exemption exempted the LDCs from implementing all substantive TRIPS obligations, such as providing and ensuring various Intellectual Property Rights (IPRs). It will remain in force until 01 July, 2021, which is very likely to be extended further as it happened twice in the past. The main objective of the general exemption is to allow LDCs time to develop their IP regimes through enacting laws and enhancing enforcement capacities.

Though Bangladesh has enacted several IP laws or amended the previous ones, in most cases enforcement is still very weak. This is partly due to capacity constraints and partly due to economic unaffordability. For example, copied books and software are being widely used with affordable prices taking the advantage of exemption from the IPR obligations.

However, after the graduation from the LDC status, Bangladesh will be required to maintain and enforce all IP laws very strictly for providing IP rights. Enactment of new laws will also be necessary to provide IP rights in new areas, such as Layout Designs of Integrated Circuits, Undisclosed Information.

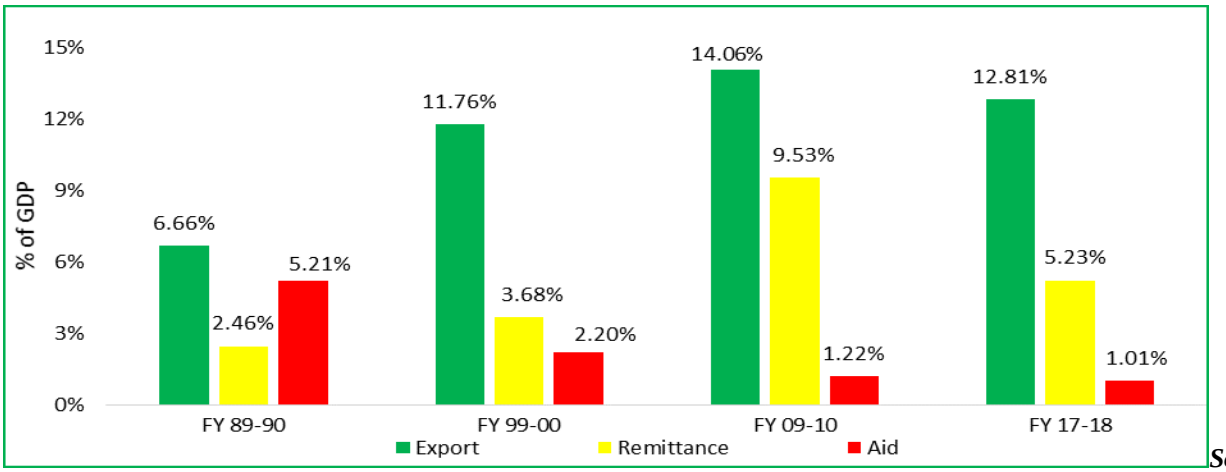
3.5. Impact on ODA

Although the impending fall in the amount of Official Development Assistances in post-LDC era for Bangladesh has been pointed out by several critiques, it is important to remember that Bangladesh's dependence on foreign aid has declined tremendously from more than 8 percent of GDP in the early 1980s to just above 1 percent in 2018. Instead, the country welcomes foreign direct investment (FDI). Despite the fact that a number of development projects are currently being funded by development partners, the share of foreign aid has steadily kept falling over the past four decades as the economy grew and along with it domestic savings, exports and remittances showed dynamism (Figure 3.2).

A noteworthy fact about the official development assistance (ODA) is that the highest recipients are not always LDCs and in fact have been dominated by non-LDC countries. Various geo-political factors and pressing issues (such as wars and conflicts, refugee crisis, natural disasters, potential returns from investment, ability of any government to return loans, political stability of a country, etc.) are considered by development partners before disbursing any assistance. Figure 3.3 shows that for all of net ODA inflows in 2014, 2015 and 2016, there were only 3 LDCs (Afghanistan, Ethiopia, Tanzania) among the top ten ODA recipients. Bangladesh accounted for only 1.53% of net ODA receipts during these years. Even big developing economies like Turkey

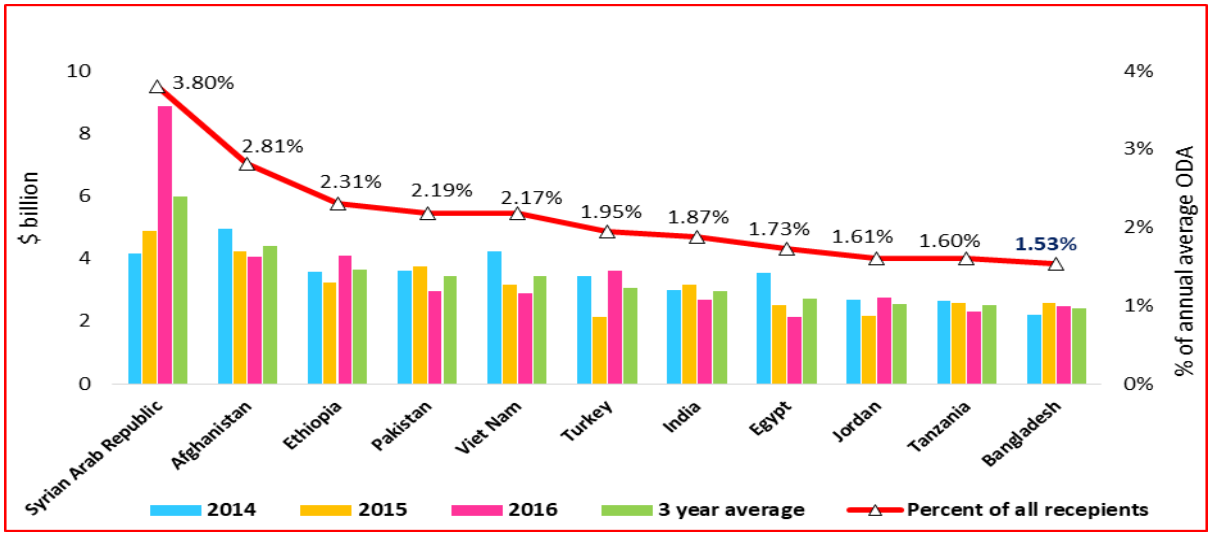
and India enjoyed higher share of ODA than Bangladesh. Therefore, Bangladesh should not have too much concern about drastic fall in ODA inflows after LDC graduation. As mentioned earlier in the report the World Bank uses its own income classifications of countries in granting concessional loans. Furthermore, providing LDCs with equivalent to 0.15–0.20 percent of donor countries' GNI as specified in the Istanbul Plan of Action adopted at the IV UN Conference on the LDCs in 2011 has never been materialized. Therefore, LDC status did not have much relevance regarding disbursing of foreign assistance. The trends in aid allocation would rather suggest that recipient countries' historical and bilateral relationships with donors are an important determinant of ODA.

Figure 3.2: A Tale of Three Decades; Share of Export, Remittance and Aid as percent of GDP



Source: Based on ERD data

Figure 3.3: Top 10 ODA Recipients and Bangladesh [2014 to 2016]; Net ODA Receipts (in $billion), from all DAC Donors



Source: Based on OECD data

Another important factor that should be noted is that grants and concessional loans received from such countries like Russia, India and China and many other emerging donors are not included in the ODA statistics. These are a significant source of development financing for Bangladesh. Most of the foreign investment received in mega-infrastructure development projects and initiatives in pursuit of achieving 2030 agenda of sustainable development goals came as bilateral and commercial loans. These indicate a shift in the capacity of the government in undertaking big investment projects and repaying loans.

Along with availability of ODA, it is also important to consider absorptive capacity. Underutilization of aid has been a regular phenomenon of Bangladesh's fiscal management. The accumulation of foreign assistance in the pipeline has risen to about a staggering $50 billion. While complex procedural requirements and donor conditionalities could be problems in utilizing aid money, delays in project preparation and implementation are also an important factor for not being able to fully utilize the currently available assistance. Given this trend in aid utilisation, many would argue that availability of aid should not be a major concern for Bangladesh.

However, it should be borne in mind that conventional sources of funding are going to cost more in the future. This has already begun well before LDC graduation. Bangladesh's higher borrowing costs are associated with the accession from lower-income group to lower-middle-income group and not related to LDC graduation. Bangladesh, having moved to lower-middle income group, is no longer eligible for World Bank's most concessional IDA loans, with a typical interest rate of 0.75%, with longer grace period and other more relaxed terms. Instead it can apply for less concessional IDA gap loans[20]. ADB is now only offering market-based loans with LIBOR rates. JICA has been the first major donor agency to increase concessional interest rate from 0.01 percent to 1 percent. Two major non-DAC governments that have financed infrastructure development in recent years, China and India are charging 2.4 percent and 1 percent, respectively. Borrowing from domestic sources is much costlier option as the government has to pay a staggering 9 percent plus interest rates on national savings certificates for public borrowing and loans from private Banks. While the reduced prospect for low cost financing is an issue, it would have taken place sooner or later regardless of LDC-graduation.

To summarise, the prospects of ODA, LDC graduation is unlikely to have any major impact. The LDC status is not a significant determinant of ODA inflows as many non-LDCs are major recipients of foreign assistance. Furthermore, a huge building up of committed resources in the aid pipeline means absorptive capacity is a huge problem for Bangladesh instead of fund availability. It is true that cost of foreign financing is on the rise but that is not because of LDC graduation. The sustained economic growth over the past decades means Bangladesh has moved

[20] The typical interest rate charges on IDA Gap loans are 2 percent. World Bank's concessional interest rates are generally of four types: (a) IDA only (national per capita income cut-off level currently of less than $1,165); (b) IDA gap (applicable for countries with income above the cut-off level for more than two years); c) IDA blend (improved creditworthiness as considered by the World Bank); (d) IBRD (complete graduation from IDA and eligible for IBRD loans).

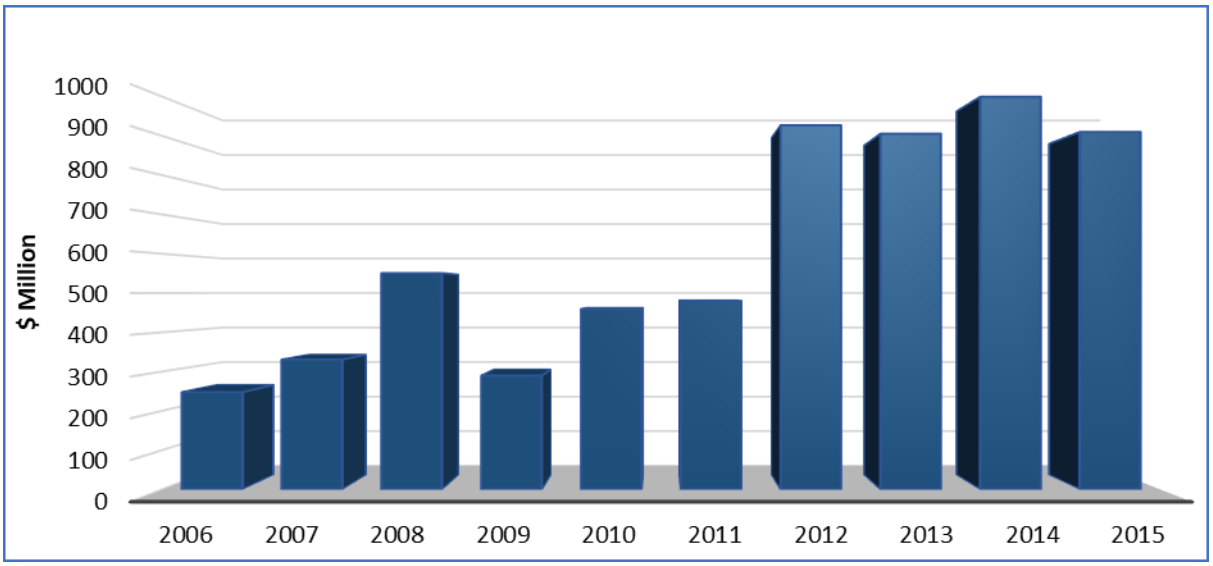
up into the lower-middle income group of countries as per World Bank classification, which is usually associated with higher interest rates. Finally, Bangladesh tends to rely significantly on borrowing from domestic sources for public expenditure. These are much more costlier sources than the available ODA. An improved domestic resource mobilization capacity can greatly help with public sector resource management.

3.6. Impact on Other Trade- related Support Measures (Aid-for-Trade and others)

While preferential trade access provides significant benefits to Bangladesh and other LDCs, other trade related international support measures (ISMs) have not been so effective due to their narrow scopes, vague formulations and non-binding clauses, unequal distribution of preferences, and slower pace of operationalization. Given this, the post-graduation era is not going to cause too much of a problem for Bangladesh.

Aid for Trade is an issue of interest. The global Aid for Trade trends seem to suggest LDCs do receive some considerable funding. Bangladesh has received increasingly higher amount of Aid for Trade support in the past years, and the assistance provided have been utilised in improving infrastructure and building human assets for trade. As shown in Figure 3.4, between 2012 to 2016, Bangladesh on average received around $935.54 million support as Aid for Trade. Energy sector was the most prominent recipient (38.34 percent) during that time, followed by transport and storage (23.25 percent), and agriculture (15.10 percent). But these amounts are not very significant compared to the size of the GDP or amount of support that is necessary for improving trade related conditions in Bangladesh.

Figure 3.4: Aid-for-Trade Received by Bangladesh Over the Years



Source: Aid for Trade at a Glance 2017: Promoting Trade, Inclusiveness and Connectivity for Sustainable Development, OECD/WTO 2017

It needs to be kept in mind that Aid for Trade remains part of ODA and AfT allocation is done using the same principle of aid allocation. As a result, Bangladesh does not have to worry about any potential consequences of AfT. In the coming years, Bangladesh may seek to obtain more resources to trade facilitation and build trade negotiation capacity. These areas will be key in promoting trade competitiveness and securing new export markets. Bangladesh may engage with the WTO to ensure greater assistance in this respect as the country makes the transition toward non-LDC era.

3.7. Other Impacts

Apart from these major points of impacts, there are a plethora of issue that will have to change in post-graduation era. Most of them are likely quite negligible changes. Nonetheless, there are some issues which should be approached with caution and requires detailed preparation.

Funds for Global Climate Change

Currently there are 29 international implementing agencies, 21 multilateral funds and 7 bilateral funds or initiatives active in the field of climate change financing (UNCTAD, 2016). LDCs, and developing Countries vulnerable to natural disasters, with very low Economic Vulnerability Index (EVI) are qualified to receive support from these sources. Although Bangladesh has better EVI than other LDCs, geographical location of the country makes it a disaster-prone area. Therefore, it is eligible for receiving funding from most of these. LDCF of United Nations Framework Convention on Climate Change (UNFCCC) is the Only special climate change fund for LDCs. With the help of this mechanism, Bangladesh is currently implementing National Adaptation Programme of Action (NAPA). Graduating from LDC will mark an end to receiving direct assistance from LDCF.

The Bangladesh Climate Change Trust Fund (BCCTF) has received support from around the globe and disbursed close to Tk 3,200 crore on various projects between FY 11 to FY 17. The Bangladesh Climate Resilience Fund (BCRF), which is managed by World Bank, has accumulated a fund of $1 Billion with the help of ADB, IFC and IBRD. Both the BCRF as well as the BCCTF pre-allocated 10 percent of their total funding in order to support grassroots and community level adaptation to climate change. The Palli Karma Sahayak Foundation (PKSF) is the chosen agency to manage these funds. To implement adaptation and cut carbon emission, Bangladesh is also eligible to receive assistance from the Green Climate Fund (GCF) which is set up under UNFCCC. However, only two agencies received approval for support out of 54, as other public-private entities lack administrative capacity or transparency to meet the high standards of GCF funds. Similar problems have been faced by other LDCs, LMICs or developing countries.

Scale, accessibility and availability of climate change and adaptation funds have been rather uncertain for LDCs and developing countries. The disbursement of funds has been largely concentrated and not all eligible countries receive necessary supports. As an LDC, Bangladesh currently does not have to meet internationally agreed obligations to pursue mitigation efforts.

Rather, its efforts are more inclined towards developing resilience against climate change related impacts. In post-graduation era, Bangladesh will have to compete with other LDCs and developing countries by showing convincing reasons for the continuous inflow of ODA in climate change funds. It will also have to start following obligations on carbon emission and pollution. Limited institutional and human capabilities may negatively affect Bangladesh's ability to compete for funds against other eligible recipients. Therefore, improving fund management capacity, ensuring transparency and international standard of fund management will become key challenges in this matter. Bangladesh may face international backlash if corruption, or lack of transparency smears reputation in handling climate change funds.

Changes in Membership Charges

LDCs are provided concessions in several membership charges, particularly in the bodies of the UN. Bangladesh's contribution to the UN will rise significantly in post-graduation era. The UN considers gross national income, population, and debt burden in determining the percentage of the total budget each member state must pay to fund general UN operations. That budget is known as the "regular budget."[21] Bangladesh currently pays 0.01 percent of the UN regular budget (around $0.53 million in 2018). This will become 0.07 percent in post-graduation era. Bangladesh currently enjoys a 90 percent discount on annual budget of UN Peacekeeping (UNPK) operations and pays 0.001 percent of total costs.[22] This will rise by 13.8 times.

The Bangladesh Mission in Geneva may no longer be eligible for a reduced/preferential rate of rentals of chancery premises. Current LDC specific UN preferences for fringe benefits such as travel costs, free air-tickets, accommodation supports will no longer be available in post-graduation era. LDCs also receive some research-related financial supports in the form of scholarships, fellowships for capacity development, travel grants, research funds. Graduation will mark and end to all these supports.

In addition to these, subscription for UN agencies such as UNDP, IFAD, UNVO, UNEP, UNICEF, UNFPA, UNODC, UN-WOMEN etc. will also increase. In WTO, Bangladesh currently receives free services from the Advisory Center on WTO Law (ACWL) to enhance its capacity in addressing any dispute settlement process. In post-graduation era, Bangladesh will have to renew membership annually. Bangladesh's voluntary contributions to the UN Funds and Programmes will also increase considerably. While all these hikes are significant in absolute terms, they amount to small amounts of money and the government is not likely to have any issue regarding them.

The preceding discussion on possible impacts of LDC graduation is summarized in Box 3.1

3.8. Conclusion and the Way Forward

[21] Methods of determining UN regular budget can be found here: https://undocs.org/en/a/res/70/245
[22] Methods of determining UNPK Budget can be found here: https://www.un.org/en/ga/search/view_doc.asp?symbol=A/RES/70/246

The loss of trade preferences would be a major area of immediate concern for Bangladesh arising from LDC graduation. But it does not mean all is lost. The EU is the most important market for Bangladesh. Bangladesh must have proactive engagements with the EU right from now. First and foremost, the political processes within UN systems and its development partners generally emphasise smooth graduation and transition processes, although there is not much clarity regarding how other international support measures, such as bilateral and multilateral aid and technical assistance, can be of help and will actually be made available. Given EU rules, Bangladesh will remain eligible for duty-free market access until 2027. But Bangladesh can request for a longer transition period citing the reasons for being overwhelmingly dependent on EU trade preferences and the need for securing SDGs through a trade-led economic development mechanism.

Although under the existing rules Bangladesh might not qualify for GSP Plus, the European Commission's current GSP regime will apply until 2023 and is likely to be replaced by a new regime. Therefore, a proactive engagement with the European Commission and other stakeholders must be undertaken to influence any future changes in the EU GSP regime that would benefit Bangladesh. In light of the fact that several other LDCs are in the process of graduation, coordinated efforts could enhance the chance of graduating LDCs having an extended transition period from EBA and/or more liberal GSP Plus provisions including continuation of the EBA ROO for graduating LDCs.

In the run up to graduation from LDC status, serious attention should be given to consider all options for securing favourable market access in the EU mobilising capacities for immediate proactive engagements with all relevant stakeholders. Striking a free trade agreement with the EU could also be an option. Although the market size in Bangladesh may appear small, it is growing rapidly. Given the medium-term growth outlook, Bangladesh's economy is set to grow to more than US$500 billion by 2025. According to recent PricewaterhouseCoopers projections, Bangladesh will be the 28th largest economy by 2030, in terms of GDP measured in purchasing power parity (PPP) dollars. Another important feature that makes Bangladesh an attractive partner for a free trade agreement is its robust economic growth accompanied by a highly protected trade policy regime. A growing market shielded by high tariffs provides preferential partners with a large competitive advantage (over others who do not have such preferential access) and thus should be of interest to many countries.

A bilateral trade arrangement with such a major partner as the EU will be a mammoth undertaking for a country such as Bangladesh, which has very limited trade negotiation capacity and does not have any bilateral free trade agreement with any other country. But the recent successful outcome of the EU-Vietnam FTA shows that striking such a deal is not impossible. Bangladesh should invest in its trade policy and negotiation capacities while at the same time identifying its defensive interests including any major reforms and concessions that bilateral trading partners might ask while negotiating a free trade deal. This should help with the

preparatory process and in many cases specific requests can be made to development partners for capacity-building and preparatory support in the relevant areas.

Another issue that requires serious attention is the scope of extending the transition period in other preference-offering countries. Only the EU allows LDCs to have an extended transition period of three years (i.e. although Bangladesh will graduate in 2024, it will enjoy EBA benefits until 2027). Bangladesh can engage with other major preference-providing countries such as Australia, New Zealand, Canada, Japan, South Korea, etc. to follow the EU example of considering extended transition period. Challenging international trading environments and global commitments for attaining SDGs can used as rationale for making such an argument. It needs to be pointed out that for graduating countries on previous occasions did not pursue this case as they could not utilise GSP facilities in those markets. In addition, Bangladesh should request India to continue with SAFTA LDC preferences even after graduation as the Maldives were granted the same.

The withdrawal of special and differential treatment of WTO rules for LDCs will present substantial challenges for Bangladesh. The implications of all relevant WTO agreements will have to be understood clearly and required actions will have to be undertaken. Obligations under the WTO's Agreement on Subsidies and Countervailing Measures (SCM) would imply that policies such as cash assistance will unlikely be viable. Bangladesh must clarify the matter very strongly that not all cash assistance can be considered as subsidies. This is because, in most cases, the scheme is open to only those exporters who do not access duty drawback and bonded warehouse facilities. Nevertheless, there is a genuine subsidy component in the cash assistance programme[23], removal of which could generate competitiveness pressure for exporters.

For agriculture, Bangladesh's one principal objective will be to get admitted into the group of net food importing developing countries (NFIDCs) to maintain certain flexibilities on agricultural subsidies and domestic support for the sector. In the case of services exports, as the LDC waiver has not been effectively operationalised, Bangladesh does not stand to lose from graduation. However, Bangladesh could argue that all graduating LDCs should be allowed to continue as beneficiaries until the end of the waiver period.

The phasing-out of the TRIPS waiver is likely to have some major implications for Bangladesh. In this context, specific technical studies need to be undertaken to assess the nature and severity of the likely implications and preparatory measures that need to be undertaken. There is also lack of information (e.g how much patented drugs Bangladesh produces and exports, the extent of the use of copyright materials in academic institutions, areas where reforms will be needed to make

[23] Domestic content subsidies are prohibited under WTO rules. But a major portion of our cash subsidy to exports actually goes to deemed exports (yarn and fabrics) to the RMG sector.

the domestic legal regime compatible with the WTO system). The opportunity of seeking an extension of the TRIPs on the ground of public health issue also needs to be explored.

As regards the impact of the availability of the overseas development assistance (ODA), the evidence seems to suggest that LDC graduation is unlikely to be a major factor. However, Bangladesh must improve efficiency and absorptive capacity of in utilising aid resources. If foreign resources are going to cost higher, it would be important to mobilise more resources for domestic financing, for which Bangladesh must strive to raise its tax-GDP ratio.

While the WTO-led initiative of Aid for Trade has gained a lot of attention, it remains part of ODA and as such additionality of such resources will critically depend on the overall size of global aid budget itself. Bangladesh will have to look for enhanced financial and technical assistance for trade facilitation and trade negotiation capacity building. These areas will be key in promoting trade competitiveness and securing new export markets. Also, Bangladesh should build a greater coalition with other LDCs and developing countries and engage with the WTO to ensure greater flows of assistance in this respect as the country makes the transition toward the non-LDC era, accommodating wide-ranging trade-related adjustments.

Box 3.1: Summary of Impacts due to Graduation under various WTO Agreements and Regional Trade Agreements

Impacts	Summary
1. Impact related to Agreement on Subsidies and Countervailing Measures (SCM)	• The biggest impact Bangladesh is likely to face is for using the prohibited or actionable subsidies, or any subsidies that are provided upon export performance. The government of Bangladesh currently provides cash subsidies on exports. Since this is done to incentivize exports, it falls under the prohibited subsidies. Post-LDC, this might become a serious issue when other WTO member file complaints against Bangladesh.
2. Impact for Agreement on Agriculture	• Agricultural subsidies in terms of price support will have to be completely avoided in the future. Bangladesh provides agricultural input subsidies on fertilizers, seeds and fuels used for irrigation, and also on farming techniques, farming production, agricultural export, agriculture processing, etc. As a result, after graduation, Bangladesh might have to undertake lowering bound tariff rates for agricultural items. • If Bangladesh is admitted to the group of NFIDC, maintaining export subsidies on agricultural products until 2030 would be a possibility. In any case, the relative significance of agricultural exports in Bangladesh's total exports is quite small and thus any relevant changes in the policy issues are unlikely to generate a significant impact.
3. Impact on General Agreement on Trade in Services	• The impact of LDC-graduation on GATS agreement and trade in services are going to be negligible as Bangladesh is not a service export-oriented economy as of yet. • However, about 25 countries have announced certain services areas for special treatment of LDCs and so Bangladesh needs to remain vigilant in the WTO if any opportunities arise, especially in sectors like IT, banking and financial sector,

	transportation, tourism and hospitalities.
4. Impact on Other Agreements	• Impact of LDC-graduation on other WTO agreements are likely to be minimal, or non-existent for Bangladesh. The Agreement on TRIMs does not have massive LDC-specific implications for Bangladesh. • But successfully graduating out of LDC status will surely require reviewing provisions carefully and reevaluating options for investment-related engagements in the private sector.
5. Preparedness for TRIPS Waiver Phase-Out	The primary impact of TRIPS waiver phase-out is likely to be felt in the pharmaceutical sector of the country. • Local firms may face cutbacks in production and export of patented generics because that will be the violation of TRIPS argument. • The potential impacts of graduation can also affect prices of drugs and market concentration, and they both can affect each other. • There is a chance that smaller firms may become unprofitable and lose their market share • Bangladesh does not provide patent for medicines if they have not been produced domestically for four years. This will also have to be extended to 20 years, regardless of production status. • Amendments to the National Drug Control Ordinance: which currently does not offer multinational companies to operate without a production facility in Bangladesh, with collabouration of another Bangladeshi pharmaceutical firm.
6. Impact on ODA	• Bangladesh's dependence on foreign aid has declined tremendously, as the economy grew and along with it, domestic savings, exports and remittances showed dynamism. Moreover, most of the foreign investment received in mega-infrastructure development projects came as bilateral and commercial loans. • However, it should be borne in mind that conventional sources of funding are going to cost more in the future. This has already begun well before LDC graduation. Bangladesh, having moved to lower-middle income group, is no longer eligible for World Bank's most concessional IDA loans, with a typical interest rate of 0.75%, with longer grace period and other more relaxed terms.
7. Impact on Other Trade- related Support Measures (Aid-for-Trade and others)	• It needs to be kept in mind that Aid for Trade remains part of ODA and AfT allocation is done using the same principle of aid allocation. As a result, Bangladesh does not have to worry about any potential consequences of AfT.
8. Other Impacts	*Funds for Global Climate Change:* Graduating from LDC will mark an end to receiving direct assistance from LDCF. In post-graduation era, Bangladesh will have to compete with other LDCs and developing countries by showing convincing reasons for the continuous inflow of ODA in climate change funds. *Changes in UN membership charges:* Changes in Membership Charges, especially in the bodies of the UN, will increase in post LDC era.

Chapter 4

Post-Graduation Globalization Trends and Challenges

4.1. Overview

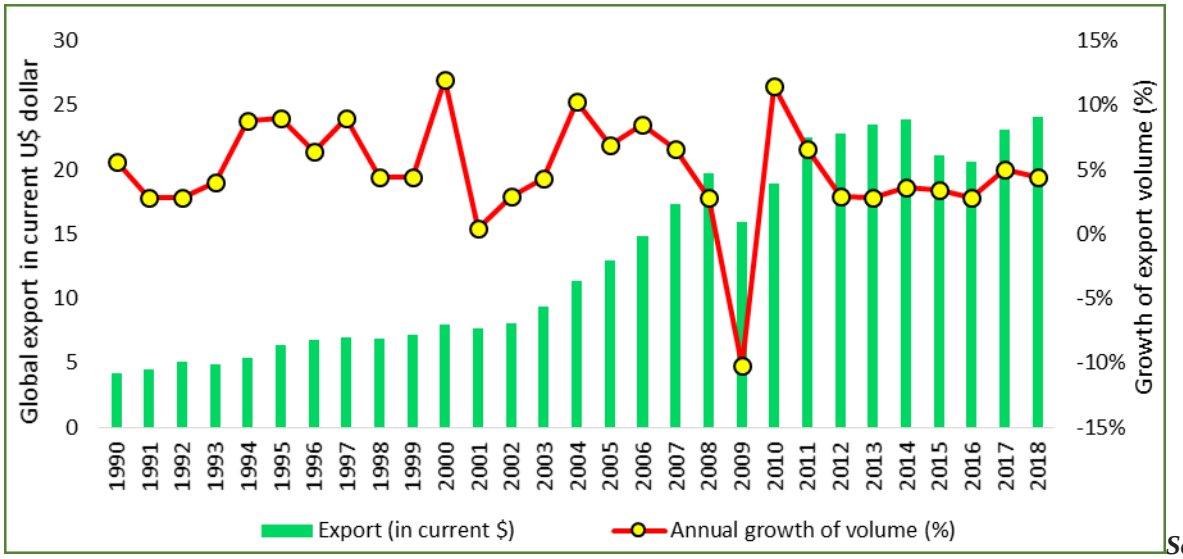
LDC graduation is unquestionably one of the greatest national achievements and a worthwhile international recognition of substantial progress made by Bangladesh over past few decades. The graduation can also be seen as a giant step towards Bangladesh's deeper economic integration with the global economy without the need for specific support measures granted for the poorest and most vulnerable countries. But, when seen from the context of the current global environment, this accomplishment could not have come at a more inconvenient time. The global economy has embraced a series of unfavourable events in recent times. Once unanimously accepted norms of the international trade regime and globalization are now subject to unjustified scrutinies giving rise to potential adverse consequences for many developing countries that for a long period considered international trade as an engine of economic growth and prosperity. Amongst others, trade slowdown, and faltering economic recovery, rise of economic protectionism, uncertain fate of the multilateral trading system, and the potential impact of automation on employment in the upcoming industrial revolution have now become important concerns facing trade-led globalisation. This chapter attempts to discuss those issues and their implications for Bangladesh. In addition, the chapter sheds light on transition period experiences of former LDCs from relevant perspectives.

4.2. Global Economic Context – Global Recovery, Output and Trade Trends

In many respects, Bangladesh is graduating out of the LDC status at a time when global economy is going through uncharted waters with prolonged levels of inauspicious forecasts. And, the unprecedented slowdown in international trade is one consequence of the unfavourable circumstances. Since the Global Financial Crisis of 2008 and subsequent recessions in the Western developed countries, global trade has experienced extremely sluggish growth trends. Although there were indications of early recovery in immediate post-recession years, the pace of revival has been rather slow in more recent years. Until now, Bangladesh is one of a very few countries in the world that has remained relatively less affected by the fluctuations of international trade. But, as LDC graduation looms large and an increased level of integration with a competitive system of global economy is on the cards, there are reasons for Bangladesh to be more attentive to global economic and trade landscape.

Even after more than a decade after the financial crisis, the world economy is still struggling to return to its pre-crisis era export growth trajectory. Global trade has been on the rise since the inception of the World Trade Organization, and its successful early negotiations for trade liberalization. Withstanding cyclical recessionary impacts, global trade saw a steady average expansion of above 6 percent per year between 1990-2008. This growth is even higher if we consider it from 1980 (about 6.5 percent annually). But the scenario changed drastically since the financial crisis. The average annual trade volume growth for 2012-16 has been 2.9%, which is less than half the comparable growth achieved during the 1990s and 2000-08. If IMF projections turn out to be correct, 2012–21 would be the slowest decade of trade expansion since the second world war.

Figure 4.1: Global exports of goods and services (1990-2018)



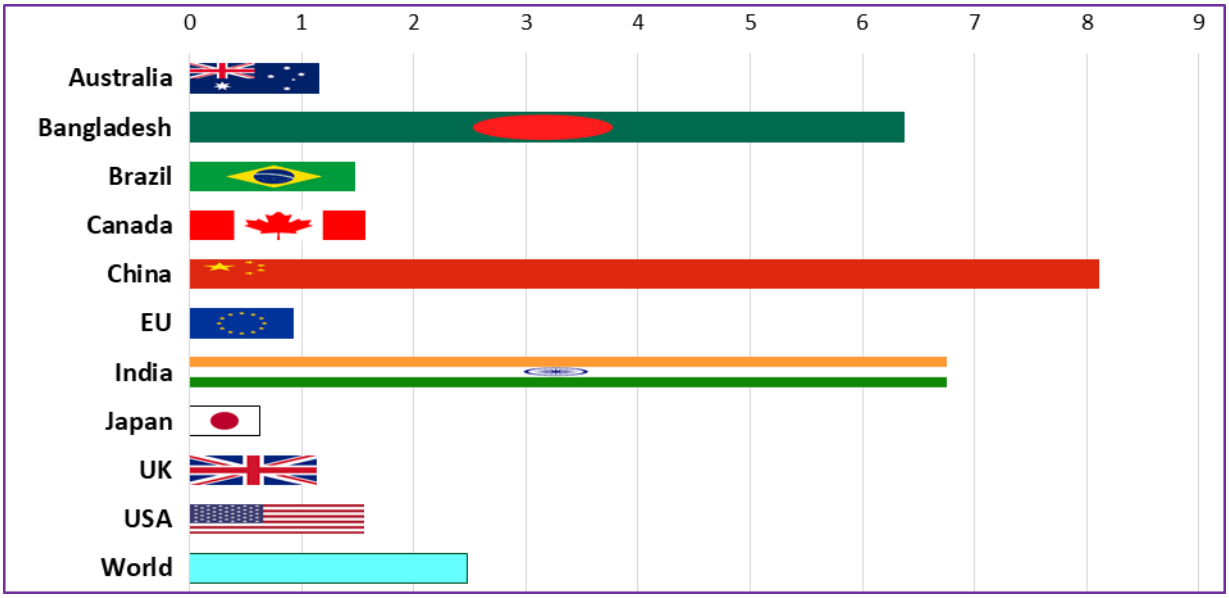
Source: Based on IMF data

The magnitude of this slowdown is somewhat hidden underneath when the data on 'real' or 'volume' growth is used (Razzaque, 2017). Measured in current US dollar terms (shown in Figure 4.1), world exports of goods and services contracted by an astounding $2.8 trillion in 2015 (from 2014) and then again fell by about $500 billion in 2016 (from 2015). That is, in value terms, global exports of goods and services in 2015 declined by almost 11 percent followed by another 3.5 percent drop in 2016. As a result, global exports in 2016 were just roughly around the same level as in 2008. The situation has slightly improved in 2017 and 2018. While they are much appreciated tailwind in a difficult time, trend of slow growth persists strongly across the globe.

The rate of economic recovery has been largely uneven. Figure 4.2 shows the rate of average annual growth of real GDP since the crisis for few selected economies. The rate of GDP expansion appears to have peaked in some major economies and growth has become less

synchronized. After decades of fast growth, China has started showing signs of sluggishness with lower than 7 percent GDP growth since 2015. Other large developing economies including Brazil, Mexico, Turkey have started to slow down. Developed economies have been the prime victims of the financial crisis and the following recession. Although USA has indicated stronger recovery (more than 2.5 percent growth rate) in last couple of years, other advanced economies are far from it. OECD countries including Japan, Canada, Australia, UK and the EU are growing at lower than 2 percent rate per year. Overall, the global economy has increased at rate of only 2.47 percent between 2008-2018.

Figure 4.2: Average annual growth rate of real GDP (%) for selected countries (2008-2018)



Source: Based on IMF data

This trend of weak global trade expansion has adverse effects on LDCs as well. Securing stronger participation of the poorest, most vulnerable countries (including the LDCs) in world trade has been a longstanding international development objective. Although some decent progress was made regarding this during the 2000s, consequences in the aftermath of the 2008 financial crisis have reversed the trend. During 2000–2008, LDC exports grew almost five-fold, from U$ 43 billion to about U$ 200 billion. But in 2015, LDC exports stood just about the same as in 2008, only at US$201 billion (Razzaque 2016). Moreover, export-to-GDP ratios of LDCs have been on average about 25 percent since 2008, substantially below the developing country average of about 35 percent.

Even under these critical periods of global trade, Bangladesh has maintained a stellar performance to secure growth in merchandised exports. In fact, Bangladesh became the best performing LDC in terms export by a distant margin. During the 1980s, Bangladeshi merchandise exports grew by $0.5 billion. In the following decades, that expanded rapidly: by $3.4 billion in the 1990s, followed by another $10 billion in the 2000s; and then a staggering $20

billion between 2010 and 2018, when the total exports crossed $36.6 billion mark. Bangladesh managed to attain a radical structural shift in exports, moving towards manufacturing exports (RMG) from traditional agricultural goods (Jute, tea, fish etc.). This is something that most countries from sub-Saharan Africa and Latin America have been unable to do despite having more favourable foothold in the race and better starting positions. Between 1990 and 2016 while world merchandise exports grew at a compound annual average rate of 5.8 percent, Bangladesh managed to grow twice as fast. Since 1990, Bangladesh has seen a four-fold rise in its share in world exports in comparison with 1.75 times achieved by LDCs (Figures 4.3 and 4.4)

Figure 4.3: Evolution of Bangladeshi Merchandise Exports

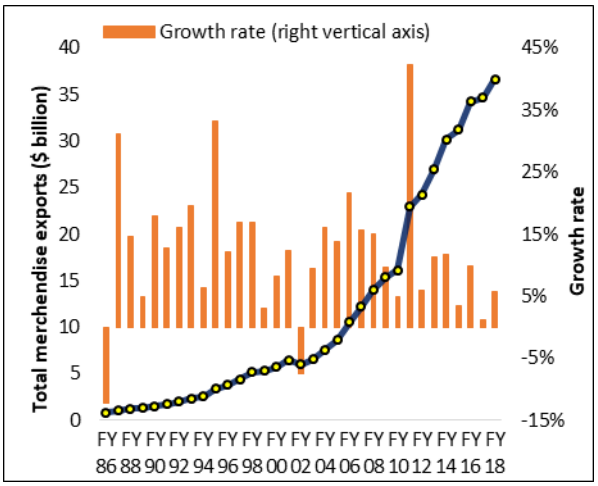
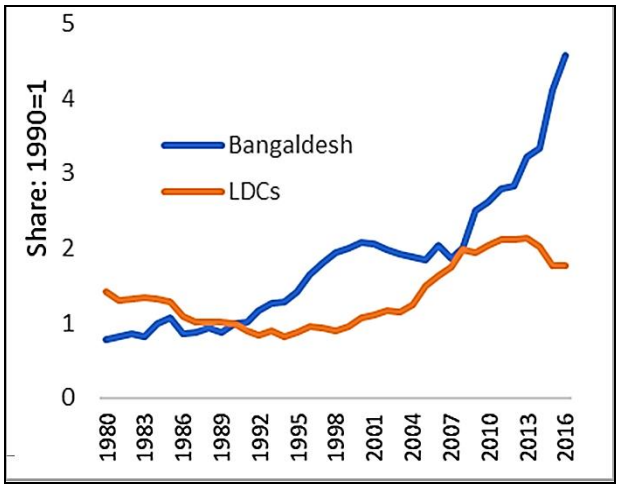


Figure 4.4: Bangladesh and LDCs Growth of Share in Global Exports (as %)



Source: Razzaque (2017)

Despite these improvements, Bangladesh is not immune to the existing trends of the global market. Especially, uneven expansion of the global economy has strong implications for the local exporters. The developed economies are most prominent export destinations of Bangladesh. Their difficulties in attaining full-speed recovery is costing export prospects of local manufacturers. Primarily, weakened economic progress of the European Union, Canada, Japan and Australia result into weaker aggregate demand in those markets. If significant unemployment or underemployment persist in those countries, consumers spending will fall. Even though Bangladesh's export performance remained impressively resilient and increased in the midst of all the turmoil, the country cannot materialise its full potential with a slowed-down global economy.

Another important consequence of the slow global economy and international trade is the potential impact in achieving sustainable development goals (SDGs). The 2030 Agenda for SDG provides an elaborate role – both direct as well as cross-cutting – for international trade in achieving many specific goals (SDGs) and targets. Trade appears directly under seven goals

concerning hunger, health and wellbeing, employment, infrastructure, inequality, conservative use of oceans, and strengthening partnerships (Razzaque 2016). Compared to MDGs, the SDGs go further in clearly identifying the 'means of implementation', where trade has been given a prominent role. The ability of trade in creating wealth through value addition and then magnifying it through the value chains, makes it an enormously powerful component in pursuit of attains inclusive growth.

As we already know, LDCs suffer from structural capacity and other constraints which restricts them from participating in meaningful value addition. International trade offers them an opportunity to attain inclusive and sustainable development in the LDCs. As LDCs become further integrated with global value chains, their contribution in trade increases. This allows them to have access to crucial foreign exchange and capital stock for future investments. According to the World Investment Report 2014 of UNCTAD, developing and least developed economies face an annual investment gap of $2.5 trillion per year in meeting the SDGs. Therefore, it is high time for the global community to consider actions that will revive global trade flows and enhance the participation of LDCs including Bangladesh in improving the situation.

4.3. Coping with Rising Protectionism in Developed Countries

In a period when global economy is already suffering from post-recession inertia and failing to pick up strong pace of recovery, surge of protectionist trade policies has emerged as a new obstacle in path of promoting inclusive growth through international trade. While a number of cyclical components such as weak prices of energy or metal items and several structural factors like consolidation of global value chains has contributed to the persistence of global trade slowdown, protectionist trade interventions by advanced economies has also played its part in the process. In fact, the arrival of economic protectionism in the worst performing decade for trade growths has cornered any efforts of international commerce liberalisation.

In general sense, protectionism refers to act of shielding domestic industries of a country by imposing higher tariffs on imports, or by imposing non-tariff barriers such as import quotas and numerous red-tape restrictions. While apologists of economic protectionism argue for saving domestic producers, businesses, and workers of the import-competing sectors foreign competitors, protectionist measures are inherently distortionary by nature. They harm welfare of consumers, impedes international trade and incentivises uncompetitive sunshade industries to continue production. It also encourages countries to retaliate against each other by causing trade disputes to full-scale trade wars.

To understand what fueled the current specter of global protectionism, which has become evident with implementation of "economic nationalism" in some western democracies, it is important to understand how global trade has affected other economic ingredients across the globe. There is a clear consensus among economists about trade liberalisation improving wealth and income, and

free trade benefiting a country as a whole. It is equally true that both protectionism, and system of free trade creates winners and losers. While protectionism ends up handpicking winners amongst industries and jobs which are more influential to governments, free trade picks its winners based on competition. Jobs and industries that are less competitive cedes to more competitive foreign entities. But far more importantly for any country, freer trade means cut in consumer prices, increased wealth, higher productivity and higher efficiency in allocation of resources. Setbacks of less competitive or uncompetitive businesses in a country gradually open up investment and expansion opportunities to more competitive industries of the same country. This mostly translates into concentrating efforts on items in which the country has comparative advantage. For Bangladesh, a shift towards liberalisation during 1980's and 1990's from heavily protectionist regime resulted into a boom in more competitive RMG sector and overtook jute from being the prominent export item.

Inevitably, free trade can have adverse distributional consequences and can affect certain population groups. Addressing this will require effectitve policy measures from governments. In case of some western democracies, progressive trade liberalisation displaced significant amount of manufacturing job overseas, to more competitive workers of emerging economies. If substantial number of losers from global trade are left to the hands of markets without adequate government interventions, they are more likely to remain unemployed or underemployed, and become increasingly reliant on social protection. Without investing in workers, developing human capital and enhancing productivity of workers, the gains from free-trade give asymmetric rise to wealth inequality. And when this inequality is translated into socio-political system, it creates faction and aversion towards global trade. For example, according to the estimates of Economic Policy Institute of United States, the North American Free Trade Agreement has resulted in 682,000 jobs to be lost or displaced from USA.

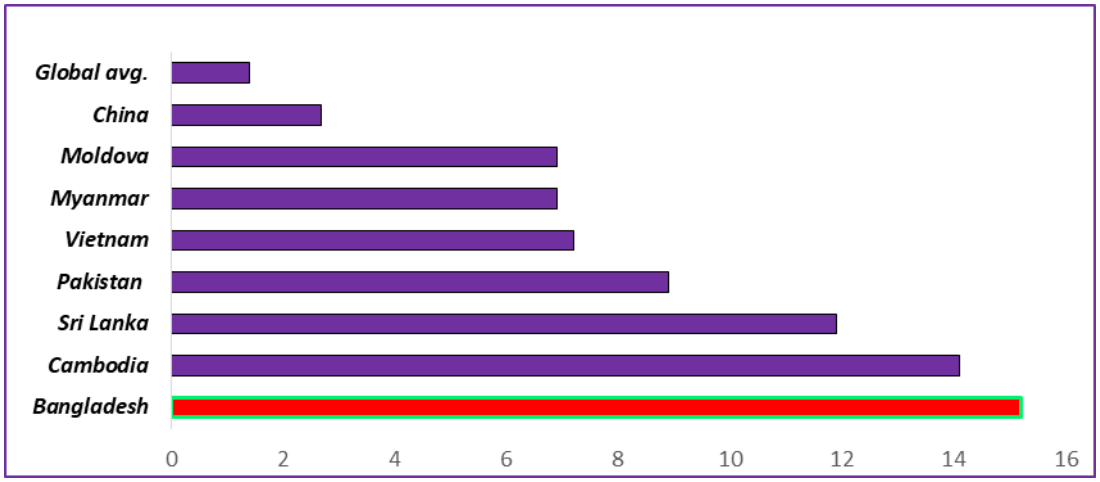
Such results may create mass-disapproval about free-trade agreements and the constituencies with highest job displacement become increasingly skeptical about future trade agreements. In addition to that, several political-economic factors, such as role of private financial institutions in global economic meltdown of 2008, use of scarce public funds in commercial bailouts and slow pace of economic recovery have resulted in groups of disaffected population worldwide. High income-inequality and stagnant real wages in many advanced democracies added fuel to the fire. And the refugee crisis across the globe exacerbated this situation with rise of anti-immigration political narratives. Under these circumstances, populist political ideologies that identify globalisation and free trade as threatening component for national economic integrity received public appreciation. And the dismal state of affairs has accentuated when anti-globalist agendas resulted political upheavals in elections of Europe and the USA.

The globalisation backlash resulted from global financial crisis has also fueled a rise in protectionism, with different countries implementing various trade-restrictive measures. Most protectionist measures in the existing global system proliferated and persisted since the crisis. At that period, both advanced and developing economies started applying protectionist options to

safeguard their economy from global fluctuations. The WTO estimates a total of 1,583 trade restrictive measures have been imposed by G20 countries since November 2008, and only a quarter of these measures have been removed. These restrictions have had a detrimental impact on trade flows, particularly for the world's poorest countries. According to another estimate (Evenett & Fritz, 2015), LDCs have incurred a loss of $264 billion in exports as a result of these protectionist measures. In other words, the value of LDC exports could have been 31 percent higher if post-crisis protectionism had been avoided.

Just like other LDCs, Bangladesh has also been affected by these protectionist measures. According to the global trade alert (2019), there are 57 protectionist interventions that harm Bangladeshi export initiatives. On the contrary, Bangladesh experienced only 29 interventions since the crisis from foreign governments which were liberalising in nature or promoted trade. In more recent times, two largest economies of the world got embroiled in retaliatory trade disputes, starting with USA imposing a series of high tariff on Chinese imports. But Pew research center (2018) pointed out, Bangladesh pays highest amount of tariff on total import value in the US market (Figure 4.5). This is because, Bangladesh does not receive any generalised system of preference in US market, and the MFN tariffs set by US authorities for the most prominent Bangladeshi export (RMG) is high.

Figure 4.5: US duties as a percent of the total value of imports



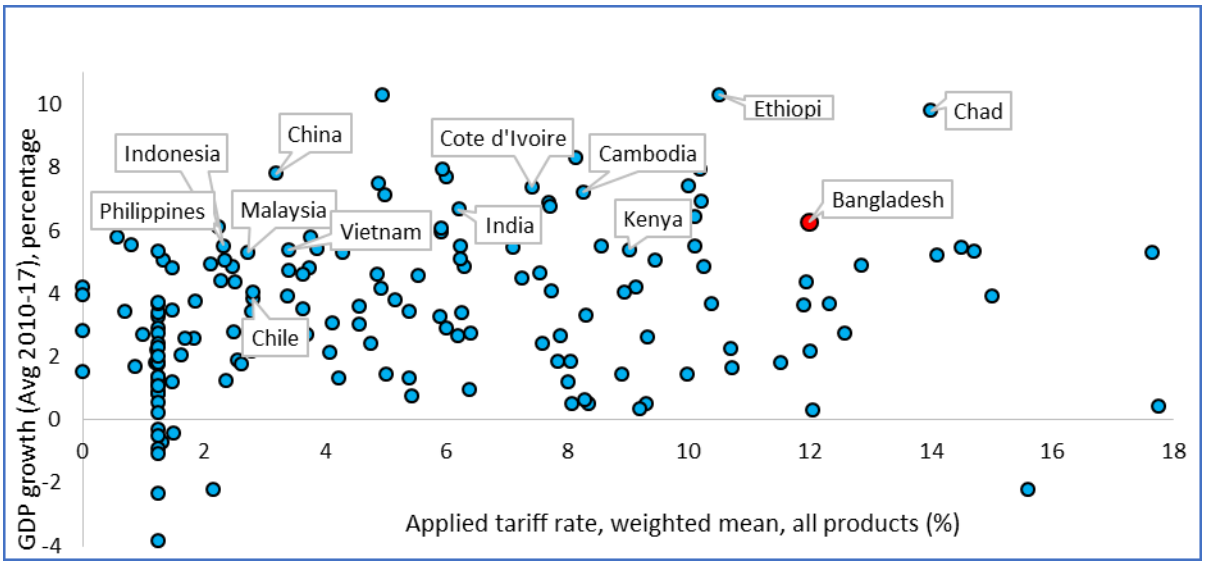
Source: **Pew Research Centre (2018).**

As the global economy goes through a difficult time, there is a significant possibility that the increasingly anti-trade political rhetoric could spin out of control, with damaging consequences for the international community. The European Central Bank assumes that global trade will grow at slower rate in 2019 than previous year and rise of protectionist trade regimes is a primary contributing factor behind that situation. Consequently, Asian Development Bank has also issued warnings about slower continental growth over the next two years due to softer demands and persistent trade tensions (2019). Nonetheless, the future prospects are not necessarily bleak for

Bangladesh. Small scale trade disputes between advanced and major developing economies may divert investments to alternative sources of emerging markets. Such trade spats between big economies creates short or medium-term demand for suppliers who are competitive enough to deliver under difficult circumstances. If local exporters are keen and competitive enough to attract some of those attentions, it may end up giving Bangladesh an additional boost to exports during the LDC transition, while some preferential market access are still available. However, in case of a full-scale global trade war, all countries, including Bangladesh, may end up losing valuable share of exports and face further trade slowdown.

Despite progress, Bangladesh itself continues to impose high trade protection. One important policy question is whether trade protection helped GDP growth. On the surface it would appear that high GDP growth co-existed with high trade protection. Indeed, as shown in Figure 4.6, impressive economic growth has been accompanied by a much higher level of tariff protection than all other successful developing countries including China, India, Indonesia, Malaysia, the Philippines and Vietnam. During the period 2010-17, except for just one (Chad), there was no country that had applied tariff rate higher than Bangladesh (approximately 12 percent) and achieved average growth rate higher than Bangladesh. However, this simple correlation is misleading. The two major drivers of growth have been the RMG exports revolution and the surge in foreign remittances both of which were associated with an open trade and factor market regime. Indeed, there is evidence that trade protection-based manufacturing performed worse than export-oriented manufacturing. Similarly, job creation was better in export-oriented RMG than trade-protected domestic industries (Ahmed and Sattar 2019). Furthermore, as explored in detail in chapter 5, large trade protection has created a major anti-export bias that has hurt export diversification and export growth.

Figure 4.6: Economic Growth and Tariff Protection (2010-2017)



Source: (Razzaque, 2018); based on world bank data.

In addition to the need to lower trade protection to promote export diversification, with LDC graduation on the cards, trade liberalization will become an issue of concern. Bangladesh will have to trim down certain protectionist measures for remaining consistent with core WTO trade agreements. This will be a test of prudence of policymakers and adaptiveness of domestic industries. However, in a world scenario where protectionism is rising, Bangladesh cannot single handedly cut own tariff rates and open the market for other parties. This calls for strong trade negotiations and engaging in meaningful regional or bilateral trade agreements. Discussions in the following sections will shed light on these issues.

4.4. State of Multilateralism; Rise of Regional and Plurilateral Trade Agreements

International trade has been the primary engine of facilitating income and accumulating wealth around the world in the post-WWII period. The goal of progressive trade liberalisation has been universally accepted and pursued under the singular body of the multilateral trade regime (GATT since 1948, which became WTO in 1994) for nearly seven decades. During this period, trade restrictions have been significantly reduced, non-tariff barriers have been cut drastically and applicable tariff rates have been slashed down to record low levels worldwide. Nonetheless, nearly twenty years after the World Trade Organization's establishment, trade multilateralism has reached at crossroads. With Doha Development Agenda (DDA) negotiations going on since 2001, WTOs role, relevance or competency in greater trade liberalisation and providing relevant governance are under increased scrutiny. At the same time, with proliferation and deepening of regional trading arrangements (RTAs), control over new or broader horizon of international trade rules are leaning towards individual economies. Therefore, the organization is becoming sidelined and its members are showing increasingly greater reluctance in multilateral trade discussions. As LDC graduation approaches alongside a stalled multilateral trade regime, Bangladesh is also confronted with a challenge of expanding exports through outside multilateralism- through bilateral and regional trade negotiations.

Under the current structure of global trade governance, most countries including Bangladesh are involved in two broad types of trading arrangements. The first one is multilateral trading arrangements and processes led by WTO. While the rests fall under broad definition of preferential or regional trading agreements (PTAs or RTAs). When RTAs contain several signatories across continents, they become mega-RTAs (such as proposed Transatlantic Trade and Investment Partnership). Another type of arrangement- the plurilateral agreements are negotiated under facilities of multilateral system, but they do not include all members of that system. When WTO members are given choices to agree or decline a new set rules on a voluntary basis, it becomes a plurilateral trade agreement. Besides, there exists many other forms of trade cooperation arrangements that are often reflected in motion of unions and agreements between countries. These instruments could include expression of intent for increased trade and investment flows, initiating trade negotiations, greater cooperation involving the private sectors,

etc. with many of the provisions being non-committal in nature. However, any legally binding trading arrangements must be consistent with WTO rules.

Although, the WTO is based upon a key principle of non-discrimination between signatories (i.e. not favouring one trading partner over another), one major exception allows enabling members to sign RTAs. Three sets of WTO rules will have to be observed before entering any bilateral or regional trading arrangements. These rules relate to the formation and operation of RTAs (including customs union and free trade areas) covering trade in goods (Article XXIV of the General Agreement on Tariffs and Trade 1994), regional or global arrangements for trade in goods between developing country members (the Enabling Clause), as well as agreements covering trade in services (Article V of the General Agreement on Trade in Services). The WTO requires that, RTAs must cover '***substantially all trade***' unless they are under the Enabling Clause. However, there is no quantitatively specified definition for substantially all trade.

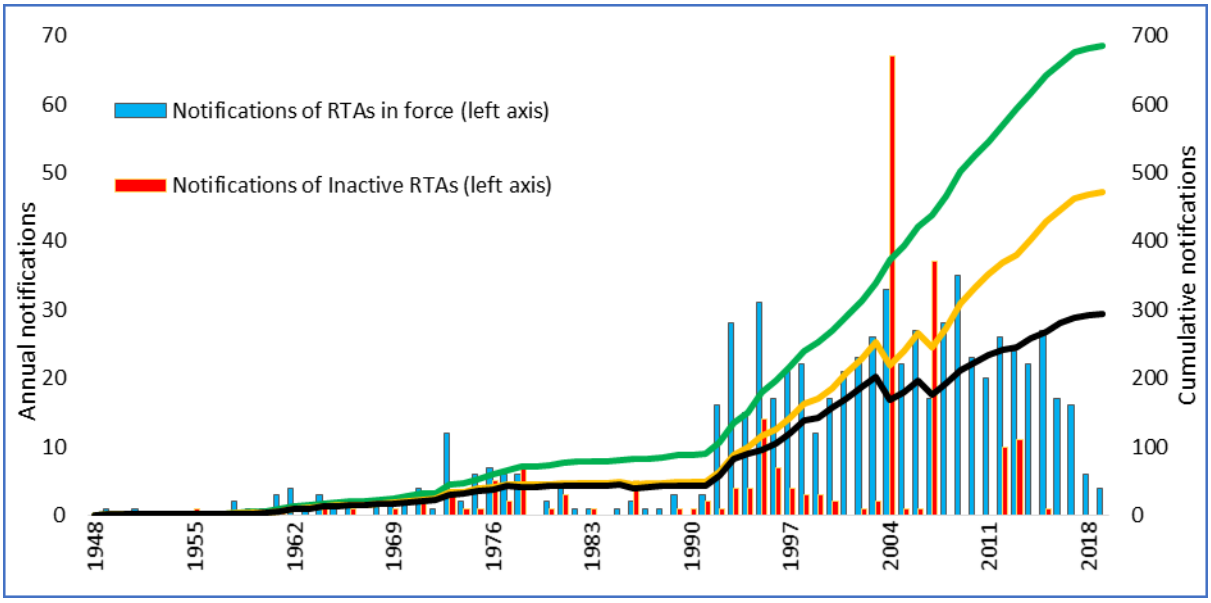
When the WTO was established after Uruguay round (1986-1994) negotiation of GATT, it was meant to be the parliament of international trade, dictating terms through an all-encompassing system of multilateralism, and achieve a freer world for global economy that pushes for globalisation agendas through negotiation and progressive liberalisation of trade barriers. On the other hand, it was also meant to be the enforcer of the regime by using its even-handed dispute settlement mechanism and making sure members abide by the binding agreements. The WTO managed to bring countries from both developed and developing economies on the same table and provided equal footing in negotiation process. It also managed to acknowledge the supply side constraints of LDCs and necessity of special & differential treatment (S&DT) for most vulnerable countries of the world, through necessary provisions in binding agreements.[24] In order to streamline the system of global trade, the WTO provided a singular stage where the weakest countries can represent their stakes in global trade as the strongest one.

Despite all these improvements, the multilateral trade negotiations have been moribund since the beginning of this century. When the center piece of the WTO - the Doha Development Agenda (DDA) negotiations started in 2001, signatories envisaged concluding the round within three years. From the traditional subjects such as agriculture and industrial products to the new generation issues like services, investment, competition and the environment-the original mandate of DDA negotiations included numerous topics relevant to both developed and developing world. After 18 years of being a virtual stalemate, this is now the longest running trade round in the history of the multilateral trading system, with no clear direction in future. These stagnant conditions have frustrated members up to such extents that most countries are now redirecting their negotiation resources in conducting bilateral FTAs or RTAs.

[24] These S&DT preferences are given at Annex 5.A.

In the earlier stages of global trade negotiations, regionalism was thought to be a faster way of reaching multilateralism. Many protectionist and small economies preferred taking smaller steps towards trade liberalisation by opening domestic markets to regional or prominent trade partners first. The WTO also encouraged members in RTA, by setting up basic frameworks or laying down groundwork for agreements with binding agreements like GATT, GATS, TRIPS. This trend of trade liberalisation in early 1990's saw a boom in regionalism. And global trade started picking up pace, which continued an average growth of 6 percent till 2008. Figure 4.7 shows how RTAs proliferated over the years. In many cases, countries aggressively signed a number of RTAs with their trading partners, which resulted in some redundant agreements. As of April 2019, there were 289 physical RTAs in force, while the WTO has been directly notified about 686 RTAs (active and dormant). Currently, G20 country members of the WTO often interpret it as covering 80 percent of all trade between the RTA partners (South Center, 2008).

Figure 4.7: Active and Inactive RTAs (1948-2019)



Source: Based on WTO data

This proliferation of RTAs soon emerged as a stumbling block to multilateralism itself. One of the biggest problems with regional, preferential and bilateral trade deals is that they discriminate against excluded members. As a result, every time an RTA is signed, excluded members face substantial preference erosion. For example, when the USA signed African Growth and Opportunity Act (AGOA) and offered DFQF access for numerous products originated from Sub-Saharan Africa, it caused a discrimination against non-African LDCs, including Bangladesh. It made African products more competitive in the US market, at the expense of products from excluded parties. These DFQF access from AGOA resulted in a boom of apparel industry in southern African countries. While a more competitive RMG exporters from Bangladesh pay more than 15 percent tariff on exported value. As we can see, discrimination caused by RTAs are

distortionary in nature, as more competitive producers are forced to pay a high MFN tariff, while uncompetitive actors are made competitive artificially and get access to greater markets.

Apart from being trade distortionary, regionalism can even become detrimental for trade liberalisation. Instead of expanding trade, large number of trade arrangements between different countries can even slow it down. Signing multiple FTAs creates complication in applying domestic rules of origin, a situation termed as the "spaghetti bowl effect". Such phenomenon leads to discriminatory trade policy, as the same commodity is subjected to different tariffs and tariff reduction trajectories for the purpose of domestic preferences. With the increase in FTAs throughout the international economy, the phenomenon has led to paradoxical, and often contradictory outcomes amongst bilateral and multilateral trade partners. In addition to these issues, engaging in RTAs or FTAs require a combination of significant resources including skilled negotiators, trade experts, legal professionals, academics, unison of different private industries, time and money. These are scarce in most small and vulnerable countries. That being the case, LDCs rely more on successful negotiations from WTO as it is not possible for them to engage in many regional agreements,

It can be also noted that, the proposed mega-regional arrangements such as The Comprehensive and Progressive Agreement for Trans Pacific Partnership (CPTPP), flagrantly discriminate against every single excluded actors of global trade, especially emerging economies and all LDCs including Bangladesh. In many cases, mega-regionals agreements are politicised, and uses trade as a weapon to enforce geopolitical hierarchy. Therefore, in several ways, the original multilateral dream of trade liberalisation is facing dire consequences from multiplication of RTAs. And the WTO's agenda of economic integration is being thrown in the backseat, with countries showing reluctance in making meaningful multilateral progress and providing more efforts in RTA negotiations. Therefore, regionalism has eventually turned into stumbling block in the path of multilateralism and greater international integration, instead of helping the original cause.

Although the WTO is going through virtually a stalemate with both developed and developing countries being protective about their interests and repeatedly declining to make necessary concessions about individual demands, enforcement of the Trade Facilitation Agreement (TFA) came as a glimmer of hope. Despite being a plurilateral agreement, it has potentials to increase global merchandise export by $1 trillion per annum. This deal is considered one of the most important achievements of WTO since establishment. As explained in earlier chapter, TFA makes especial considerations for LDCs with technical supports, longer implementation window and softer provisions. After ratifying the TFA as the 94th country in 2016, Bangladesh is currently at the implementation stage of this agreement. Overall, Bangladesh has been tremendously benefited from WTO provisions. Supports through LDC specific enabling clause, S&DT preferences, TRIPS waiver, services waiver have been discussed earlier. The country also

served twice as the coordinator of the LDCs in Geneva in 2007 and in 2011, leading negotiations on behalf of the group, championing their interests in various areas including greater market access, increased flexibility in the development of multilateral trade rules, and targeted assistance for improving trade infrastructure among others.

Despite the challenges, rules-based multilateralism is an indispensable global public good (The Commonwealth, 2015). Through its trade rules and binding dispute settlement system, the WTO-led multilateral trading system formally provides a level playing field to all its members. There is an urgent imperative for those who wish to promote a sustainable, inclusive, equitable and dynamic global rules-based multilateral agenda to rally forces. In the absence of a strong and effective multilateral trade regimes, LDCs and small actors of global economy are the biggest losers. The Istanbul Programme of Action (IPoA) of 2011-2020 for LDCs set a target to double the LDC share of global exports by 2020. This share was 1.05 percent at the beginning of IPoA implementation, then declined to 0.96 percent in 2015. And the average share of LDC export in global economy between 2009-2016 was only 0.91 percent (UNCTAD, 2018). Without a successful multilateral leading progressive trade liberalisation, global trade cannot recover post-recession flows, and objectives like export expansion from LDCs cannot be achieved.

Against these backdrops, Bangladesh will now have to look for the practical options in securing its trading interest. Instead of traditional policies, medium to long-term negotiation stances from the position of a developing country will have to be devised. It might require actively engaging in the negotiations by forming coalitions with other graduating LDCs or non-LDC developing countries in various areas of interests. On the contrary, Bangladesh will also have to catch up the advanced and tactically strong emerging economies by actively engaging in regional or bilateral free trade agreements. The standstill of multilateralism could many more years to result in meaningful outcomes. In the meantime, Bangladesh must ensure a strong footing in global market by strengthening exports and securing favourable terms of business with prominent partners.

The Government of Bangladesh has received proposals for potential bilateral trade arrangements from several countries including China, Malaysia and Thailand in recent years. Some analysts suggest that under the current unorthodox protectionist approaches by the United States and some European governments to trade negotiations, Bangladesh would be an attractive country for a potential bilateral deal. Post-LDC Bangladesh may have to negotiate a trading arrangement with the EU along with the possibility of an FTA with the post-Brexit United Kingdom. But as it stands today, Bangladesh neither has the adequate capacities or experiences for strong trade negotiations and signing comprehensive FTAs. Therefore, the Ministry of Commerce is currently emphasizing on developing trade negotiation capacity and practical experience of that matter.[25]

[25] Currently, the government is in the process of negotiating FTA with Sri Lanka, which is a relatively small country with the current bilateral trade flows (exports plus imports) with it being small (around $160 million). Despite a

4.5. Industry and Trade Under the Fourth Industrial and Technology Revolution

As Bangladesh is set to graduate out of the LDC status, a global scale fourth industrial revolution powered by cutting-edge technology is also on the horizon. As civilization went through a progressively rapid set of changes, new scientific developments made unthinkable economic growth possible, helping to close down the productivity gaps between advanced and developing world. It also inundates the old institution and methods of production in the process. As the 21st century world prepares for a new age economic transformation, mechanisation or automation has reached a new height emerging as a serious problem for job creation. Previously what was thought to be simple "creative destruction" or process of 'industrial mutation' that incessantly revolutionizes the economic structure from within, is now showing signs of emerging problems with sheer magnitude thereby disrupting the predictable trends of global economic output and livelihoods. Automation happens to be one of those issues that just might arise as an obstacle in the path of achieving inclusive growth. Like any other country of the world, Bangladesh also needs to be cautious and well-prepared about approaching this future.

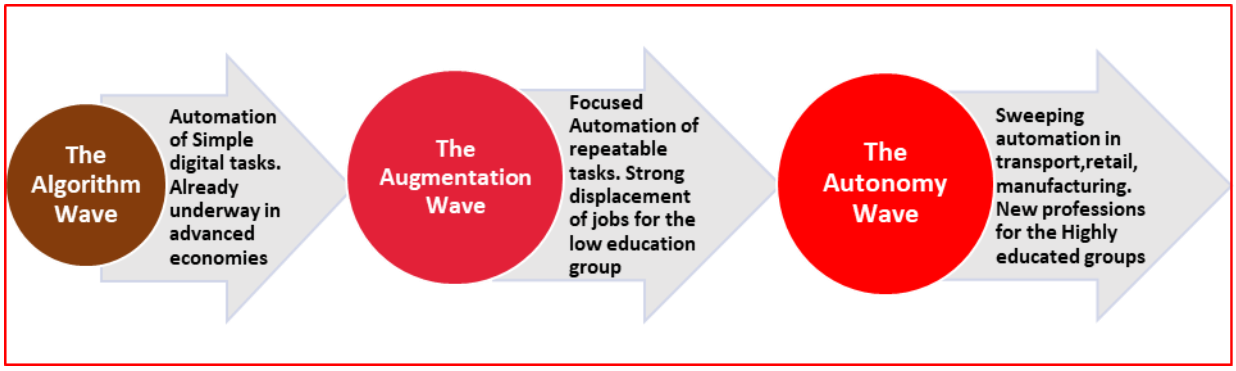
Technology has dramatically altered what it means for many people to work. But, at times technological advancement also comes with automation. This is however not something new. Notable previous impact goes back to the 19th century when handloom and other jobs of British textile workers were replaced by mechanised production. Innovations in production line automated many industrialised jobs during the boom of industrial production in the 1920s. Automation in the new millennium however comes with a completely different dimension. Jointly with the rise of artificial intelligence (AI), developments made in machine learning process and availability of industrial robots make new the waves of automation completely different from anything the world has ever experienced. While automation will result in more efficiency, faster production, lower costs, increased outputs and it is meant to make life easier for people by completing mundane and repeated tasks, its absolute ability to displace human jobs across manufacturing, agriculture and service sector poses unprecedented threat for global employment levels.

According PricewaterhouseCoopers estimations, job displacement, or automation is likely to impact economies around the world in three phases (Figure 4.8). The first stage, termed as the algorithm wave, has already started in developed economies. Powered by highly functionable algorithms, simple digitalised tasks will be automated first. The financial, professional and technical services, and information and communications sectors are likely to be the most affected in this phase. The second phase of augmentation wave is likely to start by the end of next decade when repeated tasks in manufacturing, service and agriculture will be taken up by machines.

priori expectation of limited trade and economic gains, one reason for pursuing this FTA is to develop some capacity to deal with the challenges of more demanding negotiations in the future.

Finally, the third phase is expected to start in the 2030s. Use of AI and robotics are going to be widespread during this phase. With driverless transports, self-checkout counters, and completely automated factories becoming more omnipresent around this time, chances are that more than half of traditional jobs will be destroyed for good. According to recent research by the McKinsey Global Institute, up to 800 million workers globally will lose their jobs by 2030, to be replaced by robotic automation.

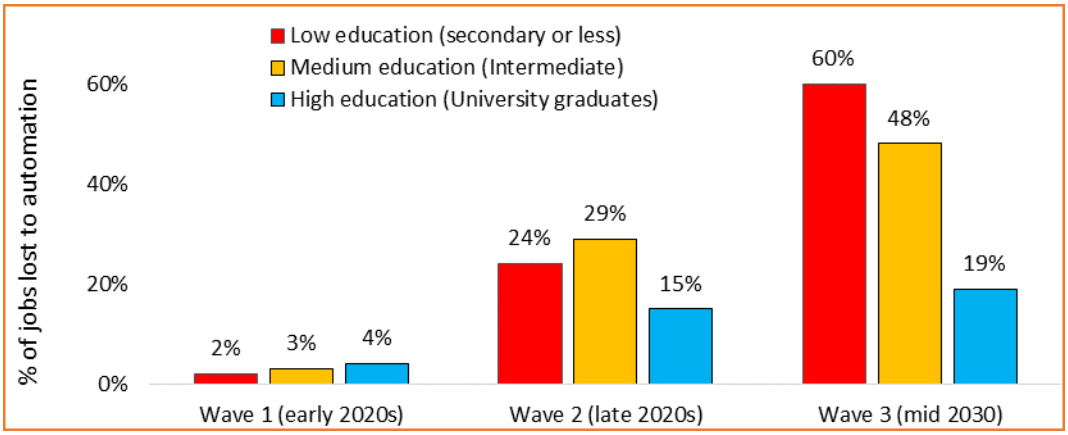
Figure 4.8: Three Stages of Automation in the Fourth Industrial Revolution



Source: Based on PwC, 2018.

It is important to note that the impact of automation is likely to be different for gender and educational backgrounds. In the first two phases of automation, women are likely to be hit harder. In the algorithm and augmented phase, jobs that are considered female friendly, such as repeated tasks in service or manufacturing sector will be replaced quickly. By the third phase, impact is thought to be wider, affecting all major fields and professions in the economy. Jobs that are traditionally held by men will be affected more in the third phase. For educational background, staying relevant to the with new innovations is key to alter impacts of automation. But it does not guarantee an employment when machines take over. By the augmentation and autonomy stages, groups of people with low education will be hit harder (Figure 4.9). Close to 60 percent of jobs held by low- educated groups may not survive till the third phase.

Figure 4.9: Impact of Automation on Job Displacement by Education Level



Source: Based on (PricewaterhouseCoopers, 2018) ***and OECD stats***

University graduates, and especially graduates from science, technology, engineering, and mathematics (STEM) fields are more likely to remain protected. Technological development will also result in the generation of a plethora of new jobs and novel professions. It is now quite clearly understood that commercialised use of machines will focus on displacing jobs where robots will have comparative advantage over human beings. But many jobs will require experts in maintaining or overseeing these machines. While jobs like elementary school teaching, health professionals for growing populations, therapists, social workers, strategists and more than else-jobs requiring empathy and creativity will be more powerful than they are now. But again, these jobs and new professions are likely to have an unequal distribution based on educational background.

Bangladesh's economy is also showing signs of the first stage of automation. There is some evidence of the defeminisation of the manufacturing labour force is currently underway. The apparel industry in Bangladesh was marked by a spectacular rise in the share of female wage-workers in the formal manufacturing sector. For quite a while, it was widely considered that women constituted around 80 percent of RMG workers. According to the (LFS) labour force survey (2017), the female shares of employment in the sector fell from 57 percent in 2013 to 46 percent in 2016. This is line with the findings of economists Sheba Tejani and William Milberg (2010), who pointed to a global defeminisation process as a result of industrial upgrading. Their research shows that capital intensity in production, as evidenced by shifts in labour productivity, is negatively and significantly related to shifts in the female share of employment in manufacturing.

As women traditionally dominate the export-oriented apparel production workforce, increased capital intensity will result in a greater number of their job losses. There can be several factors behind such phenomenon. Women's concentration in repetitive task is one reason, which are most vulnerable to automation. Technological up-gradation could also favour men in the short-

run as a result of women's weaker educational background in general. Another possibility is that, unlike men, women have been willing to work very long hours, resulting in their rising share in jobs; automation tends to affect most those jobs that involve multiple shifts on a routine workload (Razzaque & Dristy, 2018).

As things stand, Bangladesh needs to generate 2 million jobs every year to accommodate new entrants to its labour force. Some 41 percent of the workforce is still in agriculture, whose share in the GDP is only 15 percent and shrinking. Underemployment, youth unemployment are already major issues in the country, with close to 29 percent of youth being NEET (not in employment, education or training). These mean, non-farm activities will also have to absorb the influx of labour from agriculture. Productivity growth and a rise in the formalisation of informal activities may exert further pressure on the labour market situation. In a context where the 7th Five Year Plan has set a target of increasing the sector's share in total employment from 15 percent to 20 percent by 2020, emerging evidences suggest manufacturing growth and employment generation not going hand in hand for Bangladesh. Between 2013-17, while adding more than Tk 648 billion-worth of output (in real terms using 2005–2006 prices), employment in manufacturing sector increased by a mere 0.3 million according to LFS (2017).

The stagnancy of manufacturing employment becomes more evident when we look at the RMG sector. Between 2010-2018, the sector saw a staggering 245 percent growth in export earnings (from $12.5 billion to $30.61 billion). But during the same period, growth in employment generation in the sector was only 11 percent. This slowdown of employment generation happened as local workers became more productive, and producers invested in capital intensive technologies. In the early 1990s, a million-dollar apparel exports required on average 545 workers, while in 2016, it had come down to 142.

Although it is not good news for the unemployment issue, suggesting a fall in labour absorption capacity of the sector- this change was inevitable in many respects. Without investing in capital-intensive machineries and becoming more reliant on automation (i.e. sewing bots, mechanised production line), Bangladeshi exporters can never become competitive in the international market. Comparators of Bangladesh, such as China, Viet Nam, India, and Cambodia that are far ahead in terms of lower employment intensity or fewer number of workers per unit of exported goods (ranging from for example 48 to 75 workers per $1 million garment exports compared with 142 workers for the same amount of export earnings). Apart from Cambodia, all these countries have better economy wide labour productivity than Bangladesh (Figure 4.10).

It means as export production technologies across countries seem to converge, for Bangladesh there exists enormous scope to improve labour productivity driven by more technology-intensive and labour-saving production processes. In 2016, investment in machinery per unit of labour was the lowest in Bangladesh among the major apparel exporters (only $118). Compared to Bangladesh, Viet Nam ($1,205) and China ($700) are way ahead; while Cambodia ($174) and

India ($139) were slightly ahead (Figure 4.11). If the flagship sector of Bangladesh's export is going to remain competitive in the global market, moving in the direction of comparators is perhaps unavoidable, which will further suppress its employment generation potential per unit of export.

Figure 4.10: Labour Productivity vs Employment Intensity

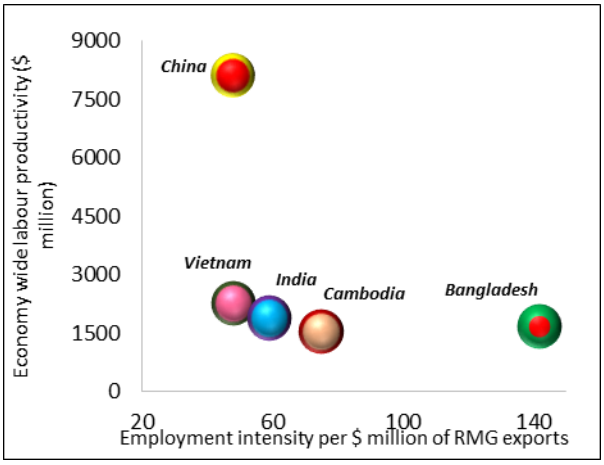
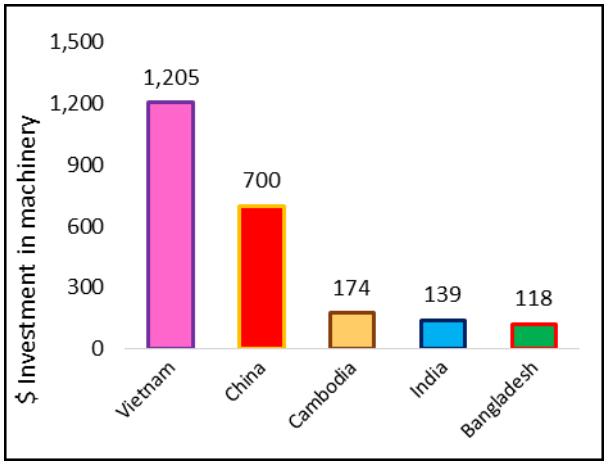


Figure 4.11: Investment in Machinery per unit of Labour



Source: (Razzaque, 2018)

Among the post-graduation challenges faced by Bangladesh, automation is perhaps the most challenging one in nature. With correct direction and planning, there is an opportunity to tackle this issue. By managing necessary institutional transformation in changing the conventional ways of developing human capital, Bangladesh can mitigate some of the challenges posed by automation. Some suggestions in this respect are:

- To remain consistent with the job creation targets of the 7th Five Year Plan, it is extremely important to realise a rapid expansion of exports through export diversification. Given the trends in production technologies, export diversification is perhaps more important than ever. Automation will affect all labour intensive exports, but an expanded range of production activities has the potential to generate new jobs.
- Automation is inevitable, and there should be no hesitancy about promoting competitiveness by supporting technological up-gradation, particularly for export sectors. In some cases, technological advancement can lead to improvements in product quality with prospects for export expansion.
- Non-export and import-competing sectors also needs to embrace more capital-intensive production techniques. Investment in machinery and equipment, as measured by import data, per unit of labour is much lower in Bangladesh, compared to Cambodia, Viet Nam or China.

- Despite ominous forecasts of employment generation, automation can open a new horizon of fast economic growth. Rapid manufacturing expansion can fuel this growth and create large number of employment opportunities. Therefore, automation can turn into an opportunity to augment growth. Bangladesh must materialise this window by persistently hitting double digit growth rates (above 10 percent) per year. Small and medium enterprises, which are critical for livelihood generation, will need support to obtain better access to technology so they can raise their productivity and competitiveness.
- In many ways, the bigger question is not "will there be enough jobs in future?", it is "will there be enough job for workers with the current skill sets in future?". Automation is likely to erode many conventional professions, or change the objectives of same professionals in future. The importance of updated curriculum in education and training cannot be overemphasised. Adapting with the forces of creative destruction requires future generations to be equipped with adequate education. In all levels of education, mandatory quantitative literacy, computing skills and basic STEM courses will become a necessity. As technological advancement will make many skills redundant in quick succession, norms like life-long educational and skill-development practices must be cultured in private-sectors.
- Transforming the social sectors to generate productive employment is another critical policy area. As investment in health, education and public social services remained low, quality of these services is widely perceived to be far from satisfactory. Careful policy attention to these sectors are a necessity in generating future jobs and developing the human capital needed to support socially coherent technological progress.
- As explained earlier, automation will lead to higher inequality with certain groups of people getting significantly worse off in the process. Potential impact on women and low-education groups must be addressed with necessary government interventions. Policies focusing on training, education and social security of displaced workers will have to be dealt with utmost priority, while progressive taxation will help to ease the rising inequality.
- Future trade policies of Bangladesh need careful evaluation. There will be temptations and political-economic interests to shield the domestic economy from import competition, capital-deepening and technological up-gradation. But an excessively protected environment could lead to mounting inefficiencies, with adverse welfare consequences.
- Finally, to enable informed policy-making, there is an urgency for comprehensive research based on quality data. Potential impact assessment of automation across industries of Bangladesh is relatively new and less explored subject. Without the availability of timely, appropriate-robust data and quality research, it will not be possible to understand the complex interactions involved in labour market dynamism, capture potential changes brought about by technological changes and suggest required policy interventions to respond those impacts.

4.6. Smooth Graduation in Challenging Times: Experience from Former LDCs

As noted in Chapter 2, only five countries have managed to graduate out of Least Developed Country status and became Other Developing Countries since the formation of LDC group in 1971. However, in terms of economic structure, these countries are quite different from Bangladesh. Among these graduated former LDCs, Cape Verde, and Samoa fall into the category of small island developing states (SIDS), while Botswana and Equatorial Guinea are countries with abundant natural resources. Equatorial Guinea is the only country to graduate under income only criterion, while the rest of the countries fulfilled two criteria of GNI per capita and HAI. All countries had weaker than desirable scores in Economic Vulnerability Index. Compared to these countries, Bangladesh is a country with huge population, is not dependent on natural resources and met graduation thresholds for all three criteria. Therefore, in essence, experiences of former LDCs are not going extremely helpful in predicting outcomes of post-graduation era. Nonetheless, they can offer several insights about how a country can maintain progress smoothly in after graduating from LDC status.

In years after graduation, all five countries have improved on Human Assets Index, while the situation of Economic Vulnerability Index improved over time. But the EVI scores are still higher than the graduation criteria of 32 or lower, suggesting that downward vulnerability remains high. Except for Equatorial Guinea, all former LDCs have maintained a steady progress in GNI per-capita after graduation. Equatorial Guinea's fall in income level can be contributed to unstable price of primary export, crude oil. Therefore, it can be said with confidence, Bangladesh is going to graduate out of LDC status with flying colors and will keep progressing in the post-graduation era in absence of extremely disruptive events.

Table 4.1 provides a comparative picture of the former LDCs through the transition period (Equatorial Guinea excluded because it graduated only in mid-2017). If we look at the few primary indicators for these countries five year prior to graduation and five year after graduation, it gives us a good idea about how LDC graduation have shaped their economic performances. A common theme for Botswana, Cape Verde and Maldives during the transition period has been a slowdown of economic growth. In the immediate post-graduation era, Botswana saw its growth cut down by half while Cape Verde by more than one third. Maldives also experienced slow growth- particularly due to the slow performance of the main export items (fish fillets and frozen fish) to key export destination (EU, Japan). Loss of DFQF status in the European market created adverse pressure on the Maldivian economy.

Table 4.1: Comparative View of Transition After LDC Graduation

Country	Reference year	Real GDP growth rate (%)	Share of ODA (% of GNI)	Tax revenue (% of GDP)	FDI (% of GDP)	Remittances (% of GDP)	Merchandise export (% of global trade)
Botswana	Pre-grad (5 years)	10.55	3.67	26.15	0.66	2.01	0.0510
	Post-grad (5 years)	5.50	2.06	17.21	1.32	1.16	0.0430

Cape Verde	Pre-grad (5 years)	6.18	15.92	21.91	6.66	13.14	0.0002
	Post-grad (5 years)	3.98	14.04	20.20	10.46	8.64	0.0003
Maldives	Pre-grad (5 years)	9.09	3.08	11.56	7.83	0.26	0.0020
	Post-grad (5 years)	7.40	1.70	18.47	12.14	0.12	0.0020
Samoa	Pre-grad (5 years)	0.43	16.44	20.68	1.73	21.05	0.0004
	Post-grad (5 years)	1.53	11.98	23.06	2.41	18.91	0.0003
Bangladesh	Average (2011-16)	6.45	1.30	8.76	1.28	9.15	0.1663

Source: (Bangladesh's Graduation from the Least Developed Countries Group, Pitfalls and Promises, 2019) ****Note: Pre-grad (5 years) = Five years before LDC graduation; Post-grad (5 years) = Five years after LDC graduation***

Despite fall in the GDP growth rate, Botswana's mining industry boomed in post-graduation era and the government maintained a high current account surplus and high tax revenue earning owing to successful diamond mining industry. The country is closely integrated with the global trade and cyclical factors are determinants of growth. But overall, the economic performance of the country has been good since graduation.

One issue that has remained historically challenging for Bangladesh is the collection of tax-revenue in terms of GDP. Evidence suggests, during preparation period of graduation, former LDCs had a high starting tax-GDP ratio. And in the post-graduation transition period, they maintained close to 20 percent tax revenue-GDP ratio. Overall, the tax revenue collection efforts of Bangladesh will need to go up significantly over the years.

An interesting issue that can be learned from former LDCs are share of ODA with respect to national income and share of FDI against GDP during the transition period. Proportion of Official Development Assistance falls against income when any country develops. Countries grow more aid independent in post-graduation era.

Apart from Cape Verde, all other four countries had a three-year grace period for preferential access, ISMs and other LDC-specific preferences. Cape Verde undertook good planning prior to graduation. The country successfully negotiated with the EU for additional two-year grace period for EBA above the original three-year grace period, and some other transition period deals with prominent trade partners like China (Bhattacharya & Khan, 2019). Malaysia and Botswana have also planned about potential negative impact of graduation. It is to be noted that only the EU and Turkey have an explicit policy for extending LDC-specific trade preferences for a transition period, the same is not necessarily true for other countries offering unilateral trade preferences (UNCTAD, 2016). For example, there are no smooth transition provisions in case of Japan's or Canada's GSP scheme. Therefore, one option for Bangladesh is to start planning for the future ahead and negotiate for transition period preferential access, with options for post-graduation trade deals or free-trade agreements with countries of interest.

All graduated LDCs have experienced stronger inflow of FDI in the post-graduation era. This has helped them to recover from early loss of preferential access. Convinced that FDI is critical

for achieving robust export growth, Bangladesh is proactively seeking FDI from all countries in the East and West. Vietnam has shown the way by becoming a dynamic export economy on the back of heavy FDI integration into the export sector (e.g. its RMG sectors is 60% FDI driven). Three strategic steps are under way to mobilize more FDI into the economy to reach a target of $10 billion by FY2024 (Table 4.2): (a) as many as 100 Special Economic Zones (SEZs) are being set up with several designated in favor of leading FDI source countries like Japan, China, India; (b) special efforts are being made to improve the business and investment climate; and (c) removing barriers to entry of FDI in any specific sectors (e.g. RMG, Footwear, Ceramics).

Table 4.2: FDI Projections for the Medium-term

	FY2018	**FY19**	**FY20**	**FY21**	**FY22**	**FY23**	**FY24**	**FY25**
US $ billion	1.8	3.2	3.5	4.5	5.8	7.5	10.0	11.4
%GDP	0.6	0.9	1.1	1.2	1.4	1.6	1.9	2.0

Source: PP2041 Projections

From perspective of Bangladesh, remittance earning has always been a matter of key interest. A strong remittance inflow helps to develop good reserve of foreign currencies, which provides significant leverage to central banks in maintaining favourable exchange rates. Small island nations and land-locked LDCs also substantially rely on remittance inflow due to lack of other exporting sectors. Former LDCs also faces problems like unemployment, underemployment, automation and inadequate working opportunities. They also faced the problem of declining significance of remittance earnings (as proportion to their GDP) Bangladesh thus needs to emphasize on maximizing the remittance earning opportunities to tackle any adverse consequences of LDC graduation.

It is essential to remember that all countries are different and likely to have their distinct versions of post-graduation challenges. But a common theme for any graduating country will be loss of trade preferences. Experience of former LDCs show why it is important to concentrate on building capacity of domestic industries and develop infrastructures to overcome headwinds of higher integration more competitive global economy. Small island nations focused on their key sources of income (tourism and related service sectors) after graduation.

Importantly, Bangladesh is much better advanced on the development path. Bangladesh has a much-diversified economy with huge domestic demands for different products. The export performance and remittance inflows are substantial. It has a buoyant private sector with strong entrepreneurial skills. The social fabric is dynamic. The formation of human capital has taken roots. Therefore, with further policy reforms and investments in human capital, technology and institutions, Bangladesh can smoothly transit from LDC to the road of upper middle income.

4.7. Conclusion and the Way Forward

Bangladesh's LDC graduation is taking place amid some unprecedented uncertainties at the global level with significant implications for developing countries. After more than a decade since the Global Financial Crisis of 2008, the Western Developed countries have failed to resume a sustained growth process. The growth in world trade has also faltered. Indeed, as against the emphasis on trade as an important enabler of realizing SDGs, the world economy is witnessing one of weakest decades of trade growth. Furthermore, in an unprecedented manner the benefits of free-trade has been called into questions with the on-going US policy reversals and Brexit processes causing heightened policy uncertainties.

Although Bangladesh has so far been one of the few least affected countries from the global trade turmoil, it may not be immune from the unfolding developments. As the developed economies are the most prominent export destinations, their difficulties in attaining full-speed recovery greatly hampers future export prospects. Particularly, weakened economic growth prospects of Australia, Canada, the European Union, and Japan are major concerns. Furthermore, China has stabilised around a so-called 'new normal' lower economic growth of just around 6 percent, yielding a trend of decelerating import demand from many developing countries.

Coping with rising protectionism in the world economy is going to be a major challenge for many capacity-constrained developing countries including Bangladesh. One important consequence has been the weakening trade multilateralism under the auspices of the WTO. Even before the Global Financial Crisis (GFC), the proliferation of regional and plurilateral trading arrangements generated rules, regulations and practices bypassing the WTO system. The post-GFC period caused further damages as large and economically more powerful WTO members resorted to new protectionist measures. The failure of the Doha Round in generating results even after 18 long years of negotiations is the reflection of a deep crisis that trade multilateralism currently confronts with.

The current state of multilateralism has serious implications for many developing countries. The WTO system provided a set of rules for international and an effective dispute settlement mechanism that protected capacity-constrained developed countries from being too vulnerable in trade negotiations and in guaranteeing enforcement of rules and procedure established by WTO members. The prolonged crisis, failure to achieve breakthroughs in Doha Round, and more recently, the unfolding of the USA-China trade war seems to suggest that the world trading system may not be the same again as envisaged when the WTO was established. This is rather unfortunate that the confidence in the WTO system reaches a new low as Bangladesh graduates from the LDC group.

In the above backdrop, Bangladesh must prepare for new eventualities. First of all, even in the current situation, there is no alternative of continued engagement with the multilateral processes. Strengthening the system constitutes a core objective of many developing countries like Bangladesh and as such an important role can be played by Bangladesh. Furthermore,

Bangladesh will have to catch up with the negotiating issues that so far did not occur as important since LDCs were exempted from undertaking commitments in many areas. This will require building capacity in trade negotiations. The emerging trends would indicate that if the WTO system is going to be re-energised, there could be proliferation of trade disputes. Settling trade disputes are extremely challenging tasks and as a graduating LDCs Bangladesh will have to prepare for such eventualities. Along with these issues, striking new regional and free trade deals will remain a priority for Bangladesh.

Another emerging trend that coincides with Bangladesh's development transition is technological advancement that prompts the deepening of the capital-intensive production processes manifested in a high-degree of automation, putting downward pressure on the demand for labour. Development and use of artificial intelligence and robotics are thought to reshape the production landscape and redefine competitive advantage. Numerous recent researches seem to suggest widespread labour-saving and unemployment to take place as a result. There are however arguments that the problem might not be availability of jobs but changes in the skill composition, favouring more skilled workers could be the ultimate implications.

While technological advancements would be inevitable anyway, the resultant implications could present new challenges for Bangladesh in the post-graduation phase. Available evidence suggests that compared to other countries Bangladesh uses more labour-intensive technologies in the apparel sector. In recent times, the industry is going through a technological transformation giving rise to more automated tasks in the production process. Therefore, the most recent doubling of garment export earnings in the country was not associated with any significant rise employment in the sector. When compared with other Asian comparators, it is found that Bangladesh has an enormous scope of improving labour productivity by using more technology-intensive production processes. Given this, increased competition in the post-graduation period could trigger faster technological upgradation with reduced impact on employment generation.

It is in this context is imperative to bear in mind that there should be no reluctance in promoting competitiveness by supporting technological upgradation, particularly for the export sector. Without technological upgradation and catch-up, Bangladesh's exporters will not be able to compete in global markets. Technological advancement can lead to improvements in product quality with prospects for improved enhanced export earnings. Automation and technological progress can help achieve and sustain higher growth rate thereby creating opportunities for employment, including in the new sector such as non-export and services sectors.

Since jobs in the apparel industry has been dominated by women and if automation is to slowdown employment generation, the impact on women's income-earning opportunities and any policy options to address the problem should be given serious consideration. Policies focusing on training, education and social security of displaced workers will have to be dealt with utmost priority.

Chapter 5

Macroeconomic Impacts of LDC Graduation and Strategies for Post-Graduation Adjustment

5.1. Bangladesh Long-term Development Goals

The long-term development goals are articulated in the Perspective Plan 2021 (PP2041). The PP2041 draws on the experience of implementation of Perspective Plan 2021 through the Sixth and Seventh Five Year Plans. It also draws on the analysis of the Bangladesh Delta Plan 2100 and the UN-initiated Sustainable Development Goals (SDGs) 2030. The Bangladesh Delta Plan 2100, the SDG objectives and the Perspective Plan (PP) 2041 have a number of common/shared development goals/objectives:

Goal 1: Eliminate extreme poverty by 2030

Significant progress has been recorded in the last one and half decade with the incidence of extreme poverty falling from 34.3% in 2000 to 12.6% in 2015. Building on this success in reducing poverty and extreme poverty and consistent with the objectives of SDG, the PP2041 aims to eliminate extreme poverty by 2030.

Goal 2: Achieve Upper-Middle- Income Country (UMIC) status by FY30

Delta Plan 2100 and PP2041 aims to attain the UMIC status by FY30. Bangladesh has recorded significant gains in per capita GNI in the last one and half decade, with per capita GNI increasing by threefold during the period FY05 to FY15. Currently, Bangladesh's GNI per capita is more than $1900 and for the UMIC status the threshold would likely be approximately $4795 by FY30. Bangladesh would need to grow at an average rate of 8.4% during FY19-30 at minimum, along with continued macroeconomic stability characterized by domestic price stability and a significant degree of exchange rate stability.

Goal 3: Achieve High-Income Country (HIC) status by 2041

Building on its ambitious target of UMIC status and in the process transforming the economic structure fundamentally, Bangladesh also aspires to become a high-income country (HIC) by FY41. By 2041, the income threshold for a HIC will reach $16000, which is more than an eight-fold increase in per capita income in dollar terms over the next 22 years. The average real GDP growth would need to be sustained at 9% during the 20-year period through FY41 to achieve this target.

Goal 4: Inclusive growth with moderate poverty reduced to less than 5% by 2041 on the basis of current definition of poverty line

On the basis of Household Income and Expenditure Survey (HIES) of 2015 done by the Bangladesh Bureau of Statistics (BBS), 24.3% of the Bangladesh population was below the moderate poverty line. By adopting an inclusive growth strategy, the government aims to cut down the moderate poverty rate to less than 5% by FY41, when Bangladesh also becomes a HIC.

Goal 5: Building a Bangladesh resilient to climate change and other environmental and geographical challenges identified in Bangladesh Delta Plan 2100

Bangladesh is most vulnerable to global climate change (GCC) and the continued degradation of environment through man-made and natural factors. The BDP2100 has clearly identified the 6 most vulnerable Hot Spots: Haor areas characterized by large inland water bodies; coastal regions; river estuary region; drought prone Barind areas; Chittagong Hill Tracts; and urban areas. BDP2100 also identified the adaptation strategies to mitigate the adverse impacts of GCC and other environmental factors on Bangladesh economy through investment of about 2% to 2.5% of GDP per annum in support of the growth strategy of the government.

Goal 6: Establishing Bangladesh as a knowledge hub country in support of the growth strategy and promoting development of a skill-based society

The PP2041 aims to achieve this goal through emphasis on education, research, and technological development. The PP2041 underscores that a knowledge-based society would help improve efficiency in every aspect of the country's economic/resource management, thereby propelling economic development to attain the status of a HIC by FY41.

A quantitative macroeconomic framework has been prepared taking into account the above-mentioned six major goals envisaged under the Government's PP2041, BDP2100, and the SDG implementation strategy. As noted in Chapter 3, Bangladesh's graduation from the LDC status while a welcome and positive development will also pose some problems in terms of loss of duty free and quota free (DFQF) access to many major export markets including in the European Union common market. This loss of DFQF status is likely to have a significant negative impact on Bangladeshi exports to these markets with potential adverse impacts on total exports, employment and economic growth.

Another important concern is the potential loss of concessional and grant financing in the aftermath of LDC graduation. Though this is not likely to be a major issue for Bangladesh because aid dependency has fallen substantially over the years and also the concessionality element has been falling in recent years. The World Bank and the Asian Development Bank, the major multilateral financial institutions, have already moved to blend financing by combining IDA based concessional financing with IBRD based non-concessional financing. Other

multilaterals like the Islamic Development Bank and the Asian Infrastructure Investment Bank are also moving in that direction. Some official bilateral creditors like Japan, China and India are similarly moving in that same path. The loss of concessional financing will increase the average interest rate that Bangladesh will be paying to service its foreign debt over the coming years.

There will be other minor areas where Bangladesh may lose some benefits such as scholarships, travel grants from multilateral organizations for government delegates/officials, technical assistance grants from different development partners, and other grant supported projects by development partners such as poverty alleviation, climate change, etc. The overall impact of all these relatively minor areas of losses may add up to a significant amount in absolute terms, particularly if the various donor-supported grant financed projects, especially from DFID and EU, are taken into consideration, but these will be very small as a share of GDP or export earnings.

The remainder of this chapter briefly discusses the baseline macroeconomic scenario up to FY41; the scenario which captures the effects of the LDC graduation related three types of losses discussed above—named as the shock scenario; and briefly discuss some of the mitigating strategies. The baseline scenario is consistent with the achievement of the six goals specified above. This scenario is essentially and updated version of the PP2041 which implicitly and explicitly embodies the key challenges and objectives envisaged under the BDP2100 and the attainment of SDG objectives. The shock scenario outlines the extent of deviations in key macroeconomic performance indicators in quantitative terms from the baseline due the adverse impacts of the three types of shocks separately and combined. This provides an estimate of the likely macroeconomic impact of LDC graduation in terms of balance of payments, external debt and debt servicing and the magnitude of the policy adjustment challenge. The socioeconomic impact in terms of growth, employment and poverty are discussed comprehensively in Chapter 8 using a sectorally disaggregated general equilibrium model. The two chapters, 5 and 8, therefore complement each other in providing economywide impact assessment of LDC graduation.

It is important to note upfront that the analysis of chapters 5 and 8 provide a lower bound quantitative assessment of impact of LDC graduation because they do not include the possible impact of withdrawal of the benefits from the preferential and differential application of several WTO rules relating to TRIPS, TRIMS, AoA and SCM. Since the impact of this withdrawal cannot be assessed quantitatively in the absence of relevant data and uncertainty of private sector responses, their likely impact was discussed qualitatively in Chapter 3.

5.2. The Baseline Scenario, FY18-FY41

Key National Accounts Indicators

Building on the remarkable success in steadily accelerating its GDP growth in real terms over the last several decades, the baseline scenario aims to achieve 9% real GDP growth by FY30 with a

view to becoming an UMIC with per capita income in dollar terms increasing to $ 5745, crossing the threshold for UMIC status in current dollar terms. Bangladesh will become a trillion-dollar economy by the time it becomes a UMIC and per capita real consumption will almost triple, despite a projected significant increase in gross national savings (GNS)

Table 5.1: Per Capita Income and Indices of Per Capita Real Consumption and Population 2016-2030

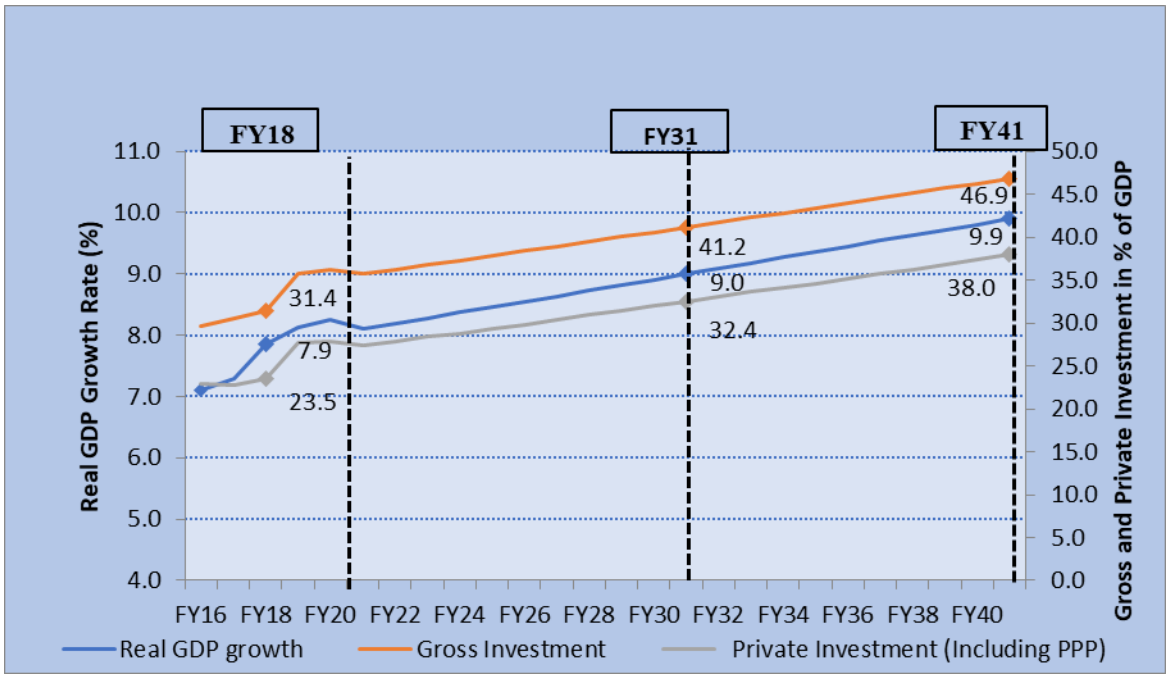
	2016	2020	2025	2030	2041
Per Capita Income (In Current Dollars)	1382	1976	3153	5181	16908
Index of Per Capita Real Consumption	100.0	102.9	142.5	198.8	457.9
Index of Population of Bangladesh	100	104.6	109.9	114.5	121.5

Source: Bangladesh Bureau of Statistics and GED Projections

The projected time paths of GDP growth, the total gross investment rate and the private investment rate are shown in Figure 5.1. As envisaged in the PP2041, investment will be the most important driver of this growth strategy. The average GDP growth for the period up to FY30 would need to be at least 8.4% and gross domestic investment at 41.2% of GDP. Bangladesh has already achieved real GDP growth of 8.1% in FY19, and thus realizing the growth target of 9% by FY30 may not appear too ambitious. However, sustaining the current growth momentum over the next decade will require a massive increase in the level of private investment, which is still languishing at around 23% of GDP. Total/gross private investment would need to increase by about 9 percentage points to 32.4% of GDP over the next 13 years. A significant part of the increase in private investment—about 25% of the additional amount or 1.5% of GDP—would also need to come from foreign direct investment (FDI).

Moving from an UMIC to a HIC in the next decade will require the growth rate to peak at 9.9% by FY41 and the average real growth rate to be at least additional one percentage point higher at 9.45% throughout the decade of FY31 through FY41. Gross investment would need to increase by further 5.7 percentage points to 46.9% of GDP, to sustain the GDP growth rate at this level, after taking into account the modest increase in incremental capital output ratio (ICOR) to 4.7 in FY41 from 4 in FY18.

Figure 5.1: GDP Growth rate and Investment Projections FY16-FY41



Source: GED Projections

This high growth scenario, underpinned by very high level of investment to GDP ratio can only be sustained if the gross national savings (GNS) rate is commensurately high. Otherwise, the external current account imbalance and external foreign borrowing will become unsustainable leading to a rapid buildup of foreign debt.

Fiscal Management under the Baseline Scenario

Bangladesh has a long tradition of prudent fiscal management which has served as the anchor to its continued macroeconomic stability. Fiscal deficit has been consistently limited to below 5% of GDP primarily through containment of expenditures. Performance in terms of revenue mobilization has been disappointing with the tax/GDP ratio at about 9% of GDP in FY18. As a result, the fiscal operations of the government may be characterized as low-level steady state operation with very low overall size of the government expenditure (14.3% in FY18). Bangladesh has the lowest tax/GDP and public expenditure/GDP ratios among the comparator countries.

For Bangladesh to become first an UMIC and then a HIC, this poor state of public finance, constrained by very low tax/GDP ratio, must change. Bangladesh's very low public spending on health (0.7% of GDP), education (about 2% of GDP), and social protection through about 125 safety net schemes (1.6% of GDP) are not at all compatible with the objectives of the SDG or the

development of human capital needed to reach UMIC and HIC, and the Government's poverty alleviation goals stated earlier.

Accordingly, the fiscal plan of the Government in support of the PP2041 envisages a strong drive to mobilize revenue—by breaking away from the stagnation of the tax/GDP ratio in recent years. The tax/GDP ratio would need to be increased to more than 15.4% of GDP by FY31 and further to 19.4% by FY41. The projected increase will be a major challenge, given the recent performance of the National Board of Revenue (NBR) in terms of mobilization of domestic resources. In the last ten years no fundamental reforms were done in the areas of tax policy and tax administration and the result is a stagnation in the tax/GDP ratio. This has to be changed—business as usual on the tax front is not an option.

The trust of tax policy and administration reforms would need to be primarily in the areas of direct tax and VAT systems. Currently, the efficiency of the VAT and direct tax systems in Bangladesh is only around 33%-35%, which should be around 70%-80% over time in order to achieve the intended targets. The ratio of direct taxes to GDP would need to increase from the current level of 2.7% of GDP to 6.4% by FY31 and thereafter to 8.6% by FY41. Revenue from the VAT system would also need to increase from the current level of 3.4% of GDP to 6% of GDP by FY31 and thereafter to 7.9% by FY41.

External Sector Outlook

External sector stability is fundamental determinant of macroeconomic stability in any country, and Bangladesh is no exception. Bangladesh will continue to have a sizable deficit in the merchandise trade balance, given the needs for meeting its import payments associated with infrastructural investments with high import contents, increasing incremental capital output ratio (ICOR) associated with private investment, and growing consumption demand in the economy. This deficit will continue to be covered by inflow of workers' remittances and a faster growth of exports compared with the growth in import payments.

Given the huge import demand associated with the ongoing and future investments in the mega infrastructure projects, Bangladesh will probably not see a surplus position in the external current account in the foreseeable future. However, the magnitude of the external current account deficit would need to be manageable in terms of foreign exchange reserve coverage, external debt sustainability, and inflow of FDI and other capital account inflows to cover the current account deficit and also help build up of foreign exchange reserve in nominal terms to ensure reserve coverage in months of imports at 6-9 months of import payments.

In terms of economic policies realization of these objectives—particularly accelerating export growth and export diversification--would require:

- Maintaining an open trade regime with lower degree of import protection (which is currently one of the highest in the world) so that more resources/investment goes to the export sector;
- Ensuring exchange rate flexibility through market mechanism;
- Creating better investment climate by removing the constraints on domestic and foreign private investments including through effective operations of the Special Economic Zones (SEZs) and One Stop Service Facility.
- Improving the transport network and port facilities to reduce the lead time for Bangladeshi exporters and ensure uninterrupted access to power and gas.

In short, Bangladesh would need to move back to an export-led development strategy, away from the recent experience of domestic demand driven growth which is likely to hit a balance of payments (BOP) constraint.

Debt Management and Debt Sustainability

Bangladesh has an enviable track record in terms of public debt management and servicing of debt always on time. This was the result of prudent fiscal management and relying on concessional long-term financing with high proportion of grant elements from multilateral and official bilateral sources. As Bangladesh has crossed the LDC graduation threshold, all multilateral and bilateral creditors have started to offer blended financing in putting together the overall financial packages for Bangladesh. As the country progresses to become a UMIC, the proportional of concessional financing will go down and reliance on non-concessional financing will continue to increase.

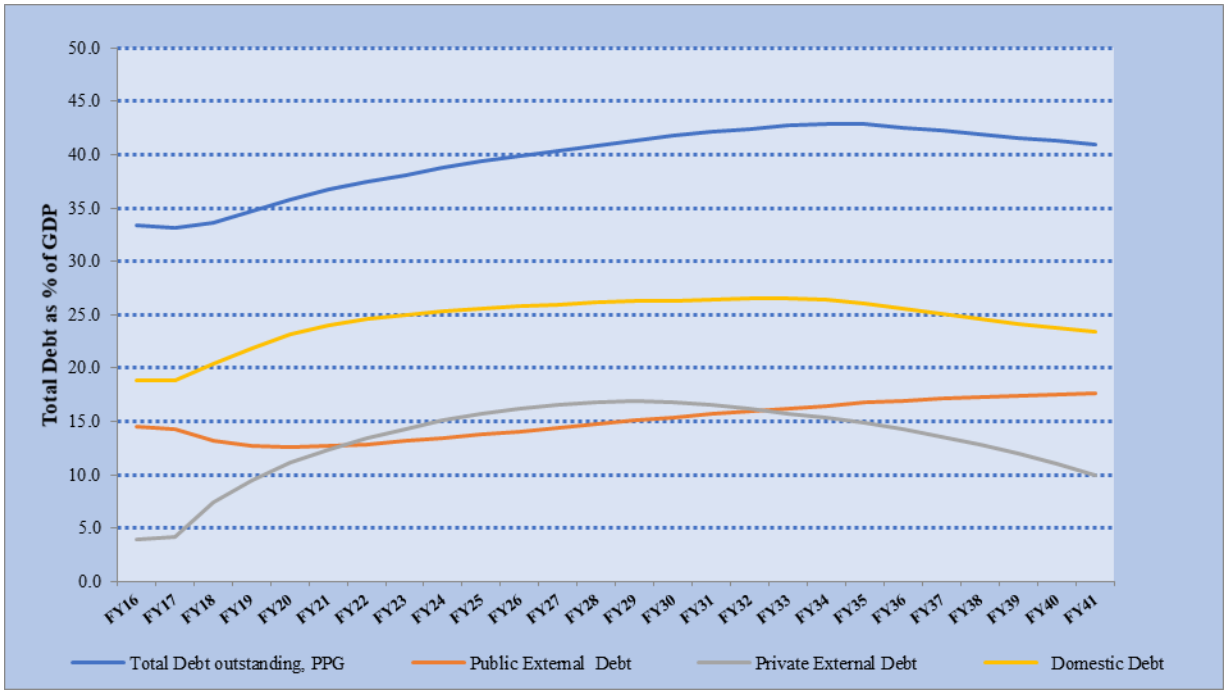
Since Bangladesh's credit worthiness is improving and it enjoys a respectable credit rating with stable outlook from major credit rating companies like Moodys and S&P, many private sector companies are also accessing the international capital market to meet their financing needs. The Government agencies and private sector borrowers are also accumulating short to-medium term debt at a much faster pace than any time in the past. Private sector foreign borrowing will certainly increase and should also be supported by phased liberalization of the capital accounts of the BOP. Furthermore, much of the infrastructure financing for mega projects will be foreign financed leading to buildup of external debt at a rapid pace in the coming years.

Against this backdrop, the sustainability indicators for the macroeconomic framework has been prepared to ensure debt sustainability over the medium and long term. Managing the debt sustainability indicators along the lines outlined in Figure 5.2 will require continued prudent and efficient public debt management over the long term along the following lines:

- Private sector external debt has been increasing at a rapid pace in recent years to meet the growing financing needs of the private sector. The pace of accumulation of private external debt is likely to accelerate in the coming years to meet the growing financing needs of the private sector related to the envisaged pickup in private investment.

- Efforts must be strengthened to attract more FDI so that foreign financing—by both private and public sector--is non-debt creating. FDI not only brings external financing but also has many other positive contributions in the form of increased access to foreign markets, and introduction of new/modern technology and management practices.
- Reliance on National Savings Certificates must go down over time by making the interest rates market based. Domestic debt has been the fastest growing component of public debt in the last decade. While this is good, the very high interest rates paid on non-tradable non-bank instruments like national Savings Certificates have contributed to huge debt servicing costs—limiting fiscal space significantly, destroyed the whatever small bond market Bangladesh had, made infrastructure financing through bond market development impossible.
- Bangladesh should continue to rely on official multilateral and bilateral financing as much as possible since the tenor of these loans and interest rates would generally be much below what Bangladesh can obtain by issuing sovereign debt.
- Bangladesh should still make its presence in the international capital market by issuing sovereign bonds regularly, albeit to a limited extent. This will allow the development of the yield curve for Bangladesh which may be used by foreign investors for pricing private bonds to be issued by the private sector entities.

Figure 5.2: Debt Sustainability Projection FY16-FY41



Source: BBS and GED Projections

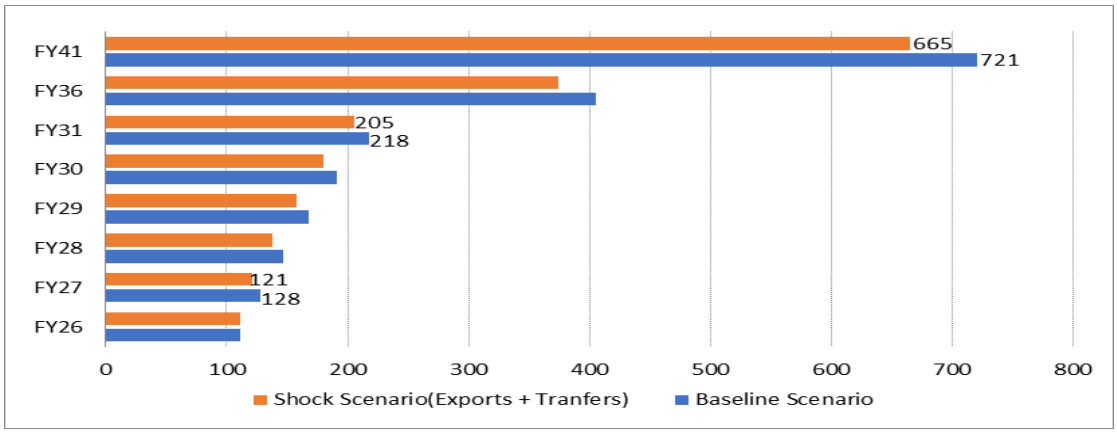
5.3. The Shock Scenario—Reflecting the Impacts of LDC Graduation

LDC graduation will impact Bangladesh in three major ways—the loss of export earnings owing to withdrawal of LDC trade preferences, the loss of access to foreign financing on concessional terms, and some loss of grants provided to Bangladesh from official (bilateral and multilateral) and private channels. This section makes an attempt to assess the macroeconomic impact of these losses on Bangladesh's exports over time, shifts in the composition of external financing and consequent increase in debt service payments, the overall impact of these losses on the external current account balance and the overall balance of the BOP. The projected loss of exports and grants and higher debt service costs would lead to higher current account deficit. Since the level of reserves are assumed to be kept unchanged at the levels envisaged in the baseline scenario, the gap will be filled by accumulation of external debt at a faster pace to prevent depletion of foreign exchange reserves below what is projected in the baseline scenario. This policy assumption is rational since reduction in foreign exchange reserves would not be sustainable and may create various forms of market instability.

Projected Export Loss

The most important source of loss from LDC graduation emerges from the loss of DFQF market access. The projected export loss from RMG products in the EU and non-EU markets using unitary elasticity and standard GSP preference assumptions market is estimated to be about 5% of total exports in FY2018. Using the Baseline BAU Scenario, this amounts to a loss of $7 billion in FY27, which would steadily increase to $13 billion by FY31 (Figure 5.3)[26]. The cumulative export loss over the 5-year period (FY2027-FY2031) could amount to $38 billion, which is a substantial loss even in the context of the much higher export base in FY2031. Policy actions will be necessary to counter these projected losses.

Figure 5.3: Exports Projections Under Alternative Scenarios (billion $)



Source: GED Projections

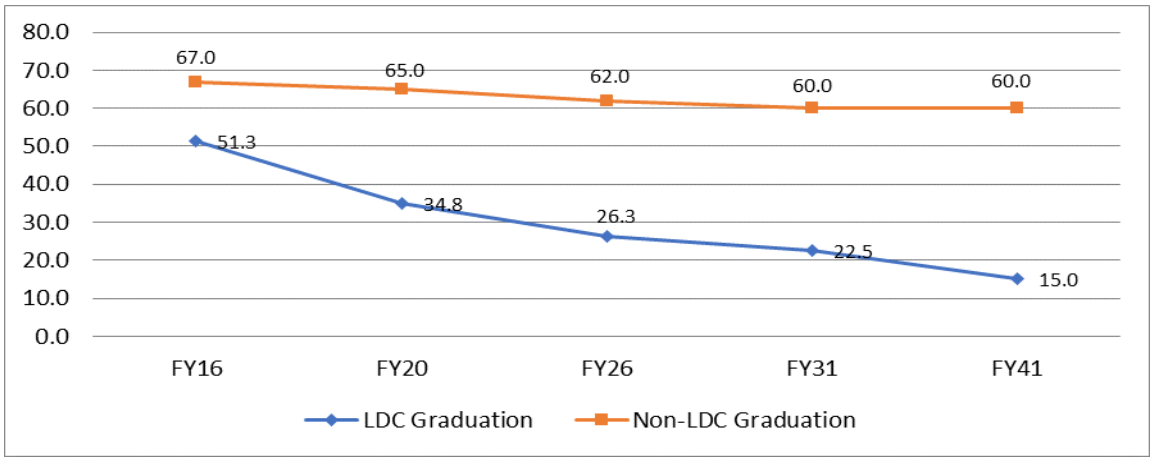
[26] Since loss of the EBA facility from the EU is the biggest source of export loss and this facility will be available for another 3 years after LDC graduation in 2024, the macroeconomic impact assessment starts from FY2027.

Impact on External Debt and Debt Servicing

As discussed above, the loss of concessional elements in the financial supports received from official bilateral and multilateral creditors will lead to increased debt servicing costs. Bangladesh used to borrow from these official creditors only on IDA and equivalent concessional terms. But in recent years these official creditors have already moved to blend financing with mix of IDA (World Bank group concessional facility) / OCR (Asian Development Bank concessional facility) with non-concessional facilities. So, moving forward, the proportion of concessional assistance will continue to fall while the proportions of non-concessional loans will only increase in the coming years. This is not the direct result of graduation LDC, but a continuation of the ongoing trend owing to increase in per capita income. To capture this change in the debt financing environment for Bangladesh, the model distinguishes between an LDC graduation and a hypothetical scenario of non-LDC graduation.

Based on the considerations noted above, Bangladesh's LDC graduation coupled with PP2041 growth strategy would entail a steady decline in the proportion of concessional external public debt in relation to total external public debt will decline steadily in the coming years (Figure 5.4). The declining of concessional external debt has already started with the ratio of concessional debt coming down to 51.3% of total external debt in FY16. The decline in the ratio of concessional debt has already started with Bangladesh Government already accessing the non-concessional sources of financing in significant amounts in recent years. Under the hypothetical scenario, where Bangladesh had remained an LDC in the foreseeable future, the proportion of concessional external debt would have remained high at more than 65%. Under the LDC graduation scenario, the proportional of external concessional financing will essentially begin to disappear by FY31.

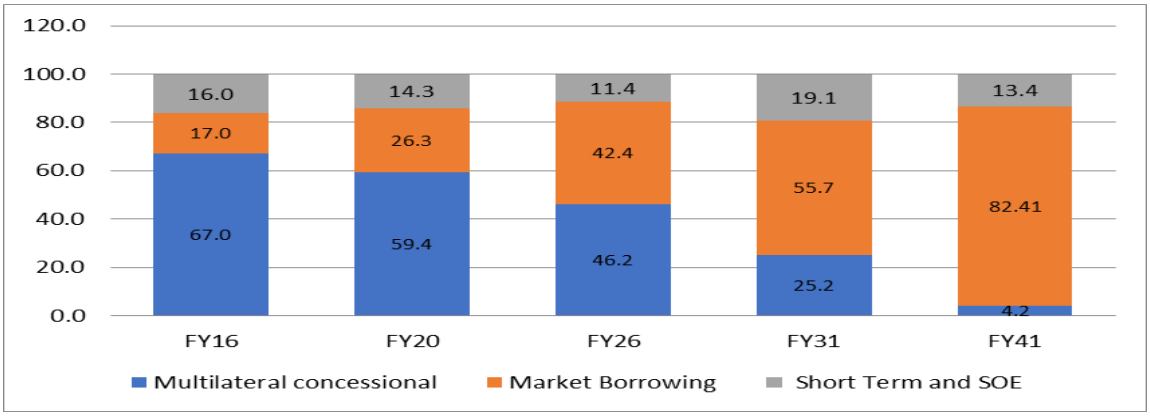
Figure 5.4: Concessional Debt Dynamics During Baseline and Non-LDC Graduation Scenario



Source: ERD and GED Projections

LDC graduation, will also open up the door for market borrowing by both the public and private sectors. The composition of Bangladesh's public debt profile will change significantly accordingly. In terms of public and publicly guaranteed (PPG) debt, the proportion of debt in terms of market borrowing will accordingly change in the following manner (Figure 5.5).

Figure 5. 5: Sources of PPG Borrowing (As % of Total PPG Borrowing)

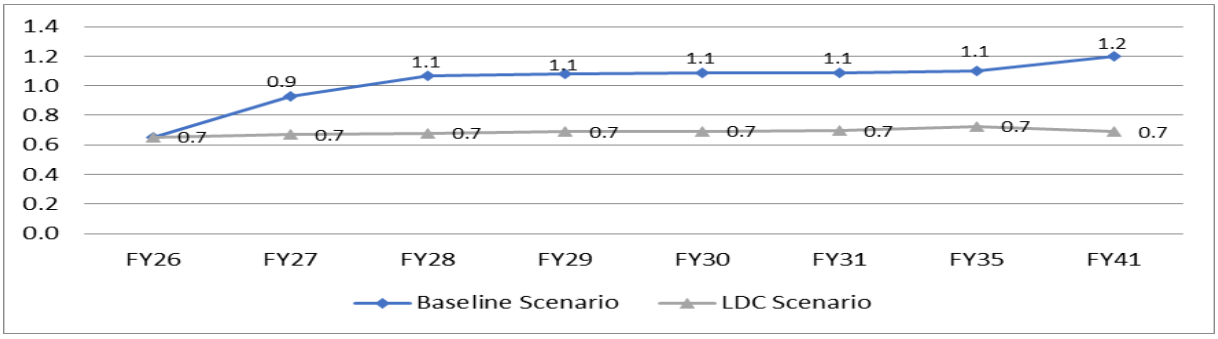


Source: ERD and GED Projections

As Bangladesh will lose access to concessional external borrowing, it will become more dependent on market base borrowing from relatively higher cost sources. In addition, private sector external debt will also increase in future.

The shift in the composition of PPG debt will have some significant impact on the external interest payments on account of PPG debt. Compared with the LDC scenario (which is a hypothetical counterfactual construction), the baseline graduation scenario envisages a significant increase in interest payments on PPG external debt from 0.7 of exports of goods and services to 1.2% of the same by FY41. The payments in US dollar terms will commensurately grow but will continue to remain well within the sustainability limit under the PP2041 macroeconomic framework.

Figure 5.6: Interest Payment of External Debt during Pre and Post LDC Graduation



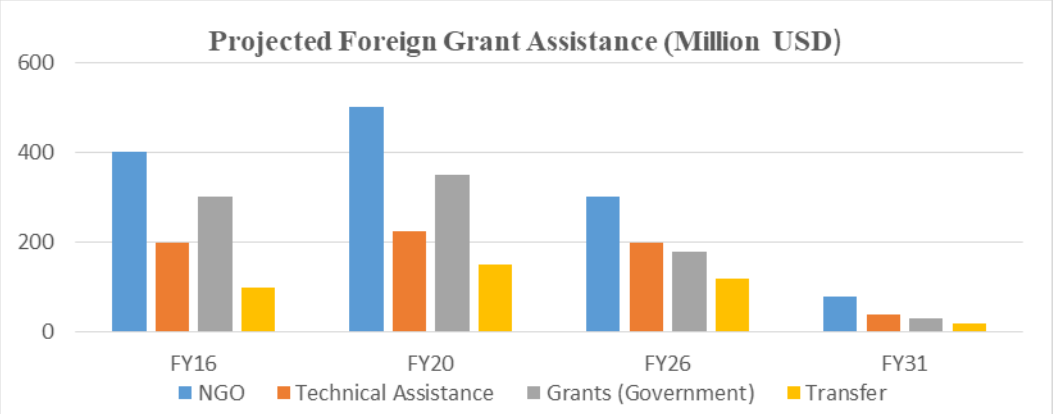
Source: GED Projections.

Loss on Account of Foreign Grants

The third important factor in order of importance will be the loss of foreign grants currently received by the public and private sectors. Bangladesh's dependence on foreign grants have come down significantly over the last several decades. In recent years, grants received by the public sector in Bangladesh (as reflected in the budget documents) are estimated to be about 0.1% of GDP or less than $300 million per annum. There are no definitive estimates for grants from the foreign private sector to the domestic private sector in Bangladesh. However, based on the data on private transfers as reported in the BOP, the amount could be up to $400 million. These total grants together accounting for about $700 million may disappear over time as Bangladesh graduates from LDC status and firmly moves towards an UMIC status.

Box 5.1: Potential loss in Grants after Graduation from LDCs

Efforts of both private and public sectors of Bangladesh are supplemented by foreign grants mainly in the form of technical assistance and funding through Non-Governmental Organizations (NGOs). There is a possibility that all these grants might diminish as Bangladesh graduates from Least Developed Countries. This potential loss can adversely affect the development process of the country; particularly people living on the margin. Currently approximately one billion USD worth of grant is received by Bangladesh (combining public and private enterprises) from foreign sources. Seventy percent of which are received by mainly non-governmental organizations and private enterprises. Effective policies should be formulated and implemented to make necessary adjustments to accommodate this loss in grants after graduating from LDCs

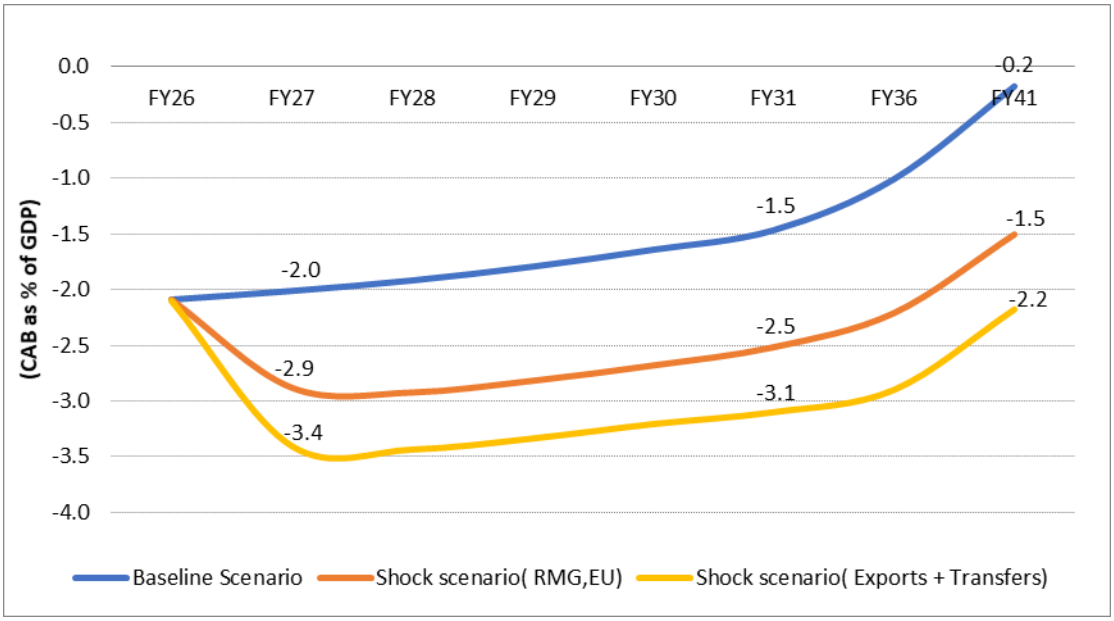


The Combined Impact on the BOP

The combined impact of these three types of losses will have direct impacts on the BOP leading to a deterioration in the current account deficit by 0.9-1.4% of GDP in FY27 (Figure 5.7). Most of the losses are on account of export loss in both EU and other non-EU markets. The increase in the current account deficit from RMG market loss in EU alone contributes to 0.9% increase in

the current deficit. When export losses from non-EU RMG, other exports and loss of grants are considered in total, these add up to another 0.5% increase in CAD in FY2027.

Figure 5.7: Current Account Projections under Alternative Scenario



Source: GED Projections.

Impact on GDP

Exports have direct impact on domestic GDP through net value addition. The higher debt servicing costs due to reduced concessionality, higher levels of borrowing to finance the increased current account deficits would reduce the economy's capacity to invest, build up reserves or consumption by the same amount under unchanged policies. The loss of grants to the government and private/public transfers will have modest impact of about $700 million at present and the loss of that will be primarily reflected through adjustments in budgetary outlays and private NGO activities. This will also impact public and private consumption negatively almost by equivalent amounts. The impacts of these three factors on the GDP will work through both the income side of the national accounts and the expenditure side of national accounts (through consumption, investment/savings) of both private and public sectors. These first-round effects will then have multiplier effects based on the relationship between income and other variables including investment.

The full GDP effects of the LDC phase-out are captured through a dynamic CGE model that is explained in detail in Chapter 8. All the inter-relationships and the multiplier effects are captured in the model and explained in that chapter. The GDP impact depends on the assumed export loss over BAU. For the case with unit demand elasticity, average GDP growth falls by about

1.4% in 2027. GDP loses are higher in the case of higher demand elasticities for Bangladesh exports. This is a substantial shock that will have adverse effects on employment and poverty reduction unless offset by policy measures.

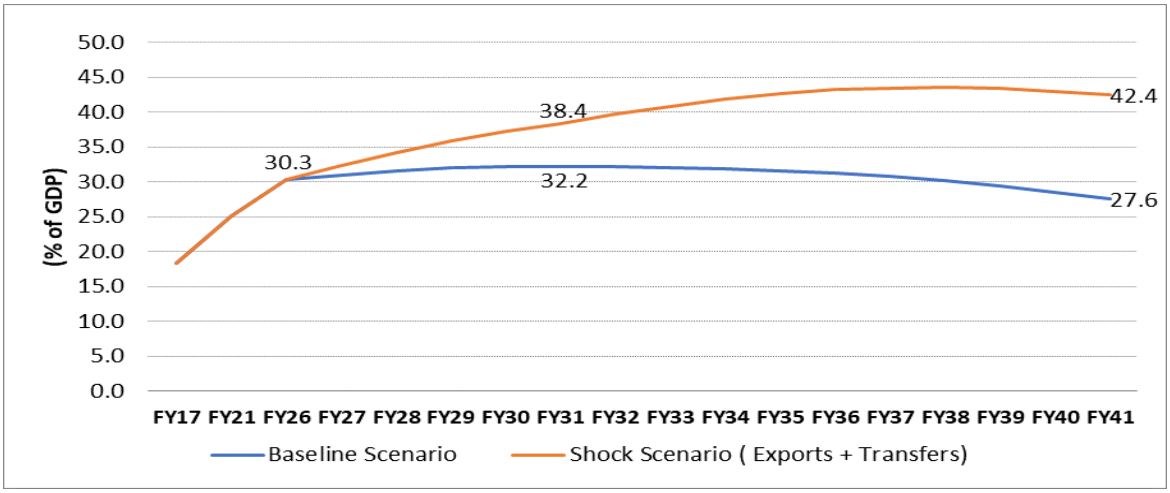
5.4. Possible Adjustment Scenarios

No Policy Change Scenario

The loss in export receipts and receipts from grants will increase BOP financing and there could be two very different approaches to close this financing gap/requirement. The first approach could be to cover the full amount of BOP financing requirement by external borrowing. In this case, external debt will increase by the full amount of the shortfall and there will be no need for compression of imports (except autonomous reduction in industrial inputs used in exports including through back-to-back LCs). There will be no need to adjust the exchange rate and other policies including monetary and exchange rate policies, and the path of export receipts will move down permanently. This may be a short-term and politically quite attractive solution but not a very desirable outcome from a medium and long-term perspective.

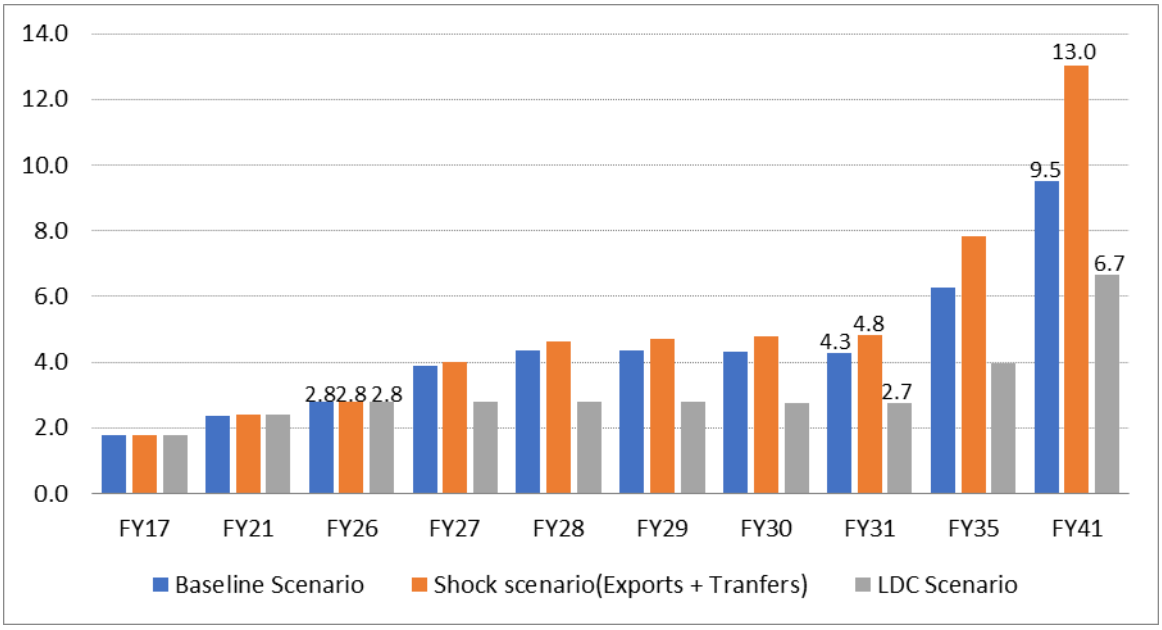
The adverse effects on GDP, which could be substantial as noted, and associated negative implications for employment and poverty will create social problems. Importantly, Bangladesh will deviate from its long-term development objectives associated with the Perspective Plan 2041. Furthermore, over time the debt sustainability situation may be compromised. As noted in Figures 5.8-5.11, debt accumulation will increase rapidly that could jeopardize debt sustainability and debt servicing owing to reliance on high-cost commercial debt in market prices.

Figure 5.8: External Debt Projection under Alternative Scenario



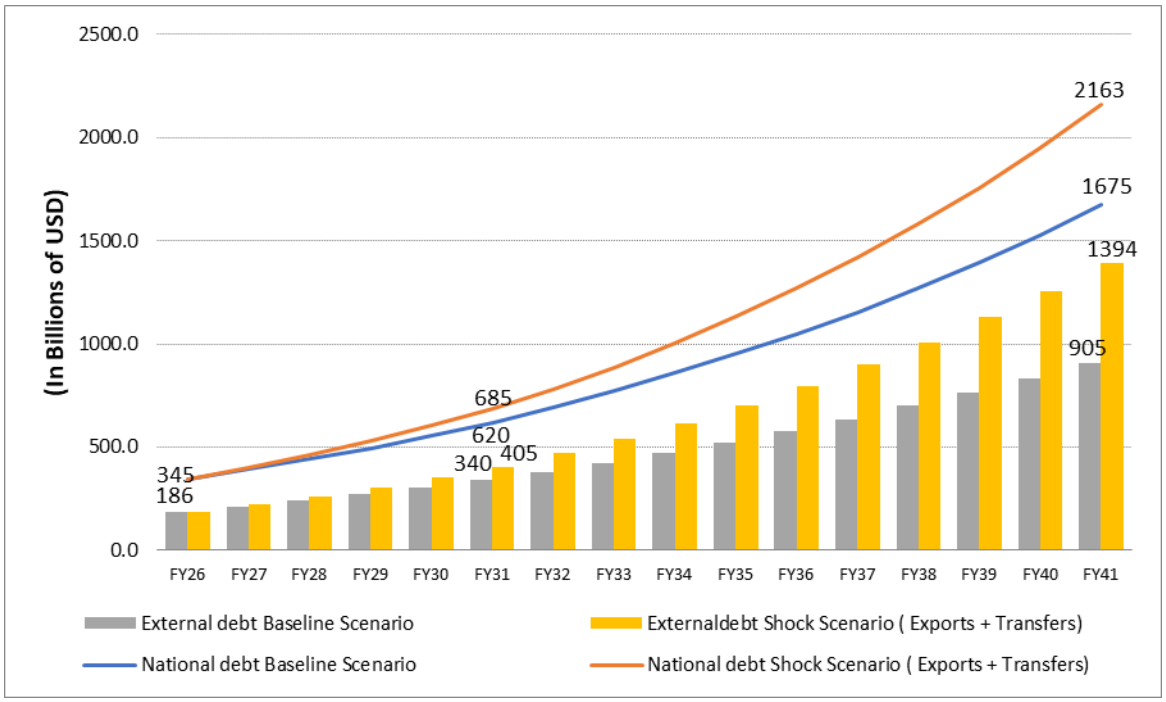
Source: GED Projections.

Figure 5.9: Interest Payments on External Debt as% of Exports & Remittance under Alternative Scenario



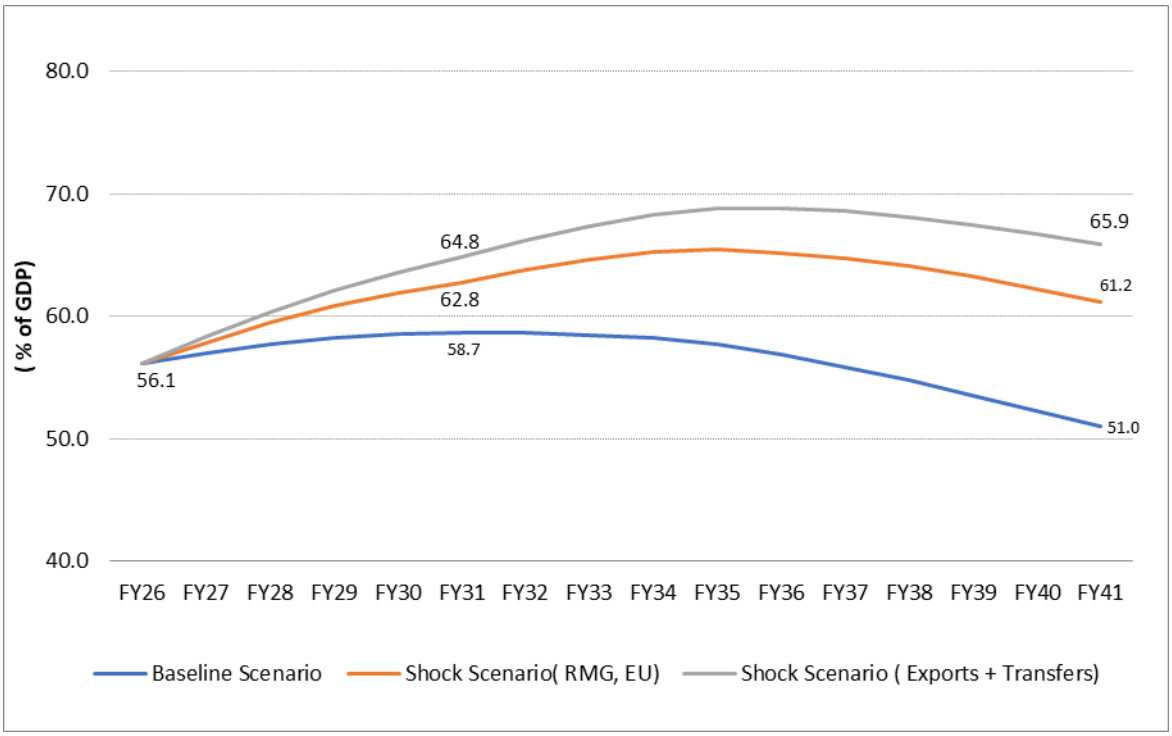
Source: GED Projections.

Figure 5.10: National Debt Dynamics under Alternative Scenario



Source: GED Projections.

Figure 5.11: National Debt Dynamics under Alternative Scenario

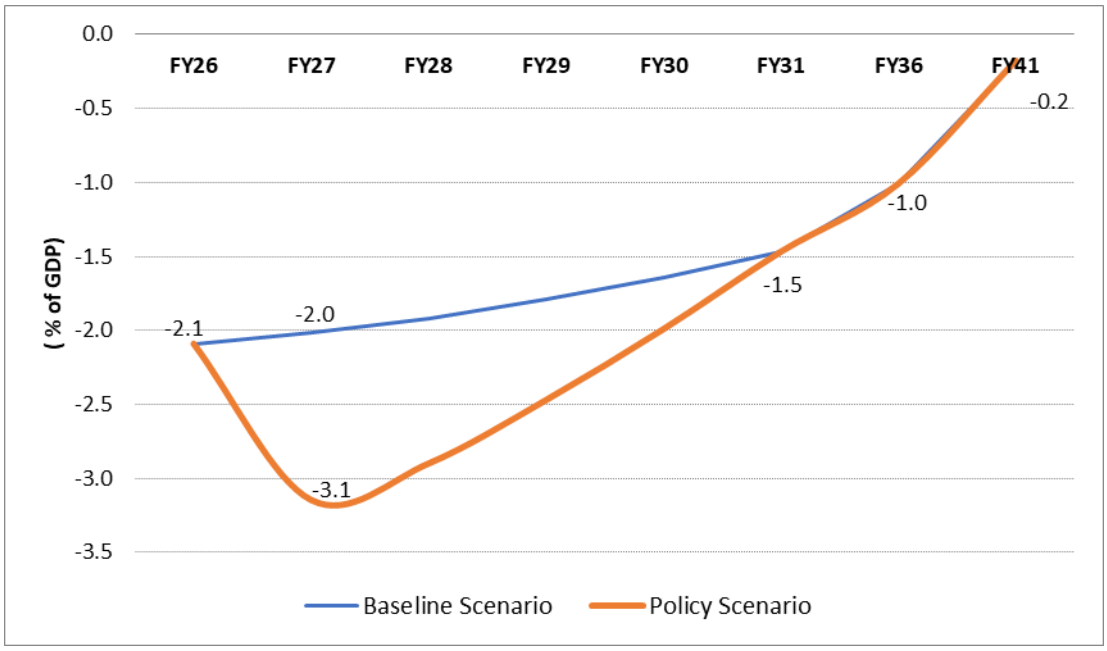


Source: GED Projections.

Appropriate Policy Response to Offset Export Shock

The second approach could be to allow the market mechanism to initiate the necessary adjustment process including trade reforms and other policies to diversify exports and adjustments (depreciation) in the exchange rate to contain imports and provide incentives for exports. Under this scenario, exports will be more competitive and the consequent boost in exports along with the containment of imports due to exchange rate adjustment will offset the impact of the export loss. Under the second scenario, the external current account deficit would steadily move towards the baseline scenario, coinciding with it once the process of adjustment is complete (Figure 5.12). Accumulation of external debt under this scenario will be for a brief transitional period of several years and there will be no major impact on the overall level of external debt and debt sustainability.

Figure 5.12: Current Account Balance under Policy Adjusted Scenario



Source: GED Projections

In order to minimize the export loss, the authorities should also engage in economic diplomacy including initiatives for continued market access in the post-LDC period. Most developing countries are either members of economic or trade blocks, and also enjoys market access as part of bilateral or multilateral (as members of different economic/trade blocks) agreements between countries or blocks. SAARC is the only regional block in which Bangladesh is a member. But as an organization SAARC is effectively non-functional because of regional political and security issues, which are beyond the control of Bangladesh Government. Thus, Bangladesh would need to actively seek access to regional economic/trade blocks or secure preferential market access to important regional blocks like the EU and ASIAN. Other new initiatives such as joining the Belt and Road Initiative (BRI) of China may also be considered in this regard.

5.5. Post LDC-Graduation Macroeconomic Strategy

Continued macroeconomic stability has been the hallmark of Bangladesh's successful LDC graduation, and will remain a major pillar in its march towards achieving SDGs and the upper middle-income status by FY31. Much of the socio-economic gains already made and envisaged to be realized in the post-graduation period must be underpinned by strengthened macroeconomic management. The baseline scenario presented above is highly ambitious and consistent with the socio-economic goals established by the Government under its PP2041. Realization of the objectives/targets stipulated under the baseline scenario will require strong

efforts on the part of the government in terms of maintaining macroeconomic stability, increase public sector investment and enhance quality of services in key areas health, education and social safety net through strong efforts on resource mobilization. Public resource mobilization will be key to sustain the much-needed massive investments in infrastructure projects. The shock from LDC graduation simply strengthens the need to move ahead full stream with the reform agenda of the PP2041.

In addition to public resource mobilization, the other areas of macroeconomic management that will require particular attention include: strong balance of payments position with exchange rate stability; infrastructure development in the context of overall investment planning, financing mix/strategies and outlook; debt management strategy with focus on ODA commitments and cost of bilateral and multilateral financing; and financial sector development with focus on strengthening of the banking sector and bond market development.

Strengthening domestic public resource mobilization: This has remained one of the most challenging and frustrating part of Bangladesh's fiscal and overall macroeconomic management for decades. At less than 12% of GDP, Bangladesh has one of the lowest revenue-to-GDP ratios even among the LDCs. Despite recent progress, the weak state of the country's overall physical infrastructure relative to needs and the very low social spending in education (less than 2% of GDP), health (0.7% of GDP) and social protection (about 2% of GDP) are primarily attributable to its very limited ability to mobilize domestic resources. The recent increase in investment in major infrastructure projects is largely external debt financed, and may not be sustainable and cannot be scaled up further in the coming years without successful efforts in increasing the revenue-to-GDP ratio to 15%-20 % of GDP range.

Realizing the objectives of SDG and attaining the UMIC status by FY31 will require massive investment in the social sector programs, ensuring environmental sustainability, implementation of the Bangladesh Delta Plan 2100, and massive investment in already identified numerous mega projects. The additional costs of implementing these broad-based transformational social, economic and infrastructure programs will require trillions of takas (or tens of billions of dollars) in additional resources most of which must be mobilized from domestic sources.

In the last 10 years—largely overlapping with the 6th and 7th Five Year Plans—Bangladesh's tax/GDP ratio has moved up by less than one percentage point, which points to the lack of systematic reform efforts on this front. This must change if the Government wants to realize its ambitious growth, employment and SDG objectives in the post-graduation period. If the revenue outlook does not change remarkably in the coming years, much of the objectives envisaged under the baseline scenario described above will remain unattainable.

In the context of the Sixth and Seventh Five Year Plans a number of ambitious reform efforts were identified covering areas such as: (i) introduction of the new VAT Act 2012 and the accompanying VAT Rules, along with the modernization of VAT administration; (ii) Enactment

of the draft Customs Act; (iii) enactment of the draft direct Tax Law after its proper review by international experts to make it compatible with international best practices; and (iv) effective implementation of the NBR Modernization Plan submitted to Parliament for its information and consideration. Implementation of all these laws and the associated reform of NBR tax administration along functional lines have been long delayed and the results of that are already visible in the dismal performance in terms of revenue collection and taxpayers' satisfaction. In the area of revenue mobilization, status quo is not acceptable because such inertia will jeopardize realization of all the worthy goals that the government has established for itself through various initiatives stated earlier.

Ensuring the stability of the balance of payments: In the last two decades, Bangladesh has generally enjoyed stable balance of payments along with comfortable reserve position, backed by sustained growth in exports and remittances, which helped finance the growth in import payments needed to support its impressive economic growth and private consumption. Looking ahead there will be a number of challenges:

(i) Bangladesh's export performance is excessively dependent on only RMG products (83% of total exports), and there is no definite sign of other exports providing a broader base for domestic exports. There is no other middle-income country with such dependence on one product and Bangladesh must broaden its export base both in terms of products and destinations/markets. The baseline scenario accordingly envisages a steady increase in the share of non-RMG exports in the export basket to at least 40% from the current level of only 17%. Attaining this objective alone would require major initiatives like: making the import tariff regime less protective to remove the anti-export bias; providing other sectors the same benefits (including back-to-back LC and bonded system) that is being provided to the RMG sector and thereby essentially making the free trade regime available to all other export sectors; and making the economy more attractive for FDI.

(ii) Bangladesh must also focus on export of services, an area which has not got much attention. Bangladesh has a large and growing external services account deficit on account of transports (shipping and airlines), medical services, and education. Outflow of remittances due to technical and management supports provided by foreigners to Bangladeshi enterprises is unofficially estimated to be $4-5 billion. Billions of dollars are also spent on unofficially on account of health care received abroad by Bangladeshi residents in the form of medical truism to India, Thailand, Malaysia and Singapore. The government needs to develop strategies for reversing these trends so that Bangladeshis can receive high quality healthcare, highly skilled and experienced managers, and international standard higher education institutions in Bangladesh. The amount of savings through services accounts can be more than $10

billion if the government can develop the high quality service providing institutions at home.

(iii) Rapid export growth will require much higher levels of investment that should be helped by much higher FDI, which will also bring in new technologies for new products, greater integration with regional value chains, and broader access to markets for new products.

(iv) Flexible management of exchange rates in line with developments in the exchange market and prudent liberalization of capital account transactions. Bangladesh's capital account transactions are very restrictive, and a phased liberalization will be essential to promote inflow of FDI and build investors' confidence on Bangladesh. Experience of India and many other countries have demonstrated that managed opening of the capital account brings in more capital inflows through building of market confidence.

Strengthening infrastructure: Bangladesh needs massive amounts of investment in infrastructure to support its growth momentum and improve quality of life of its citizens as envisaged in the baseline scenario. The Annual Development Programme (ADP) of the government has increased modestly in recent years (from 3.6% in FY10 to 4.9% of GDP in FY18) to accommodate the new infrastructure initiatives. A list of mega projects has been well identified and some of the projects are at different stages of implementation. Bangladesh needs these projects and certainly many more will be added in the coming years. Given the tight resource position of the government, currently most of these projects are being debt financed, and in many instances with official bilateral debt from Japan, China and India on concessional and non-concessional terms. In order to avoid explosive external debt burden, in addition to higher domestic revenue to fund such projects, Bangladesh needs to develop alternate financing arrangements like Public Private Partnership, issuance of asset backed securities for financing new projects or expanding existing ones, issue infrastructure bonds, and mobilize financing from international capital market by issuing sovereign bonds on better terms to finance its infrastructure projects. Bangladesh can certainly avail the opportunities offered by programmes like the Belt and Road Initiative (BRI) of the Government of China. South Asia Regional Connectivity initiative supported by ADB and World Bank is another important initiative to improve regional connectivity to support trade and investment in the region, including Bangladesh. International experience suggests that there are risks associated with the current unsolicited debt/suppliers' credit financed project development and alternative financing strategies to mitigate the risks must be actively considered as part of overall financing and debt management strategy of the government.

Prudent management of external debt: Bangladesh has an enviable track record of external debt management, which is reflected in its very low debt service ratio and external debt to GDP ratio. Prudent fiscal management (fiscal deficits ranging between 3.5% of GDP to 4.5% of GDP)

coupled with sole reliance on concessional long-term external financing over the last several decades have contributed to this very favorable outcome. As the official external financing requirements of Bangladesh will be increasing rapidly in the coming year and access to concessional financing will be declining steadily as the country graduates from LDC status and moves towards upper middle-income country status, Bangladesh would need to fundamentally reorient its debt management strategy. Financing of megaprojects will be important and the projects should have a large domestic financing component so that external public debt remains manageable in terms of long-term debt sustainability as discussed in the policy adjustment scenario above. Development of domestic long-term bond market (including infrastructure bond and asset backed securities), and possible options for restructuring of public debt management institutions for efficient debt management (which is currently managed in a fragmented manner) will be important in this regard

Restoring the health of the financial sector and boosting its growth: Bangladesh's financial sector development—with particular focus on the banking sector, stock market and bond market--will remain a key priority area for the medium term. Banking sector will continue to be the dominant component of the financial system in Bangladesh but has been plagued by a huge and growing burden of impaired assets with adverse impacts on intermediation costs, the interest rate spread, and returns on assets and equities. Restoring the health of the banking sector with strong efforts to weed out the sources of non-performing loans at the source along with strengthening the autonomy and supervision capabilities of the Bangladesh Bank is a top reform priority. Bond and asset backed securities market development will be critical for securing long-term financing for the private sector investment and public and private sector infrastructure financing. Strategies for addressing the pressing structural problems impeding financial deepening needs to be formulated for speedy implementation.

Other macroeconomic policies: A number of other macroeconomic issues will also be critical in support of the ambitious baseline scenario developed under the PP2041. These include maintaining price stability through appropriate monetary policy, containing macroeconomic vulnerability through strengthened public financial management, sustaining export-led growth strategy to ensure reserve buildup and BOP stability, and strategy for improving Bangladesh's sovereign credit rating to investment grade over the next decade for greater access to international capital market on better terms

Chapter 6

Trade Policies and Strategies for Coping with Post-graduation Adjustment

6.1. Background and Overview

Keeping the economy on track while pursuing the development goals of PP2041 will require the Government to develop a coping strategy of policies to address the challenges that the economy and society will be faced with, once the economy loses the multitude of concessions and support mechanisms from the international community when graduation becomes a reality. In the preceding sections, it has been articulated that "trade preference erosion" – the phasing out (or elimination) of trade-related ISMs – is expected to have the most impact on the economy's growth prospects, jobs, and income. But Bangladesh is not going to wait for that eventuality doing nothing. The Government is fully cognizant of some of the implications and this particular exercise to engage in a rigorous study of "Impact Assessment of LDC Graduation" is testimony to that realization.

For much of the next quarter century, the bulk of job creation in Bangladesh will be taking place in a diversified manufacturing sector that is globally competitive, export-oriented, and focused on breaking into emerging markets while expanding its market share in developed economies of the world. The Government's Sixth and Seventh Five Year Plans and the Perspective Plan 2010-21 already laid out the blueprint for trade and industrial policies for growth acceleration through outward- orientated trade policy regime. The strategies for outward-orientation of trade policies in order to ensure export-led or trade-led growth will have to be activated in full. However, the reform agenda in this area remains unfinished and more will have to be done as we approach the stage of graduation out of LDC. Policies have to be put in place that ensures export competitiveness on the one hand, and restores the balance of incentives between production for exports and import substitute production for sale in the domestic market on the other. There is little doubt that "Preference erosion" is expected to unleash the strongest forces of competitiveness in the global market.

6.2. A Strategy for the Future

Recognizing that Bangladesh's future industrial prospects will be intricately linked to the projected trends in (a) global and regional trade in a highly competitive environment, (b) the future of globalization, and (c) the evolution of trade policies determined by the transformation of manufacturing and services of the future, during the preparatory period of graduation, it is imperative to develop an integrated strategy for future growth and job creation for Bangladesh

building on the interplay of these three interlinked and strategic forces that can fuel economic growth and propel Bangladesh comfortably across the finishing line of LDC graduation.

To sustain and boost economic dynamism during the run up to LDC graduation, a two-pronged approach is needed which is broadly on track though some shortcomings remain:

a. ***Growth acceleration will be driven by export-oriented industrialization*** that is globally competitive and based on the country's dynamic comparative advantage, such that industrialization is employment-intensive with evolving skill-intensity consistent with technological sophistication of the Fourth Industrial Revolution (Industry 4) thus paving the way for greater export diversification and competitiveness. Recognizing that export and protection policies are not mutually exclusive, the objective will be to strike a harmonious balance between the two policies by modernizing and rationalizing export *incentives* and protective tariffs in addition to completing the unfinished trade reform agenda with emphasis on the trade facilitation component of customs administration modernization.

b. ***Recognizing private sector as the driver of growth*** and, to this end, creating an investment-friendly environment by transforming the state's role as a facilitator of economic and investment activities, strengthening economic and political governance, including the interaction of the state with the private sector; improving law and order; addressing the critically constraining infrastructure bottlenecks (in power, overland and port transport, and communications); establishing a sound and well-functioning financial sector; and addressing other barriers to productivity growth and international competitiveness.

Seek global markets: We are living in a world that is transforming it speeds almost incomprehensible to the average mind. Unlike historical growth rates experienced in the past centuries, it is now possible for developing economies like Bangladesh to grow at 7, 8, 9, or 10 percent annually. This is because of the enabling effect of a rapidly integrating global economy[27]. The global economy provides two things. One is a huge market which is getting more integrated over time. Provided an economy has some competitive edge – and Bangladesh does -- it can basically grow as fast as it can invest and build productive capacity. The second thing— even more important—is that the global economy provides knowledge, technology, know-how. Globalization coupled with instantaneous transmission of digitized information results in acceleration and augmentation of the flow of knowledge, technology, and learning. Properly harnessing these global forces will enable Bangladesh to grow at higher rates in future that were simply not possible before.

Given Bangladesh's enormous challenge for creating roughly 2 million jobs annually, there is no option but to creating bridgeheads in the global market for our exports. Given the small

[27] This comes from statements by Michael Spence, Nobel Laureate Economist, in an interview with McKJinsey Global Institute's James Manyika: **Interview transcript: Why economies grow rapidly. (April 2014).** Spence was also head of the 2006 Commission on Growth and Development.

size of its domestic economy, Bangladesh needs to expand its exports of goods and services in order to move to a higher growth path and grow out of poverty. The domestic market, despite its continual expansion, is still no match for the vast global market place of $80 trillion[28] Capturing pieces of that market, beyond EU and North America, into China, India, and the Asia Pacific region to top $100 billion of exports by 2025 will have to be the target to reach.

Enhance productivity: Over the next five years or so Bangladesh must be ready to face unbridled competition in the global marketplace as significant "preference erosion" will have taken place by then. In the new competitive environment, the key challenge for us will be to raise 'productivity' of our firms and industries/sectors within the framework of sound macroeconomic management**.** Bangladesh has roughly five years to climb appreciably up the ladder of World Bank's Ease of Doing Business (EDB 2019) where it is behind most of the comparators. Economic governance and regulatory environment have to be conducive for business and investment --with well-functioning factor markets, efficiently run infrastructure services, easy market entry/exit, enabling regulatory environment and bureaucracy, access to information, and strong competitive pressures--would allow firms to become more productive, competitive, dynamic, and innovative. Such an environment accentuates competitiveness of exporting firms. It extends beyond comparative advantage (based on cheap labour) and shifts to competing on the basis of competitive advantages.

Strive for diversification and competitiveness: And this is what Bangladesh needs to strive for in the coming years for promoting export diversification and competitiveness. Given that there is a significant backlog of incomplete reforms, there is indeed an urgency to act fast in addressing the priority policy and institutional constraints to improving Bangladesh's competitiveness. First, global markets are undergoing rapid technological transformation and trade integration with mooting competitive pressures. There is no option for Bangladesh but to strengthen its competitiveness and diversify its export in order to improve our export performance to engender faster growth. Second, though Bangladesh has become a global player in RMG it has to be ready to cope with stiffer competition once it loses preferential access to its leading export market – the EU. The RMG industry has indeed matured with some of the world's greenest factories (top 3 eco-friendly and 7 of the top 10 garment factories in the world are in Bangladesh). Nevertheless, the industry must remain on the alert to keep in step with technological innovations taking place that could undermine Bangladesh's competitive edge unless all efforts are made to at least march in step with the industry leaders around the world. Finally, the potential for export diversification needs to be fully exploited. Bangladesh has a mono-product export basket with 83% of her exports made up of RMG. Yet, over the past 10 years, Bangladesh has been exporting non-RMG

[28] World Bank estimate of World GDP in 2017 reported in World Economic Forum 2018 (Jeff Desjardins: The World's $80 Trillion economy in one chart).

goods numbering 1000 to 1300 products (at HS6-code level) mostly under $1 million in value (75% of non-RMG exports in FY2018).

The Growth Commission[29] asserted that strategic trade integration in the current state of globalization allows developing economies to grow at much higher rates than before. The way for greater trade integration is through increased trade openness via trade liberalization, accompanied by complementary policies and institutional reforms, which in turn enhances competition and facilitates technological upgrading.

With LDC graduation looming large, the severest degree of competition will be unleashed over the next 5 to 10 years. Preparation for that stage must be done in earnest now. Given the current state of trade orientation there are two areas in which the country faces serious challenges: (a) making trade policy – internal and external – tilted in favor of exports, and (b) addressing the plethora of behind-the-border obstacles or deficiencies in order to make exports diversified and competitive in the world market based on our comparative advantage. Efforts made towards enhancing international competitiveness and removing anti-export bias will eventually pay off. It is therefore critical that concerted effort is made to improve Bangladesh's competitiveness by addressing both behind-the-border constraints as well as the remaining significant external trade agenda. This chapter focuses on the trade policy challenge, while the next chapter analyses the behind-the-border issues.

6.3. Addressing the Trade Policy Challenge

The trade policy reforms of the 1990s signaled a significant departure from the highly protectionist, inward-oriented import-substitution policies of the past. Trade integration was enhanced along with greater domestic competition, and domestic relative prices were aligned closer to international prices. These reforms were meant to promote efficiency in resource use, lead to productivity growth, spur activities with comparative advantage, encourage technological progress and diffusion and thus generate dynamic gains. The trade policy measures included tariff cuts and rationalization, elimination of quantitative restrictions, adoption of a unified exchange rate system, switching from a fixed to a more flexible exchange rate regime, and current account convertibility. The expectation was that these reforms would be gradually intensified to make Bangladesh an export powerhouse in the region with the economy would more open and fully integrated with the global market.

Progress has been slow and far between. But with LDC graduation looming large Bangladesh can ill afford to remain complacent. Unless trade policy reforms are taken to the next phase, LDC graduation in 2024-27 could serve as an adverse shock to the economy.

[29] The **Growth Commission** launched in 2006 was an independent body chaired by Nobel Laureate economist Michael Spence that brought together 22 policy-makers, academics, and business leaders to examine various aspects of economic growth and development.

Rationalize protection regime: With Bangladesh's strong labour-cost advantage future potential in trade growth and export diversification is enormous globally. Success in RMG exports where Bangladesh is now a global player has shown the way. Though tectonic shifts are taking place via the Fourth Industrial Revolution (4IR) cementing the forces of innovation, artificial intelligence (AI) and Internet of Things (IoT), with some skill intensity of our labour force there is still 5-10 years of this advantage remaining to be fully exploited. But policy inconsistencies have to be fixed. High protection to domestic industries and recurrent phases of exchange rate over-valuation create significant anti-export bias to divert resources away from non-RMG exports to import-substitution activities. A priority trade policy agenda is to rationalize tariff protection to balance incentives between exports and domestic production/sales of import substitutes.

Despite considerable progress in the past decade, the current trade regime appears biased in favor of import substitute production – anti-export bias. High tariffs and other protective instruments that protect domestic industries create strong disincentives to exports and export activities through several channels, thus causing significant anti-export bias.

- Almost all domestic production of manufactured consumer goods is protected by high tariffs and para-tariffs. Duties levied on imports of final goods raise their domestic relative prices, thereby increasing the profitability of import substitutes relative to exports, which have to be exported at world prices. This diverts resources towards production for the domestic market, away from the production of exports. For example, the very high protection (85.6 percent to 113 percent) afforded to the ceramics and plastics industry—tableware, kitchenware; footwear, lamps, and biscuit industry, etc. (Table A6.1 Technical Annex to Chapter 6) which, to some degree, are reflected in much higher domestic prices of these products compared to their export prices. The net result is that domestic sales are far more profitable than exports, so exports are discouraged. Almost all of these products have some exports but export potential, which is much higher, is never realized.

- With import demand being curtailed under high protection, import-related (ex ante) demand for foreign exchange is being curtailed, thus perhaps enabling the exchange rate (i.e., a lower domestic currency price for US$) than otherwise. This would mean that export proceeds, expressed in domestic currency, would be lower than what the exporter would receive had the protection levels provided by import duties and other instruments been lower.

- Not just tariff levels, tariff escalation is also high. An escalating tariff structure, with lower tariffs on imports of raw materials and intermediates and higher tariffs on more processed products, raises the *effective protection* for an import substitute above the nominal protection that the same import substitute receives from import duties and other protection. This means that the value-added (processing margins) involved in production for the

domestic market will exceed the value-added that would have existed in the absence of any protection, by proportionately more than the nominal protection of the final product. This further increases the anti-export bias.

- Exporters sell in competitive world markets and cannot pass on increases in their costs of production to their buyers. Thus, import duties paid on imported inputs increase their production costs and reduce their profit margins. Similarly, if they buy their inputs from local producers, again there may be cost raising effects due to protection and/or lack of local competition.

✓ The duty drawback system (DDS) in place is grossly inefficient and involves delayed collection of rebates and extra payments.

✓ The special bonded-warehouse (SBW) scheme used by the RMG sector is far more effective in a high tariffs economy but serves only specific activities that are 100% export-oriented.

Anti-export bias remains high. High tariff protection is the main source of anti-export bias**.** Export success so far has been limited to readymade garments (RMG) without much traction in other labour-intensive exports. Among other things, there is an inherent conflict between export policy and protection policy, which are not mutually exclusive. This needs to be recognized and actions taken to streamline these policies. High protective duties on imported inputs hurt competitiveness of exports. Table 6.1 shows Bangladesh's low ranking in relation to other developing countries (implying high tariff protection). Tariff protection, which raises profitability of import substitute production, creates an inherent anti-export bias. Tariffs raise the relative profitability of domestic sales compared to exports, thus discouraging production for exports. Thus, there is an inherent bias of incentives skewed in favor of import substitute production rather than exports. This has to change.

Table 6.1: Bangladesh Rank of Average Tariffs in Relation to Other Developing Countries

Countries	All Products (in Asia)	Manufacturing (in World)
Bangladesh	4	19
India	10	74
Pakistan	5	25
Sri Lanka	12	82
Vietnam	16	90
Malaysia	22	102
Thailand	14	84

Note: All products tariff rankings are based on Asian countries (46 countries); Tariff ranking in manufacturing is based on world ranking of tariffs (182 countries); Ranks higher for lower tariffs
Source: ITC database, Indexmundi trade statistics

Bangladesh's trade liberalization efforts since the early 1990s did produce partial success in reducing the anti-export bias of the trade regime. The ratio of (average) *effective exchange rate* for imports (EERm) to that of exports (EERx) is used as an indicator of the trade regime's anti export bias--the higher the ratio above 1.00, the higher the bias against export activities. As shown in Table 6.2 below, since FY2005 there has been only modest reduction in anti-export bias. While import substitute production gets the benefit of much higher rates of tariff protection (considered indirect subsidies), export production benefits from cash subsidies (5-20%) for selected exports and discounted interest rates out of loans from the Export Development Fund. Beginning with a ratio of 1.35 in FY2004-05 the ratio had trended upwards by FY2012-13 before declining to 1.33. This degree of anti-export bias creates serious disincentives for exports, particularly of non-RMG exports.

Table 6.2: Trends in Anti-Export Bias Based on Effective Exchange Rates for Import Substitutes and Exports

Fiscal Year	Imports (billion US$)	Exports (billion US$)	Average Nominal protection (NPR %) Consumer goods	Nominal exchange rate (Tk/US$)	EERm	EERx	Anti-Export Bias EERm/ EERx
2004-05	11.87	8.66	37.35	61.39	84.32	62.53	1.35
2005-06	13.30	10.53	38.80	67.08	93.11	68.06	1.37
2006-07	15.51	12.18	35.77	69.03	93.72	70.16	1.34
2007-08	19.49	14.11	34.19	68.60	92.05	70.02	1.31
2008-09	20.29	14.81	33.31	68.80	91.72	70.54	1.30
2009-10	23.74	16.20	41.20	69.18	97.68	71.39	1.37
2010-11	30.34	22.92	41.29	71.17	100.56	73.29	1.37
2011-12	33.31	24.29	48.36	79.10	117.35	81.47	1.44
2012-13	33.58	27.02	51.40	79.93	121.01	84.16	1.44
2013-14	36.57	30.19	50.67	77.72	117.10	82.76	1.41
2014-15	37.05	31.21	47.76	77.67	114.77	84.81	1.35
2015-16	39.90	34.24	45.95	78.26	114.22	84.55	1.35
2016-17	43.49	34.02	45.23	79.12	114.91	87.85	1.31
2017-18	54.46	36.67	45.98	82.10	119.85	90.22	1.33

Note: Since protection is provided mostly to consumer goods, average NPR for consumer goods is used. Effective exchange rate for import substitutes (adjusted for NPR) is EERm and for exports (adjusted for cash and interest subsidies) EERx.

Source: EPB, BB, and GED estimates

The conclusion: the structure of incentives created by the trade policy still favors the production of import substitutes and constitutes a significant barrier to the emergence of new exports and to the expansion of exports that are not benefiting from enclave arrangements as in RMG sector. Furthermore, these calculations are based on the protection levels made 'available' by NPR rather than effective rates of protection (ERP) which are much higher. Research on effective protection levels for key import substitute industries (Ahmed and Sattar 2012) show much higher average

rates (e.g. footwear 273%; agro-processing 287%; plastic and ceramic tableware 215%).

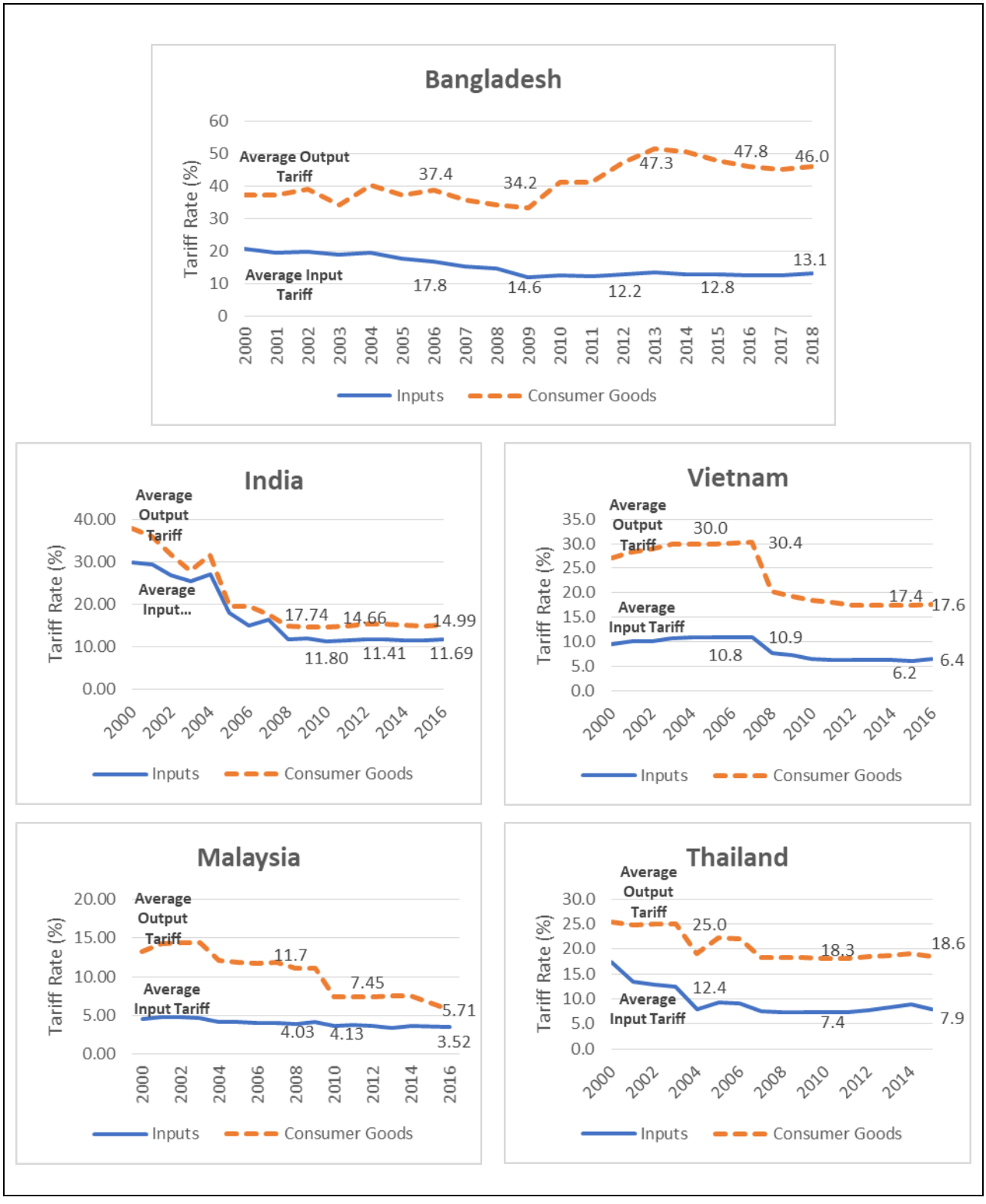
In the circumstances, the two inter-linked policy of rationalizing the protection structure and sufficiently incentivizing exports needs immediate attention. Since protection levels are high any support to export (e.g. subsidies) will have to be high, but such measures will fall afoul of WTO rules following graduation. So, there is no option but to rationalize the level and structure of protection to import substitute industries in order to minimize the level of anti-export bias.

The Imperative of Tariff Modernization

Streamlining trade and tariff policies calls for a five-year program of adjustment culminating in a trade and tariff regime that is reflective of or trending towards a UMIC economy. Needless to say, that the current tariff regime, which is replete with para-tariffs for protection purposes and the near absence of tariff bindings on manufacturing products, will have to change dramatically once the economy loses LDC status. Both external (opening markets by seizing opportunities of bilateral, regional and plurilateral agreements) and domestic content (eliminating anti-export bias by balancing incentives for exports and domestic sales) of trade policy will have to be revamped to fit the demands of a dynamic global market and an export-oriented trading regime.

The current tariff structure is archaic and needs urgent reforms. One required priority action is the further rationalization and modernization of the tariff regime. Research and cross-country evidence regarding protection confirm that (a) protection once given has a tendency to perpetuate as producers in protected activities develop a vested interest in maintaining it; (b) industries protected for too long become inefficient and uncompetitive at the global level as they have little incentive to innovate or raise productivity. A close examination of the structure of tariffs reveals that the decline in average nominal protection rate (NPR) was due primarily to the reduction in tariffs on basic raw materials, capital goods and intermediate inputs, while the top CD rate remained flat at 25% since FY05, topped up by generous supplement of levies such as supplementary duty (SD) and regulatory duty (RD) – para-tariffs. The trends in nominal protection rates of import categories reveals that in the recent past the average NPR for input categories have been declining rapidly while that of final consumer goods remained practically flat if not increased. The wedge between output and input tariffs has become unusually large, unlike that in any other country (Figure 6.1 and Table 6.3). What is seldom recognized is that this trend of input and output tariffs is unique for Bangladesh and deviates far from the pattern followed by the high-performing economies in East Asia and other comparator countries. Two things to be noted: while the divergence between input and output tariffs (tariff escalation ratio) in comparator countries is low and over time both input and output tariffs trend downwards, the trend in Bangladesh tariffs follow the opposite – output tariffs rise while inputs tariffs decline over time. This is untenable and needs to change for the future. There is no justification for tariff escalation -- defined as ratio of average tariff on output over avg. tariff on inputs – to be the highest in Bangladesh.

Figure 6.1: Trends in Output and Input Tariffs: Bangladesh, India, Vietnam, Malaysia and Thailand



Source: NBR, TRAINS Database, WITS

Table 6.3. Tariff Escalation Ratios of Bangladesh and Selected Countries/Regions

Country/Region	Year	Average Input Tariff	Average Output Tariff	Tariff Escalation Ratio
Bangladesh	**2018**	13.13	45.98	3.50
China	**2016**	8.33	13.41	1.61
India	**2016**	11.69	14.99	1.28
Indonesia	**2013**	5.28	9.20	1.74
South Korea	**2015**	13.24	12.06	0.91
Malaysia	**2014**	3.69	7.53	2.04
Philippines	**2015**	5.01	9.82	1.96
Thailand	**2015**	7.92	18.59	2.35
Vietnam	**2016**	6.41	17.59	2.74
Turkey	**2016**	7.69	10.58	1.38
South Asia	**2016**	10.66	16.00	1.50
ASEAN	**2016**	3.65	7.27	1.99

Source: NBR; WITS Database, World Bank

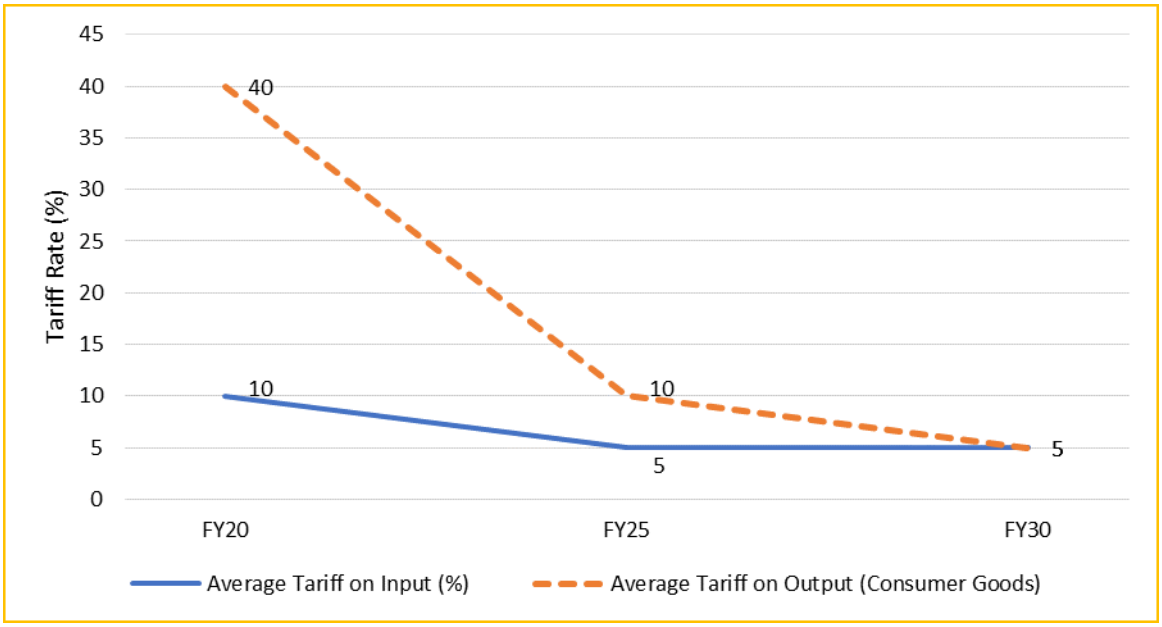
The common perception is that the reduction in input tariffs while keeping output tariffs high makes domestic production of import substitutes more competitive. But the net outcome of this process is higher effective protection to domestic producers over time yielding windfall profits simply through tariffs and without any improvement in productivity or competitiveness. It breeds further inefficiencies in the protected industries. This simply cannot be a long-term protection strategy for an economy seeking a productive and competitive industrial sector during the run up to graduation in 2024-27. Bangladesh continues to have the highest tariffs among its comparators, it's output and input tariff trends show no improvement in tariff escalation ratio which is also the highest.

To continue on a path of sustainable export growth with a diversified basket of goods, Bangladesh faces an immediate challenge to restructure its tariff regime in order to gradually phase out effective protection levels and anti-export bias. In the process, tariff escalation rates would be gradually minimized as the tariff structure trends towards low and uniform rates. A possible tariff and protection regime for the next decade is charted in Figure 6.2. In view of the currently high levels of NPR on final consumer goods (FCG), the proposed structure calls for gradual but significant reduction of NPR on these goods while making modest adjustments to input tariffs along the way. Hence, the average FCG NPR of 46% in FY2019 will have to be reduced to 40% by FY20, to 10% by FY25, and to 5% by FY30[30]. Meanwhile, average input NPRs will decline from 14% in FY19, to 5% by FY25, and stay at 5% by FY30. Thereafter, the

[30] Note that roughly half of the NPR comes from para-tariffs like SD/RD, which will have to be phased out by 2024 anyway, revenue loss notwithstanding.

tariff regime will be one with low uniform tariffs of about 5% without distinction between input and output. On the face of it, the proposed tariff and protection trend would appear contrary to current trends, but that seems to be the only way to go if Bangladesh is to undergo transformative change in its structure of production where production, jobs and income hinge on the success of exports which, by FY25 and beyond, could constitute 50-75% of GDP.

Figure 6.2: Forward Looking Tariff Profile (FY19-30)



Source: GED Projections

The potential adverse revenue implications of tariff rationalization must be addressed. Currently 30% of NBR tax revenue comes from trade taxes (including VAT on imports) compared to 60% in 1990. The strategic shift from reliance on trade taxes to domestic taxes has been occurring – as it should – but this needs to be accelerated as trade taxes are the most distorting form of taxation. The strategic option is to gradually reduce average tariff protection on consumer goods by reducing the top customs duty ratee of 25% (stuck at that level for 15 years) and cutting back on para-tariffs. At 46%, the average NPR (protection) on consumer goods is already too high with tariff escalation the highest among comparators. Because tariff elasticities are highest for consumer goods imports revenue losses from tariff reduction is expected to be modest. Bangladesh experience with tariff reduction in the early 1990s showed no loss of revenue, as average NPR came down from 90% in 1992 to 45% in 1995. In the present context, even if there is some loss in revenue this could be made up by expanding the income tax base and by major reforms in VAT that is being implemented. The government has launched the new VAT law starting in July 2019 that gives hope of a spurt in revenues in the coming years. Attention must also shift to reforming income taxes and rejuvenating and modernizing the entire tax system to make it business friendly and more productive.

6.4. Exchange Rate Management for Exports and Growth

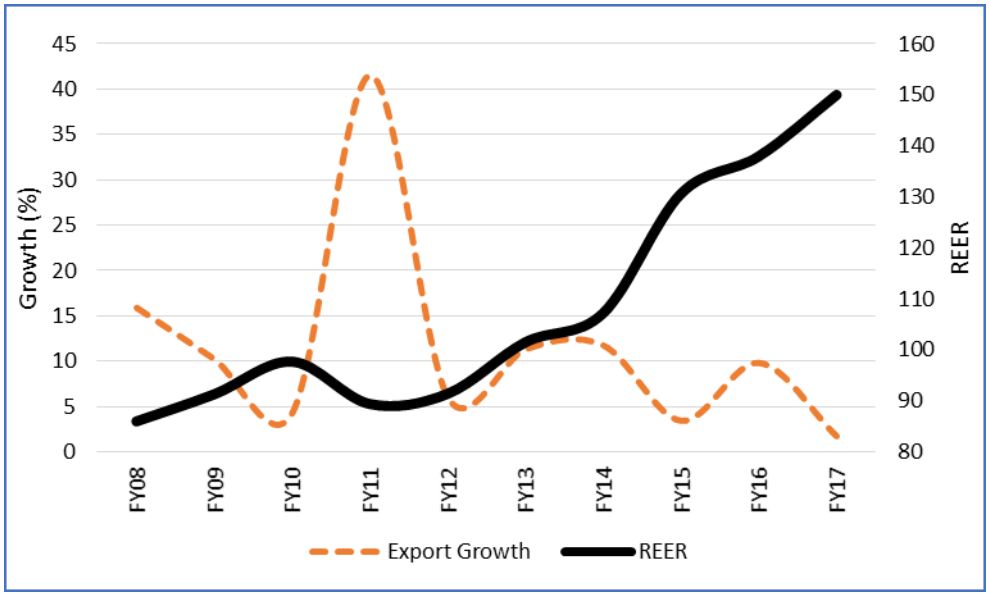
A proper management of the exchange rate should be a critical part of trade policy geared to a superior export performance and high economic growth. Historical and cross-country evidence shows that dynamic and rapidly growing economies have also proactively and effectively managed their exchange rates to ensure that they do not become over-valued. Rather, these countries made sure that their exchange rates were sufficiently under-valued to make their exports more competitive in the world market. The most recent example is China which practiced a deliberate policy of under-valuing its exchange rate for over 30 years. The other example is S. Korea which did the same during its rapid growth phase starting in the 1960s.

Leading economists like Bela Balassa (1982), John Williamson (2003), and Dani Rodrik (2003) have stressed the importance of maintaining a competitive exchange rate as a strategic policy for development. Smart exchange rate management will be required to cope with cut-throat competition following graduation. The record so far has been mixed. Rather than pursue a policy of under-valued exchange rate for export promotion, the tendency has been to err on the side of over-valuation which will not be good for a solid export performance. Prudent management of exchange rate and ensuring exchange rate stability are critical for BOP sustainability and macroeconomic stability. Bangladesh Bank has been following a flexible market-based exchange rate policy since the adoption of the floating exchange rate regime in 2003. This policy has generally served the economy very well by allowing the rate to be determined in the interbank foreign exchange market with occasional interventions from Bangladesh Bank to minimize the exchange market volatility – i.e. managed float regime. A key objective of exchange rate management would be to maintain export competitiveness by preventing any appreciation of the real effective exchange rate.

Criticality of exchange rate management: Poorly managed exchange rates can be disastrous for economic growth. Research evidence shows that avoiding significant overvaluation (or appreciation) of the currency is one of the most robust imperatives that can be gleaned from the diverse experience with economic growth around the world, and one that appears to be strongly supported by cross-country statistical evidence. Overvalued currencies are associated with foreign currency shortages, rent seeking and corruption, unsustainably large current account deficits, balance of payments crisis, and stop-and-go macroeconomic cycles, all of which are damaging to economic growth. Just as overvaluation hurts exports and growth, so undervaluation (depreciation) facilitates it. For most countries, periods of rapid growth are associated with undervaluation. China is the most fascinating case where economic growth tracks movements in the index of undervaluation. The rapid growth of GDP per capita in China since the 1970s was found to closely parallel the increase in the undervaluation index.

Bangladesh experienced double digit export growth for nearly 20 years. During this entire period, though not overly proactive, exchange rate management was prudent with the exchange rate hovering around a relatively narrow band with the help of mini devaluations until the Taka was floated in 2003. The real effective exchange rate (REER[31]) remained fairly stable and moderately depreciated to keep exports competitive. Trade economists consider the REER to be the more relevant indicator as it reflects overall exchange rate competitiveness by taking into account the movements in the nominal exchange rates and inflation in relation to the country's major trading partners. Trade economists have been strong in their advice that countries should avoid over-valuation of their REER as it has deleterious effects on exports. In the past few years, the Bangladesh real exchange rate has taken a turn for the worse, thus hurting exports. Between FY2012 and FY2017, the REER appreciated by nearly 45% serving as a significant damper on exports (Fig.6.3). As expected, exports remained sluggish throughout this period. In FY2018, the situation has improved somewhat not so much due to the modest nominal depreciation of the Taka but rather for the appreciation of the US dollar and other external developments.

Figure 6.3: Export Growth and REER FY08-FY17



Source: EPB and Bangladesh Bank

There is plenty of research evidence (Johnson, Ostry, and Subramanian 2007, Easterly 2005) to show that foreign exchange shortages, unsustainably large current account deficits, and balance-of-payments crises, are associated with overvalued exchange rates, with deleterious impact on economic growth. Other research confirm that greater degree of undervaluation engenders economic growth, but it is mostly pertinent for developing economies (Bhalla 2007, Gala 2007). For example, the high growth in China for three decades was accompanied by considerable

[31] Simply put, REER is the nominal exchange rate adjusted for inflation differences between Bangladesh and its major trading partners.

undervaluation (from 100 percent overvaluation to 50 percent undervaluation). A cheaper yuan made Chinese exports less expensive, boosting the overseas sales that have been among the main drivers of growth during the nation's remarkable economic progress over the last three decades. To compensate for institutional weaknesses or market imperfections, Bangladesh could undertake a depreciated real exchange rate approach to keep exports buoyant. Undervaluation could then even be a substitute for industrial policy.

A depreciated exchange rate paves the way for a surge in growth as domestic goods become cheaper in foreign countries which in turn increases the demand for these goods. It also makes foreign goods more expensive for local consumers, which drives them towards purchasing more domestically produced goods. Many prominent economists believe that undervaluation promotes growth because it motivates firms to invest in high productivity tradable industries, which increases overall productivity rates (Rodrik 2008). Others believe that undervaluation of exchange rates lowers labour costs, which boosts investment and thereby causes growth (Levy-Yeyati, Sturzenegger, and Gluzmann 2013). Undervaluing currency also enables countries to enjoy positive trade balances which often alleviate risks of capital flight and financial crises (Acemoglu et al. 2003, Reinhart and Rogoff 2009). Moreover, it also makes entries into new markets profitable for both domestic and foreign investors. An undervalued currency potentially boosts foreign direct investment as domestic assets become cheaper for the foreign investors. Increases in foreign investment brings forth surges in growth as more employment opportunities open up, better technology is adopted and labour productivity improves. Unemployment also goes down during undervaluation because the persistence of lower wages relative to foreign imports encourage firms to hire more workers. In addition to stimulating exports and employment intensively under a regime of 'good currency management', there's more exploration of new products and markets, more diversification opportunities emerge, and more restructuring of trade away from traditional export sectors to modern services occur (Freund, Pierola 2008).

A strong resistance to exchange depreciation stems from the potential price effect. But the adverse price effect can be countered by an approach called "compensated depreciation" that includes a compensatory reduction in tariffs. For example, a 10% depreciation would affect prices of imports and import substitute products upward by 10%, which leads to the fear of fueling inflation via currency depreciation. That is where the compensation principle kicks in. If tariffs are then reduced by 10% across-the-board, the price effect of the currency depreciation would be neutralised. The net result is a 10% uniform (i.e. nondiscriminatory) incentive to all exports but without increasing the prices of imports. Effective protection and revenues will remain unchanged. To be fair, any depreciation does raise the Taka cost of servicing foreign debt. But Bangladesh's debt servicing capacity (at 3.5% of foreign exchange earnings) leaves room for bearing the extra cost which will raise public expenditures marginally with only a ripple effect on the fiscal deficit.

The policy dilemma: Export margins are typically thin[32]. Global competition continually squeezes profits by driving down prices for export products, including readymade garments. Trade theory tells us that as a small open economy Bangladesh is a price taker (i.e. with little power of price determination at the world level). With all the negotiating skills that our exporters can muster, they can only make marginal gains. Recent investment in remediation work in the RMG factories have imposed additional burden on our primary export sector. Exporters would therefore love to see the nominal exchange rate depreciate significantly (i.e. yielding more Taka per dollar of exports) to compensate for difficulties on the price front. While selected non-traditional exports have been identified for cash subsidies ranging from 5% to 20%, that is still not the answer for all the 1300+ non-RMG export items that cannot all be covered with subsidies. Moreover, when compared with the subsidy given to import substitutes through tariff protection (e.g. plastic and ceramic tableware receive nominal protection of 125%+) the incentives are biased against exports. But Bangladesh Bank has avoided letting the exchange rate slide for the fear of fueling inflation. The interbank Taka-dollar exchange rate has moved only modestly over the past 5-6 years within a narrow band of 2-3%. Clearly this is not enough when the REER has appreciated 45% between FY2012 and FY2017. Is there a way out?

The preceding analysis reveals accumulating research evidence that if exchange rates become excessively overvalued, a nominal depreciation has to be made accompanied with either fiscal or monetary adjustments as needed. In the Bangladesh context we find that (a) external inflation rates are beyond our control, and (b) domestic inflation is unlikely to be brought down to 2-3% anytime soon. The confluence of these two factors will cause the real exchange rate to appreciate unless accompanied by corrective nominal depreciation of the Taka, by about 3% annually.

Finally, the exchange rate is not immune to our policy of protection either. High protection by restricting import demand also has the effect of curtailing demand for foreign exchange. In a floating exchange rate system (managed float in the case of Bangladesh) this would enable the country to maintain a lower exchange rate (i.e. a lower Taka price of foreign exchange) than otherwise would be the case. This would mean that export proceeds, expressed in Taka, would be lower than what the exporter would receive had the protection levels provided by tariffs **and** para-tariffs been lower. Thus, an overvalued exchange rate creates pressure for the persistence of protection (by cheapening competitive imports) making return to more liberal trade policies even more difficult without exchange rate adjustment. Undervaluation would then relieve that pressure and make protection reforms easier.

Given the balance of payments outlook, characterized by moderate external current account deficits/surpluses and surpluses in the overall balance, there should not be any major instability in the exchange market even with moderate degree of Taka depreciation to keep REER from appreciating. The strategy will be to maintain or augment the current comfortable reserve position of Bangladesh Bank which should help fending off any speculative pressure in the

[32] Typical profit margins for our exports are 5-7% or less.

exchange market. The comfortable external position will also allow Bangladesh Bank to consider easing some of the current and capital accounts restrictions in a phased manner. Such a phased liberalization of the capital account, in a stable macroeconomic and strong external environment, would help boost investor confidence in the economy and promote inflow of FDI.

6.5. Trade Policy Stance Going Forward

For effective export promotion, in addition to the export policies, a set of other complementary policies and programs are critically required. Stabilities of the macroeconomic environment, effectiveness of the export promoting and supporting institutions, and smooth functioning of the financial markets are necessities. Furthermore, the quality of governance should be improved through promoting transparency and accountability, and by reducing the extent of corruption. The government should also take effective role in technology diffusion and in providing appropriate physical infrastructural facilities. These issues are laid out in more detail in the next chapter.

The export-led growth philosophy underscores the need for setting up an incentive structure that overcomes the problem of serious policy-induced anti-export bias. The notion of anti-export bias is related to the trade policy measures that act to favor the import-substituting sector and discriminate against the export activities. The principal route to this 'bias' or discrimination is accomplished by altering relative prices of exports and domestic sales. While for exporters it is not possible to influence the world price, import tariffs and quantitative restrictions allow the producers to raise the domestic price of their commodities above the world price. The resultant profitability (and thus relatively high price of import substitutes to export goods) under the shield of protective measures encourages reallocation of resources from the production of exportable to that of import substitutes. Also, policy-induced domestic production may result in increased demand for non-tradable diverting further resources into this sector at the cost of exportable. True, the domestic market is expanding rapidly with a fast-growing middle class strengthening domestic demand. Growth strategies that rely exclusively on domestic demand eventually reach their limits. The home market is usually too small to sustain growth for long, and it does not give an economy the same freedom to specialize in whatever it is best at producing. Over time, future trade policy must move towards neutrality between domestic and export markets, with a slight tilt for exports. The open world economy offers developing countries like Bangladesh deep elastic markets for their exports.

If anti-export bias is so prominent in our trade policy orientation, it is pertinent to ask how is it that RMG exports rose to such heights as to make Bangladesh one of the leading RMG exporters of the world. It goes to the sagacity of our policy makers to have devised a "free trade channel" for this 100% export-oriented sector within an otherwise high tariff regime. Aided by the MFA which gave access to world markets, domestic policies designed exclusively for RMG industry, comprising special bonded warehouse and back-to-back LC, were able to soundly neutralize

anti-export bias of a high tariff regime. Indeed, these policies constituted the bedrock of success for this labour-intensive industry that symbolized Bangladesh's strength in low-skill intensive manufacturing, the sort of specialization that should spill over to other industries as well. Replicating these policies for non-RMG exports is the way to go as long as high tariff protection prevails.

Going forward, apart from the move towards uniformity of the tariff structure, other aspects of efficiency and transparency will have to be added to customs administration which, by 2025, will no longer have a major role in revenue collection because domestic taxes (income tax and VAT) will become the principal revenue instruments. Trade facilitation will be the underlying principle of its existence. Still, protection of specific products through the application of tariff peaks (a high tariff rate) might emerge from time and time and exceptions to the uniform tariff rule would then have to be made as temporary measures. Such a tariff structure will impart minimal distortion to domestic production and trade. Our trade regime must be so formulated as to enable a modern high-tech industrial sector of the future to function with seamless movement of goods and services across borders or via online with least transaction costs.

Institutions. Policy frameworks need institutions to become effective. In other words, it is institutions through which strategies are ultimately implemented. Besides, trade or export policies usually encompass a number of institutions or departments and coordination of their tasks has important implications for all eligible exporting firms' benefiting from incentives. Therefore, strategies need to be outlined in details and the roles and responsibilities of relevant institutions and departments should be articulated.

The next decade will be crucial for strengthening economic institutions that will help entrepreneurs seize market opportunities emerging in a fast-changing global economy driven by innovation and creative destruction. In order to attain and sustain high economic growth what is needed is building and nurturing inclusive economic institutions that are effective in enforcing property rights, creating a level playing field for small and large entrepreneurs, SMEs and big business, and encouraging investment in innovation, adoption of new technologies and developing skills for the future.

New directions in trade policy. Some new thinking and new directions in trade policy orientation, with significant departures from past approaches have become the national imperative for successful export-push policies for industrialization in the post-LDC period. These are:

(a) *New approach to protection policy*. High protection for a long period creates inefficiency and undermines competitiveness over the long-term. Consider reviewing protection policy, scale down the level of protection, and institute a mechanism of time-bound protection for import-substitutes.

(b) *Tariff rationalization*. Bangladesh tariffs, nominal and effective protection levels are among the highest in the world. In addition, tariff escalation, and the spread between NPR on output and inputs is too high. Recognizing that a high tariff regime undermines export competitiveness, it is time to seriously start scaling back NPR on domestically produced final consumer goods. NBR must adopt a strategy of lowering average NPRs by 3-5 percentage points every year until 2025, largely by reducing NPR on import-substitute consumer goods.

(c) *Access to world-price (duty-free) inputs must be ensured to all exports*. The spectacular success of RMG industry has not been replicated. A major reason for this is the existence of anti-export bias in non-RMG export production. To replicate RMG success in other labour-intensive production, the facility of duty-free imported inputs must be provided even to firms that export part of their total production. The policy for providing duty-free inputs for export production is not a privilege (or support) but a requirement for all export production in order to be on a level playing field with global competitors who have access to world-priced inputs. Export success calls for a policy environment with no anti-export bias.

(d) *Intermediate goods sector needs a boost*. 98% of Bangladesh's exports are final consumer products with little or no intermediate goods. As high protection is provided to mostly consumer goods, trade and domestic policies have an anti-intermediate goods bias. This needs to change as trade in intermediate goods is the fastest component of global trade. Bangladesh needs to exploit the opportunities created by cross-border production networks to produce and export intermediate goods that could be assembled elsewhere.

(e) *Access to long-term and short-term financin*g must be made available to both large and small exporters in a country where large numbers of small exporters are unable to scale up their export activities due to various constraints.

(f) *Foreign direct investment (FDI).* Partnership with good international investors that can support technology transfer, create market access abroad and jobs at home, can be the ultimate boost for exports. Most important for the next decade, FDI can help bridge the technology gap and make Bangladesh manufacturing catch up with the latest advancement in global manufacturing.

(g) *Government support to open external markets.* As trade preferences get phased out over the 5-10 years in developed markets, government assistance and support through embassies become even more critical for successful market penetration in the largest global markets, such as EU, North America, Japan, and emerging economies.

(h) *Policy flexibility helps*. Not all good policies produce their intended outcome. Experience of successful export economies shows how flexibility in policy implementation averts crisis. When a policy does not yield results there should be scope for changing directions.

(i) *Trade Agreements with Regional Communities*. Barring the USA, the vast majority of WTO member countries would like to see a reformed and more effective multilateral trading system. Bangladesh, which has benefited from the multilateral regime as an LDC, may use the special dispensation for LDCs for the remaining years (until 2024) but will have to prepare for the stiffer competition our firms will face in the global market, once the preferential access provision evaporates following graduation. Furthermore, it must seek market access under various bilateral and regional trade and investment agreements. Markets in Asia are growing faster than any other region of the world and ADB projects that by 2050 50% of global GDP will be in Asia. Two regional trading arrangements that hold tremendous potential for trade and investment are RCEP (ASEAN+) and CPTPP which together will constitute the bulk of Asian market of the future. Bangladesh would be well advised to reach trading arrangements with these groupings. But that could be an uphill task give the current high tariff regime in Bangladesh and the enormous resistance from domestic import substitution industries to any reduction of protective tariffs. The political economy challenge is considerable but a breakthrough is essential in this area.

***Trade-related capacity building*:** To pursue the new directions in trade policy that would be adequate enough to address the emerging challenges of a post-LDC world, Bangladesh must close the huge gap that exists in trade-related capacities in the key ministries and agencies responsible for formulating and carrying out strategic trade policies and mainstreaming them as essential components of growth and poverty reduction national policies.

As an LDC, Bangladesh has mostly enjoyed preferences that are unilaterally granted by trade partners. This might have discouraged more proactive market exploration initiatives through bilateral and regional trade deals that would have required exchange of trade concessions based on reciprocity. The need for actively looking for export opportunities has recently been catapulted into prominence as graduation from the LDC group looms large on the horizon. There is a broad-based consensus that the accomplishment of LDC graduation must be complemented by continued export success along with diversification, at least by product and destination.

However, in spite of these challenges on the horizon, Bangladesh Government has serious capacity constraints in preparing and developing negotiation strategies and undertaking actual negotiations. As noted in Chapter 4, the multilateral trade system (e.g. WTO) is under threat, with rising economic nationalism and protectionism worldwide, there are uncertainties surrounding the WTO-sponsored trade opening. That makes it absolutely critical that Bangladesh prepare for bilaterally or regionally negotiated trade deals to address some of the challenges arising from its upcoming LDC graduation. While there are a sufficient number of

officials in place to perform policy analysis and prepare inputs for trade negotiations, the actual technical competence of the Ministry is variable and weak in some areas. A quick assessment of "urgently needed" areas of trade-related capacities in the MOC lists expertise in such areas as assessment of trade prospects, analysis of trade data, training on WTO agreements, costs and benefits of regional or bilateral preferential trade agreements, costs of protection, policies to ensure export competitiveness and promote diversification, and so on. There is also pent up demand from other related ministries/agencies involved in trade negotiations for support and training in order to develop their capacities in specific statistical and econometric tools, analysis of the trade data and trade policy of other countries, training on WTO agreements, and training on trade negotiations. What is required are customised training programmes to develop some immediate technical capacities and assistance for commissioned research/technical studies for dealing with some of the urgent priorities, as outlined above. Furthermore, in a post-LDC Bangladesh, there is need for strong recognition of the importance of mainstreaming trade and trade policies in the overall development strategies for the economy in the medium- to long-term.

For trade policy making and trade negotiations, the Ministry of Commerce (MoC) is the lead line ministry for preparing technical inputs, commissioning and overseeing studies/inputs to be prepared by external resource persons, consulting the private sector, and developing negotiating strategies. Two departments that work directly with MoC on these issues are Bangladesh Tariff Commission and Export Promotion Bureau. In addition, the Bangladesh Institute of Foreign Trade, which was established under a public-private partnership (PPP) initiative, also provides assistance to MoC. The National Board of Revenue (NBR) under the Ministry of Finance, which is in charge of Customs and tariff policy formulation, is also a major participant in trade negotiations, having an important stake in orchestrating tariff concessions on a reciprocal basis. The Ministry of Foreign Affairs (MoFA) actively works with the MOC in conducting bilateral, regional and multilateral negotiations. These will be the primary stakeholders of any capacity building programme. However, all the relevant ministries and departments, and private sector bodies/institutions will constitute primary stakeholders with the Ministry of Commerce playing the role of coordinator. Private sector and civil society organisations may also be involved in the capacity building programme, given their roles in trade negotiations and policymaking.

***The FTA option*.** Government sources have acknowledged Bangladesh's receiving requests for bilateral trade negotiations from several countries including China, India, Malaysia, and Thailand. What should be the strategic trade policy orientation when it comes to negotiating and signing bilateral and regional FTAs during the run up to LDC graduation and beyond? Post-LDC Bangladesh may have to negotiate a trading arrangement with the EU along with the possibility of another one with the post-Brexit United Kingdom to ensure favourable access to these important markets. Beyond that, Bangladesh may seek more bilateral or regional FTAs if the projected trade creation (or trade growth) contributes positively to growth and employment creation.

First, it is important to acknowledge that Bangladesh is a significant beneficiary of the multilateral trading system (WTO) and its special and differential dispensation for LDCs and developing countries. It would be in the best interests of Bangladesh to continue to be a strong participant under this global system of compliance of trade rules even after graduation.

In the meanwhile, since the multilateral system does permit the contracting of preferential trading arrangements, such as a Free Trade Agreement (FTA), departing from the guiding principle of non-discrimination defined in Article I of GATT, Article II of GATS, and elsewhere. FTAs may be signed under Article XXIV of the GATT, which allows for the formation of trade blocs, permitting WTO members of a trade bloc to discriminate against nonmembers, as long as the agreement results in trade liberalization among the signatories extends what is available under the WTO. FTAs in recent times are seldom limited to just trade in goods, as they encompass services as well as investment.

Of late, the multilateral trade regime and its offshoot, globalization, has come under serious strain from the rise in economic nationalism and protectionism. Consequently, a growing number of nations, both developed and developing, have been seeking to sign FTAs on a regional or bilateral basis. Bangladesh, with only one regional FTA (SAFTA) and no bilateral FTA in its armor, has fallen behind in this game of trade openness beyond the WTO. Basically, an FTA has the potential of creating access to larger markets for Bangladesh exports. But they have advantages and disadvantages.

On the plus side, an FTA can force local industries to improve competitively and rely less on government subsidies. These can open new markets, increase GDP, and invite new investments. They also allow companies to discover new technologies and better ways of doing things. FTAs could trigger a beneficial process of "competitive liberalisation", as nations vie to open their markets to each other. On the downside, FTAs could bring disruptive competition, destruction of traditional livelihoods, with adverse implications for employment.

Whereas Bangladesh's preferential access into major global markets under WTO system relies on unilateral provision, a fundamental tenet of FTA is "reciprocity". Concessions in the liberalization process have to be offered, though there is scope for negotiations for staggered adjustments of tariffs or other trade barriers. Where Bangladesh is involved in a North-South (i.e. developed and developing country) arrangement, tariff reductions on its part could have a longer timeline. Gains from an FTA is expected to be greater when such FTA opens larger markets (e.g. North-South FTA, such as between Bangladesh and OECD members). But there are potentially large market creation effects to be had from engaging with regional associations (South-South) like the BIMSTEC, ASEAN or its surrogate, the Regional Comprehensive Economic Partnership (RCEP) that adds six more FTA partners.

However, it is worth keeping a few things in mind while considering FTAs:

- Deeper, broader, rapid liberalization under an FTA produces a bigger effect. Firms are less likely to incur additional administrative costs if the tariff advantage provided by the FTA is small.
- The FTA impact will be greater if the impediments to trade removed by the FTA are large relative to those that remain untouched.
- The most fundamental factor is the capacity of our economy to increase supply of products for which the FTA has boosted demand.
- They reinforce the point that any contribution of an FTA to Bangladesh's economic development is likely to be influenced heavily by the broader policy stance of its government, the flexibility of the economy and the extent to which supply can respond to any new demand that has been created.
- We could target FTA with countries that have already shown interest, such as Malaysia, China, India (post-LDC, as SAFTA already gives market access), Thailand. Emerging market economies would also be good candidates, quite apart from OECD member countries. The point to note is that gains from any FTA will be minimal if the market size of the partner country is small.

- Most importantly, the first item in an FTA relates to trade openness in terms of tariffs. With its sky high tariff regime relative to its comparators, that is where Bangladesh will face a major hurdle in getting prospective FTA suitors to come calling. Mutually reciprocating tariff reductions are usually critical items in any FTA negotiation. But when tariffs are very high, as is the case for Bangladesh, the leverage from offering tariff reductions is all but lost. Thus, rationalizing Bangladesh's tariff structure then becomes a national imperative if the country seeks FTAs with any country or region in the future. FTA negotiations could be highly complex and take long periods of time.

To conclude, it is time to mainstream trade and trade policy. For trade reform to unleash its catalytic potential during the run up to LDC graduation it should be designed as part and parcel of Bangladesh's 8th and 9th Five Year Plans and the Perspective Plan 2041, where its role will be given due cognizance and the necessary facilitating infrastructure adequately provided to make trade policy perform. In practical terms, this means incorporating trade issues into every stage of the development planning cycle. This must be underpinned by strong inter-ministerial coordination and consultative processes with a wide range of stakeholders, including consumer groups.

Chapter 7

Addressing Behind-the-Border Issues to Strengthen Competitiveness

7.1. Overview

Preferential market access as an LDC was the fulcrum on which Bangladesh's global trade integration was built based on its labour-cost comparative advantage. Chapters 3 and 5 provided an assessment of the impacts and challenges/vulnerabilities following "preference erosion" that will be associated with graduation in the context of global trends and evolution of trade and industry over the next decade reviewed in chapter 4. Streamlining and mainstreaming trade policies over the next five years or so will be the most important policy challenge to deal with. Then, there is the burning issue of ensuring competitiveness in a dynamic global marketplace. The competitiveness agenda is getting increasingly more challenging in the era of 4IR and the associated technology revolution, and automation. Trade preferences and trade concessions seek to compensate for some of the inherent vulnerabilities of LDCs. These vulnerabilities often include the high cost of production owing to infrastructure constraints and other domestic policy-induced rigidities. Indeed, global evidence shows that high trade logistic cost often imposes a higher cost disadvantage than trade taxes in developing countries, though Bangladesh presents a unique case of inordinately high degree of anti-export bias arising from the trade incentive structure that is skewed heavily in favour of import substitution. Evidence from Bangladesh also shows that there are many behind-the-border constraints that increase the cost of production and trading across borders thus undermining export competitiveness.

While the direct and immediate impact of these changes are on export earnings and GDP growth, on the social front the main impact is on job creation. As noted in Chapter 1, Bangladesh is already feeling the strain of a slowdown in job creation in the manufacturing sector. Reduction in export earnings and associated slowdown in GDP growth will hurt employment. On top, the technology changes and automation underlying the 4IR are going to further complicate the task of job creation. Early preparations are necessary to face these export, GDP and employment challenges associated with LDC graduation. Along with macroeconomic and trade policy reforms discussed in Chapters 5 and 6, a range of policy reforms are needed to address the behind-the border issues that constrain competitiveness and reduce employment prospects. Some of the critical constraints that must be addressed are discussed in this Chapter along with suggestions for policy reforms.

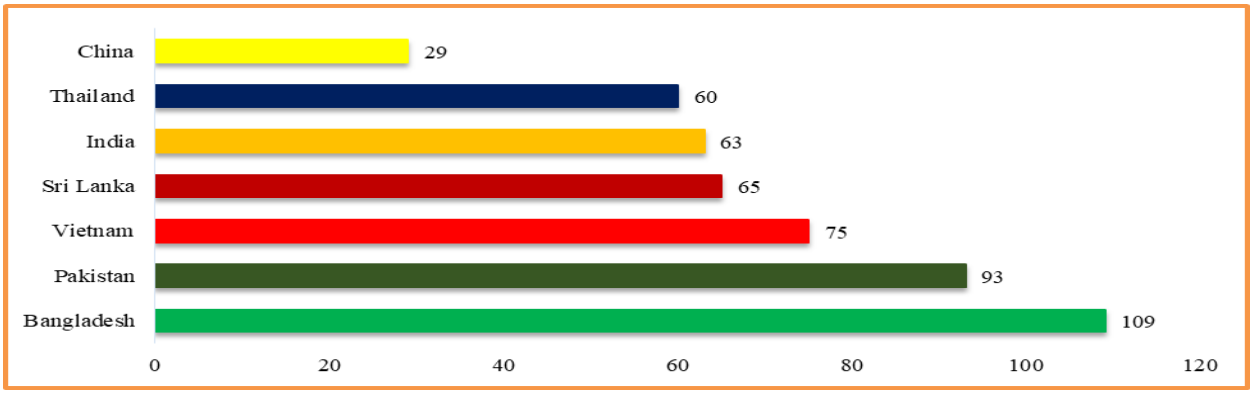
7.2. Strengthening Electricity and Transport Infrastructure

In today's globalized environment, infrastructure is one fundamental determinant of external competitiveness. Even keeping the issue of export competitiveness aside, improved

infrastructural facilities is a precondition for efficient utilization of resources in promoting and sustaining economic growth. While high GDP growth has been achieved, for further growth acceleration and achieving the medium to long-term socio-economic development targets, improved infrastructure including expanded and uninterrupted power supplies will be crucial. There have been a lot of discussions and analyses of how the country's export potential is being hampered by infrastructural bottlenecks. Besides, Bangladesh's inability to attract enough quantum of FDI as well as mobilizing higher levels of domestic private investment are often attributable to the lack of adequate and reliable infrastructure services. The 6th and 7th Five Year Plans rightly prioritized the need for improved power, energy, transport and other infrastructure-related services for achieving GDP growth and development targets. The implementation of these plans has been backed by enhanced resource allocation through the Annual Development Programme (ADP), leveraging private investments in the power sector with policy and institutional support.

Considerable progress has been achieved in terms of upgrading power and transport infrastructure. Progress in the power sector has been especially noteworthy, particularly in increasing generation capacity. But the sector is behind in building commensurate levels of transmission and distribution capacity, not to mention the need for upgrading grids for higher power delivery that is coming down the pike. In transport despite progress, there is a large unfinished agenda. The magnitude of the infrastructure gap can be gauged from cross-country comparison of infrastructure adequacy. The World Economic Forum regularly publishes global comparisons on competitiveness based on 12 broad pillars. Quality of infrastructure is one of them. Despite Bangladesh's notable economic growth performance and an impressive record of social progress, the country lags many other Asian developing economies on infrastructure-related indicators. In 2018 the GCI ranking for Bangladesh infrastructure stood at 109 out of 144 countries (rankings are from "1" as the best to "144" as the worst). This compares with 29 for China, 63 for India, 93 for Pakistan, 65 for Sri Lanka, 60 for Thailand and 75 for Vietnam (Figure 7.1). Bangladesh performed especially low in roads, ports and electricity.

Figure 7.1: Global Competitiveness Index; Ranking in Infrastructure



Source: Global Competitive Index 2018

This cross-country comparison highlights that despite progress there are enormous challenge that Bangladesh must confront to develop all types of infrastructure to promote its competitiveness and enhance productivity in overall economic activities. Massive investment in energy and transport infrastructure (roughly $10 billion annually) will be required to cope with the challenge of graduation out of LDC

Although the government has undertaken massive investments in the power sector during the last decade, increasing the capacity of generation (including captive power and renewable energy) to 23,000 MW (2019) and achieving a peak production of 11,534 MW, comparison with other countries reveals that issues still remain with regard to timely access to electricity. In addition to the problems on getting electricity within a reasonable of time (Table 7.1), Bangladesh's per capita consumption of electric power (310 kWh) is also low when compared with those of India (806 kWh per capita), Sri Lanka (531 kWh per capita) and Pakistan (471 kWh). This must increase, and it can happen only when more people make greater use of electricity in their daily activities, in addition to greater use by industries. Indeed, the technology and automation changes underlying the 4IR enhances the criticality of timely, uninterrupted and cost-effective supply of electricity. This will require the government to make further investments into increasing the generation of power based on least-cost expansion path, in addition to exploring more sustainable/renewable sources of energy for power.

Table 7.1: Comparison of Bangladesh's Performance with Selected Asian Countries for Getting Electricity

Country	Time it Takes to Get Electricity
Bangladesh	**150.2 Days**
India	55 Days
Indonesia	34 Days
Malaysia	24 Days
Myanmar	77 Days
Nepal	70 Days
Philippines	37 Days
Singapore	30 Days
Thailand	30 Days
Vietnam	31 Days

Source: World Bank; Doing Business 2019

As an example, Vietnam, which is a much smaller country than Bangladesh, increased its capacity of generating electricity to 42.13 GW (42,100 MW) by 2017. The electricity is distributed throughout the country by transmission lines totalling 115,659 km in length. At the same time, investments worth $148 billion are planned for further developing the power sector, most of it to exploit viable sources to produce electricity, in addition to developing grids. Although the number of power plants in Vietnam (73) is lower than the number of power plants

in Bangladesh (108), they produce at a much larger scale – as shown by the fact that the installed capacity of generation is more than double there.

The Way Forward

In Bangladesh, although the government must be lauded for increasing the number of power plants to 108 from 27 in 2009, most of them are small scale. The power plant with highest production capacity is the Ashuganj Power Station, with an installed capacity of 1876 MW and a net output capacity of 1627 MW. Keeping in mind the rise of projected demand for electricity to 34,000 MW by 2030, the government is planning to invest around $70 billion in the power sector over the next 15 years. It is important that this investment is based on using least cost options and renewable energy to the extent technically possible to lower the cost of electricity, to ensure the sustainability of primary energy supply and to reduce carbon pollution. Proper pricing of primary energy will be of critical importance. Emphasis will also have to be given to power transmission and distribution, upgrading of grid capacities, as well as energy trade in the region. Cooperation with neighbouring countries like India in the field of energy trade is ongoing. This should be broadened to include Bhutan and Nepal.

The current road network in Bangladesh is inadequate to provide infrastructural support to a country with a population of more than 160 million people which is aspiring to become a High-Income Country in 2041. This is reflected in the GCI's Road Connectivity Index, where Bangladesh is given a score 34.3 out of 100 and a rank of 121 out of 140. The quality of roads is also considered to be below average, with a score of 3.1 out of 7 and a rank of 111 out of 140. Both passengers and business people who use air shipment have had complaints about the delivery of services in the country's airports for a very long time. This is also reflected in Bangladesh' score on the efficiency of air transport services (3.7 out of 7) and rank (109 out of 140). Taking into consideration the increased competition which Bangladesh's export-oriented industries (especially RMG) will face once the country graduates from LDC status, it is of utmost importance that the bottlenecks which they face due to a below-par road network are removed. Top priority should be given to the completion of the Dhaka-Chittagong highway due to its position as the economic lifeline of the country. After the Padma Bridge is completed, focus should also be on expanding the Dhaka-Khulna highway due to its link to Mongla port in the Greater Khulna region, while the Dhaka-Barisal highway should also be given due importance due to its link to Payra port in the Greater Barisal region.

In transport there is presently excessive reliance on the road network. This is very costly and will also become increasingly difficult owing to the growing land constraint and the costs of rehabilitation of large number of displaced people. On the other hand, as analysed in great detail in the Delta Plan (Government of Bangladesh 2018), the inland waterways are low-cost and environment-friendly option that has not received adequate attention. Implementation of the inland waterway development strategy articulated in the Delta Plan will be of high priority. Additionally, much more attention needs to be given to the issue inter-modal transport balance

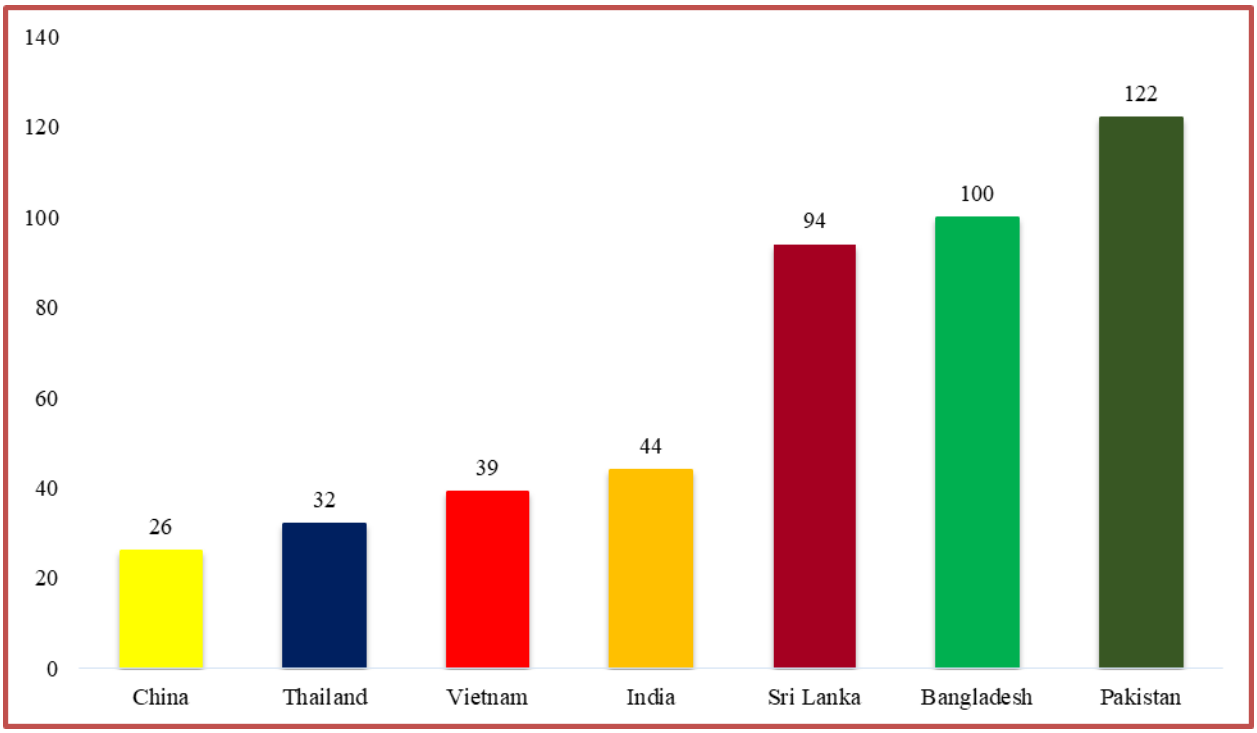
based on cost and efficiency. The 7th Five-Year Plan highlighted the importance of strengthening implementation capacity in the Ministry of Road and Transport. Projects are taking unduly long time for completion with cost over-runs and delayed benefits. Timely and efficient project implementation of all projects is critical to maximize the return from transport sector investments.

7.3. Improving Trade Logistics

Export competitiveness can be adversely affected by high cost of trading, both for imports of raw materials and capital goods and exports of products. Bangladesh has gradually opened its economy to international trade. Domestic production and investment are now heavily reliant on imported inputs. Imports as a share of GDP amounted to 22% in FY2018. Exports have also grown and are now about 14% of GDP. Financial cost of trading (transport, insurance, handling) and the efficiency of port clearances can both have determining influence on competitiveness. Exports are sensitive to timeliness of export-order shipments that requires efficient clearance and shipping arrangements. The importance of efficient, low-cost trade logistics is now well recognized as an important determinant of export competitiveness.

Recognizing the importance of trade logistics, the World Bank compiles and regularly updates index of trade logistics performance (LPI) and ranks countries based on the LPI scores. The LPI score is a composite index score of 6 variables that determine the performance of trade logistics: customs, infrastructure, international shipments, logistics competence, tracking and tracing and timeliness. The 2018 LPI rankings for Bangladesh and comparators are indicated in Figure 7.2. Bangladesh is ranked at 100 out of 160 countries. The LPI ranking is very low relative to China, Thailand, India and Vietnam. For example, China, India and Vietnam are major Bangladesh competitors for RMG in the EU market and the higher cost of trade logistics may have serious adverse consequences for maintaining market share post-LDC graduation. So, paying attention to improving trade logistics performance gains added significance in a post-graduation environment. Bangladesh must improve the LPI rankings.

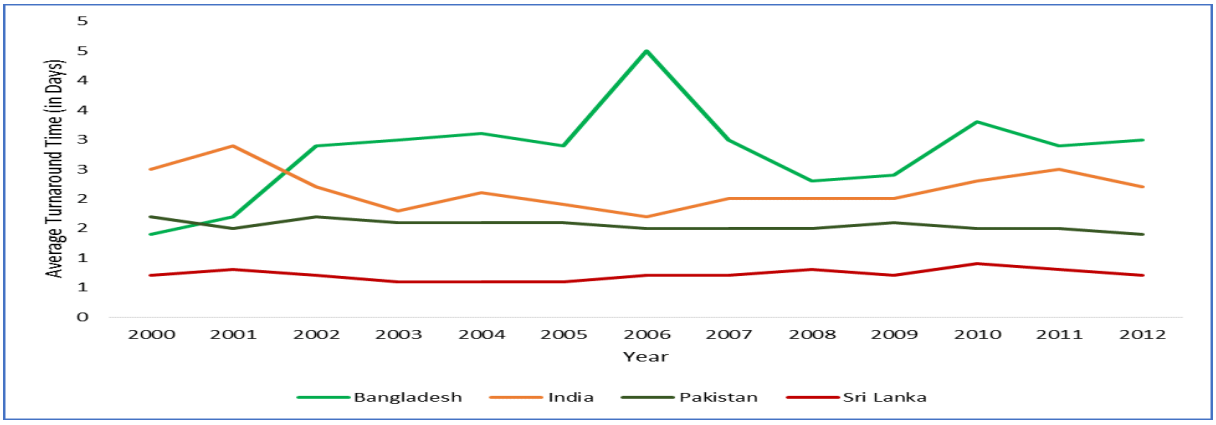
Figure 7.2: Rankings of Bangladesh and Other Asian Countries in the World Bank's Logistics Performance Index 2018



Source: World Bank

One of the most important aspects of trade logistics is the handling situation in container ports (Figure 7.3). Even though the tariffs and charges of handling in terminals in most of South Asia's major ports are lower than those in Dubai and Singapore, indirect costs caused by delays and inefficient service lead to loss of markets and confidence of customers. While ports in the region like Colombo, Jawaharlal Nehru (Mumbai), Mundra (the largest privately-operated port in India, located in the state of Gujarat) and Qassim (Karachi) have witnessed relative improvements in their performances (although still lagging behind the ports in East Asia), Chittagong's operational performance has been affected due to having one of the longest times for turnaround of vessels (more than 3 days, on average) in the region. This turnaround time compares adversely to the ports of Sri Lanka (less than a day), Pakistan (one and a half day) and India (more than 2 days). Policy support which results in participation of the private sector, good governance and strong competition are necessary in order to improve the efficiency of port operations. Bangladesh is the only country among the four mentioned in South Asia which has not leased out any of its operational activities to any private entities. This lack of competition is possibly a major reason for Chittagong port's disappointing performance, especially with respect to turnaround times.

Figure 7.3: Average Turnaround Time in Days in the Ports of Four South Asian Countries from 2000 to 2012



Source: World Bank Report on the Competitiveness of South Asia's Container Ports

Tables 7.2-7.3 show that those who are engaged in imports into and exports out of Bangladesh suffer due to long waiting times in fulfilling documentary and border compliant measures., No country in South Asia and South-East Asia comes even close to Bangladesh in causing delays on compliance at the borders while bringing in imports and taking out exports. A significantly longer time spent on border compliance while importing (216 hours) than while exporting (168 hours) indicates an inefficient Customs due to various reasons – lack of adequate manpower, lack of proper training for the employees, and lack of technology/equipment which would enable the employees to carry out their duties efficiently. In addition, cumbersome import regulations and endemic malfeasance in customs clearance of cargo are reasons behind the delays.

Table 7.2: Time and Cost of Documentary and Border Compliance While Exporting from Bangladesh and Some Other Asian Countries in the Ease of Doing Business for 2019

Country	Time Spent on Documentary Compliance While Exporting	Time Spent on Border Compliance While Exporting	Cost of Documentary Compliance While Exporting	Cost of Border Compliance While Exporting
Bangladesh	**147 Hours**	**168 Hours**	**US$ 225**	**US$ 408.2**
India	14.5 Hours	66.2 Hours	US$ 77.7	US$ 251.6
Indonesia	61.3 Hours	53.3 Hours	US$ 138.8	US$ 253.7
Malaysia	10 Hours	28 Hours	US$ 35	US$ 213
Myanmar	144 Hours	142 Hours	US$ 140	US$ 432
Pakistan	55 Hours	75 Hours	US$ 118	US$ 356
Philippines	36 Hours	42 Hours	US$ 53	US$ 456
Singapore	2 Hours	10 Hours	US$ 37	US$ 335
Sri Lanka	48 Hours	43 Hours	US$ 58	US$ 366
Thailand	11 Hours	44 Hours	US$ 97	US$ 223
Vietnam	50 Hours	55 Hours	US$ 139	US$ 290

Source: Doing Business 2019

Table 7.3: Time and Cost of Documentary and Border Compliance While Importing into Bangladesh and Some Other Asian Countries in the Ease of Doing Business for 2019

Country	Time Spent on Documentary Compliance While Importing	Time Spent on Border Compliance While Importing	Cost of Documentary Compliance While Importing	Cost of Border Compliance While Importing
Bangladesh	**144 Hours**	**216 Hours**	**US$ 370**	**US$ 900**
India	29.7 Hours	96.7 Hours	US$ 100	US$ 331
Indonesia	106.2 Hours	99.4 Hours	US$ 164.4	US$ 382.6
Malaysia	7 Hours	36 Hours	US$ 60	US$ 213
Myanmar	48 Hours	230 Hours	US$ 210	US$ 457
Pakistan	143 Hours	120 Hours	US$ 250	US$ 475.7
Philippines	96 Hours	120 Hours	US$ 50	US$ 580
Singapore	3 Hours	33 Hours	US$ 40	US$ 220
Sri Lanka	48 Hours	72 Hours	US$ 283	US$ 300
Thailand	4 Hours	50 Hours	US$ 43	US$ 233
Vietnam	76 Hours	56 Hours	US$ 183	US$ 373

Source: Doing Business 2019

The Way Forward

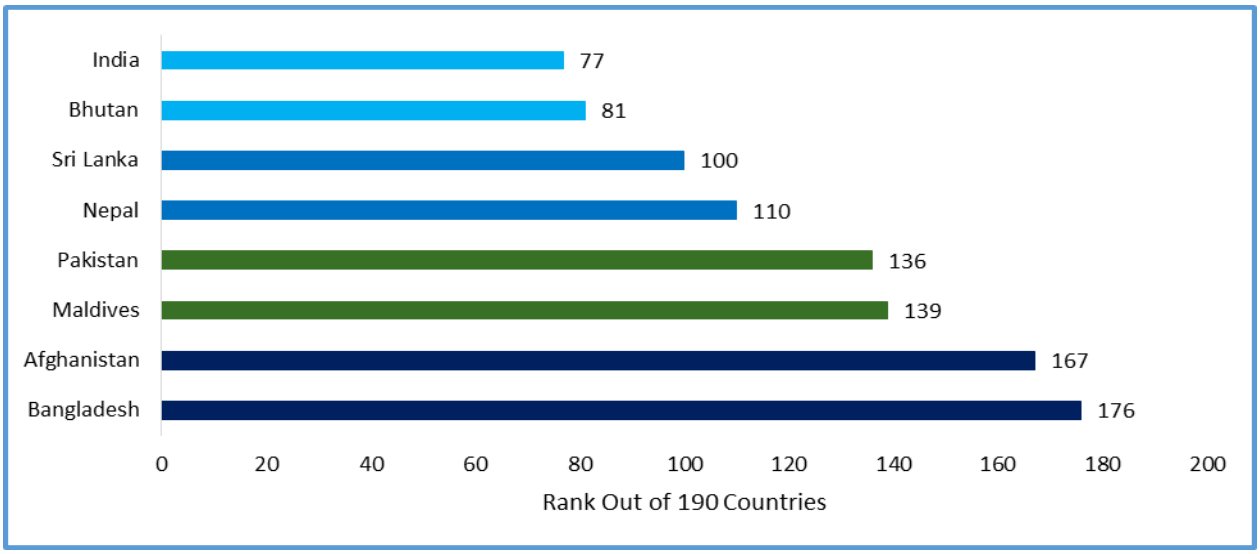
Exports stimulate imports. Delays in imports not only increase the costs to the firms importing them, but it also puts them in a tight situation when many of these imports are raw materials for export-oriented industries. After Bangladesh graduates from LDC status in 2024, the competitiveness challenge will intensify. In order to maintain their market share in the more competitive environment, it will be vital for all the firms to have timely and less costly access to raw materials, maintain their production schedules and ship their products to their buyers on time. Chittagong port handles 75% of Bangladesh's $90 billion of export-import trade. Ship turnaround time and cargo clearance from container yards are longer than most ports in the region. Ooperational efficiency at the port must be radically enhanced to ensure lower turnaround time for vessels in order to benchmark good productivity and performance in this port. High efficiency in import clearance at ports is critical for export competitiveness. Findings from the World Bank's Doing Business Indicators concerning port efficiency of Chittagong vis-a-vis better performing Asian ports could be used to develop appropriate reform strategies for enhancing the performance of the port. Similar reforms should be done to improve the efficiency of the Mongla port. Additionally, after holding dialogue with all stakeholders, decision should be taken as to whether some of the handling operations in the ports of Chittagong and Mongla should be contracted out to private entities after a competitive and transparent bidding process.

7.4. Improving the Investment Climate

Despite progress with the policy environment for the private sector that has spurred the expansion of private investment from a low of 6% of GDP in FY1989 to 23% of GDP in FY2018, the overall investment climate for Bangladesh remains substantially weaker than those

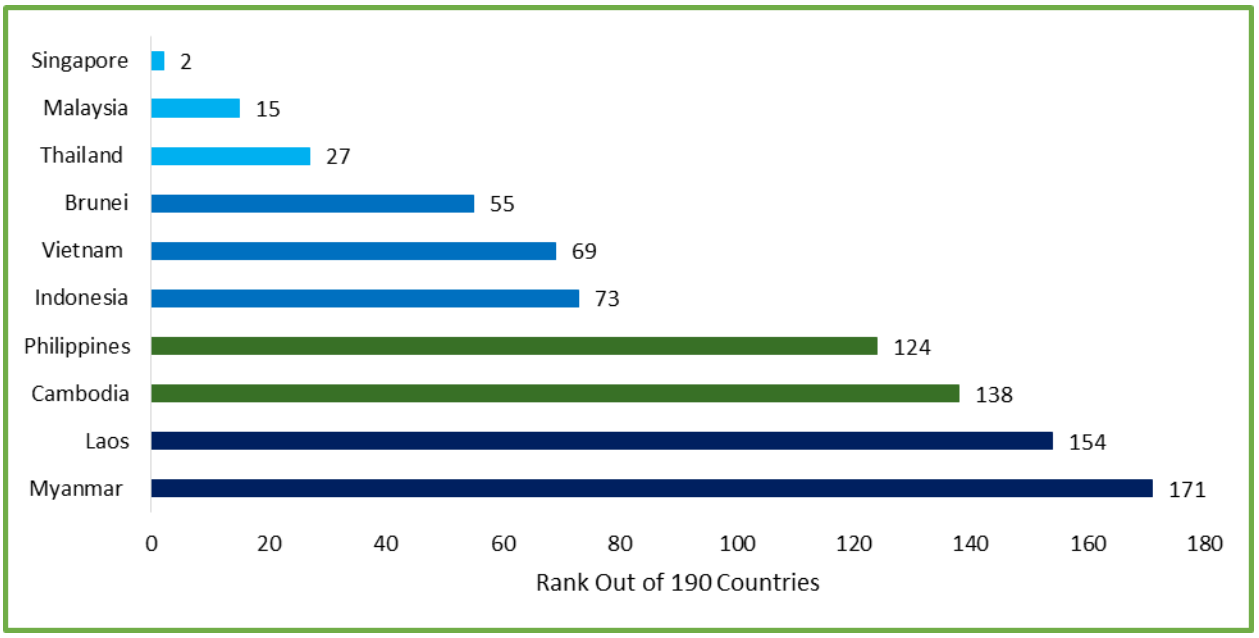
found in competing countries. This is reflected in the global rankings of investment climate prepared by the World Bank as well as by the World Economic Forum. For example, the World Bank's 2019 Ease of Doing Business (EDB) ranks Bangladesh at 176th out of 190 countries (Figure 7.4). The more advanced economies of the ASEAN countries perform much better than the South Asian countries in the rankings due to their institutional strengths and openness to trade (Figure 7.5).

Figure 7.4: Ease of Doing Business Rank of the South Asian Countries in 2019



Source: World Bank Doing Business 2019

Figure 7.5: Ease of Doing Business Rank of the South-East Asian Countries in 2019



Source: World Bank Doing Business 2019

These rankings reflect Bangladesh's shortcomings in the various factors which are taken into consideration for these computations. The evidence also shows very little progress over the past several years. Similarly, the World Economic Forum's Global Competitiveness Index (GCI) puts Bangladesh at 103 out of 140 countries surveyed for 2018. According to the World Bank's EDB rankings, the major problem areas that lower Bangladesh performance include weak infrastructure services and high transaction costs relating to paying taxes, registering property, enforcing contracts and trading across border. Additionally, the availability of serviced land with all necessary infrastructure connections including electricity, water, and industrial waste disposal facility is a major hassle that lowers private investment in the manufacturing sector. To strengthen the investment climate to attract domestic and foreign investments, these constraints will have to be addressed head on in the next 5 years to bring significant improvement in the investment climate.

Although Bangladesh has a large pool of low-cost labour giving the country a comparative advantage in production of products like RMG, it still lags in fundamental issues that affect the investment climate. Governance lapses are too deep resulting in time delays and higher transaction costs in starting a business, registering property, and enforcing contracts (Table 7.4). With determination these governance deficiencies can be addressed to move up the EDB ladder in a reasonably short time, as has been done by some countries.

Table 7.4: Comparison of Bangladesh's Performance in Some Indicators of the Ease of Doing Business 2019 with the Selected Asian Countries

Country	Time it Takes to Start a Business	Time it Takes to Register Property	Time it Takes to Enforce Contracts
Bangladesh	**19.5 Days**	**270.8 Days**	**1442 Days**
India	16.5 Days	69.1 Days	1445 Days
Indonesia	19.6 Days	27.6 Days	403.2 Days
Malaysia	13.5 Days	11.5 Days	425 Days
Philippines	31 Days	35 Days	962 Days
Singapore	1.5 Days	4.5 Days	164 Days
Sri Lanka	9 Days	39 Days	1318 Days
Thailand	4.5 Days	9 Days	420 Days
Vietnam	17 Days	53.5 Days	400 Days

Source: World Bank; Doing Business 2019

In order to improve its position in the Ease of Doing Business and Global Competitiveness rankings, Bangladesh can take inspiration from a country that had to go through reconstruction after a long and devastating conflict around the same time as our War of Independence – Vietnam. The country improved its ranking in the Global Competitiveness Report from 77th in 2006 to 55th in 2017, while its improvement in the Ease of Doing Business has been even more impressive – from 104th in 2007 to 69th in 2019. The reasons behind this jump were the reforms

which Hanoi undertook with regards to paying taxes, trading across borders, enforcing contracts, access to credit and getting electricity.

Georgia is one country that made the most striking improvement in its EDB ranking. Back in 2006, this country was ranked 100th out of 155 countries. In 2019, the former Soviet Socialist Republic has risen to 6th place in the rankings. This huge rise is even more impressive when one takes into consideration the fact that the government there had to transform its institutions from those standing tall over a command economic structure to those which facilitated the emergence of the private sector and welcomed foreign investment. The most important reforms which were carried out include:

- making it easier to start a business by simplifying the procedures related to registration of tax and social security, in addition to obtaining licences;
- easing the payment of taxes through reform of tax laws (either introducing new ones or revising the existing ones significantly) and simplifying the processes for complying with the tax laws; and
- facilitating the enforcement of contracts by expanding automation in courts, introducing electronic payments and processes, in addition to assigning cases to judges automatically and publishing the judgments digitally.

The Way Forward

Bangladesh has taken some positive steps to address the serviced land constraint through industrial parks and special economic zones. This is a welcome move. Speedy completion of all ongoing facilities and making those available on a timely and business-friendly way will be an important factor to spur domestic and foreign investment. Bangladesh should focus top attention on reducing the time it takes in the country to (i) get electricity; (ii) register property; (iii) obtain credit; (iv) trading across borders; (v) enforce contracts; and (vi) resolve insolvencies. If carrying out reforms addressing these issues results in an improvement of the country's rank for Ease of Doing Business, this should give a positive signal to potential investors around the world that the climate for investment in Bangladesh is improving due to sincere efforts by the government. As was done in India recently, a time bound action plan with specific targets for ranking improvements in the above areas should be developed under the direct supervision of the Prime Minister and coordinated by the Bangladesh Investment Development Authority (BIDA). In addition, a strong marketing effort should be launched by BIDA and Commercial Wings in Bangladesh's diplomatic missions around the world (especially Europe and North America) to highlight and showcase the progress made on the investment climate front as a means to attract FDI.

7.5. Improving Technology Transfer and Market Access Through FDI

Export expansion and diversification is often constrained by limited domestic capital, technology and market knowledge. An important research question is, can these constraints be eased by attracting foreign firms? It is not surprising that the role of foreign direct investment (FDI) in promoting export-oriented industrialization has attracted considerable attention in recent times. FDIs with their better technological and managerial skills and knowledge about international marketing conditions, are expected to improve the productivity as well as export performance of host country firms by creating certain positive externalities known as 'spillovers'. Spillovers can take place when FDI improves the productive efficiencies of domestic firms, making their products efficient in price and quality in the international market and thus improving their export performance. Such spillovers may occur either to domestic firms in the same industry group of foreign firms through competition, known as 'horizontal spillovers', or to firms in the upstream supply chain through buyer-supplier linkages, known as 'backward spillovers'. FDI can help to channel capital and technology into industries that have the potential to compete internationally, and the global linkages of multinational corporations can facilitate their access to foreign markets. In addition to exports that are generated directly by foreign affiliates, FDI can also promote exports of domestic firms through the teaching of proper marketing strategies, methods, procedures, and channels of distribution.

One final note on the criticality of FDI in supply chain trade (SCT) must be made. It has been argued that Bangladesh needs to get on the bandwagon of GVCs as a means to export-oriented industrialization. Cross-border FDI flows have been the lifeline for the growth of GVC (or SCT) trade that helps sustain the growing production networks across borders. Therefore, courting FDI in the future to capture and expand supply chains will have to be an essential strategy for Bangladesh's export-oriented industrialization.

China, Vietnam, India are all recipients of substantial quantum of FDI that has played a catalytic role in imparting technological dynamism and fuelling growth. Bangladesh record in mobilizing FDI is disappointing. Overall FDI in Bangladesh reached a mere $2.2 billion in 2017, as compared with $134 billion in China, $40 billion in India and $14 billion in Vietnam. Moreover, most FDI investments are outside manufacturing. Data on sectoral classification of stock of FDI up to 2016 shows that manufacturing absorbed only 23% of total FDI inflows. To sustain the progress towards graduation, Bangladesh must be able to mobilize much greater foreign investment (FDI). Of the various types of FDI – (a) energy and infrastructure, (b) services (e.g. mobile phones), (c) market-seeking (tariff-jumping), (d) export-seeking – Bangladesh has been receiving (a)-(b), but not (c), which is attractive only when domestic markets are large (as in India, China). As an LDC with preferential market access in several OECD markets, it is export-seeking FDI that should make Bangladesh an attractive destination (as is the case for Vietnam).

There is now considerable body of evidence from countries in Europe, East Asia, South Asia and Africa that FDI supports the growth of exports. The experiences most relevant for Bangladesh are those from countries of East Asia and South Asia.

In East Asia the experience of China is instructive as it has witnessed both a massive growth in exports and of FDI contemporaneously suggesting the positive role of FDI in exports. Zhang (2005) attempts to investigate the role of FDI in promoting manufacturing exports in China. The empirical evidence from the study suggests that FDI indeed has had a positive impact on China's export performance. The research finds that the export-promoting effect of FDI is much greater than that of domestic capital and its effect is larger in labour-intensive industries, as one might anticipate.

The experience of China is particularly illustrative of the potential. The rapid growth of China's manufacturing exports with a wide range of diversified production and successful penetration in the global markets, especially in those of USA and Europe, suggests that a strategy of mobilizing export-seeking FDIs to deepen China's manufacturing base and diversified export base has paid off handsomely. Since China is a net exporter of capital it is not so much the money but the technology, know-how and skills associated with FDI that have been instrumental. The lesson for Bangladesh and other developing countries is quite clear.

Empirical research by Johnson (2007) on eight high-performing East Asian economies with a focus on the relationship between FDI and host country exports confirms the strong relationship. The concerned countries are: China, Hongkong, Indonesia, Malaysia, Korea, Singapore, Taiwan and Thailand. The empirical evidence indicates that FDI inflows have a significant and positive effect on host country exports, suggesting that export-platform FDI may be important for the East Asian economies.

Vietnam in recent years has experienced a substantial inflow of FDI. Xuan and Xing (2008) look at the implications of FDI for export performance in Vietnam. The research analyzes the impact of FDI on the exports of Vietnam with gravity equations. The empirical results demonstrate that FDI is one of the major factors driving the rapid export growth of Vietnam. It has significantly facilitated the expansion of Vietnam's exports to FDI source countries. In particular, the empirical analysis shows that a 1 percent increase in FDI inflows is expected to lead to a 0.13 percent increase in Vietnam's exports to these countries.

Within South Asia India has experienced significant FDI inflows in recent years. Prasanna (2010) investigates quantitatively the question of how FDIs have impacted on India's export performance. The research finds that the impact of FDI inflows on export performance is significantly positive.

The preceding review provides strong research evidence of the critical role played by FDI as a catalyst for export-oriented industrialization which was the lynchpin of high growth in the East

Asian economies. FDI inflows could play a similar role in Bangladesh's transformation into a high-performing industrial economy with robust exports in the next decades.

FDI strengthens competitiveness and fuels GVC exports. Because of the widespread existence of production fragmentation across borders – a phenomenon that creates challenges as well as opportunities -- a better understanding of how Bangladesh as an LDC is positioned within global value chains is absolutely critical. In Asia, FDI has played a particularly catalytic role in stimulating trade in intermediate goods over the past 25 years or so. From 2001 to 2016, Asia's share of global FDI increased from 12 percent to 28 percent; much of it had to do with the complementarity of trade and investment in the context of 'Factory Asia' and Asia's growing participation in cross-border global value chains (GVCs). GVCs are typically coordinated by Trans-National Corporations (TNCs), with cross-border trade of inputs and outputs taking place within their networks of affiliates, contractual partners and arm's-length suppliers. According to UNCTAD (2013) TNC-coordinated GVCs account for some 80 per cent of global trade. As a result of the role of TNCs in global trade, FDI is found to be closely linked with a countries' GVC participation. The correlation between FDI stock in countries and their GVC participation rates is strongly positive, and increasingly so over time, especially in the poorest countries, indicating that FDI may be an important avenue for developing countries to gain access to GVCs and grow their participation. Climbing the GVC development ladder implies not only increasing GVC participation and increasing domestic value added in exports. It also means moving into activities that can provide more development value added and increasing participation in more sophisticated GVCs, from resource-based activities, to low-, medium- and high-tech activities, to knowledge-based activities such as design, innovation, R&D, marketing and branding – as the experience of East Asian economies show.

Then there are the rapidly evolving changes in the geographic orientation of global value chains layered on top of Industrial Revolution 4.0 and Servicification. Experience has shown that market density and proximity are key to engaging in GVCs, especially in the growth-enhancing segments. India's signature "Make-in-India" initiative and China's "Made in China 2025", sets Bangladesh potentially at the epicenter of a new production hub. Coupled with the growth of consumer demand in India, China (own rebalancing relative to investment and exports), Bangladesh and other Asian markets, a new center of economic gravity is emerging, likely to bring increased demand for smart manufacturing and, in turn, drive demand for high-skilled, low-cost labour and most importantly for service enablers like transport and logistics and related IT centered service providers. Creating unfettered access to larger markets such as India, China and along the Indo-Pacific corridor could certainly help prospects of reinforcing Bangladesh's existing manufacturing capabilities and generate new ones.

Acquiring technology and skills through FDI: Apart from support to the expansion of exports, FDI will be instrumental in acquiring new technology and training labour. While the importance of domestic investment in R&D for technology development and innovation for long-term

growth cannot be over-emphasized, at the early stages of development technology, new products, new markets and skills can also be acquired through foreign direct investment (FDI). The value of FDI in these areas was amply demonstrated by the highly positive experience in RMG. The example of Desh Garment partnership with Daewoo in acquiring new product design, foreign market penetration and skills and the spill-over effect of this experience for the entire RMG industry well illustrates the power of FDI-based joint ventures in transfer of technology, markets and skills. Similarly, Japan, China, Korea all benefitted from strong large-scale partnerships with powerful FDI sources at the early stages of development. They acquired new technology, labour skills and markets through these partnerships. With experience gained thereby and supported by heavy investments in human capital and R&D, the transition to domestic-based technology development, innovation and new product discoveries were made.

Considering the level of economic development, technology and skills which are currently prevalent in Bangladesh, it is of vital importance that both the government and the private sector engage in cooperation with international partners in order to acquire existing and upcoming technology so that they can at least maintain their comparative advantage, if not go further. FDI is an important source of technological upgradation in industry and services through direct investment as well as spillover effects transmitted to local activities. Greater technological sophistication and improvement in labour productivity and skills are the positive external economies arising from FDI inflows.

The Way Forward

The overwhelming advantages of entering into joint ventures with foreign investors through FDI partnerships makes it imperative for Bangladesh to pay top most to attract FDI. In addition to addressing all the constraints that adversely affect domestic private investment as addressed above, strong attention needs to be given to timely availability of land and electricity, enable easy transfer of profits and investments through an enabling foreign currency regime, and creating a proper legal framework for contract enforcement, resolution of conflicts and bankruptcy proceedings.

The sector which has the potential to attract more FDI in the future due to the combination of (i) availability of highly skilled labour resulting from a vibrant domestic sector; and (ii) scope for transfer of technology to a local entity if the foreign investor agrees; is the pharmaceuticals sector – market seeking FDI. As a consequence of graduation from LDC status, Bangladesh will have to open up its market, and local manufacturers will have to consider entering into joint ventures with foreign entities in order to acquire technology without violating patent rights. Foreign investors will also look to take advantage of lower costs of production. This should be a win-win situation for both sides – but it all will depend on the ability of the government and the local firms to portray Bangladesh as attractive and profitable enough for the foreign firms to invest and possibly to transfer some technology as well.

Currently, Bangladesh faces the dual challenge of mobilizing more FDI and into the GVC operation. That is, its best chance of getting on the GVC bandwagon lies in aggressively courting FDI from multinationals that are seeking low-cost locations for producing parts and components or for final assembly within the framework of cross-border production integration. FDI thus becomes critical for Bangladesh to not only develop a wider base of intermediate goods industry but also to diversify exports into intermediate goods by vertically integrating with cross-border production entities. It needs to translate its RMG experience with GVC on to other sectors like Footwear and Leather goods, electronics, light engineering, toys, plastics, and other sectors with an aggressive strategy of FDI-driven GVC over the course of the next decade. That would constitute a new form of export-oriented industrialization for Bangladesh on way to graduating out of LDC status and becoming a UMIC.

7.6. Investment in Research and Development

Research and Development is the backbone of innovation. In an increasingly competitive world technology, innovation, and new ways of doing business provide a high premium to countries that are ahead in this area. While OECD countries are much ahead of the game in this area as compared with newly emerging industrial countries like Bangladesh, comparator countries like India, China and Vietnam are also rapidly moving ahead on the technology and innovation front based on investment in research and development (R&D). Bangladesh is way behind on the knowledge economy front, although it has made good progress on the Information and Communications Technology (ICT). An important reason for this knowledge economy gap is the very low investment in R&D. Unfortunately, public policy is yet to focus on this important subject. Consequently, even data are not compiled or monitored to measure progress with R&D spending by public and private sources. Fragmented data suggest that R&D investment is likely to be a very modest 0.6% of GDP as compared with 2.7% of GDP in China.

Investment in Research & Development (R&D) is a long-term process. It requires investing on the education of the country's population from early stages, especially from the secondary level. Keeping this in mind and as laid out in Vision 2021, the government made Information Communication and Technology (ICT) a compulsory academic subject in secondary schools in 2013 – and plans to do the same in primary schools by 2021. From 2015, students sitting for public examinations under the National Curriculum have had to take ICT as a compulsory paper. An ambitious yet laudable initiative was undertaken to make all students across the country ICT-literate by the time they finished primary school. The share of secondary schools with computer facilities increased from 59% in 2010 to 79% in 2013. At the same time, the share of secondary schools with internet connections increased from just 18% in 2010 to 63% in 2013.

Of equal importance towards progress of R&D in a country is the interest of a country's young/student population, the most important indicator which is the level of enrolment – where there is a positive trend. Total enrolment in the undergraduate and graduate programs across the country increased from 1.45 million students in 2009 to 1.84 million in 2012, with a strong

growth of studentship in the Science, Technology, Engineering and Mathematics (STEM) fields. The highest growth of 68% was witnessed in the engineering fields, where enrolment into the PhD programs tripled from 2009 to 2012. Bangladesh has one of the highest ratios of enrolment into master's programs in Asia at 20%, but this is not translated into enrolment into PhD programs, which stood at only 0.4%. It indicates that although many of the young graduates and professionals are interested in obtaining master's degrees for their own advancements, not many of them are motivated to go for advanced research.

Research requires funding. Around the world, research is funded by governments, inter-governmental organizations, private corporations and non-profit organizations. As economies grow and become more prosperous, the contribution of the private sector towards funding R&D increases, often for their own product development. According to World Bank data for 2016, OECD countries spent 2.5% of GDP on R&D while UMIC countries spent 1.8%. Reports suggest that China has made it a strategic policy to invest heavily on R&D reaching 2.7% of GDP in 2017. It plans to be the world's future science and technology powerhouse. R&D spending in South Asia averages well under 1% of GDP with India taking the lead with 0.85% of GDP in 2016. To keep in step with the innovation society of the future it has become a national imperative for Bangladesh to raise R&D spending substantially – public and private -- especially by firms in the pharmaceuticals sector.

The Way Forward

The absence of an R&D strategy is a major missing link in the development strategy for attaining UMIC and HIC status. This gap must be addressed speedily by developing a strong R&D strategy that lays down a medium-to long-term strategy for developing the R&D capabilities. Policy must provide a good balance between fiscal incentives (tax breaks, subsidies) with public investments (research grants, establishment of research centres). Strong partnership between public and private sector is essential for the R&D strategy. Public funding can support and leverage private investment in R&D. Bangladesh can learn from the experiences of China, Japan, Korea, USA and Western Europe. The link of the strategy with private business and the universities is essential. Some early winners for R&D focus can help jump-start the process. One such example is the pharmaceutical industry.

Bangladesh already has the largest pharmaceuticals industry amongst the LDCs, but once the country graduates from this category, it will be a totally different ballgame altogether. This is because under the World Trade Organization (WTO) Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), producers of pharmaceuticals from LDCs are exempted from producing patented drugs without license from patent holders until 2033. Under this waiver, Bangladesh can also export generic versions of the patented drugs to countries where those drugs are not covered by patents. Graduation from LDC status will mean that pharmaceutical companies from Bangladesh will have to face possible action if the foreign patent holders can prove infringement of Intellectual Property (IP) rights. Moreover, the

government will have to open the domestic market to foreign companies and reform the regulations which currently discourage imports. When faced with this competition, the domestic companies will have no option but to engage in research and development of new products in order to survive in this new environment. The government will then have to provide them with incentives such as tax breaks if they invest their retained earnings on R&D.

7.7. Strengthening Labour Productivity through Investments in Human Capital

Bangladesh is abundantly endowed with low-cost labour that provides the basis for comparative advantage in producing and exporting labour intensive products. Indeed, the RMG revolution is a prime example of how Bangladesh gained global market share based on low labour cost. Yet, it is also recognized that labour productivity in Bangladesh is very low. A major challenge in the post-graduation world for Bangladesh would be to increase labour productivity through large investments in human capital and other policy changes. This perhaps holds the key to successful graduation from LDC status.

Majority of the population have been employed in the agricultural sector for a very long time, not only in Bangladesh but also the other countries of South Asia. Only recently has that situation started to change. For example, the percentage of the total working population engaged in the agricultural sector decreased from 70% in 1991 to 40.0 % in 2018. There has been a similar trend in the other countries of the region as well. As it has happened around the world, as incomes grow resources move away from agriculture to industry. However, using land, employing labour and investing capital away from agriculture to industry is not enough if the labour force employed is not trained and productive.

Bangladesh has made important inroads in improving human capital as suggested by favourable human development indicators relative to comparators at the same level of development. Major gains have been made in both health and education front. Yet, the 206-17 labour force survey shows that 32% of the labour force did not have any education, some 26% had only primary education, some 31% had secondary education and only 12% had higher secondary and tertiary education. The quality of labour force in terms of skills is also low on average. Improving labour productivity through investment in human capital is a major challenge moving forward. This entails increasing public spending on education and training, enhancing quality of education at all levels, greater emphasis on science and technology, improving public delivery of education through district level decentralization, strengthening the leadership role of the University Grants Commission to strengthen quality and quantity of higher education, sharply improving the quality of training.

The Way Forward

Taking into consideration that the future of the country's economy lies in its young working population, the government undertook the National Skills Development Policy (NSDP) in order to increase the capabilities through spreading the extent of technical and vocational education

and training (TVET) across the country. Building on progress achieved in basic education, strengthening of other levels of education including vocational and higher education is important to have a well-educated and skilled population with the capacity to contribute effectively to the country's development. Public spending on education and training must go up from 2% of GDP now to at least 3.5-4% of GDP int the next 5-6 years. Without this investment it will be difficult to improve quality and enrollment in higher education, which is an essential first step to meet the growing skills gap.

As the country is in transition appropriate transferable skills and competencies are essential to the next level of development by increasing its knowledge-based sectors. In the context of higher education, generation of knowledge as well as availability of knowledge for national competitiveness in a globalized world becomes crucial. For realization of the country's long-run economic aspiration, skilled labour-force and hence high-quality graduates are required. This means country's higher education sector needs to be revitalized with appropriate policies and strategies. Finally, based on the successful experience of ASEAN countries (cited in VDR 2014), a clear vision, that originates through broad-based consensus and is well coordinated among different sectors for successful implementation, would be crucial for addressing the future human development challenges, While targets need to be set realistically with short, medium and long term objectives, it would be important to have consistency between goals and actions and that budget should be aligned with effective implementation and monitoring of education reform. In this context clear coordination of educational policies and coordination among relevant ministries will be crucial for achieving shared education sector goals. The role of government for successful partnerships among various stakeholders would be crucial to ensure successful implementation of educational policies and reforms.

7.8. Fostering Trade Facilitation and Competitiveness with Customs Modernization

In addition to reducing red tape, lowering tariff barriers and the time spent while complying with different procedures to set up businesses, it is also important to have a competent and well-organized customs service in order to make Bangladesh competitive in the world market. To make Bangladesh Customs competent and well-organized it needs to successfully balance its various responsibilities of ensuring high level of compliance with revenue objectives and regulatory requirements while at the same time intervening as little as possible in the legitimate movement of goods and people across borders. There clearly is a trade-off between control and facilitation of trade. Thus, in order to achieve an appropriate balance between the facilitation of trade and control through regulations, customs administrations are generally abandoning their traditional, routine "gateway" checks and are now applying the principles of risk management with varying degrees of sophistication and success. Bangladesh customs of the future must move from being a revenue collection agency to becoming a facilitator of trade. That requires trade

facilitation measures to complement trade liberalization if Bangladesh is to increase its competitiveness and become better integrated into the world economy.

Success in the modernization of customs is tied to the overall trade policy environment. As the nation progresses towards graduation, its customs administration must be made more effective and efficient. Simple, transparent, and harmonized trade policies reduce administrative complexities, facilitate transparency, and reduce the incentives and opportunities for rent-seeking and corruption. Customs modernization, therefore, also needs to be examined from the broader and complementary perspective of trade policy reform.

Meeting the objectives of modernization will require the adoption of several core principles: adequate use of intelligence and reliance on risk management; optimal use of information and communications technology (ICT); effective partnership with the private sector, including programs to improve compliance; increased cooperation with other border control agencies; and transparency through information on laws, regulations, and administrative guidelines. To be efficient and effective they need to be adapted to changing trade practices and modern management approaches as well as reflect the development objectives of the country.

This calls for deeper application of ICT and digital processes in movement and clearance of cargo. To make our customs administration more effective it must leverage technology and benefit from improved transparency, greater efficiency, and enhanced security. However, the benefits that could be derived from greater reliance on ICT has at times been undermined by the failure to streamline customs procedures, thus creating a process where outdated manual practices continue alongside computerized practices. This must change radically over the next five years. Although ICT for customs administration is not a panacea or an end in itself, it can powerfully contribute to effective customs administration and operations when integrated into a broader modernization effort.

To meet its mission of trade facilitation, our customs administration must effectively integrate modern practices and processes with ICT-driven customs management systems. While doing so, they should identify realistic and practical targets and objectives that are tailored to their own specific circumstances. Desirable ICT solutions are not necessarily the very latest and most sophisticated ones available, but are ones that are most appropriate for the country's operating environment, resource base, telecommunications infrastructure, and realistic development ambitions. In any event, the ICT solutions chosen must assist the customs in all its core business functions and must provide a platform that enables achievement of its long-term vision.

Past efforts to modernize customs in Bangladesh. *Doing Business* 2019 has ranked Bangladesh 176th out of 190 countries for trading across borders. This low rank of the country in this category is due to various factors including weakness in Customs administration that results on long times taken to export, high costs of exporting, and long times taken to import and high costs of importing. In sum, customs procedures are often excessively time consuming, unpredictable, and weak in their revenue generation and regulatory function. Keeping this in mind, the

government through its *National Board of Revenue* (*NBR*) undertook various initiatives in cooperation with the international development partners in order to modernize Customs, including:

1. Work was undertaken to analyse the gaps in the *Customs Act* in April 2013 and update it accordingly to provide the legal basis for modernization. The amendments were completed in May 2014. At the same time, the Act was also translated to Bangla so that it could more easily understood by the business community.
2. *Time Release Studies* (*TRS*) were carried out from April 2013 to March 2015 in the Customs Houses of Dhaka, Chittagong and Benapole to identify the time required at each step of the clearance process.
3. A *Regulatory Impact Assessment* (*RIA*) was conducted to assess the regulatory impacts of the amendments proposed to the Customs Act, before the Act was amended in May 2014.
4. A *National Trade Portal* (*NTP*) was developed from April 2013 as a single point information repository for trade related information in alignment with the World Trade Organization (WTO)'s Trade Facilitation Agreement (TFA) requirements on access to information. The NTP was inaugurated in August 2015.
5. Risk management was implemented from September 2013 to October 2014 to enhance revenue assurance, assess trade risk and trade scarce resources towards high risk transactions.
6. *The Standard Operating Procedures* (*SOP*) came under assessment from September 2014 to improve valuation practices based on analytics and as per international best practices.
7. Warehousing was streamlined from September 2014 to April 2015 to simplify current practices for licensing and auditing.
8. *Trade Facilitation Agreements* (*TFA*) were assessed in September 2014 to identify the present status of alignment with the WTO's TFA and support the reform initiatives for modernization. The *National Trade Facilitation Committee* (*NTFC*) was set up in May 2013 to create a platform to monitor and guide trade facilitation-based modernization and reforms, to facilitate coordinated border management.
9. *Support to roll out ASYCUDA World* from June 2012 to connect the *Land Customs Stations* (*LCS*) and develop capacity of NBR's IT team.

There is a long way to go (as the low EDB rank shows) before Bangladesh customs can be considered in step with the more efficient systems prevailing in some of Bangladesh's comparators even in Asia. With support from the World Bank Group, in September 2018, NBR has launched a renewed effort to modernize Customs Administration and bring it in line with WTO's Trade Facilitation Agreement (TFA) that was ratified by Bangladesh in 2016. If this latest effort at modernization bears fruit, it would go a long way to meet the demands of the economy on way to graduation.

The goal of this new initiative is fast, fair, predictable and transparent processing and clearance of imports and exports at lowest transaction cost to the trading community; to expedite

movement, release and clearance of goods; improve co-operation between customs and stakeholders; and enhance technical assistance and capacity building. Significant degree of modernization can be achieved if Bangladesh follows through on its commitments under the TFA, which brings forth

- Simplification - elimination of redundancies and repetitions in processes and procedures
- Harmonization - alignment of national procedures with international standards
- Standardization - development of internationally-agreed practices, procedures and documents

Recognizing the mounting challenges in the future global trade arena and the need to strengthen the nation's competitiveness as the nation moves close to graduation out of LDC status, NBR has prepared a strategic Plan for the next phase of modernization: *Strategic Action Plan for Customs Modernization (2018-2021).* Full implementation of this Action Plan will help bring Bangladesh Customs at par with its peers and comparators at least in the Asia-Pacific region.

7.9. Strengthening the Institutions for Trade and Industry

A careful review of economic history suggests that rapid growth that transforms developing economies into developed economies in the course of a generation requires a combination of two things: sound economic policies and good institutions to implement them. Research has shown that differences in institutions related to trade and industrial activity explain a good deal of why export and industrial performance differs across countries. There is much to be done in reforming several of the institutions in Bangladesh that deal with trade and industry, particularly in the area of promoting exports and its diversification.

Economic historians who have studied prosperity and decline of nations have concluded that inclusiveness of political and economic institutions is critical for sustained prosperity (Acemoglu and Robinson, 2012). With a return to democratic politics in the 1990s, opening up of markets, deregulation and privatization of industrial enterprises, trade and exchange liberalization, Bangladesh is on way to building the kind of institutions that yield prosperity for the long-term. The next decade will be crucial for strengthening economic institutions that will help entrepreneurs seize market opportunities emerging in a fast-changing global economy driven by innovation and creative destruction. Though it appears that Bangladesh is on the right track with its growth trajectory on an upward trend, it should not give rise to complacency, as history shows that prosperity over time follows a non-linear process. In order to attain and sustain high economic growth what is needed is building and nurturing inclusive economic institutions that are effective in enforcing property rights, creating a level playing field for small and large entrepreneurs, SMEs and big business, and encouraging investment in innovation, adoption of new technologies and developing skills for the future.

The Way Forward

Transforming the Bangladesh economy into a high-income economy over the next 25 years will require strengthening of institutions that promote sound economic fundamentals, enhance functioning of markets for efficient resource allocation, and foster competitive discipline. Intervention in markets would have to be kept to a minimum. The record of high-performing economies show that promotion of specific industries did not yield results as industrial development tended *to* be market-conforming and exports performed better when driven by factor-intensity based comparative advantage. That means we need to revisit the approach to "thrust sectors" providing instead a conducive policy environment for all investors and let those with the best potential succeed. The likely scenario in our digital future is that information asymmetry will fade to equalize market opportunities for all players.

As Bangladesh graduates out of its LDC status, it will need to be cognizant of some WTO rules that it had hitherto ignored – particularly, those relating to levels of protective tariffs and para-tariffs. Other multilateral disciplines will also come into play, such as rules governing intellectual property, subsidies, standards, and trade-related investment, which are going to be the same for developing and developed economies. Moreover, if Bangladesh were to seek membership of regional trading blocs, like RCEP, it would have to submit to their disciplines which are also likely to be stringent. Broadly speaking, economic institutions in Bangladesh will have to start getting ready to face and conform to a more competitive and rules-based global trading environment in the future. Nevertheless, trade facilitation with improved customs infrastructure and administration will remain effective mechanisms to promote exports while being consistent with multilateral rules.

Chapter 8

Socioeconomic Impacts of Graduation and Compensating Measures

8.1. Introduction and Background

Loss of LDC benefits analyzed in chapters 3 and 6 showed that the macroeconomic effects in terms of loss of export earnings, adverse effects on the balance of payment, external debt and debt servicing can be significant. These macroeconomic losses in turn will have important adverse effects on GDP growth, employment and poverty. Thus, it is important to assess the socio-economic implications of loss of international support measures on Bangladesh to ensure that appropriate mitigating measures are in place.

This chapter focuses attention on the potential adverse socio-economic effects of LDC graduation. A combination of quantitative techniques has been used to examine potential socio-economic impacts of LDC graduation. Partial equilibrium framework and reviews have been used to assess quantitatively the loss of international support measures. The estimated losses of international support measures have then been incorporated into a general equilibrium type modeling system to assess socio-economic impacts. It is important to note upfront that the focus of this chapter is on the socio-economic impact of losses from exports resulting from LDC graduation. As was shown in Chapter 3, export losses are the most significant shock that Bangladesh faces in the wake of the forthcoming LDC graduation. Other dynamic but non-quantifiable effects resulting from the loss of special treatment in the application of full range of WTO provisions discussed in detail in Chapter 3 are not considered here. Those costs in terms of full compliance with all WTO provisions are uncertain and not quantifiable but can be substantial. It is important that Bangladesh adopts relevant mitigating measures discussed in chapters 5, 6 and 7 to the fullest extent possible.

There are three widely used approaches to capture economy wide impacts: (i) fixed price multiplier model based on a input-output table or matrix (IOM); (ii) fixed price multiplier model using a social accounting matrix (SAM) – which is a super set of IOM encompassing activities, commodities, factors of production along with institution; and (iii) fixed price computable general equilibrium (CGE) model – invoking markets (e.g. product market and labour market etc.), behavioral specifications of all agents (e.g. producers and consumers etc.) and closure rules (e.g. defining how the accounts are balanced).

Two scenario simulations have been conducted. First simulation has been a business as usual (BAU) scenario where LDC graduation issue has not been considered. This is the same BAU described in detail in Chapter 5. In the second simulation loss of trade support measures has been considered. Economy-wide impact assessments have been conducted in two steps. First, the impact of loss of support measures on export earnings are considered using the partial

equilibrium framework. In the second step, the estimated numerical support measure losses have been incorporated into SAM and CGE modeling systems to assess impacts on:

(i) sectoral prices
(ii) general price level
(iii)sectoral and total domestic output
(iv)sectoral GDP or value added
(v) government revenue and budget
(vi)employment and
(vii) poverty

The rest of the Chapter is composed of five more sections. Section 2 discusses methodology and data. Results of a partial equilibrium approach is presented in section 3 that essentially draws on the analysis done in Chapter 3 on the effects of LDC graduation on RMG exports. Socio-economic impact assessment based on a CGE model is discussed in the next section. Concluding observations are provided in the last section.

8.2. Methodology and Data

Two sets of methodologies have been used to assess the impact of LDC graduation in Bangladesh. First method belongs to a partial equilibrium approach where export loss due to LDC graduation is estimated and the second is a general equilibrium approach to assess the economy wide impacts of LDC graduation. The various components, and the insights they provide, are summarised in Box 8.1.

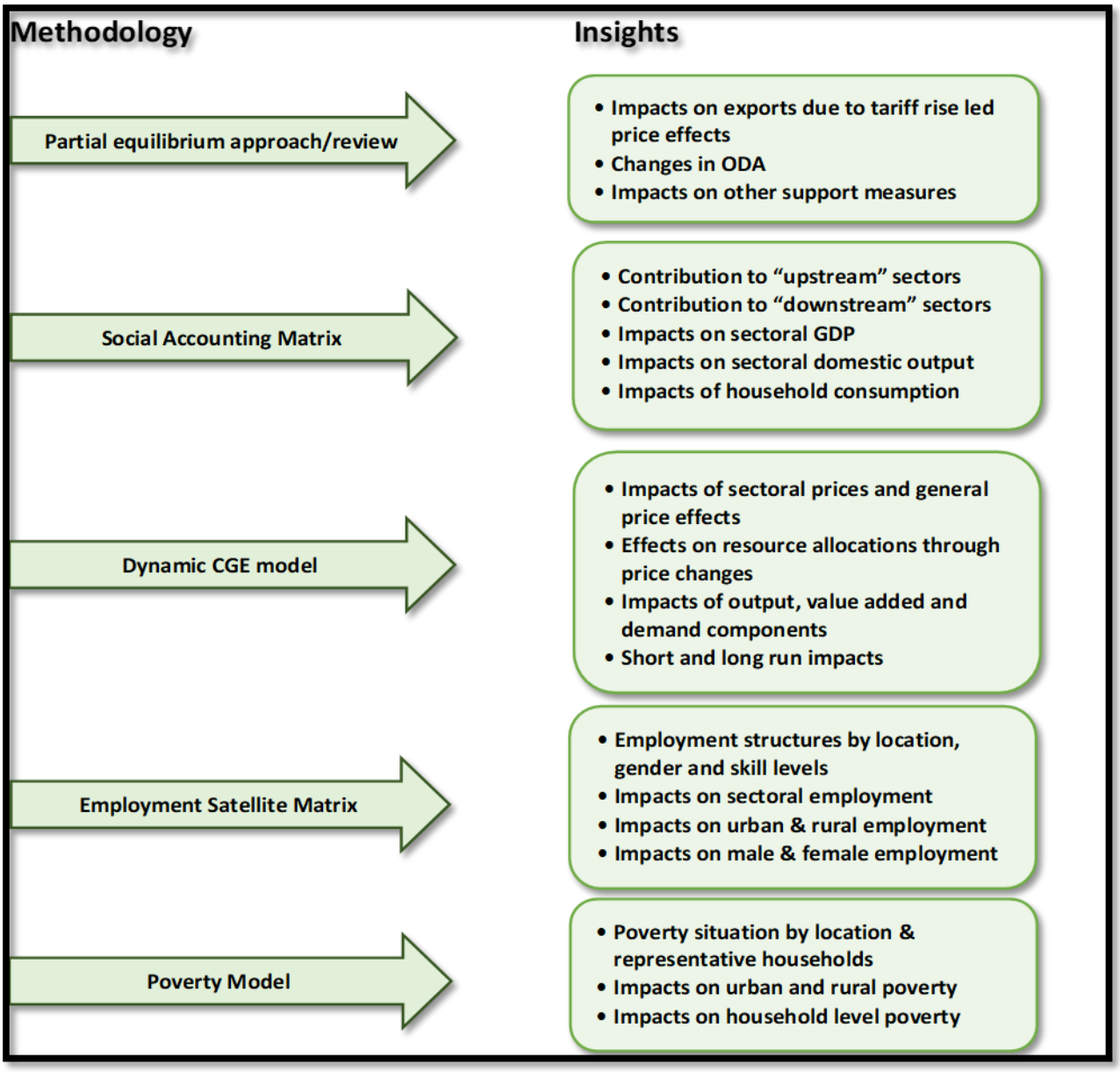
Partial Equilibrium Approach

In the approach a simulation model is used where export price impacts are calculated assuming various values of price elasticity. The commonwealth Secretariat in UK has proposed an analytical framework to study the potential implications of tariffs arising from LDC graduation for a graduating country's exports (Commonwealth Secretariat, 2018). The prescribed partial equilibrium model comprises two steps: *first*, it estimates the impact on exports due to price changes emanating from forgone tariff preferences in the destination market; *second*, it estimates the possible increase in demand for goods exported by non-graduates as they become more competitive relative to the graduating country in question.

The advantage of this model is its simplicity – the data requirements are minimum, and the simulation is quite simple. Being a partial equilibrium model means, it only uses one sector while disregarding its interactions with others – a feature that general equilibrium models captures. However, the Commonwealth framework provides a good basis for undertaking an initial assessment in identifying the potential trade-related effects. The potential impact of LDC graduation (or loss of preferences) in this model is transmitted through three ways:

- Price effects – an increase in the price of goods because of graduation which increases tariffs.
- This will result in the potential substitution between exports from graduates and non-graduates.
- The results are dependent on market share elasticities and therefore the extent of price sensitivities;

Box 8.1: Methodological Framework for Quantitative Impact Assessment



The Partial Equilibrium Model

The trade effect of LDC graduation (or tariff rise) can be estimated by comparing the unit price received by the preference-recipient country with that of the MFN exporters.

$$P_k^i = P_k^w\,(1 + m_k^i) \quad \text{or} \quad m_k^i = \frac{P_k^i}{P_k^w} - 1$$

Where, P_k^i is the unit price of product k received by country i (i.e. preference recipient) and P_k^w is the world unit price of the same product. It is assumed that markets are perfectly competitive and there is no product differentiation. The above equation can be expressed as:

$$P_k^i = P_k^w\,(1 + T_k^{MFN} - T_k^i) \text{ and } m_k^i = (T_k^{MFN} - T_k^i)$$

Where, T_k^{MFN} is ad valorem equivalent MFN tariff for product k and T_k^i is exported weighted-preferential tariff faced by country i. The percentage changes in exports as a result of changes in the price of exports is given by:

$$\frac{\Delta X}{X} = \frac{\Delta P}{P} + \varepsilon \frac{\Delta P}{P}\left[\frac{\Delta P}{P} + 1\right]$$

where X is exports and ε is price elasticity of demand for exports. The formula can be utilized to estimate the effect of abolishing tariff preferences resulting from LDC graduation. As a country graduate from the group of LDCs, its tariff preference regime changes as it would have to pay a higher tariff. The changes in export revenue as a result of graduation can be estimated from the equation below:

$$\frac{\Delta X}{X} = \theta_k^i \frac{\Delta m_k^i}{1+m_k^i} + \varepsilon\left(\theta_k^i \frac{\Delta m_k^i}{1+m_k^i}\right)\left(\theta_k^i \frac{\Delta m_k^i}{1+m_k^i} + 1\right)$$

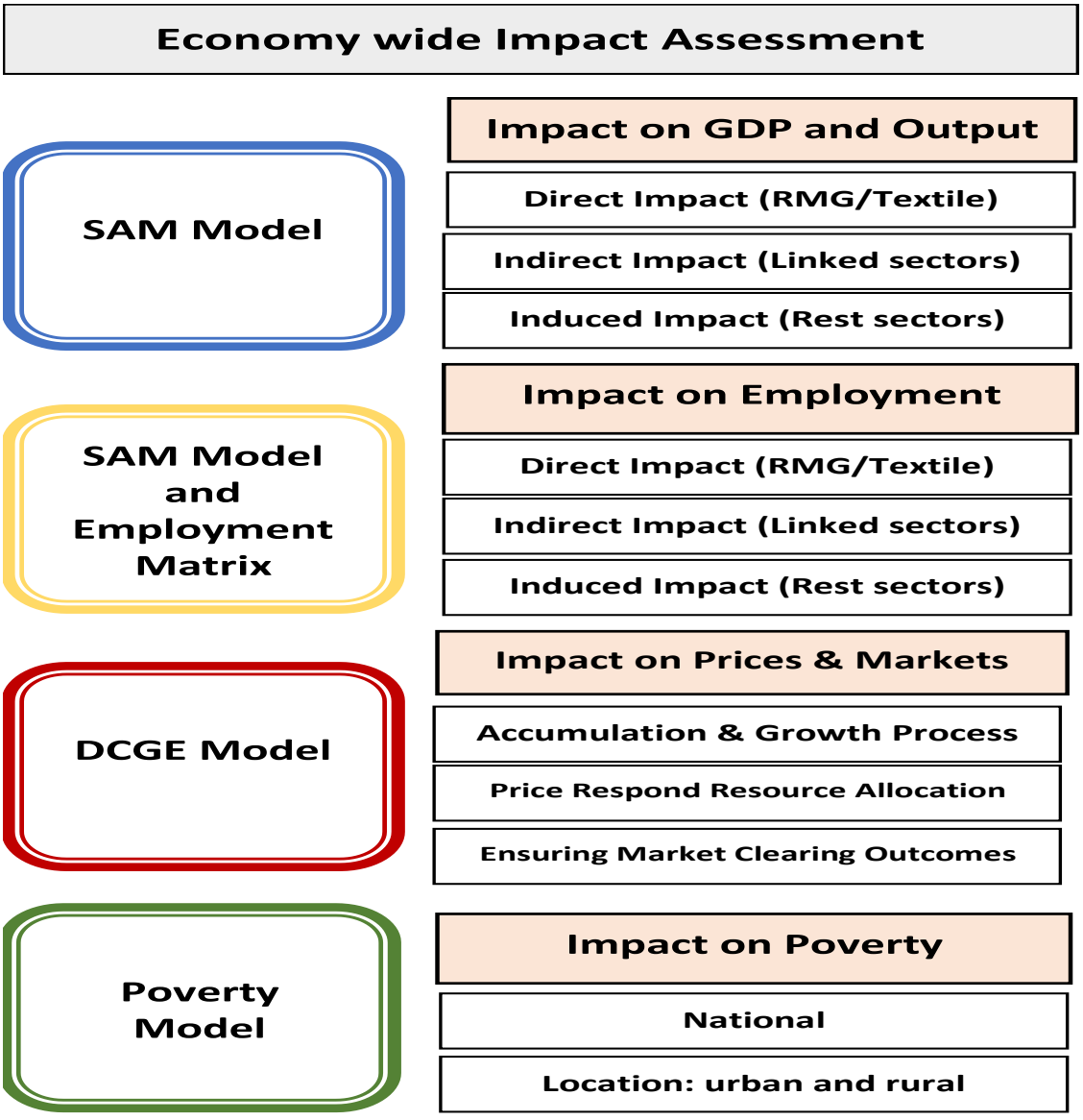
Where, $\theta_k^i \frac{\Delta m_k^i}{1+m_k^i}$ indicates the changes in preference margin. The first component in the above equation computes the changes in unit price resulting from changes in tariff preference. The second component calculates the impact on export revenue for the given changes in price.

At the second step, in order to compute the trade-shift effects it is assumed that the declining exports from the graduate will be proportionally distributed to the other competitors (i.e. non-graduates) based on their market shares. The implicit assumption here is that there is no product differentiation among the suppliers and non-graduate's exports will increase proportionally (i.e. cross price elasticity of demand is 1). Therefore, the market share approach is used to estimate how other countries' exports will be impacted.

Economy Wide Approach

The economy wide impact is based on three inter-related frameworks (Figure 8.1):

Figure 8.1: Snapshot of the Economywide Impact Assessment Framework



(i) a Social Accounting Matrix (SAM) based multiplier model to capture the effects on domestic outputs, value added, and household consumption. It also captures direct,

indirect and induced impacts using the interdependence or linkages of activities and commodities.

(ii) an employment satellite matrix (ESM) to assess employment implications. ESM help assess employment implications by activities, location (urban and rural) and gender (male and female. Moreover, it also assesses direct, indirect and induced employment impacts.

(iii)a dynamic computable general equilibrium (DCGE) model to describe the accumulation of factors and their influence on the process of growth in each year of the intervention period.

(iv)a poverty model to assess poverty impacts. It examines poverty situations by location and representative household groups.

SAM and SAM Model[33]

In the narrower sense, a SAM is a systematic data and classification system. As a data framework, SAM is a snapshot of a country at a point in time.[34] A particular innovation of the SAM approach is to bring together macroeconomic data (such as national accounts) and microeconomic data (such as household surveys) within a consistent framework. This aims to provide as comprehensive a picture of the structure of the economy as possible. A SAM is a generalization of the production relations, and extends this information beyond the structure of production to include: i) the distribution of value-added to institutions generated by production activities; ii) formation of household and institutional income; iii) the pattern of consumption, savings and investment; iv) government revenue collection and associated expenditures and transactions; and v) the role of the foreign sector in the formation of additional incomes for household and institutions. SAMs usually serve two basic purposes: a) as a comprehensive and consistent data system for descriptive analysis of the structure of the economy and b) as a basis for macroeconomic modeling.

The move from a SAM data framework to a SAM model (also known as multiplier framework) requires decomposing the SAM accounts into 'exogenous' and 'endogenous'. Generally, accounts intended to be used as policy instruments (for example, government expenditure including social protection, investment and exports) are made exogenous and accounts specified as objectives or targets must be made endogenous (for example, output, commodity demand, factor return, and household income or expenditure). For any given injection into the exogenous accounts of the SAM, influence is transmitted through the interdependent SAM system among the endogenous accounts. The interwoven nature of the system implies that the incomes of

[33] This section and the following section on DCGE draw on Khondker 2019

[34] Pyatt G and Thorbecke E, *Planning Techniques for a Better Future*, Geneva, ILO, 1976.

factors, households and production are all derived from exogenous injections into the economy via a multiplier process. The multiplier process is developed here on the assumption that when an endogenous income account receives an exogenous expenditure injection, it spends it in the same proportions as shown in the matrix of average propensities to spend (APS). The elements of the APS matrix are calculated by dividing each cell by the sum total of its corresponding column.

Table 8.1: Description of the Endogenous and Exogenous Accounts and Multiplier Effects

Endogenous (y).	**Exogenous (x)**
The activity (gross output multipliers), indicates the total effect on the sectoral gross output of a unit-income increase in a given account, *i* in the SAM, and is obtained via the association with the commodity production activity account *i*.	
The consumption commodity multipliers, which indicates the total effect on the sectoral commodity output of a unit-income increase in a given account *i* in the SAM, is obtained by adding the associated commodity elements in the matrix along the column for account *i*.	Intervention into through activities (x = i + g + e), where i= GFC + ST (GFCF) Exports (e) Government Expenditure (g) *Investment Demand (i)* Inventory Demand (i)
The value-added, or GDP multiplier, giving the total increase in GDP resulting from the same unit-income injection, is derived by summing up the factor-payment elements along account *i*'s column.	
Household income multiplier shows the total effect on household and enterprise income, and is obtained by adding the elements for the household groups along the account i column.	Intervention via Households (x = r + gt + ct), where Remittance (r) *Government Transfers (gt)* Enterprise Transfers (ct)

The multiplier analysis using the SAM framework helps to understand further the linkages between the different sectors and the institutional agents at work within the economy. Accounting multipliers have been calculated according to the standard formula for accounting (impact) multipliers, as follows:

$y = A\ y + x = (I - A)^{-1}\ x = M_a\ x$

Where:

y is a vector of endogenous variables (*which is 68 according to SAM 2012 with all accounts showing number with no zero*)

x is a vector of exogenous variables (*which is also 68 according to SAM 2012 with lots of zero suggesting that policy options are not large*)

A is the matrix of average expenditures propensities for endogenous accounts, and

$M_a = (I - A)^{-1}$ is a matrix of aggregate accounting multipliers (generalized Leontief inverse).

The present multiplier framework has four endogenous accounts, and hence for each account in the SAM we can calculate four types of multiplier measures due to changes in any one of the various exogenous accounts.

The SAM based simulations are done on the basis of the 2012 SAM. That is the latest available SAM for Bangladesh at this time. It will be opportune for the government to consider a new research to update the SAM to a more recent base. However, the conclusions of the report are not materially affected by the use of SAM 2012. The economy-wide impacts of the export shocks have been examined by changing the total exogenous injection vector, especially rest of the world account. More specifically, the total exogenous account is manipulated to estimate their effects on output (through an output multiplier), value-added or GDP (through the GDP multiplier), and household income (through household income multiplier) and commodity demand (via commodity multipliers).

8.3. Dynamic Computable General Equilibrium Model

In addition to the fixed price demand driven SAM model, a dynamic computable general equilibrium (DCGE) model, based on the social accounting matrix (SAM) for Bangladesh for 2012, has been used to estimate macro and sectoral implications of the LDC graduation. The reason for employing a dynamic CGE model is due to fact that a dynamic CGE model is capable of capturing the growth effects of policy reforms. The inability of the static CGE model to account for growth effects make them inadequate for long-run analysis of the economic policies. They exclude accumulation effects and do not allow the study of transition path of an economy where short-run policy impacts are likely to be different from those of the long-run. To overcome this limitation, we use a sequential dynamic CGE model. This kind of dynamics will not be the result of inter-temporal optimisation by economic agents. Instead, these agents have myopic behaviour. It is a series of static CGE models that are linked between periods by updating procedures for exogenous and endogenous variables. Capital stock is updated endogenously with a capital accumulation equation, whereas population (and total labour supply) is updated exogenously between periods. Other variables such as public expenditure, transfers, technological change or debt accumulation are also updated over time. The sequential dynamic

CGE model has two major modules: static module and dynamic module. DCGE consists of following five blocks.

Table 8.2: DCGE Blocks

Main Model Blocks	Key Features
1. *Production and Supply:* production arrangements through the use of factors of production (i.e. labour and capital) and intermediate inputs are specified here.	A nested structure for production has been adopted. Sectoral output is a Leontief function of value added and total intermediate consumption. Value added is in turn represented by a CES function of capital and composite labour. The latter is also represented by a CES function of two labour categories: skilled labour and unskilled labour. Both labour categories are assumed to be fully mobile in the model.
2. *Income and Expenditure:* income generation of various institutions (household and government) and their expenditure patterns are specified in this block.	Households earn their income from production factors – labour and capital. They also receive dividends, intra-household transfers, government transfers and remittances. Household demand is represented by a linear expenditure system (LES) derived from the maximisation of a Stone-Geary utility function. Minimal consumption levels are calibrated by using guess-estimates of the income elasticity and the Frisch parameters. They also pay direct income tax to the government. Household savings are a fixed proportion of total disposal income. Government receives direct tax revenue from households and firms and indirect tax revenue on domestic and imported goods. Its expenditure is allocated between the consumption of goods and services (including public wages) and transfers.
3. *International Trade:* international trade with Rest of the World in the form of import from and export to is captured in this block.	Foreign and domestic goods are imperfect substitutes. This geographical differentiation is invoked by the standard Armington assumption with a constant elasticity of substitution function (CES) between imports and domestic goods. On the supply side, producers make an optimal distribution of their production between exports and domestic sales according to a constant elasticity of transformation (CET) function. Furthermore, a finitely elastic export demand function that expresses the limited power of the local producers on the world market has also been assumed. In order to increase their exports, local producers may decrease their free on board (FOB) prices.
4. *Prices:* all types of prices including wages and returns to capital are defined in this block.	Prices are formed through the interaction of supply and demand. The nominal exchange rate is the numéraire in each period.
5. *Equilibrium Condition:* equilibrium conditions of the various markets; factors and as well as institutions are specified here.	General equilibrium is defined by the equality (in each period) between supply and demand of goods and factors and the investment-saving identity.

Static to Dynamic Transformation

The DCGE model is formulated as a static model that is solved sequentially over a certain period time horizon. The model is homogenous in prices and calibrated in a way to generate "steady state" path. In the baseline all the variables are increasing, in level, at the same rate and the prices remain constant. The homogeneity test[35] generates the same shock on prices, and unchanged real values, along the counterfactual path. This method is used to facilitate welfare and poverty analysis since all prices remain constant along the business as usual (BAU) path.

It is, however, important to note that, in contrast to the static CGE models, which make counterfactual analysis with respect to the base run (generally the initial SAM); a dynamic CGE model allows the economy to grow even in the absence of a shock. This scenario of the economy (without a shock) is termed as the business-as-usual (BAU) scenario. The counterfactual analysis of any simulation under the dynamic CGE model is, therefore, done with respect to this growth path. One of the salient features of the dynamic model is that it considers not only efficiency effects, as also present in the static models, but also accumulation effects. The sectoral accumulation effects are linked to the ratio between the rate of return to the capital stock and the cost of investment goods.

Key Drivers for the Dynamic Model

Accumulation of Capital: In every period capital stock is updated with a capital accumulation equation. It is assumed that the stocks are measured at the beginning of the period and that their flows are measured at the end of the period. An investment demand function to determine how new investments will be distributed between the different sectors is also used. Investment here is not by origin (product) but rather by sector of destination. The investment demand function used here is similar to those proposed by Bourguignon et al. (1989), and Jung and Thorbecke (2003). The capital accumulation rate (ratio of investment to capital stock) is increasing with respect to the ratio of the rate of return to capital and its user cost. The latter is equal to the dual price of investment times the sum of the depreciation rate and the exogenous real interest rate. The elasticity of the accumulation rate with respect to the ratio of return to capital and its user cost is assumed to be equal to case specific values (i.e. it may be any number such as 1.5; 2 or 3). By introducing investment by destination, we respect the equality condition with total investment by origin in the SAM. Besides this, investment by destination is used to calibrate the sectoral capital stock in base run.

Endogenous Labour Supply: The total labour supply is an endogenous variable, although it is assumed to simply increase at the exogenous population growth rate[36]. Note that the minimal level of consumption in the LES function also increases (as do other nominal variables, like transfers) at the same rate. The exogenous dynamic updating of the model includes nominal

[35] For example, a shock on the numéraire – the nominal exchange rate – with the "steady state" characteristics.

[36] In static CGE model, labour supply is fixed and exogenous. But in a dynamic CGE model since the labour supply varies with population growth, it is made endogenous.

variables (that are indexed), government savings and the current account balance. The equilibrium between total savings and total investment is reached by means of an adjustment variable introduced in the investment demand function. Moreover, the government budget equilibrium is met by a neutral tax adjustment. Descriptions of the static and dynamic modules of the model are presented in Annex 2.

Employment Satellite Matrix

Employment satellite matrix (EASM) is developed for 2016 using the sectoral employment characteristics reported in the 2016 Labour Force Survey (LFS). LFS 2016 provides detailed information on employment by location (urban and rural), gender (male and female) and skill categories by LSF activity classifications. The activity classifications adopted in LSF is more aggregated than classification used in the national accounts and in SAM 2012. A mapping scheme has been developed between the LFS activity classification and 2012 SAM classification to assess employment impacts of simulations.

Poverty Module

A Poverty Module has been developed using the information of growth elasticity of poverty reduction of recent years. Household income and consumption generated in the SAM model are linked with this model to assess the poverty situation.

8.4. Impact on Bangladesh Apparel Exports: Partial Equilibrium Analysis

The results presented here are obtained from a recent study on the same subject by Razzaque and Jillur (2018). Potential loss of apparel exports to EU due to LDC graduation (or in other words tariff increase) has been estimated using four alternative price elasticity of demand values 0.5; 1; 1.5 and 2. The model is estimated using a total of 339 CN 8-digit products that were exported to the EU during 2015-17. The EU tariff rates at this level of disaggregation are used in the analysis for individual products. The impact is estimated based on the average exports during the last three years and their shares in total EU imports. Export implications have been estimated using two post-graduation scenarios: Bangladesh's receiving Standard GSP benefits and being subject to MFN tariffs. The results are summarised below.

Table 8.2: Export Losses: Results of Partial Equilibrium Simulations

Price Elasticity of Demand	If Bangladesh gets standard GSP preference (million $)	If Bangladesh faces MFN tariff (million $)
0.5	800.8	1,001.0
1.0	1,601.6	2,002.0
1.5	2,402.4	3,003.0
2.0	***3,203.2***	***4,004.0***

Source: Razzaque and Jillur (2018)

Under the low-price elasticity value of 0.5, loss of export value has been estimated at $ 800 million or 9.5% of average export revenues from the EU during 2015-17. Under the unitary price elasticity value, $ 1.6 billion or 9.5% of average export revenues from the EU during 2015-17. The export loss may likely to rise to $ 2.4 billion when 1.5 price elasticity value is used. On the other hand, under the high-price elasticity of 2, loss of export value has been estimated at $ 3.2 billion.

8.5. Socio-Economic Impact: Economy Wide Modeling Approach

Social Accounting Matrix 2012 for Bangladesh

The 2012 SAM identifies the economic relations through *four types of accounts*: (i) production activity for 23 activities and commodity accounts for the 23 products and services; (ii) 5 factors of productions with 3 different types of labour, 2 types of capital (including land); (iii) current account transactions among the 3 main institutional agents; household-members and unincorporated capital, government and the rest of the world; and (iv) one consolidated capital accounts capturing the flows of savings and investment. The disaggregation of activities, commodities, factors and institutions in the SAM is given below

Table 8.3: Description of Bangladesh SAM 2012

SAM Accounts	Detailed Sector Classification
Activities (23)	
	Cereal Crop, Commercial crop, Livestock-poultry, Fishing, Forestry, and Other-crop (06)
	Mining, Other Food, Leather, Textile-clothing, Chemical-Fertilizer, Machinery, Petroleum, Other industry, Construction, and Utility (10)
	Trade, Hotel, Transport, Financial Services, Public Administration, Social Services, and Other Services (07)
Commodities (23)	
	Cereal Crop, Commercial crop, Livestock-poultry, Fishing, Forestry, and Other-crop (06)
	Mining, Other Food, Leather, Textile-clothing, Chemical-Fertilizer, Machinery, Petroleum, Other industry, Construction, and Utility (10)
	Trade, Hotel, Transport, Financial Services, Public Administration, Social Services, and Other Services (07)

Factors of Production (04)	
	Labour factor (02): Labour-unskilled; and (iii) Labour-skilled
	Capital factor (02): Land and Capital
Institutions (04)	
	Household
	Government
	Rest of the World
	Savings or Gross fixed capital (consolidated capital)

Source: SAM 2012

Production and Trade Structure – SAM 2012

Production and trade structures of Bangladesh for 2012 are provided in table below. Structures are discussed in terms of three broad sector classification as well as the classification adopted in SAM 2012.

Table 8.4: Production and Trade Structure - Bangladesh SAM 2012

Sector Classification	GDP/Value added	Exports	Imports
Broad Sector Classification (Share in total)	100.00	100.00	100.00
Agriculture	18.37	2.61	4.43
Industry	27.17	91.67	91.56
Manufacturing	16.82	91.60	91.36
Apparel; Textile & Footwear Products	8.20	78.42	13.33
Services	54.46	5.71	4.00
SAM Sector Classification (share in total)	100.00	100.00	100.00
Cereal Crop	6.56	0.45	3.67
Commercial crop	4.27	0.28	0.70
Livestock-poultry	2.53	0.01	0.03
Fishing	3.61	1.82	0.00
Forestry	1.26	0.00	0.00
Other-crop	0.38	0.05	0.03
Mining	0.66	0.07	0.18
Other Food	3.90	0.87	*19.25*
Leather	0.50	2.49	0.25
Textile-clothing	*8.31*	*78.42*	*13.33*
Chemical-Fertilizer	0.87	1.39	*24.39*
Machinery	1.91	3.09	*23.01*
Petroleum	0.15	0.57	1.36
Other industry	1.39	4.77	9.78
Construction	*8.49*	0.00	0.03
Utility	1.34	0.00	0.00

Sector Classification	GDP/Value added	Exports	Imports
Trade	*14.70*	0.00	0.00
Hotel	0.80	0.00	0.00
Transport	*10.22*	1.61	1.91
Financial Services	1.87	0.23	0.37
Public Administration	2.93	0.76	0.80
Social Services	5.16	0.00	0.00
Other Services	*18.18*	3.11	0.92
Total in Million BDT at current prices	8,644.7	2,125.2	2,949.2

Source: Bangladesh SAM 2012

- The largest income (i.e. GDP or value added) generating activity in Bangladesh is Services contributing about 54.5 percent of total income in 2012. This is followed by industrial activity with a contribution of about 27.2 percent of total income. Contribution of agricultural activity is lowest with 18.3 percent of total income.

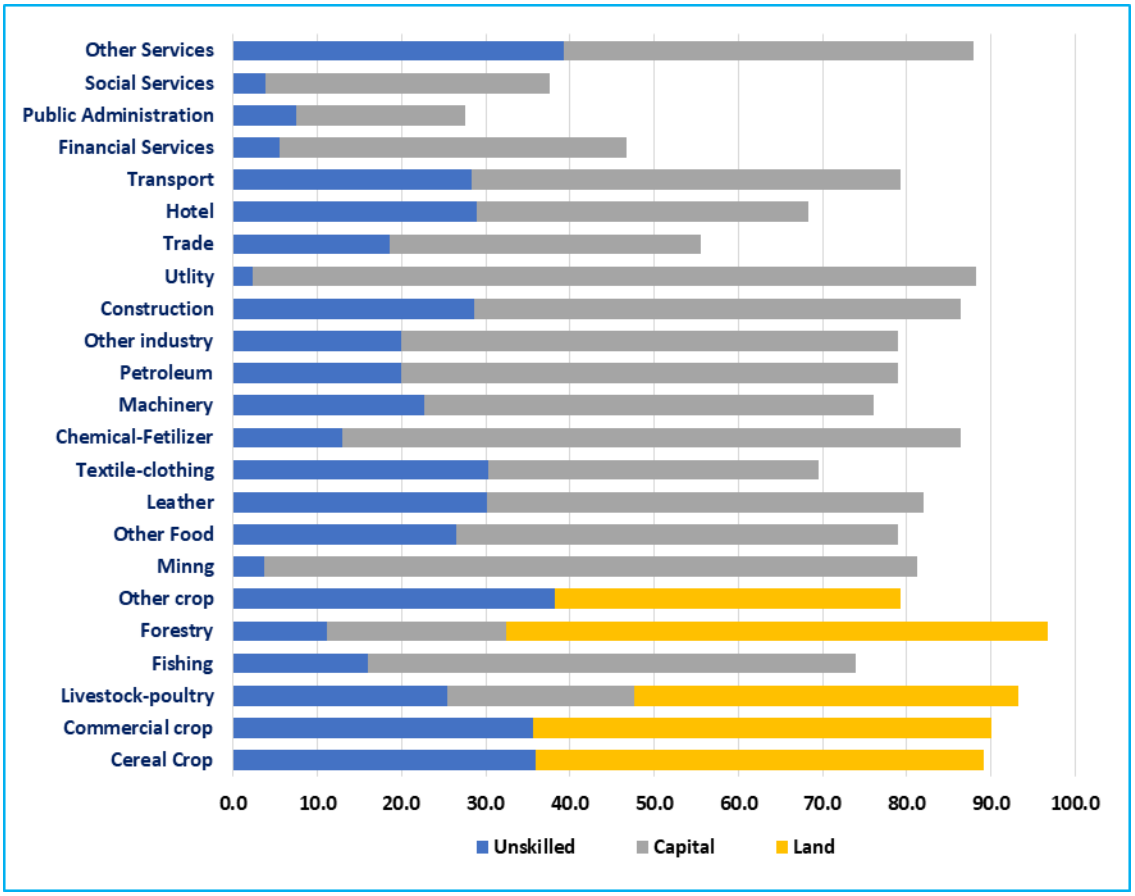
- Industrial activity is composed of manufacturing activity, utilities and construction. The contribution of manufacturing activity in total income generation in 2012 has been 16.8 percent. This suggests that more than 62 percent of industrial sector's income (or GDP) has been due to the performance of the manufacturing activity.

- More than 49 percent of the manufacturing income or GDP has been contributed by the apparel activity in 2012. The contribution of the apparel activity in total income generation is 8.2 percent. Among the 23 activities classified in SAM 2012 (which very closely resembles the National Account Sector Classification adopted by BBS in Bangladesh), apparel is the fourth largest income generating activity in 2012 – only lagging behind to construction, trade, transportation and other-services.

- On the basis of current level of income generation by the apparel activity – it is considered an important activity for sustaining growth momentum as well as for its expansion.

In 2012 SAM, the factor market has been represented by two types of labours – classified by skill levels – unskilled labour; and skilled labour. Capital factor which is represented by one category of capital and land. The factor intensities across 23 activities and 4 types of factors are shown in the Figure 8.2 below.

Figure 8.2: Factor Intensities across Activities

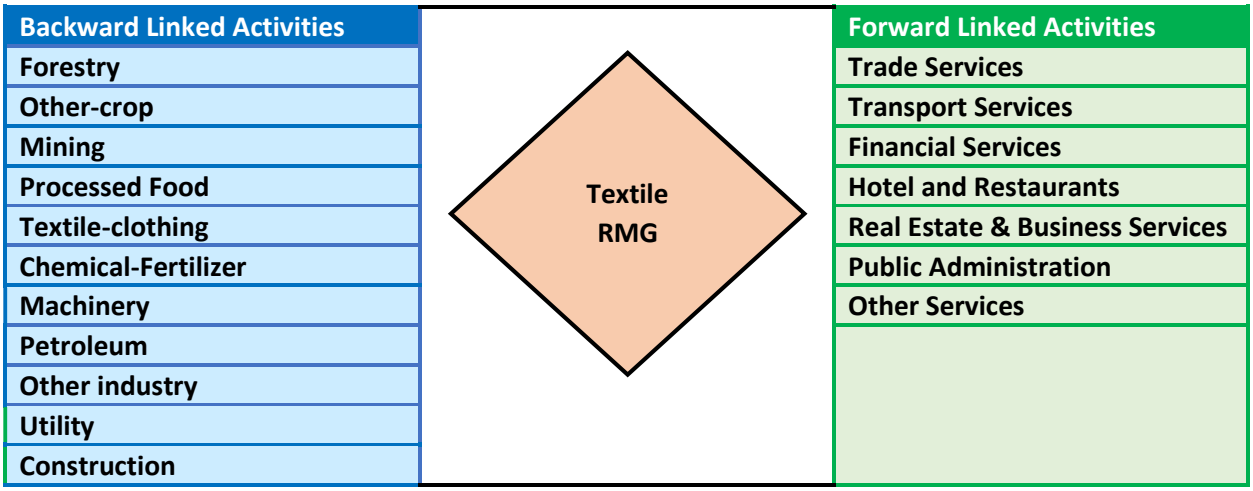


- Factor intensity patterns are diverse. Capital intensities are relatively high in heavy industries. This include mining; chemical-fertilizer; and utility. All of them have capital intensity of 70 percent or more. Few services also have high capital intensity. It is also high in construction, machinery, petroleum and miscellaneous industries.
- Low capital intensity (or relatively high labour intensity) has been found for activities such as crop agriculture, various services and textile. Capital intensity is less than 50 percent in these activities.
- In particular, capital intensity is 39 percent in the textile activity envisaging that combined labour intensity is 61 percent. Moreover, out of this 61 percent the share of unskilled labour is 31 percent and the share of skilled labour is 30 percent. The underlying factor intensity pattern of the RMG/textile activity suggests that reduction on RMG/textile activity would likely to effect workers disproportionately compared to the holders of capital. Furthermore, contraction of RMG/textile activity would have greater impact on the low and medium skilled labourers perhaps with deleterious implication on poverty.

One key advantage of IOT or SAM model is that it captures important element of interdependence of activities and commodities in their production system. Review of activity level input structure (or which is more widely known as the technology structure) identifies the level of linkages. An activity with larger number of inputs would have higher linkages compared to an activity that uses a smaller number of inputs in production. These linkages can be differentiated into backward and forward linkages. Stronger forward and backward production linkages lead to larger multipliers. Backward production linkages are the demand for additional inputs used by producers to supply additional goods or services. For example, when RMG production expands, it demands intermediate goods and services like cotton, fabrics, paper, electricity, and machine parts. This demand then stimulates production in other sectors to supply these intermediate goods and services. The more input intensive a sector's production technology is, the stronger its backward linkages are. The backward linkages provide valuable information about the degree of integration of an activity with the rest of the economy. Using this measure, it is possible to determine which activities contribute most to economic growth as a result of an exogenous increase in final demand, for instance export demand.

Forward production linkages account for the increased supply of inputs to upstream industries. For example, when electricity production expands, it can supply more power to the economy, which stimulates production in all the sectors which use power. Thus, the more important a sector is for upstream industries, the stronger its forward linkages will be. Forward linkages are particularly important for the activities (such as trade, transportation, energy etc.) that provides key input into the majority of other activities in the economy. In other words, forward linkages help us to understand the importance of a commodity for the rest of the economy in terms of intermediate demand. Therefore, a commodity that exhibits high forward linkages it is said to be important to growth since growth in that activity will have knock on effects in other sectors.

Figure 8.3: Linked Activities of the Ready-Made Garment Activity



Source: SAM 2012

Linkage structure of the Textile and Ready-Made Garment activity is shown above. Out of 23 commodities, it requires inputs from as many as 18 commodities. Numbers of backward and forward linked sectors are respectively 11 and 7. Contraction of Ready-Made Garment activity would also contract outputs of these 23 linked sectors. Ready-Made Garment activity has been found one of the most integrated activities in Bangladesh and thus negative impact on the Ready-Made Garment activity would likely to have deleterious effect on the economy by reducing output, factor demand and factor income (or what is also known as the primary income) and household income and consumption expenditure.

Employment Structure – ESM 2016

Employment structure of Bangladesh has been presented from perspective of activity and location and gender for deeper insight and to understand implication on employment for contraction or expansion of a particular activity. Table below shows employment structure by activities. Employment structure from location (urban vs and rural) and gender (male vs female) perspectives have been presented in Table 8.5.

Table 8.5: Bangladesh Employment Structure by Activities (%)

	National			Rural			Urban		
	Male	**Female**	**Both**	**Male**	**Female**	**Both**	**Male**	**Female**	**Both**
Agriculture	32.5	59.7	40.9	42.3	72.5	52.0	8.9	19.1	11.6
Industry	21.7	16.9	20.3	19.3	11.5	16.8	27.6	34.1	29.4
Mining	0.2	0.0	0.2	0.3	0.0	0.2	0.1	0.0	0.0
Manufacturing	13.6	15.4	14.2	11.7	10.0	11.1	18.5	32.7	22.2
Textile	6.3	11.4	7.9	*5.1*	*6.7*	*5.6*	*9.4*	*26.6*	*14.0*
Other-manufacturing	7.3	4.0	6.3	6.6	3.3	5.5	9.1	6.1	8.3
Utility	0.3	0.1	0.2	0.2	0.0	0.1	0.4	0.1	0.4
Construction	7.6	1.4	5.7	7.2	1.5	5.3	8.7	1.3	6.7
Services	45.7	23.4	38.9	38.4	16.0	31.2	63.5	46.7	59.0
Trading services	19.2	3.4	14.3	16.2	2.7	11.8	26.4	5.6	20.9
Hotel	2.3	1.0	1.9	1.9	0.7	1.5	3.2	1.9	2.9
Transport services	12.0	1.1	8.7	11.1	1.0	7.8	14.3	1.6	10.9
Financial Services	0.7	0.4	0.6	0.2	0.1	0.2	1.9	1.2	1.7
Public Administrative	1.9	0.6	1.5	1.3	0.4	1.0	3.3	1.2	2.7
Social Services	3.6	5.9	4.3	3.0	3.9	3.3	5.1	12.3	7.0
Other Services	6.0	11.0	7.5	4.6	7.3	5.5	9.3	22.9	12.9

Source: ESM 2016

- The largest employer in Bangladesh is the agriculture sector accounting for 41 percent of total employment. The second largest employer is the services sector absorbing about 39 percent of the total work force. Industry provides employment to about 20 percent of total work force. The employment structure is very different for urban activities. About 60 percent of the urban workers are employed in the services sectors. Industry emerged as the second largest employers for the urban work force. Almost 30 percent of the urban work force found

jobs in the industrial activities. Understandably, only about 12 percent of the urban work force are in agriculture. In the case of rural work force, the largest employer is agriculture. It provides employment of about 52 percent of the rural work force. The second largest employer is services employing almost 31 percent of the rural work force. The contribution of industrial activities for rural employment is at around 17 percent.

- Manufacturing activity which employs about 17 percent the total work force is still a male dominated activity. Almost 30 percent of the total female work force is employed in the manufacturing activity. Only about 22 percent of total male work force works in the manufacturing activity. On the other hand, services and agriculture are female dominated activity.

- About 11 percent total Bangladesh work force is employed in the textile activity. It accounts for about 56 percent of the total manufacturing employment. An important observation is that almost 27 percent of the total urban female work force is employed in textile activity. While employment of male in RMG is disproportionately low.

Table 8.6: Distribution of Bangladesh Employment by Location and Gender (%)

	Bangladesh				Rural				Urban		
	Male	Female	Both	Rural	Male	Female	Both	Urban	Male	Female	Both
All	69.2	30.8	100.0	72.4	67.7	32.3	100.0	27.6	73.3	26.7	100.0
Agriculture	55.1	44.9	100.0	92.1	55.0	45.0	100.0	7.9	56.1	43.9	100.0
Industry	74.3	25.7	100.0	60.0	77.9	22.1	100.0	40.0	69.0	31.0	100.0
Mining	96.0	4.0	100.0	91.5	96.8	3.2	100.0	8.5	87.5	12.5	100.0
Manufacturing	66.6	33.4	100.0	56.7	71.0	29.0	100.0	43.3	60.8	39.2	100.0
Textile	*55.5*	*44.5*	*100.0*	*51.1*	*61.5*	*38.5*	*100.0*	*48.9*	*49.3*	*50.7*	*100.0*
Other-manufacturing	80.6	19.4	100.0	63.7	80.7	19.3	100.0	36.3	80.4	19.6	100.0
Utility	90.9	9.1	100.0	48.0	92.3	7.7	100.0	52.0	89.7	10.3	100.0
Construction	92.3	7.7	100.0	67.6	91.2	8.8	100.0	32.4	94.8	5.2	100.0
Services	81.5	18.5	100.0	58.1	83.4	16.6	100.0	41.9	78.9	21.1	100.0
Trade Services	92.7	7.3	100.0	59.8	92.6	7.4	100.0	40.2	92.8	7.2	100.0
Hotel	84.0	16.0	100.0	58.5	85.6	14.4	100.0	41.5	81.8	18.2	100.0
Transport Services	96.0	4.0	100.0	65.2	96.0	4.0	100.0	34.8	96.1	3.9	100.0
Financial Services	80.4	19.6	100.0	24.4	79.0	21.0	100.0	75.6	80.8	19.2	100.0
Public Administrative	88.3	11.7	100.0	50.0	88.3	11.7	100.0	50.0	88.3	11.7	100.0
Social Services	58.1	41.9	100.0	55.2	61.9	38.1	100.0	44.8	53.4	46.6	100.0
Other Services	55.0	45.0	100.0	52.5	57.0	43.0	100.0	47.5	52.8	47.2	100.0

Source: ESM 2016

- More than 72 percent of the total work force is employed in the rural activities. The contribution of urban activities in employment generation is thus 28 percent. Agriculture is predominantly a rural activity and hence it draws 92 percent of workers from the rural locations. Industry also draws majority of their workers (i.e. 78 percent of industrial workers) from the rural locations. Services draws workers from both location with similar proportion. Almost 42 percent of the services workers are from the urban location. An important

observation is that, RMG –an export-oriented activity– draws about 51 percent of its work force from the rural location.

- In Bangladesh, almost 69 percent of the total workers are male while rest 31 percent are female workers. These patterns between male and female workers also hold for urban and rural locations.

8.6. Socio-Economic Impact of LDC Graduation Under SAM 2012

Simulation Design

A SAM multiplier model based on a Bangladesh SAM for 2012 is used to assess the macro-sectoral impacts. Following simulations have been carried out.

Business as Usual (BAU): A business as usual scenario is generated for 2027 assuming that there are no export demand shocks into the Bangladesh economy. The exogenous account of the SAM model is set up in such a way (i.e. it reflects what is needed to change in all the three elements of the exogenous account – the government expenditure, investment and exports) to exactly match the nominal GDP values projected for 2027 in Bangladesh's "Macro-economic" framework used in the Perspective Plan 2041 and in Chapter 5. BAU scenario also simulate projected employment situation which is consistent with the GDP outcomes of the BAU scenario. Generating the BAU to exactly match the projected GDP values of 2027 is important since the BAU set the bench mark to examine impact of the export demand shocks.

Low Export Shock (LES): If Bangladesh RMG were to face higher tariff due to LDC graduation, RMG exports in 2027 has been estimated to reduce by $ 3.1billion against the price elasticity of -0.5 for Bangladeshi RMG export to EU (based on projected RMG exports of $63 billion to EU in 2027). In this simulation labeled "LES", the estimated RMG exports fall of $ 3.1 billion to EU are considered. This is implemented by reducing 2027 BAU RMG export value by $ 3.1 billion through rest of the world Account and RMG/Textile sector account of the SAM model.

Medium Export Shock (MES): Due to LDC graduation, the RMG exports to EU in 2027 has been estimated to reduce by $ 6.2 billion if the price elasticity of Bangladeshi RMG export to EU is -1. The estimated RMG exports fall of $ 6.2 billion to EU have been included in this simulation labeled as "MES". This is implemented by reducing 2027 BAU RMG export value by $ 6.2 billion through rest of the world Account and RMG/Textile sector account of the SAM model.

High Export Shock (HES): Alternatively, the RMG exports to EU in 2027 has been estimated to reduce by $ 9.3 billion when the price elasticity of Bangladeshi RMG export to EU is -1.5. The estimated RMG exports fall of $ 9.3 billion to EU have been considered in this simulation labeled as "HES", This is implemented by reducing 2027 BAU RMG export value by $ 9.3 billion through rest of the world Account and RMG/Textile sector account of the SAM model.

Table 8.7: Simulation Parameter Assumptions

	BAU	LES	MES	HES
Price elasticity	'…'	-0.5	-1.0	-1.5
Export fall (Billion $)	0.0	3.1	6.2	9.3
Export fall (% of 2027 RMG export to EU)	0.0	4.9 %	9.8 %	14.7 %

Simulation Results

Business as Usual Scenario (BAU)

As mentioned above, a key feature of the *BAU scenario is that it does not consider LDC graduation effects.* Another important feature is that the sectoral GDP estimated under the BAU scenario exactly matches the sectoral GDP reported in the macro-economic framework. The sectoral GDP, gross domestic output, and employment are estimated under the BAU scenario. The BAU outcomes are presented in Table 8.8.

Table 8.8: BAU Scenario Results

SAM Activity Classification	Macro-Framework		Model Simulation		
	Real Value added* (Billion BDT)	Real Value added (Billion BDT)	Value added (Billion BDT)	Output (Billion BDT)	Employment (Million)
Cereal Crop	202	202	543	950	8.2
Commercial crop	147	147	497	879	6.3
Livestock-poultry	191	191	1,035	2,659	10.3
Fishing	854	854	3,235	6,593	2.5
Forestry	365	365	1,246	3,813	1.6
Other-crop	24	24	99	429	1.0
Mining	520	520	2,862	6,605	1.0
Other Food	1,371	1,371	6,257	26,529	2.6
Leather	123	123	359	1,444	0.2
Textile-clothing	2,048	2,048	8,097	22,874	7.2
Chemical-Fertilizer	179	179	719	3,533	0.7
Machinery	865	865	2,088	9,948	2.1
Petroleum	108	108	181	794	0.0
Other industry	956	956	1,699	7,269	2.4
Construction	1,713	1,713	5,923	14,783	4.1
Utility	435	435	1,071	1,486	0.9
Trade Services	2,716	2,716	6,742	8,398	9.0
Hotel	194	194	765	2,352	3.4
Transport Services	1,875	1,875	3,854	5,653	7.3
Financial Services	948	948	4,687	7,117	2.6
Public Administration	1,148	1,148	7,041	11,554	2.5
Social Services	1,149	1,149	5,833	9,165	4.1
Other Services	1,926	1,926	6,818	9,227	5.2
Total	20,056	20,056	71,650	164,054	85.2

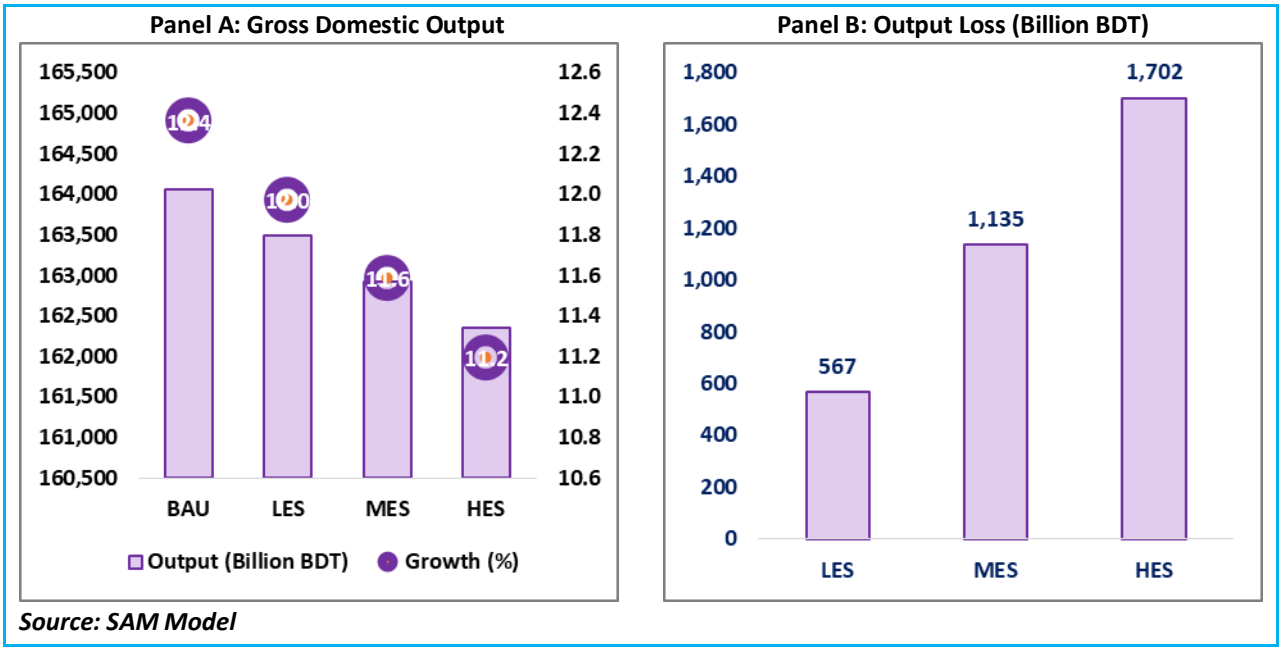
Note: * As expected and required to test model validation, simulated sectoral GDP or value added in the BAU scenario reproduces the GDP or value added reported in the macro-economic framework.

Export Shock Scenarios (ESS)

The impacts of the export demand shocks on the economy have been assessed by tracking the movements of the following indicators: (i) gross domestic output; (ii) nominal and real gross domestic product; (iii) employment and unemployment rate; and (iv) poverty rate.

Gross Domestic Output: Gross domestic output combines factors of production (i.e. labour and capital) with raw materials (i.e. domestic and imported) to produce output. Gross domestic output is a comprehensive indicator to assess health of an economy. Impacts on domestic output under the four scenarios are presented in Figure 8.4.

Figure 8.4: Impact on Output

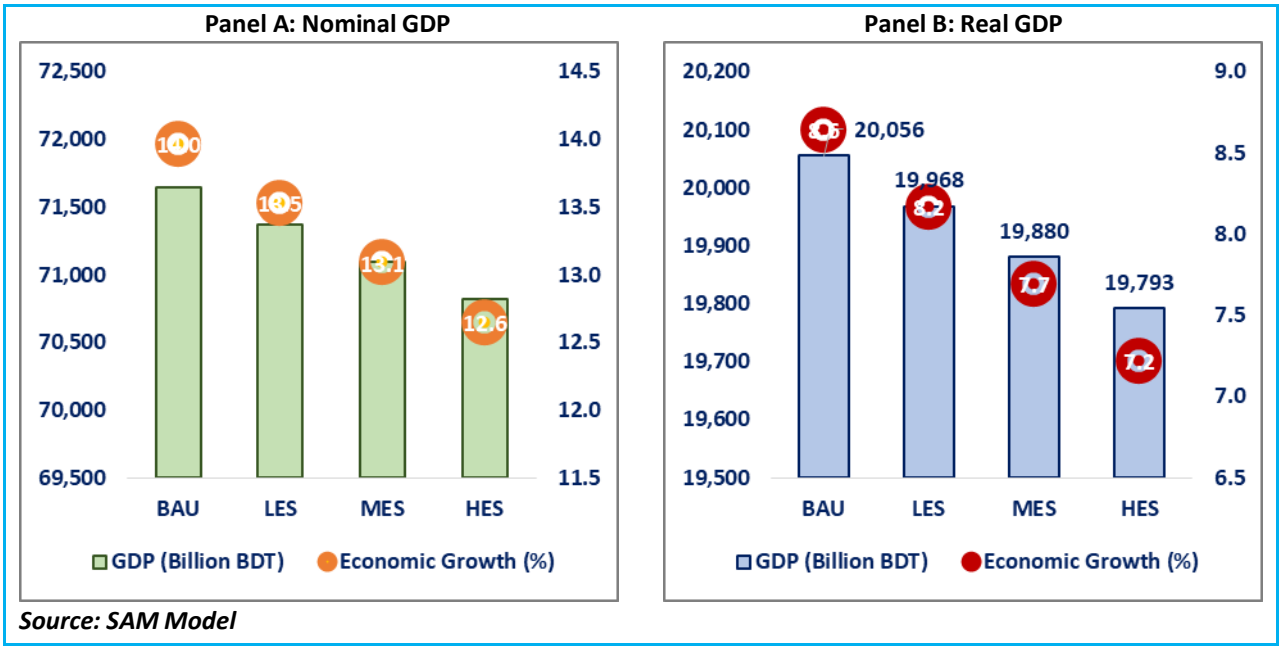


Source: SAM Model

Total value of domestic output under the BAU scenario has been projected to be BDT 164,054 billion in 2027 envisaging a growth rate of 12.4 %. RMG export shocks are likely to exert negative impact on the domestic output. Lowest decline in domestic output has been found in the LES scenario. In this scenario, domestic output drops to BDT 163,486 million implying a growth rate of 12.0 percent. Output decline in highest under the HES scenario due to the higher level of the export demand shock. Output may likely fall to BDT 162,352 million. In comparison to the BAU scenario, output growth reduces by 0.39 percentage points in LES; 0.78 percentage points in MES; and 1.17 percentage points in HES. Size of output loss compared to BAU output may range between BDT 567 billion under LES scenario and BDT 1,702 billion under HES scenario. It also suggests, ceteris paribus, the higher is the export demand shock the larger is the decline in domestic output.

Gross Domestic Product (GDP): Most widely used and accepted indicator to measure economic well-being is GDP. It is the sum of values of all goods and services produced in an economy in a particular time period (e.g. usually a quarter or a year). There are two valuations of GDP – nominal and real. Nominal GDP include the prices of the goods and services. While the real GDP measure exclude the price factor. The simulated impacts on GDP are presented below

Figure 8.5: Impact on GDP



Source: SAM Model

Simulated nominal GDP[37] in 2027 under the BAU scenario has been BDT 71,650 billion. This implies a growth rate of 14.0 % for nominal GDP in 2027. Nominal GDP value likely to drop to BDT 71,374 billion envisaging growth rate of 13.5 % under the LES scenario. Impacts are higher under the other two scenarios. Growths in nominal GDP may likely reduce to 13.1 % under MES scenario and 12.6 % the HES scenario. Thus, in comparison to the BAU scenario, *nominal GDP growth rates have been estimated to be reduced by 0.5 percentage points in LES; 0.9 percentage points in MES; and 1.4 percentage points in HES.*

Activity level (i.e. Bangladeshi economy is represented by 23 activities) nominal GDP values are deflated using the underlying activity level GDP deflators for 2027 as reported in the "Macro-economic" framework to arrive at activity level real GDP values for 2027. Real GDP in 2027 under the BAU scenario has been simulated at BDT 20,056 billion. This implies a real economic growth of 8.6 percent in 2027. Real GDP value may likely decline to BDT 19,968 billion, implying economic growth rate of 8.2 % under the LES scenario. Under the MES scenario, real

[37] We consider factor price GDP in the SAM framework. Factor price GDP only exclude two items – product taxes and subsidies and finance service charges.

GDP value likely to decline to BDT 19,880 billion, resulting a growth rate of 7.7 %. Largest decline in real GDP is found in the HES scenario. In this scenario, real GDP value likely to decline to BDT 19,793 million or to 7.2 % growth rate. In comparison to the BAU scenario, real GDP growth rates have been estimated to be reduced by 0.4 percentage points in LES scenario; 0.9 percentage points in MES scenario; and 1.4 percentage points in HES scenario. Impacts on real GDP are further dissected by broad activity classifications. Table 8.9 captures them.

Table 8.9: Impacts on Real GDP by Broad Activities`

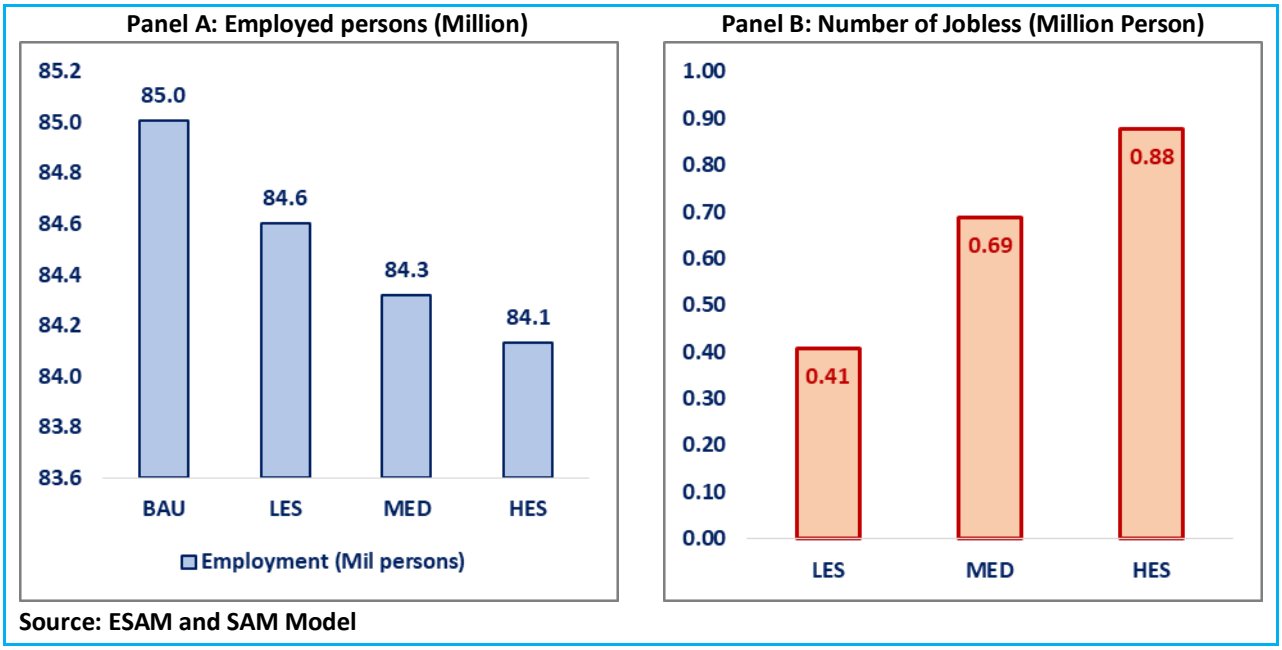
Broad Activity	BAU	LES	MES	HES
Agriculture				
GDP ($ Million)	1,781,932	1,769,468	1,757,004	1,744,540
Growth (%)	2.17	1.852	1.134	0.417
Industry				
GDP ($ Million)	7,882,592	7,858,827	7,835,061	7,811,296
Growth (%)	10.893	10.559	10.225	9.890
Manufacturing				
GDP ($ Million)	5,649,522	5,626,031	5,602,539	5,579,048
Growth (%)	10.86	10.40	9.94	9.48
Textile/RMG				
GDP ($ Million)	1,126,412	1,082,886	1,039,359	995,832
Growth (%)	9.01	4.80	0.59	-3.62
Services				
GDP ($ Million)	10,391,183	10,339,798	10,288,413	10,237,028
Growth (%)	8.07	7.54	7.00	6.47
All				
GDP ($ Million)	**20,056**	**19,968**	**19,880**	**19,793**
Growth (%)	**8.64**	**8.17**	**7.69**	**7.22**

Source: SAM Model

Employment: An important indicator for socio-economic impact assessment is employment. Creating jobs, especially decent jobs is a key priority in most economies. Bangladesh is no exception and hence attaches importance to employment generation. According to the LFS (2016), almost 72% of the total population belong to working age group. Out of them, 61% participate in the labour market – or actively search for a job. Projected population of Bangladesh in 2027 is 184 million. Projected the total working age population in 2027 has been estimated at 126.5 million persons. Number of persons actively looking for jobs is 88.5 million persons. Simulated total number of jobs under the BAU is 85 million persons. This suggests a very low unemployment rate of 4.0 percent.

Activity level outputs simulated under the four simulations are linked to the activity level employment coefficients to derive the employment effects of LDC graduation. The simulated impacts on employment are presented below.

Figure 8.6: Impact on Employment



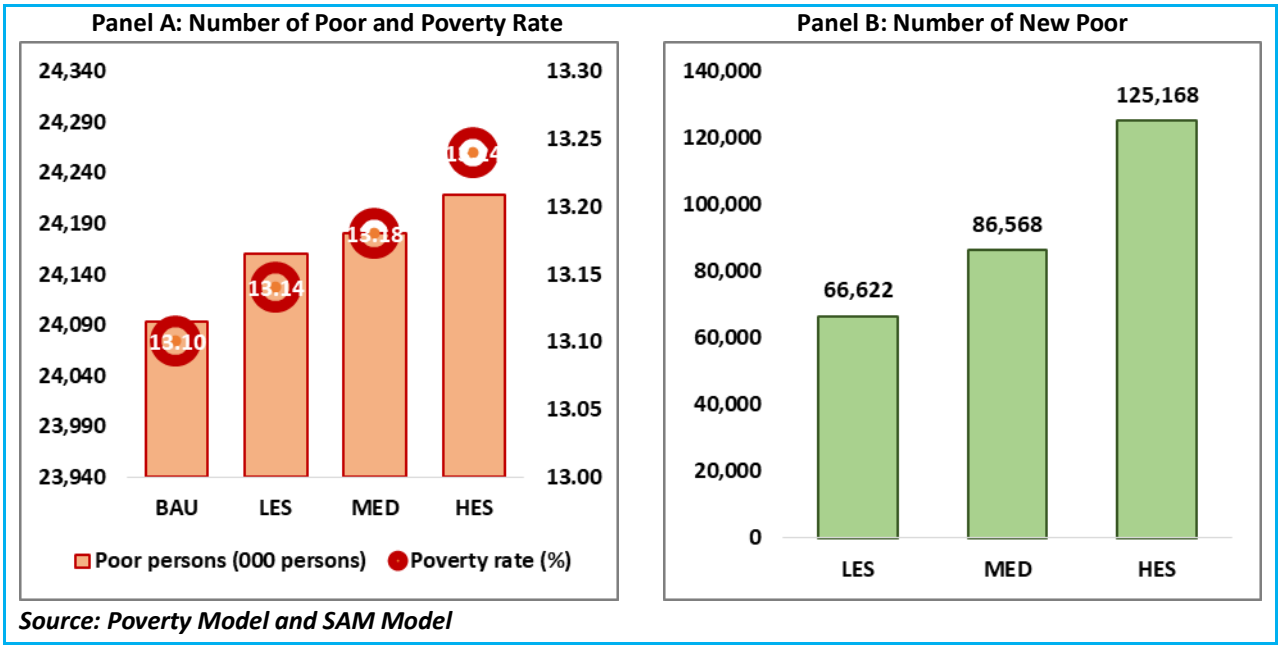
Source: ESAM and SAM Model

Job creation declines to 84.6 million persons under LES scenario compared to 85 million jobs generated in BAU. This translates to a loss of jobs for 0.41 million persons. Number of jobless persons increases to 0.69 million persons under MES scenario. In HES scenario, number of jobless persons jump to 0.88 million. LDC graduation may thus be associated with rise in unemployment in Bangladesh.

Poverty: It is the single most important indicator for welfare assessment. Reduction of poverty and eradication of extreme are key objectives in many economies, especially in a developing economy like Bangladesh. Based on her impressive progress on the poverty front, it may be argued that Bangladesh is winning the fight against poverty. Head Count poverty rate which was 31.5 % in 2010 declined to 24.3 % in 2016 (BBS, 2017). Combination of three factors – high economic growth, job creation and remittances – are key to the poverty reduction success. However, it may be relevant to note gains in poverty reduction remain highly precarious, as most households that escaped poverty did so by only a small margin.

The changes in real income gains the four scenarios are linked to the poverty model to assess poverty impacts. The simulated poverty impacts are presented below.

Figure 8.7: Poverty Impact (upper poverty line)



Source: Poverty Model and SAM Model

With more than 8.5 % economic growth, head count poverty is projected to drop to 13.1 % in 2027 under the BAU scenario under upper poverty line. However, economic contraction due to LDC graduation may likely to cause poverty level to increase in Bangladesh. Number of poor persons likely to increase from 24.09 million under BAU scenario to 24.16 million in LES scenario. This suggest 66,622 new poor persons and the resultant head count poverty rate is 13.14%. As many as 86,568 new persons may turn poor under the MES scenario implying a head count poverty rate of 13.18%. Poverty rate may likely to jump to 13.24% under the HES scenario. Compared to the BAU scenario, number of new poor is 125,168 persons.

Assessing Socio-Economic Impact of LDC Graduation: DCGE Model Approach

Numerical specification of a general equilibrium model to a macro consistent data set is the first but most important step in a CGE exercise. SAM 2012 is a general equilibrium data set. Thus, the dynamic computable general equilibrium (DCGE)[38] model for Bangladesh has been calibrated to SAM 2012. Results of the base run of the DCGE model satisfy the model validation properties – namely the reproduction of the SAM values. Validation of the DCGE also suggests that the model is ready to conduct policy simulations.

Simulation Design

[38] In effect, the SAM 2012 has been updated to 2027 to be consistent with the terminal year of the tariff imposition on EU on Bangladesh RMG and Textile products.

Since SAM model is a fixed price demand driven model, all simulations have been conducted by injecting additional amounts as one-time export demand shocks. In the CGE model (i.e. both static and dynamic), simulations are usually performed by modifying the parameters such as tax rates; subsidy rates; income tax rates and import duty rates etc. Moreover, some of the prices which are exogenous to the system may be also be altered to conduct simulations. This includes world price of imports; world price of exports; and nominal interest rate etc. Furthermore, institutional transfers (also exogenous) and generally policy variables may also be modified to perform simulations. Some of them composed of government transfer to households and corporations; remittances from the rest of the world to households; government expenditure and investment demand.

BAU: two key drivers – namely accumulation of capital and increase in labour supply have been specified to simulate the BAU scenario. The capital accumulation rate (ratio of investment to capital stock) is increasing with respect to the ratio of the rate of return to capital and its user cost. The latter is equal to the dual price of investment times the sum of the depreciation rate and the exogenous real interest rate. The elasticity of the accumulation rate with respect to the ratio of return to capital and its user cost is set equal to two. By introducing investment by destination, we respect the equality condition with total investment by origin in the SAM. Besides this, investment by destination is used to calibrate the sectoral capital stock in base run. Total labour supply is an endogenous variable – it is assumed to simply increase at the exogenous population growth rate.

Export Demand Increase: in the DCGE simulations, world prices of the export commodities in question (i.e. RMG/Textile) are manipulated to reduce export demand amounts to assess their impacts on key macro and sectoral variables.

Simulation Results

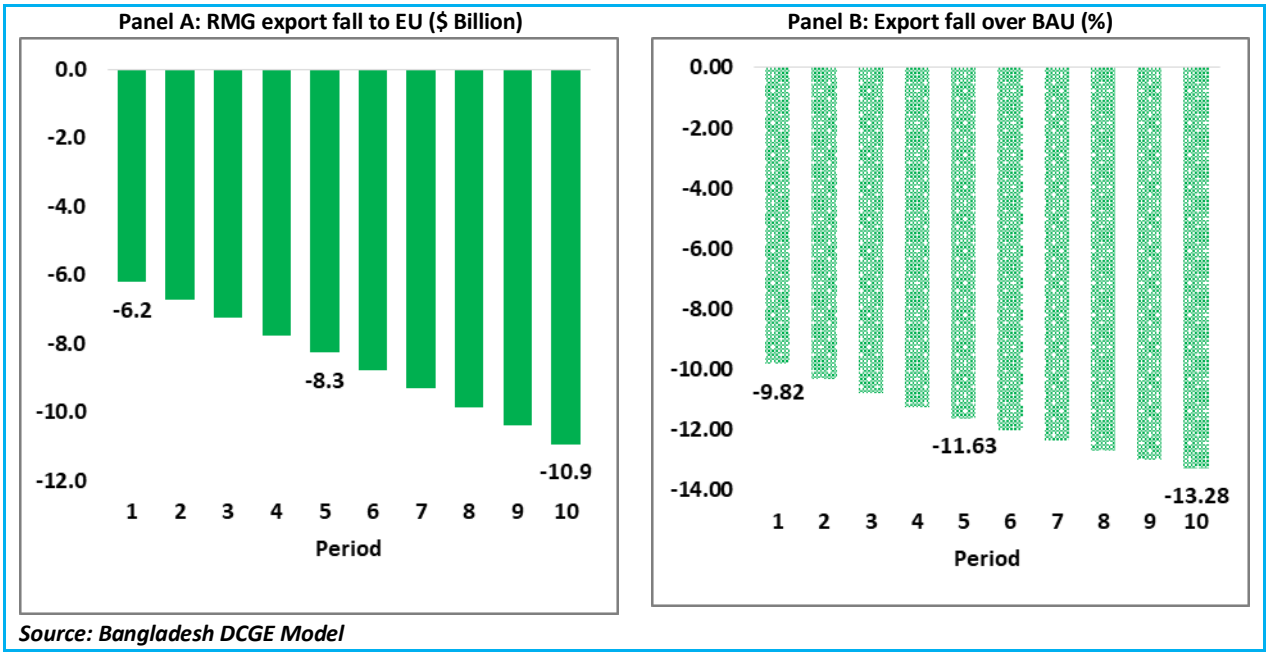
In conformity with the standard practice of DCGE model, all outcomes of the export demand reduction simulations are compared with the outcomes derived under the BAU simulation. Simulation using CGE model generate changes in large number of variables including supply side variables – value added (GDP), outputs, and imports; and the demand side – household or private consumption; and export demand etc. It also impacts sectoral as well as general price level. Incomes of the institutions (i.e. household, and government) are also affected by simulations. However, the focus is on the impact on selected key variables such as the value of the export demand; GDP at market prices; factor returns and household consumption.

Exports Reduction

Automatic imposition of tariffs due to LDC graduation will certainly affect Bangladeshi exports – especially RMG and textile to EU. Panel A of figure below captures the reduction of RMG exports from EU over a ten period (i.e. 2027 to 2036). It suggests that RMG exports to EU may decline by 6.2 billion USD in year 2027. This accounts for about 9.8 percent of projected exports of $62 billion to EU in 2027 (i.e. please see Panel B). Since this a dynamic model, if there were

no tariff imposition on Bangladesh RMG, exports to EU would continue to grow. This phenomenon has been captured under the BAU scenario. Now imposition of tariff in subsequent years (i.e. 2027 onward over the 10 period) may results in higher reduction in exports of Bangladesh RMG. For instance, in 2031 Bangladesh's RMG exports to EU may decline by $ 8.3 billion (or 11.6 percent reduction from the 2031 BAU export). In 2036, the decline may likely to be even higher to $ 10.9 billion (or 13.3 percent reduction from the 2036 BAU export). RMG export reduction may be accompanied with release of resources (i.e. both labour and capital factors) from the RMG activity, which are likely to be employed in other expanding export activities. Overall exports reduction under LDC simulation have been estimated to be only 3 percent over the BAU scenario.

Figure 8.8: RMG Export Reduction

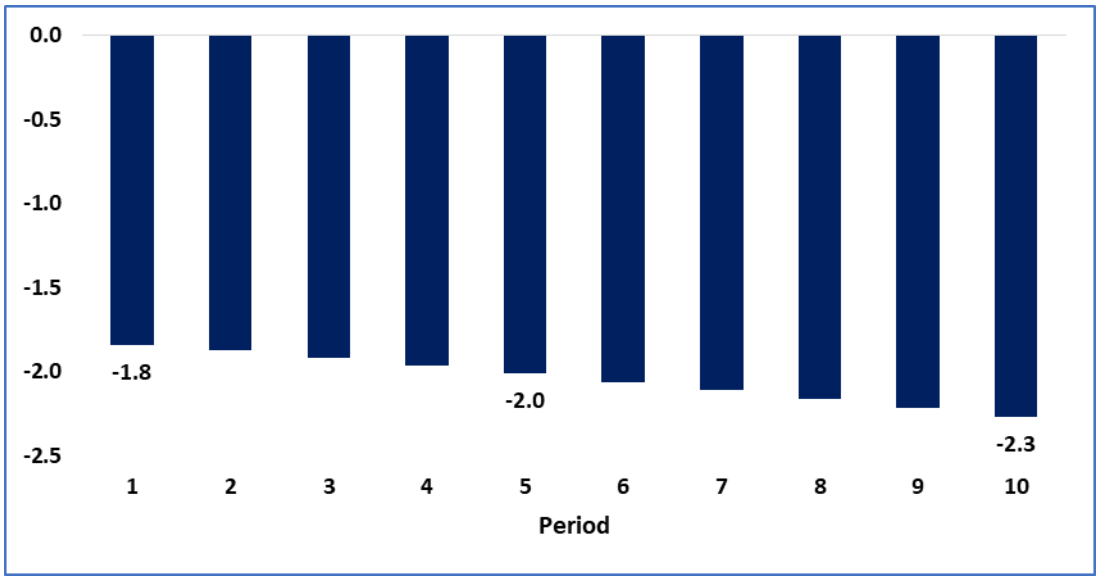


Source: Bangladesh DCGE Model

Income Effect

RMG is an integrated activity, hence reduction of RMG exports would likely to lead to national income loss through the reduction of value addition of the RMG activity itself as well as the fall in the value added of the activities those are linked to RMG. Impacts on real income over the ten-year period has been shown in figure below.

Figure 8.9: Real Income Impacts over the BAU (%)



Source: Bangladesh DCGE model

Simulated income impacts range between -1.8 percent in 2027 to -2.0 percent in 2031 and to -2.3 percent in 2036. Reallocation of released resources from the RMG activity to other activities have recouped the some of the income losses from the RMG export fall in EU.

The major loser from the loss of RMG exports to EU due LDC graduation is labour factor. Labour returns may decline about 5.5 percent under the export loss simulation over the BAU scenario. The impacts on the returns to the capital factor have been found significantly smaller than the impacts on the labour factor. Thus, LDC graduation if not handled properly, it may lead to rise in income inequality.

Table 8.10: Impacts on Factor Returns (% change over BAU)

Period	Low skilled labour	High skilled labour	Labour	Capital
1	-6.23	-5.23	-5.73	0
2	-6.16	-5.23	-5.69	-0.19
3	-6.11	-5.22	-5.67	-0.38
4	-6.06	-5.22	-5.64	-0.56
5	-6.02	-5.23	-5.62	-0.74
6	-5.98	-5.23	-5.61	-0.92
7	-5.95	-5.23	-5.59	-1.10
8	-5.93	-5.24	-5.58	-1.27
9	-5.91	-5.24	-5.57	-1.43
10	-5.89	-5.25	-5.57	-1.59

Source: Bangladesh DCGE model

Impact on household consumption are shown below in Table 8.11 by the representative household groups. As expected, the consumption of all household groups declined in each year of the ten-year period compared to their BAU consumption level due to LDC graduation. Among the five categories of households, urban low educated household has been found the most affected household. Urban high educated households are the least affected group. But it appears that the consumption effect is slightly higher for the rural household than their urban counter part.

Table 8.11: Impacts on Household Consumption (% change over BAU)

Period	Small Farm	Large Farm	Non-Farm	*Rural*	Low educated	High educated	*Urban*
1	-5.58	-5.63	-5.63	*-5.61*	-5.66	-5.42	*-5.54*
2	-5.54	-5.60	-5.59	*-5.58*	-5.61	-5.40	*-5.51*
3	-5.51	-5.57	-5.57	*-5.55*	-5.57	-5.39	*-5.48*
4	-5.49	-5.55	-5.56	*-5.53*	-5.53	-5.39	*-5.46*
5	-5.48	-5.54	-5.56	*-5.52*	-5.50	-5.39	*-5.45*
6	-5.47	-5.53	-5.56	*-5.52*	-5.47	-5.40	*-5.44*
7	-5.46	-5.53	-5.56	*-5.52*	-5.45	-5.41	*-5.43*
8	-5.46	-5.53	-5.57	*-5.52*	-5.43	-5.42	*-5.43*
9	-5.46	-5.53	-5.58	*-5.52*	-5.42	-5.43	*-5.42*
10	-5.46	-5.54	-5.59	*-5.53*	-5.40	-5.44	*-5.42*

Source: Bangladesh DCGE model

8.7. Concluding Observations

Bangladesh is on her way to graduate out of LDC league by 2024. The implications of this graduation may have serious deleterious impacts on the economy and as well as on the societal welfare if not planned appropriately. In order to assess the direction and extent of impacts, an assessment has been carried out using different quantitative techniques.

Partial equilibrium framework using price elasticity has been used to assess export loss (especially apparel export) to EU. Export loss has been estimated under alternative values of price elasticity of demand (i.e. 0.5; 1; 1.5 and 2) for Bangladeshi RMG exports to EU. The estimated export losses are incorporated into a general equilibrium type modeling system to assess impacts on: (i) domestic output; (ii) GDP or value added; (iii) employment; and (iv) poverty. More specifically, four simulations have been conducted. First simulation is a business as usual (BAU) scenario where export shock is not considered. In the second simulation (LES – low export shock with price elasticity of 0.5) export loss of 4.9% of projected RMG exports to EU for 2027 has been considered. Third simulation (MES – medium export shock with unitary

price elasticity) refers to a situation where projected RMG exports to EU in 2027 has been reduced by 9.8 %. Last simulation (HES – high export shock with price elasticity of 2) considers 14.7 % drop in RMG exports to EU.

Simulation exercise suggests that depending on the extent of erosion of RMG exports to EU, cost of LDC graduation may not be small. It is important therefore for Bangladesh to adopt proper strategies to offset the export loses. The detailed reforms are discussed in chapters 5-7. In summary, these may include prudent macroeconomic management including flexible management of the exchange rate, trade reforms to promote export diversification; searching for new markets for export items based on bilateral regional free trade agreements; and boosting competitiveness and attracting FDI by reducing cost of doing business, improving infrastructure and human capital. Furthermore, trade policy capacity must be strengthened to prepare Bangladesh to be compliant with all WTO provisions following the expiry of special treatment under LDC and to be able to negotiate bilateral and regional trade agreements.

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Technical Annex to Chapter 2

Full List of Support Measures for Least Developed Countries

I. General Support related International Support Measures

1. *WIPO LDC country profiles*;
2. *LDC Parties to the UN Convention against Corruption*;
3. Travel support to attend UN General Assembly meetings;
4. UNITAR Fellowships for Multilateral Diplomacy Programme;
5. Travel Support from Framework Convention on Tobacco control;
6. Convention on Biological Diversity (CBD);
7. WIP Patent Cooperation Treaty (PCT);
8. UN support for smooth transition strategy of graduating LDCs;
9. Financial arrangements under the Common Fund for Commodities;
10. LDC contributions to the regular budget and peacekeeping operations;
11. OWSD fellowship for female students from LDCs;
12. AAEA Travel Grants for Economists to Attend Annual Meetings;
13. ESMT Kofi Annan Fellowship;
14. Convention on Biological Diversity (CBD), Cartagena Protocol;
15. IUGA-Funded Research Opportunities for LDCs;
16. Convention on Biological Diversity (CBD), Nagoya Protocol;
17. AUTM Developing Economies Scholarship;
18. The IPCC Scholarship Programme;
19. United Nations International Law Fellowship Programme;
20. UNESCO/Republic of Korea Co-Sponsored Fellowships Programme;
21. *Scholarships, Travel Grants and Research-related financial support*;
22. Travel Support from UN Convention against Corruption;
23. Stockholm Convention on Persistent Organic Pollutants (POPs);
24. Montreal Protocol on Substances that Deplete the Ozone Layer to the Vienna Convention for the Protection of the Ozone Layer;
25. UNESCO/Israel Co-sponsored Fellowships Programme;
26. ITU Fellowships to attend TDAG meetings;
27. UNESCO/Japan Young Researchers' Fellowship Programme;
28. World Meteorological Organization (WMO) Programme for LDCs;
29. IELPO Scholarship Programme;
30. International Criminal Court (ICC);
31. United Nations Open-ended Informal Consultative Process on Oceans and the Law of the Sea;
32. *Travel support for official representatives of LDCs*;
33. Travel support from UN Office of the High Representative for the LDCs, LLDCs and SIDS (UN-OHRLLS);
34. The World Academy of Sciences (TWAS) Research Professors;

35. HHL Leipzig Graduate School of Management offering full scholarships for students;
36. Berkeley Law School LDC Scholarship;
37. FIRST LDC Fellowship for IT professionals;
38. *Caps and discounts on the contribution of LDCs to the United Nations system budgets*;

II. Development Assistance-related International Support Measures

39. Untying aid;
40. United Nations Development Programme (UNDP);
41. Bilateral ODA;
42. Least Developed Countries Fund (LDCF);
43. UN Convention on the Law of the Sea;
44. FMO LDC Infrastructure Fund;
45. Grants and concessional loans from Germany;
46. Special ODA terms for LDCs: the average grant element;
47. GCCA Programmes on Climate Change;
48. Japanese Concessional ODA Loans;
49. UN Capital Development Fund (UNCDF);
50. Korean Concessional ODA Loans;
51. United Nations Population Fund (UNFPA);
52. Resource allocation by multilateral organizations for LDCs;

III. Trade related International Support Measures

53. The Food Aid Convention;
54. Agreement on Agriculture: Exemption from reduction commitments (Article 15.2);
55. Marrakesh Decision on Measures Concerning the Possible Negative Effects of the Reform programme on LDCs and NFIDCs;
56. LDCs and Net-food Importing Developing Countries;
57. Technical Assistance by WTO: Provisions for LDCs;
58. Provisions for LDCs in the Agreement on Subsidies & Countervailing Measures;
59. GATS: Technical Cooperation in Telecommunications with Developed Countries (6.d);
60. Agreement on Import Licensing: Allocation of non-automatic import licenses to traders in LDCs;
61. ASCM: Transitional period after reaching "export competitiveness" (Art. 27.5);
62. ASCM: Exemption from prohibition of export subsidies for Annex VII countries (Art. 27.2a);
63. Agreement on Agriculture: Provisions for LDCs;
64. SPS Agreement: The Application of Sanitary & Phytosanitary Measures;
65. Preferential Market Access: Turkey GSP;
66. Preferential Market Access- Switzerland GSP;
67. Preferential Market Access- Japan GSP
68. South Asian Free Trade Area;
69. Asia Pacific Trade Agreement;
70. Global System of Trade Preferences among Developing Countries;
71. Preferential Market Access: Iceland GSP;

72. Preferential Market Access: Morocco's preferential treatment for LDCs;
73. Preferential Market Access: China's DFQF Scheme for LDC Products;
74. TPRM: Technical Assistance by WTO Secretariat (Section D);
75. TBT Agreement: Time-limited Exemptions from the Obligations of the TBT Agreement (Article 12.8);
76. TBT Agreement: Provisions for LDCs in the Agreement on Technical Barriers to Trade;
77. SPS Agreement: Equivalence (Article 4);
78. Provisions for LDCs in the Understanding on the Balance-of-Payments Provisions of the General Agreement on Tariffs & Trade;
79. Provisions for LDCs in the Trade Policy Review Mechanism;
80. Provisions for LDCs in the Dispute Settlement Understanding (DSU);
81. GATS: Increasing LDC participation through negotiated specific commitments (Art. IV:1);
82. Accession to WTO;
83. Preferential Market Access – Chile;
84. Provisions for LDCs in the General Agreement on Trade in Services (GATS);
85. TRIPS Agreement: Transitional period for implementing the Agreement (Article 66.1);
86. SPS Agreement: Technical Assistance by WTO Members (Art. 9);
87. TRIPS Agreement: Transitional period for pharmaceutical products;
88. SPS Agreement: Support from Standards and Trade Development Facility (STDF);
89. SPS Agreement: Participation in International Standard Setting Organizations (Article 10.4);
90. SPS Agreement: Technical Assistance by WTO Secretariat (Art. 9);
91. TBT Agreement: Participation in International Standard Setting (Article 11.2);
92. TRIMS Agreement: New notification period (Annex F of Hong Kong Ministerial Declaration);
93. TRIMs Agreement: Provisions for LDCs in the Agreement on Trade Related Investment Measures;
94. TRIMS Agreement: Transitional Period for new TRIMs-inconsistent Measures (Annex F of Hong Kong Ministerial Declaration);
95. TRIMS Agreement: Transitional Period for Notified TRIMs-Inconsistent Measures (Article 5 & WT/L/64);
96. TRIPS Agreement: Technical cooperation to implement the TRIPS Agreement (Art. 67);
97. TRIPS Agreement: Technology transfer (Art. 66.2);
98. SPS Agreement: Recognition of LDCs Interests when preparing or applying SPS measures (Art. 10.1);
99. Customs Valuation Agreement: Transitional Period & Extension (Article 20.1 and Annex III: 1);
100. DSU: Due restraint in disputes involving LDCs (Article 24.1);
101. Common Fund for Commodities (CFC);
102. International Tropical Timber Organization (ITTO);
103. Agreement on Agriculture: Fewer notification obligations in domestic support (G/AG/2);
104. Agreement on Agriculture: Recognition of interests in negotiations (Article 20 & the Preamble);
105. Customs Valuation Agreement: Delayed Application of the Computed Value Method (Article 20.2);

106. Customs Valuation Agreement: Reservation Concerning Application of Article 5.2 Whether or Not the Importer So Requests;
107. GATS: Technical assistance by WTO Members;
108. GATS: Technical assistance by WTO Secretariat (Article XXV.2);
109. TBT Agreement: Technical Assistance in Preparing Technical Regulations (Articles 11. & 12.7);
110. Customs Valuation Agreement: Provisions for LDCs;
111. Customs Valuation Agreement: Reservation Concerning Sequential Order of Articles 5 & 6 (Annex III: 3);
112. DSU: Assistance from the WTO Director-General or Chairman of the DSB (Article 24.2);
113. DSU: Technical assistance by WTO Secretariat (Article 27.2);
114. GATS: Establishment of Contact Points (Article IV.2);
115. TRIPS Agreement: Paragraph 6 system;
116. **Preferential Market Access – European Union Everything but Arms Initiative;**
117. Enhanced Integrated Framework;
118. *Standards and Trade Development Facility*;
119. Preferential Market Access: New Zealand GSP;
120. Preferential Market Access – Norway GSP;
121. Preferential treatment to services and services suppliers;
122. Preferential Market Access: Thailand GSP;
123. Preferential Market Access: India's Duty-Free Tariff Preference Scheme for LDCs;
124. Preferential Market Access: Russian Federation, Kazakhstan and Belarus (Eurasian Customs Union);
125. Preferential Market Access- Australia GSP;
126. Preferential Market Access – Canada GSP;
127. Preferential Market Access – US GSP;
128. Preferential Market Access- Republic of Korea;
129. Provisions for LDCs in the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement);
130. Preferential treatment to merchandise exports;
131. Advisory Centre on WTO Law (ACWL);
132. Trade Facilitation Agreement, Special and Differential Treatment for LDCs;
133. Pacific Agreement on Closer Economic Relations (PACER Plus) – delayed tariff reductions for LDCs;

Source: Support Measures Portal for Least Developed Countries. https://www.un.org/ldcportal/

Technical Annex to Chapter 4

Table 5.A: LDC-specific Special and Differential Treatments (S&DT) by the WTO

Agreement/Decision	Support measure
Understanding on the Balance-of-Payments Provisions of General Agreement on Tariffs and Trade (GATT)	Simplified procedures when invoking trade restrictions for balance-of-payment reasons (paragraph 8)
Agreement on Agriculture	LDCs and net food importing developing countries may provide certain export subsidies until the end of 2030 (article 9.4, most recent extension in G/AG/5/Rev.10) Longer repayment periods for export financing support (WT/MIN (15)/45-WT/L/980) Less frequent notifications to WTO regarding domestic support (G/AG/2)
Sanitary and Phytosanitary (SPS) Measures	Priority for technical assistance (article 9.1). The Standards and Trade Development Facility (STDF) has a target of dedicating at least 40% of total project financing allocated to LDCs or Other Low-Income Countries (STDF Operational Rules) Lower co-financing requirement for technical assistance. Beneficiaries from LDCs and OLICs contribute at least 10% of the requested STDF contribution to a project, as opposed to 20% for lower-middle-income countries and 60% for upper-middle-income countries (STDF Operational Rules)
Agreement on Subsidies and Countervailing Measures	LDCs (and other countries with GNI per capita below $1,000 in constant 1990 dollars) are exempted from the prohibition of export subsidies (article 27.2 and Annex VII of the Agreement and paragraph 10.1 of the Doha Ministerial Decision on Implementation-Related Issues and Concerns (WT/MIN (01)/17))
Trade Facilitation Agreement (TFA)	Longer notification time frames: until 22 February 2020 for category B measures; until 22 February 2021 for indicative dates and definitive dates; by 22 August 2022 for category C measures (articles 15 and 16) Longer deadlines under the early warning mechanism, in case an LDC has difficulties in implementing categories B and C measures (article 17) Longer time frame (4 years rather than 18 months) for new implementation dates for measures shifted from category B to category C before approval from the Trade Facilitation Committee is required (article 19) Longer grace period from dispute settlement (until 22 February 2023

Trade-Related Aspects of Intellectual Property Rights (TRIPS)	for category A measures, and 8 years from the date of implementation of category B or C measures (article 20) Exemption from applying all substantive TRIPS standards until 2021 (article 66.1, latest extension IP/C/64) Exemption from providing protection for pharmaceutical patents, from providing the possibility of filing mailbox applications and from granting exclusive marketing rights until 2033 (IP/C/73 and WT/L/971) Waiver from notification requirements for issuing compulsory licenses for exports of pharmaceutical products to LDCs or other countries with insufficient manufacturing capacities in the pharmaceutical sector (article 31 bis)
Dispute Settlement Understanding (DSU)	Article 24 of the DSU refers to "special procedures involving LDCs". WTO Members are to "exercise due restraint both in raising matters involving LDCs and in asking for compensation or seeking authorization to suspend concessions or other obligations if nullification or impairment is found to result from a measure taken by an LDC" (24.1). LDCs can request the Director-General of the WTO or the Chairman of the Dispute Settlement Body to provide their good offices, conciliation and mediation services for settling disputes (24.2). Related: the Advisory Center on WTO Law (ACWL) provides Legal advice, support during WTO dispute settlement and training. LDCs have access to these services whether they have joined as members.
Trade Policy Review Mechanism	LDCs may have a longer period between trade policy reviews than other countries

Source: WTO

Technical Annex to Chapter 6

Table A 6.1 List of products with Top Protective Rates, FY 2018-19, sorted by NPR*

Category	Commercial Description	Tariff Rate in percentage, FY 2018-19		Foreign Trade in million US Dollar, FY 2017-18	
		TTI	NPR	Export	Import
CAP/FCG	Air-cooler & Air-conditioning machine	216.47	156.00	0.0086	2.8173
FCG	Confectionery items, Biscuits	130.81	113.44	63.6147	1.5222
FCG	Electric Lights and lamps	130.81	113.44		0.0976
FCG	Footwear- Rubber/plastic strap thongs	130.81	113.44	0.3034	0.4444
FCG	Plastic household articles, like tableware & kitchenware	130.81	113.44	19.7138	3.4547
FCG	Ceramic sanitary items	154.17	104.80	0.0016	4.5068
FCG	Ceramic tableware & kitchenware	154.17	104.80	33.5095	0.7471
FCG	Ornamental ceramic products	154.17	104.80	0.1618	0.5229
INT	Building stone- Tiles, cubes etc.	154.17	104.80	1.0694	7.3292
INT	Cigarette paper	216.47	104.80	0.0222	8.9295
FCG	Cosmetics- Hair dying/ colour	154.17	86.18	0.0581	6.4990
FCG	Electric fans	130.81	85.60	0.1002	15.0195
FCG	Lamps- Discharge lamps	130.81	85.60		0.4391
FCG	Chocolate	130.81	85.60	2.8136	10.7620
FCG	Confectionery items	130.81	85.60	6.8952	0.2548
FCG	Cosmetics- Beauty/make-up/ Skincare	130.81	85.60	0.0434	18.1080
FCG	Electric lights and lamps	130.81	85.60	0.4339	19.6548
FCG	Footwear-Leather and non-leather (6403)	130.81	85.60	774.4127	21.0833

Category	Commercial Description	Tariff Rate in percentage, FY 2018-19		Foreign Trade in million US Dollar, FY 2017-18	
		TTI	NPR	Export	Import
FCG	Glass & glassware- Sheets, Table and kitchen	130.81	85.60	0.0051	9.1354
FCG	Potato Chips	130.81	85.60	2.3476	2.5602
FCG	RMG- Knitwear and Woven wear	130.81	85.60	30,313.9557	802.2522
FCG	Sanitary Towels (pads) and tampons	130.81	85.60	0.0475	7.9767
FCG	Seats	130.81	85.60	2.0160	4.1443
FCG	Sugar Confectionery, Chewing gum & chock lets	130.81	85.60		1.9309
FCG	Textile- Fabrics	130.81	85.60		1.3372
INT	Glass & glassware- Sheets, tableware & kitchenware	130.81	85.60	0.1476	20.8663
INT	Plastic doors & windows	130.81	85.60	0.1384	0.0489
INT	Plastic packing materials	130.81	85.60	2.6411	26.7567
FCG	Shampoos	154.17	78.09	0.0467	6.0406
INT	Ceramic flags, paving & tiles	154.17	78.09		58.7317
INT	Plastic packaging materials	130.81	76.76	25.9342	14.4793
FCG	Carpets and floor coverings, jute and other textile materials	81.64	76.64	2.5138	3.8906
FCG	Pile fabrics- Other textile materials	81.64	76.64	0.4265	0.8925
FCG	Plastic household articles- Feeding bottles	91.88	76.64	0.2708	0.2019
FCG	Sanitary wear- Aluminum	91.88	76.64	0.0048	0.0193
FCG	Textile- Fabrics- Cotton	91.88	76.64	87.8247	3,980.9118
FCG	Cosmetics- Lips/ eye make-up etc.	130.81	68.73	0.0069	4.7709

Category	Commercial Description	Tariff Rate in percentage, FY 2018-19		Foreign Trade in million US Dollar, FY 2017-18	
		TTI	NPR	Export	Import
CAP	Mini bus and other public vehicles	107.45	66.40		34.5687
FCG	Confectionery items, Cereals	107.45	66.40	17.4247	8.8087
FCG	Matches- Fireworks & signals	107.45	66.40		0.3517
FCG	Other articles of plastic	107.45	66.40	0.1072	31.3930
FCG	Paper tissues	107.45	66.40	0.3951	2.4790
FCG	Perfumes	107.45	66.40	0.0007	1.8521
INT	Coconut oil	107.45	66.40	0.0279	1.0273
INT	Electric cables- Co-axial cable	107.45	66.40	0.0019	15.8403
INT	PVC Sheets- Printed	107.45	66.40		2.1409
INT	PVC Tubes & Pipes	107.45	66.40	0.1934	5.8053
FCG	Other ceramic sanitary items (excluding porcelain/china)	154.17	57.54	0.0016	4.5068
CAP/FCG	Batteries	91.88	53.60	39.9472	41.7114
CAP	Electric switches and holders	91.88	53.60	0.0005	13.3590
CAP	Engines- Three wheelers/ auto rickshaw	91.88	53.60		0.0408
CAP	Freezers & refrigerators	91.88	53.60	0.0009	46.9314
CAP	Lamps- Filament lamps	91.88	53.60		0.3543
CAP	Purifying machine	91.88	53.60	0.0028	10.9919
CAP	Recording tapes	91.88	53.60		0.0090
CAP	SIM card	91.88	53.60		0.0044
FCG	TV	91.88	53.60		1.3416
CAP	Transformers	91.88	53.60	0.2133	16.7313
FCG	Artificial flower	91.88	53.60	0.0104	1.2074
FCG	Bags, Trunks, suit-cases etc. of leather	91.88	53.60	234.4339	36.0157
FCG	Bicycles	91.88	53.60	85.6718	0.3370

Category	Commercial Description	Tariff Rate in percentage, FY 2018-19		Foreign Trade in million US Dollar, FY 2017-18	
		TTI	NPR	Export	Import
FCG	Carpets and floor coverings	91.88	53.60	14.4847	3.5137
FCG	Cereals	91.88	53.60	0.4504	41.0803
FCG	Children's Toys	91.88	53.60	32.1180	12.9227
FCG	Cooking appliances	91.88	53.60	0.1177	7.5883
FCG	Dentifrices	91.88	53.60	0.0005	7.7767
FCG	Food Preparation	91.88	53.60		5.2643
FCG	Footwear polishes	91.88	53.60		1.5053
FCG	Freezers & refrigerators	91.88	53.60	0.2874	60.9566
FCG	Furniture's	91.88	53.60	12.1915	18.7593
FCG	Glucose	91.88	53.60		1.7234
FCG	Home textile	91.88	53.60	541.9034	33.3208
FCG	Ice cream	91.88	53.60		0.2565
FCG	Imitation Jewelry	91.88	53.60	0.0051	7.5844
FCG	Matches	91.88	53.60		0.0001
FCG	Mattresses	91.88	53.60		0.0936
FCG	Motorcycles seats	91.88	53.60		0.5170
FCG	Office and school supplies	91.88	53.60	0.2617	3.9933
FCG	Ornaments of wood	91.88	53.60		0.4201
FCG	PVC sanitary goods	91.88	53.60	0.4352	4.3727
INT	Parts of Footwear	91.88	53.60	23.9202	86.6231
FCG	Parts of motorcycles and bicycles	91.88	53.60	0.9123	6.5710
FCG	Pile fabrics	91.88	53.60	48.2836	1,280.2851
FCG	Plastic floor coverings	91.88	53.60	0.6592	3.9454
FCG	Plastic shutters & blinds	91.88	53.60		0.2804
FCG	Preparations of vegetables, Jam & Jelly	91.88	53.60	0.6043	0.4828
FCG	RMG- Knitwear and Woven wear- Track suits	91.88	53.60	114.4458	0.3204
FCG	Razors	91.88	53.60	2.5663	8.5040

Category	Commercial Description	Tariff Rate in percentage, FY 2018-19		Foreign Trade in million US Dollar, FY 2017-18	
		TTI	NPR	Export	Import
FCG	Recording tapes	91.88	53.60		1.2702
FCG	Rubber floor coverings	91.88	53.60	0.0249	1.1540
FCG	Salt	91.88	53.60	0.0190	24.7964
FCG	Sanitary wear- Copper	91.88	53.60		0.0936
FCG	Sauces	91.88	53.60	0.5187	21.9322
FCG	Shavers	91.88	53.60		0.0370
FCG	Soap and toiletries	91.88	53.60	1.2008	15.4674
FCG	Sound Recording and reproducing apparatus	91.88	53.60		3.2028
FCG	Table, kitchen and sanitary wear	91.88	53.60	0.3913	10.9791
FCG	Textile- Fabrics	91.88	53.60	5.8402	1,699.6307
FCG	Tooth brushes	91.88	53.60	0.0766	1.8841
INT	Aluminum foil	91.88	53.60	0.0021	0.8888
INT	Cement	91.88	53.60	10.5255	2.3118
INT	Ceramic building materials	91.88	53.60	0.1409	2.6827
INT	Electric cables- Other	91.88	53.60	0.0003	15.8061
INT	Glass & glassware- Other	91.88	53.60	0.0004	14.1395
INT	Locks and parts	91.88	53.60	0.0756	17.4350
INT	Metallised yarn	91.88	53.60	0.0029	1.7849
INT	Mosquito coil	91.88	53.60		3.7846
INT	Motor vehicles tyres	91.88	53.60	0.0023	25.4970
INT	PVC Sheets- Other	91.88	53.60	0.6503	31.0599
INT	Paper and paperboard	91.88	53.60	1.4820	67.4247
INT	Petroleum Oil	88.88	53.60	2.5328	0.3346
INT	Plastic shutters & blinds	91.88	53.60	0.1852	0.8821
INT	Polychromic acids	91.88	53.60		0.9852
INT	Soap and toiletries	91.88	53.60	0.0967	31.5214
INT	Soap noodles	91.88	53.60		0.0001

Category	Commercial Description	Tariff Rate in percentage, FY 2018-19		Foreign Trade in million US Dollar, FY 2017-18	
		TTI	NPR	Export	Import
INT	Springs and leaves of iron	91.88	53.60	0.0055	6.4207
INT	Tubes and pipes	91.88	53.60	0.8619	122.5916

Note: Goods Category: INT=intermediate goods, CAP=capital goods, FCG- final consumer goods
Tariff Rates: TTI=Total Tariff Incidence, NPR= Nominal Protective Rate

(*): ***(excludes motor vehicle, cigarettes, alcoholic beverage and fire arms)***

Technical Annex to Chapter 8

Annex 8.1: SAM Model Results

Table A8.1: Impacts on Real GDP by Broad Activities over the BAU (% change)

	Activity Classification	LES	MES	HES
1	Cereal Crop	-2.91	-5.83	-8.74
2	Commercial crop	-2.09	-4.17	-6.26
3	Livestock-poultry	-0.53	-1.06	-1.59
4	Fishing	-0.23	-0.46	-0.68
5	Forestry	-0.09	-0.19	-0.28
6	Other crop	-0.92	-1.83	-2.75
7	Mining	-0.02	-0.03	-0.05
8	Other Food	-0.19	-0.37	-0.56
9	Leather	-0.20	-0.40	-0.60
10	Textile-clothing	-0.89	-1.77	-2.66
11	Chemical-Fertilizer	-0.28	-0.57	-0.85
12	Machinery	-0.06	-0.11	-0.17
13	Petroleum	-0.15	-0.29	-0.44
14	Other industry	-0.14	-0.28	-0.43
15	Construction	-0.01	-0.02	-0.03
16	Utility	-0.60	-1.19	-1.79
17	Trade	-0.66	-1.33	-1.99
18	Hotel	-0.25	-0.50	-0.74
19	Transport	-0.78	-1.55	-2.33
20	Financial Service	-0.11	-0.21	-0.32
21	Public Administration	-0.03	-0.05	-0.08
22	Social Service	-0.15	-0.30	-0.45
23	Other Service	-0.66	-1.32	-1.98
	All	**-0.44**	**-0.87**	**-1.31**

Source: SAM Model

Table A8.2: Impacts on Factor Returns over the BAU (% change)

Factor Classification	LES	MES	HES
Labour Unskilled	-0.398	-0.795	-1.193
Labour Skilled	-0.396	-0.792	-1.188
Capital	-0.363	-0.727	-1.090
Land	-0.343	-0.687	-1.030

Source: SAM Model

Table A8.3: Impacts on Household Consumption over the BAU (% change)

Household Classification	LES	MES	HES
Small Farm	-0.313	-0.626	-0.940
Large Farm	-0.315	-0.631	-0.946
Non-Farm	-0.315	-0.629	-0.944
Low Education	-0.320	-0.640	-0.960
High Education	-0.337	-0.674	-1.011

Source: SAM Model

Annex 8.2: Description of the Dynamic CGE Model

Static Module of the DCGE Model

Production bloc

The equations of the production bloc are provided below. The description of the variables and parameters is provided below.

(1) $$XS_j = Min\left[\frac{CI_j}{io_j}, \frac{VA_j}{v_j}\right]$$

(2) $$VA_j = A_j^{KL}\left[\propto_i^{KL} LD_i^{-\rho_i^{kl}} + (1-\propto_i^{KL}) KD_i^{-\rho_i^{kl}}\right]^{-1/\rho_i^{KL}}$$

(3) $$LD_i = A_i^{LL}\left[\propto_i^{LL} QL_i^{-\rho_i^{LL}} + (1-\propto_i^{LL}) NQL_i^{-\rho_i^{LL}}\right]^{-1/\rho_i^{LL}}$$

(4) $$CI_j = io_j XS_j$$

(5) $$DI_{i,j} = aij_{i,j} CI_j$$

(6) $$LD_i = \left(\frac{\alpha_i^{KL}}{1-\alpha_i^{KL}}\right)^{\sigma_i^{KL}} \left(\frac{r_i}{w_i}\right)^{\sigma_i^{KL}} KD_i$$

(7) $$NQL_i = \left(\frac{\alpha_i^{LL}}{1-\alpha_i^{LL}}\right)^{\sigma_i^{LL}} \left(\frac{wq}{wnq}\right)^{\alpha_i^{LL}} QL_i$$

Income and demand bloc

The equations are provided below:

(8) $$P_{index} TH_{h,hj} + P_{index} TWH_h + DIV_h$$

(9) $$YH_h = \lambda_h^{WQ}.wq \sum_j QL_j + \lambda_h^{WQN}.\sum_j NQL_j + \lambda_h^R \sum_{nag} r_{nag} KD_{nag} + \lambda_h^L.\sum_{ag} r_{ag} KD_{ag} + P_{index} TG_h$$

(10) $$YDH_h = YH_h - DTH_h$$

(11) $$SH_h = v.\psi_h.YDH_h$$

(12) $$YF = \lambda^{RF} \sum_i r_i KD_i + \lambda^{LF}.rl.LAND$$

(13) $$SF = YF - \sum_h DIV_h - e.DIV^{ROW} - DTF$$

(14) $$YG = \sum_i TI_i + \sum_i TIE_i + \sum_i DTH_h + DTF$$

(15) $$SG = YG - G - PINDEX \sum_h TG_h$$

(16) $$TI_i = tx_i(P_i XS_i - PE_i EX_i) + tx_i(1+tm_i).e.PWM_i M_i$$

(17) $$TIM_i = tm_i e.PWM_i M_i$$

(18) $TIE_i = te_i PE_i EX_i$

(19) $DTH_h = tyh_h YH_h$

(20) $DTF = tyf.YF$

International Trade

The equations are provided below:

(21) $XS_i = B_i^E \left[\beta_i^E EX_i^{k_i^E} + (1+\beta_i^E) D_i^{k_i^E}\right]^{\frac{1}{k_i^E}}$

(22) $EX_i = \left[\left(\frac{PE_i}{PL_i}\right)\left(\frac{1-\beta_i^E}{\beta_i^E}\right)\right]^{\tau_i^E} D_i$

(23) $EXD_i = EXD_i^o . \left(\frac{PWE_i}{PE\_FOB_i}\right)^{elast_i}$

(24) $Q_i = A_i^M \left[\alpha_i^M M_i^{-\rho_i^M} + (1-\alpha_i^M) D_i^{-\rho_i^M}\right]^{\frac{-1}{\rho_i^M}}$

(25) $M_i = \left[\left(\frac{PD_i}{PM_i}\right)\left(\frac{\alpha_i^M}{1-\alpha_i^M}\right)\right]^{\sigma_i^M} D_i$

(26) $CAB = \sum_i PWM_i M_i + \lambda^{ROW} \sum_i r_i KD_i /_e + DIV^{ROW} - \sum_i PE_{FOB\,i} EX_i$

Price blocs

The prices equations are provided below. The nominal exchange rate is the numéraire in each period.

(27) $PV_j = \frac{P_j XS_j - \sum_i PC_i DI_{i,j}}{VA_j}$

(28) $r_i = \frac{PV_i VA_i - w_i LD_i}{KD_i}$

(29) $w_i = \frac{wq.QL_i - wnq.NQL_i}{LD_i}$

(30) $PD_i = (1+tx_i) PL_i$

(31) $PM_i = (1+tx_i).(1+tm_i).e.PWM_i$

(32) $PE_i = \frac{e.PE\_FOB_i}{1+te_i}$

(33) $PC_i Q_i = PD_i D_i + PM_i M_i$

(34) $P_i XS_i = PL_i D_i + PE_i EX_i$

(35) $P_{inv} = \prod_i \left(\frac{PC_i}{\mu_i}\right)^{\mu_i}$

(36) $P_{index} = \sum_i \delta_i PV_i$

Equilibrium Condition

The equations are provided below:

(37) $Q_i = DIT_i + \sum_h C_{i,h} + INV_i + Dstk_i$

(38) $EX_i = EXD_i$

(39) $LSQ = \sum_j QL_j$

(40) $LSNQ = \sum_j NQL_j$

(41) $IT + \sum_i PC_i Dstk_i = \sum_h SH_h + SF + SG + e.CAB$

Dynamic Module of the DCGE Model

The equations of the dynamic bloc are provided below.

(42) $KD_{i,t+1} = (1 - \delta)KD_{i,t} + Ind_{i,t}$

(43) $LSQ_{t+1} = (1 + ng).LSQ_t$

(44) $LSNQ_q = (1 + ng).NQL_t$

(45) $C_{i,h,t+1}^{min} = (1 + ng)C_{i,h,t}^{min}$

(46) $\frac{Ind_{i,t}}{KD_{i,t}} = A_i^{IK}\left(\frac{R_{i,t}}{U_{i,t}}\right)^2$

(47) $U_{i,t} = Pinv_t(ir + \delta_i)$

(48) $IT_t = Pinv_t.\sum_i Ind_{i,t}$

(49) $SG_{t+1} = (1 + ng)SG_t$

(50) $CAB_{t+1} = (1 + ng)CAB_t$

(51) $TG_{t+1} = (1 + ng)TG_i$

(52) $CG_{t+1} = (1 + ng)CG_t$

(53) $Dstk_{t+1} = (1 + ng)Dstk_t$

(54) $DIV_{t+1} = (1 + ng)DIV_t$

(55) $DIV\_ROW_{t+1} = (1 + ng)DIV\_ROW_t$

(56) $TWH_{t+1} = (1 + ng)TWH_t$

(57) $TH_{h,hj,t+1} = (1 + ng)TH_{h,hj,t}$

(58) $EXD_{t+1}^{o} = (1 + ng)EXD_t^{o}$

Description of the Variables and Parameters of the Dynamic CGE Model

Endogenous variables

$C_{i,h}$	Household *h*'s consumption of good *i* (volume)
CF	Composite agricultural capital-labour factor (volume)
CI_j	Total intermediate consumption of activity *j* (volume)
CTH_h	Household *h*'s total consumption (value)
D_i	Demand for domestic good *i* (volume)
$DI_{i,j}$	Intermediate consumption of good *i* in activity *j* (volume)
DIT_i	Intermediate demand for good *i* (volume)
DTF	Receipts from direct taxation on firms' income
DTH_h	Receipts from direct taxation on household *h*'s income
EX_i	Exports in good *i* (volume)
G	Public expenditures
INV_i	Investment demand for good *i* (volume)
IT	Total investment
LD_j	Activity *j* demand for labour (volume)
M_i	Imports in good *i* (volume)
P_i	Producer price of good *i*
PC_i	Consumer price of composite good *i*
PD_i	Domestic price of good *i* including taxes
PE_i	Domestic price of exported good *i*
$Pindex$	GDP deflator
$Pinv$	Price index of investment
PL_i	Domestic price of good *i* (excluding taxes)
PM_i	Domestic price of imported good *i*
PV_i	Value added price for activity *j*
Q_i	Demand for composite good *i* (volume)

r_i	Rate of return to capital in activity *i*
rl	Rate of return to agricultural land
rc	Rate of return to composite factor
SF	Firms' savings
SG	Government's savings
SH_i	Household *h*'s savings
TI_i	Receipts from indirect tax on *i*
TIE_i	Receipts from tax on export *i*
TIM_i	Receipts from import duties *i*
VA_j	Value added for activity *j* (volume)
w	Wage rate
XS_i	Output of activity *i* (volume)
YDH_h	Household *h*'s disposable income
YF	Firms' income
YG	Government's income
YH_h	Household *h*'s income
LS	Total labour supply (volume)
KD_i	Demand for capital in activity *i* (volume)
CAB	Current account balance
$Ind_{i,t}$	Demand for capital in activity *i* (volume)
U_t	Capital user cost
$C_{i,h}^{min}$	Minimum consumption of good *i* by household *h*

Exogenous variables

PWE_i	World price of export *i*
PWM_i	World price of import *I*
e	Nominal Exchange rate (numéraire)

Parameters

Production functions

A_i Scale coefficient (Cobb-Douglas production function)

$aij_{i,j}$ Input-output coefficient

α_j Elasticity (Cobb-Douglas production function)

io_j Technical coefficient (Leontief production function)

v_j Technical coefficient (Leontief production function)

CES function between capital and labour

A_i^{KL} Scale coefficient

α_i^{KL} Share parameter

ρ_i^{KL} Substitution parameter

σ_i^{KL} Substitution elasticity

CES function between skilled and unskilled labour

A_i^{LL} Scale coefficient

α_i^{LL} Share parameter

ρ_i^{LL} Substitution parameter

σ_i^{LL} Substitution elasticity

CES function between imports and domestic production

A_i^{M} Scale coefficient

α_i^{M} Share parameter

ρ_i^{M} Substitution parameter

σ_i^{M} Substitution elasticity

CET function between domestic production and exports

B_i^{E} Scale coefficient

β_i^{E} Share parameter

κ_i^{E} Transformation parameter

τ_i^{E} Transformation elasticity

LES consumption function

$\gamma_{i,h}$	Marginal share of good *i*

Tax rates

te_i	Tax on exports *i*
tm_i	Import duties on good *i*
tx_i	Tax rate on good *i*
tyh_h	Direct tax rate on household *h*'s income
tyf	Direct tax rate on firms' income

Other parameters

δ_j	Share of activity *j* in total value added
λ_h^L	Share of land income received by household *h*
λ^{LF}	Share of land income received by firms
λ^{LROW}	Share of land income received by foreigners
λ_h^R	Share of capital income received by household *h*
λ^{RF}	Share of capital income received by firms
λ^{ROW}	Share of capital income received by foreigners
λ_h^W	Share of labour income received by household *h*
ψ_h	Propensity to save
μ_i	Share of the value of good *i* in total investment
ng	Population growth rate
δ	Capital depreciation rate
γ_{1i}	Parameter in the investment demand function
γ_{2i}	Parameter in the investment demand function
ir	Real interest rate