CHAPTER 9

Trade Liberalization Policies and Trade Performances in Bangladesh: An Empirical Evaluation

Monzur Hossain

9.1 Introduction

The current impressive trade and economic performances are thought to be the result of various trade policy reforms undertaken over time. Bangladesh started various trade policy reforms in the 1980s, but major efforts were made in the early 1990s. The key objectives of the reforms were to scale down and rationalize tariffs, remove quantitative restrictions (QRs) and eliminate import licensing requirements. At the same time, Bangladesh made attempt to unify exchange rates and allow a more flexible exchange rate system. In 1994, Bangladesh agreed to make current account transactions convertible as part of International Monetary Fund's (IMF's) Article IV consultations. Trade liberalization in Bangladesh was done broadly in three major areas: (i) liberalization of imports through removal of QRs, (ii) reductions in nominal and effective tariffs, and (iii) adoption of a unified and moderately flexible exchange rate regime. The overarching objectives of these policies were to promote growth and employment through industrialization.

M. Hossain (✉)
Bangladesh Institute of Development Studies (BIDS), Dhaka, Bangladesh

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The liberalization of imports was done primarily via removal of QRs in phases. Significant progress was made in removing QRs in the 1990s compared with the 1980s. Whereas nearly 26 percent of all HS-4-digit items (here, HS stands for Harmonized Commodity Description and Coding Systems) were subject to QRs in 1990, now only 122 items (or 10 percent of items) covering about 2 percent of imports remain restricted, for trade and non-trade reasons. However, the progress toward increasing liberalization was evident in the Import Policy Order (IPO) of 1995–97 and the subsequent IPO 1997–2002. Overall, since 1990, trade-related QRs have been progressively removed, leaving some 2.2 percent of total HS-4-digit tariff lines (and 0.5 percent of import value) subject to trade-related prohibitions or bans as of 2002. These restrictions are currently limited to only three categories: agricultural products (chicks, eggs, salt), packaging materials and textile.

As a result of liberalization efforts, Bangladesh saw a significant improvement of trade performance, which has become double to a 30 percent of the gross domestic product (GDP) in the 1990s and increased further to about 50 percent in 2015. The growing openness to international trade has brought significant economic gains, notably an expansion of exports strong enough to cover imports and maintain the trade deficit at sustainable levels. Trade liberalization shifted the country from a highly restrictive system focusing on import substitution to a more dynamic, export-oriented system transforming the economy to embark on export-led growth trajectories.

The favorable trade policies helped Bangladesh make a successful transformation in trade composition from agricultural products to commodity products, particularly the ready-made garments (RMG). Import liberalization policies provide easier access to imported inputs that facilitated the growth of some other industries such as plastic, processed food, footwear, chemicals, printing, and so on (Bakht 2001). Still, the share of trade in GDP is not very satisfactory compared to some Southeast Asian countries. The lack of export diversification, problem with trade policy, inadequacy of trade infrastructure, technological innovation and national and international production networks are some of the key reasons behind such retreat.

The relevance of discussion on agricultural trade is of importance in the context of dominant agrarian base of the economy. Import liberalization policies allowed the country to import agricultural inputs more easily with cheaper prices, which has mainly contributed to impressive food grain production, particularly rice production. The striking part of liberalization is that average unweighted nominal protection level in agriculture has been reduced from more than 76 percent in 1992 to 31 percent in 2000

and further to 18.5 percent in 2008. However, the reduction of average weighted protection rate was also noteworthy—they fell from more than 33 percent in 1991 to 12 percent in 1999 and 5.5 percent in 2008. The discussion here suggests that there are still scopes of further liberalization.

In the context of above discussion, the pertinent research questions that emerge are: How have the trade patterns of Bangladesh been, both in terms of composition and volume, changing over time since 1990? Are trade patterns including agricultural trade consistent with trade and exchange rate liberalization policies? Can the impressive trade performances be explained as the outcome of trade liberalization? This chapter aims to address these questions by reviewing trade reform policies in Bangladesh and assessing the impact of such policies on trade performances.

The chapter is organized as follows. After the Introduction, Sect. 9.2 reviews the trade liberalization policies pursued by Bangladesh in different phases since her independence in 1971. Section 9.3 analyzes trade performances of Bangladesh in terms of export and import pattern over time. Section 9.4 assesses the impact of exchange rate liberalization and cash incentive policies on exports. Finally, Sect. 9.5 provides conclusions and policy recommendations.

9.2 Review of Trade Liberalization Policies

In the early decade of independence, Bangladesh followed a restrictive trade regime and an import substitution industrialization strategy. During the decade, trade regime was characterized by high tariffs and QRs on imports. Trade liberalization started at a substantial scale from the middle of the 1980s, but on a partial basis particularly as part of conditionality under the structural adjustment reform programs of the World Bank and the IMF. At that time, reform measures were taken to simplify import procedures, reduce and harmonize tariff rates, remove restrictions on repatriation of profit and income from foreign investment, and so on. The highest customs duty rate was reduced from 350 percent in 1990 to 32.5 percent in 2003 and 25 percent in 2011. At present, QRs are applicable only to non-trade aspects, such as health, environment, culture, national security, and so on. The number of operative tariff slabs was reduced from 24 in the 1980s to 5 in 2010, and the (unweighted) average customs duty rate was reduced from 100 percent in 1985 to 57 percent in 2000 and 15 percent in 2010. Thus, the trade liberalization policies undertaken by the Bangladesh govern-

ment over the course of time 1972 to 2000 can be described in three phases. The three phases of trade reforms are briefly discussed below.

9.2.1 Phase-I (1972–1975): Restrictive Trade Regime

After the independence in 1971, the first Bangladesh government pursued highly restrictive trade and exchange rate policies partly because of uncertainty in various economic and socio-political structure of a new state and lack of capacity in handling liberalized environment. The nature of protection included quantitative restrictions, high tariff rates, and a fixed but overvalued exchange rates. The protectionist trade regime continued till 1976 with a view to controlling import levels and providing protection to domestic industry.

In this protectionist regime, there were provisions for import and export licensing. The government would allocate foreign exchanges on a discretion to importers through a tedious process of import licensing. For exporters, the Export Performance License was issued to use a certain proportion of their export earnings for import purposes through an Import Entitlement Certificate. As the Export Performance License premium was reflected in their exchange earning, there was a *de facto* dual exchange rate in practice.

During this period, most agricultural commodities were on the restricted or banned lists of imports. Some restrictions were imposed on the export of agricultural products and also export duties were applied to some agricultural exports. The liberalization of trade and exchange rate policy, however, was started from the mid-1970s with slightly strengthened institutional capabilities of the country.

9.2.2 Phase-II (1976–1990): Partially Liberalized Trade Regime

The progress in trade liberalization slowed down in the 1980s, particularly with respect to reductions in import tariffs. Major reforms in exchange rate policy took place in the 1980s. In mid-1979, Bangladesh adopted a limited flexible exchange rate policy by fixing the taka to a basket of currencies of major trading partners. Earlier, it was fixed to British Pound-Sterling. Import payment procedure was also made flexible at that time. Import payment at the official exchange rate was rapidly reduced, and an increasing proportion of import payments was made at the rate of the secondary exchange market. About 40 percent of all imports were financed out of

this source, while the share of secondary exchange market in non-aid imports reached nearly 70 percent at the end of 1989 (Ahmed et al. 2007).

The export licensing system was simplified substantially in 1986 by the introduction of Export Performance Benefit. This allows the beneficiary exporters to directly cash their benefit entitlement at their banks. These policies contributed to the rapid growth of non-traditional exports during the 1980s, as well as a rapid expansion of the secondary wage earners scheme market. A wide range of agricultural commodities benefited from the Export Performance Benefit incentives. However, exports of raw jute were not included in the Benefit scheme and thus suffered directly from the overvalued exchange rate. The secondary exchange market helped narrow down the gap between the official and the wage earners scheme rate. Eventually, the two rates were unified in 1992, which marked the end of the Export Performance Benefit arrangement (Rahman 1992). During this phase of reform, some progress had been made, and thus a window opened up for further liberalization.

9.2.3 Phase-III (1990s): Liberalized Trade Regime

9.2.3.1 Import Liberalization Policies

Trade liberalization in the early 1990s caused a substantial decline in tariff rates. Import tariffs and total tax incidence on the import of major agricultural commodities declined sharply during the 1990s and 2000s (Table 9.1). While tariffs (unweighted) for agricultural commodities were declined from 25.5 percent in 2000 to 18.5 percent in 2008, tariffs for industrial commodities declined from 22 percent in 2000 to 13.5 percent in 2008. Duties on capital goods, consumer goods and intermediate goods declined substantially during 2000–2008, while duties on raw materials remained almost the same during the same period. Further, duties on capital goods, consumer goods, intermediate goods and raw materials declined markedly during 2010–2015, while duties on industrial goods remained largely the same during this period. However, during 2010–2015, tariffs (unweighted) for agricultural commodities increased from 19.4 percent to 20.1 percent.

As part of import liberalization, ban or restriction has been withdrawn on a substantial number of commodities at the HS-4-digit level. As a result, the number of import-restricted item reduced from 752 during 1985–1986 to only 63 during 2003–2006. Since the list includes both trade and

Table 9.1 Tariff rates for different goods

Item/category	*Tariff year*	*2000*	*2005*	*2008*	*2010*	*2015*
	Trade year	*2002*	*2004*	*2008*	*2010*	*2015*
Capital goods	Simple average	13.04	9.35	7.71	7.30	5.40
	Weighted average	8.91	13.87	8.43	7.54	6.63
Consumer goods	Simple average	30.03	20.13	20.05	19.73	17.99
	Weighted average	29.19	17.12	18.52	16.28	18.47
Intermediate goods	Simple average	22.14	15.96	14.31	13.97	11.88
	Weighted average	18.59	29.68	14.78	10.60	12.91
Raw materials	Simple average	14.71	12.25	13.88	11.66	9.30
	Weighted average	9.32	3.44	4.03	2.53	4.88
WTO HS agricultural commodities	Simple average	25.46	17.73	18.52	19.4	20.1
	Weighted average	11.28	7.35	5.56	5.4	5.2
WTO HS industrial	Simple average	21.91	15.29	13.58	14.3	13.7
	Weighted average	19.64	23.7	14.01	13.4	12.2

Source: World Integrated Trade Solution (WITS)

Note: WTO = World Trade Organization

non-trade-related items, in particular, the number of trade-related banned items has declined substantially from 275 in 1985–1986 to 5 in 2003–2006.

All QRs on agricultural products have been removed in the 1990s. Tariff lines of all products that faced QRs were brought down to only 2 percent in 1994 and zero in subsequent years. Private sector was allowed to import rice and wheat in the early 1990s, which ended the long-standing government's monopoly on food grain imports. Also, the ban on the export of fine quality rice was lifted, though the ban continued for the export of coarse rice. These liberalization policies have impacted positively the growth of import of rice and other food items (Fig. 9.1).

Import liberalization usually lowers costs in downstream industries, expands their output and thereby exports and triggers a push for industrialization. It is, therefore, imperative to focus on the impact of growth of imported raw materials on the production and export structure and the employment creation in the manufacturing sector during the liberalization period. An improvement in technical efficiency is considered as an important source of growth of output (Leibenstein 1966) through proper allocation of resources. The degree of efficiency determines whether a firm might survive or stagnate or fail over time (Jovanovic 1982). Though this chapter does not focus on these aspects of trade liberalization, various studies already reflected on it (Raihan 2008; Ahmed and Sattar 2004).

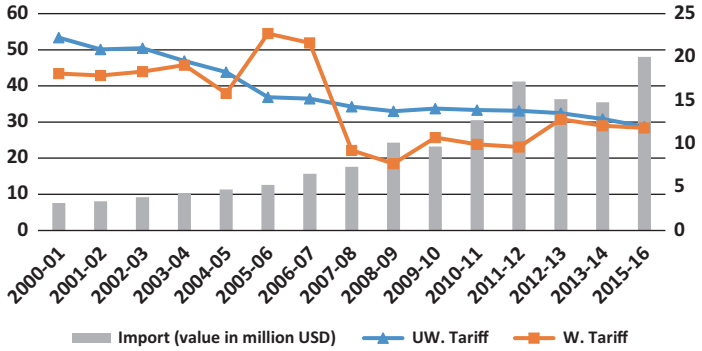

Fig. 9.1 Tariffs and import growth. Notes: Import values are expressed in million US dollar; Tariff rates are presented in percentage (secondary vertical axis). (Source: World Integrated Trade Solution (WITS))

Box 9.1 Some Key Export Promotion Policies

Restructuring of the export credit guarantee scheme (ECGS)
Utilization of foreign exchange by exporters
Export promotion fund (EPF)
Flexible time limit for adjustment of export credit
Rebate on insurance premium
Income tax rebate on export earnings
Payment of duty drawback through commercial banks
Bonding facilities for export-oriented industries
Duty-free import of capital machinery by export-oriented industries
Bonded warehouse facilities
Duty drawback scheme
Tax holiday

Sources: Export policy order (various issues); Bangladesh Bank (FE Circulars, various issues)

9.2.3.2 Export Promotion Policies

Various measures have been taken over time to promote and diversify exports. Measures include cash incentives to some traditional and non-traditional items, restructuring export credit guarantee schemes, creating of export promotion fund, introduction of duty drawback and bonded warehouse facility, income tax rebate to certain extent, and so on (see Box 9.1). Moreover, subsidized interest rate (7 percent) and undervalued exchange rate are some of the important policy supports given to exporters.

Cash Incentives (Subsidies) for Exporting Products

Bangladesh government has been providing various incentives including cash incentives to exporters in order to increase the volume as well as value of exports since 1994. Initially, it was for export of jute goods produced by government and non-government jute mills, and export-oriented local textiles. Later, the scope and extent of the cash incentive program were expanded in order to encourage exporters for product and market diversification, particularly for non-traditional items. Cash incentive for leather goods (100 percent export-oriented industries) was introduced in April 2000. Cash incentive facility started for export of agricultural goods, particularly for frozen shrimps and other fish, agro product (vegetables/fruits) and processed agro products from December 2000. Other products that enjoy cash incentive benefits so far are bone meal, bicycle, commodities made of hogla, straw, coir of sugarcane, potato, eggs and day-old chicks of poultry industries, liquid glucose produced at Ishwardi Export Processing Zone (EPZ) (from December 2005), light engineering products (from February 2006), and halal meat (from December 2006).

However, the rate of cash incentive varies across commodities (Table 9.9 in Appendix). The government makes changes to rates and sectors time to time, however, on an ad hoc basis, sometimes with pressure from business communities without properly evaluating the impact of cash incentives on export performances.

Cash incentives are provided on net freight on board (FOB) value of the selected commodities exported (shipped) during a year. Export value is calculated using a fixed price set by the Bangladesh Bank. Annual disbursement of money provided as cash incentive for agricultural and non-agricultural commodities has increased over time. The total amount of cash subsidy paid was US$132 million in 2002, which was increased to US$417.7 million in 2015–2016. However, the process of disbursement of cash subsidies involves corruption and inefficient allocation for which full benefits of cash incentives could not be realized.

In Bangladesh, although total export has increased five times between 2002 and 2016, total ratio of cash subsidy to total exports remained almost the same throughout the period (Table 9.2). The benefit as a ratio of promoted exports is nearly 1 percent over the years, which appears to be a negligible amount that could hardly influence export performance.

Table 9.2 Benefits generated from export subsidies

Product	*FY 2002–2003*	*FY 2005–2006*	*FY 2009–2010*	*FY 2010–2011*	*FY 2015–2016*
Total exports (in million US$)	6548	10,526	16,204	22,924	34,240
Total manufactured exports (in million US$)	6086	9753	15,517	20,838	32,974
Total cash subsidy (in million US$)	132.37	89.74	171.4	191.4	417.700
Benefits as a ratio of promoted exports	0.02	0.01	0.01	0.01	0.012
Real effective exchange rate (REER) index (decrease indicates depreciation): 10 currency basket	92.27	83.86	97.74	89.4	137.950

Sources: Authors' calculation; Bangladesh Bank; Ministry of Finance (MoF); FY = fiscal year

9.2.4 Trade Liberalization: Regional Scenarios

It can be observed from Table 9.8 that Bangladesh's nominal import protection level is comparable to other South Asian countries. Tariff reduction in Bangladesh during the early 2000s was slower than other South Asian neighbors. However, recently Bangladesh has made a good progress in bringing down its tariff structure to the regional level. In particular, Bangladesh's most-favored nation (MFN) applied tariff (ad valorem) for agricultural goods (17.52 percent as against 20.62 percent in South Asia) is the lowest in South Asia, but slightly higher than the low-income country level. Trade restrictive indices (TRIs), calculated by the World Bank, suggest that Bangladesh is the least restricted in South Asia (11.33 vs. 11.75) and even among low-income countries (Table 9.8 in Appendix).

Although Bangladesh has been rated as a moderate restrictive country until recently, the average nominal protection rate level is now comparable to other South Asian countries. However, there is scope for further trade liberalization as high regulatory duties are often placed on an ad hoc basis.

9.3 Trade Performances of Bangladesh

Trade performance of a country can be best judged by its trade intensity (trade to GDP ratio) indicators. These reflect the extent of integration of a country with the global economy. As Fig. 9.2 shows, trade intensity has

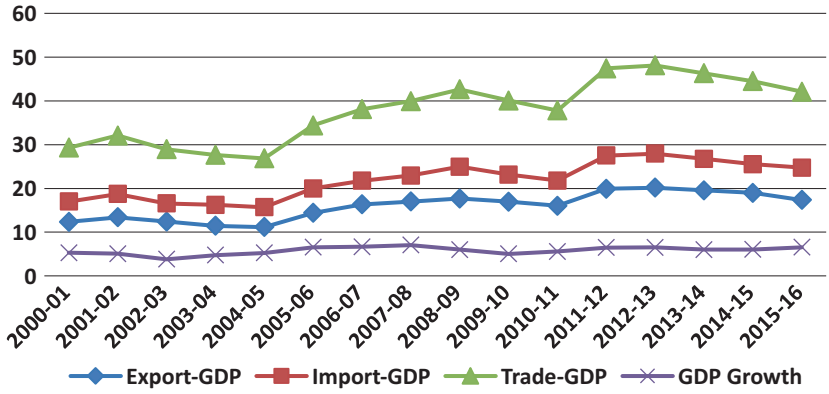

Fig. 9.2 Trade pattern in Bangladesh. (Source: The World Bank)

reached 45 percent of the country's GDP and its average figure is around 44 percent (excluding trade in service) in the 2006–2010 period. Trade intensity (trade openness) of Bangladesh made a phenomenal growth in 2006–2010 despite global economic crisis during that period. It is worth noting that during 2006–2015, export intensity has made a slight progress, increased from 17 percent in 2006–2010 to about 18.5 percent in 2011–2015 (Table 9.3). At the same time, the gap between export and import intensities has also increased. Widening of the gap between export and import intensities can be explained by the increase of import dependence as well as increased global price of imports relative to its exports.

Another explanation is the increased import-dependent exports by shifting from indigenous raw material-based export products to imported raw material-based garment exports. Import intensity has increased magnanimously from about 13 percent in 1981–1985 to 27.6 percent in 2011–2015. The capacity to import has elevated due to improved export capacity as well as increased inflow of remittance income of migrant workers. One of the important indicators of global integration is the import penetration ratio. This has increased to 24 percent in 2006–2010 from 11.8 percent in 1981–1985. Although it takes 20 years for it to be doubled, the driving forces behind it were import liberalization policies and increased domestic demand for better quality imported items.

Table 9.3 Indicators of trade pattern (average percentage)

Economic phases	*Trade intensity*	*Export intensity*	*Import intensity*	*Import penetration ratio*	*Terms of trade (ToT)*
1981–1985	16.848	3.958	12.890	11.820	–
1986–1990	16.780	4.907	11.873	11.090	92.780
1991–1995	22.551	7.988	14.563	13.640	98.600
1996–2000	30.042	11.951	18.091	17.050	98.060
2001–2005	34.600	13.584	21.017	19.540	81.820
2006–2010	43.937	17.691	26.246	24.150	91.080
2011–2015	46.106	18.470	27.636		85.980

Source: Bangladesh Bureau of Statistics (BBS); Bangladesh Economic Review, Ministry of Finance, various issues

Notes: Intensity is measured as percentage of GDP; different base years were used in calculating terms of trade; import penetration is calculated as the ratio of import/(GDP-exports+imports)

9.3.1 Trade Balance and Coverage of Imports by Exports

Trade balance is an indicator of trade performance of a country. Trade balance as a percentage of GDP reflects whether and how much a country is dependent on foreign aid or external income other than exports of goods for her development. One can observe that the government on average has been facing trade deficit of around US$7500 million per annum. Trade deficit has escalated from US$1733 million in 1981–1985 to US$7486 million in 2006–2010, that is, 27.5 percent per period. It is worth noting that proportion of trade balance to GDP hovers around 6–8 percent in all the periods. Compared to this, normalized trade balance has decreased substantially. Import coverage ratio has also increased significantly from about 31 percent in 1981–1985 to about 76 percent in 2011–2015, indicating an enhanced productive capacity of Bangladesh (Table 9.4).

The current account balance (CAB) has largely been negative until 2004 and afterwards until 2016 it was positive in Bangladesh (Fig. 9.3, right scale). For the last two years (2017–2018), current account deficit has widened substantially with the increase of import payments mainly due to import of rice in the face of shortfall of rice production, import of capital machineries and goods mainly to support implementation of some mega infrastructure projects, coupled with the decrease of exports and remittances in recent years. Though large and persistent current account deficit is a cause of concern, the current situation in Bangladesh is not that much worrying as this appears to be consistent with macroeconomic fundamentals.

Table 9.4 Trade balance (average) and coverage of imports by exports

Economic phases	*Trade balance as percent of GDP*	*Normalized trade balance*	*Growth of trade balance*	*Coverage of imports by exports in percent*
1981–1985	−8.93	−0.53	−0.74	30.91
1986–1990	−6.97	−0.41	1.07	41.6
1991–1995	−6.58	−0.29	15.43	54.75
1996–2000	−6.14	−0.21	−2.62	66.14
2001–2005	−7.43	−0.21	17.73	64.47
2006–2010	−8.56	−0.19	13.15	65.96
2011–2015	−7.31	−0.57	6.24	75.61

Source: Author's calculation

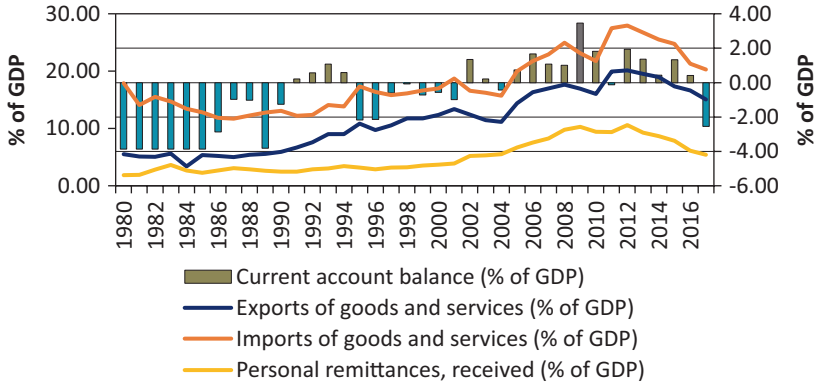

Fig. 9.3 Current account balance and trade pattern. (Sources: Bangladesh Bank; Ministry of Finance, 2018)

9.3.2 Dynamics of Exports and Imports

The dynamism in international trade in Bangladesh started during 1980–1981, when the exports of primary products started declining with the increase of export of manufacturing items, particularly the RMG products. The country registered a sizeable proportion of manufactures export and import as percentage of total merchandise export and import, respectively (96 percent vs. 63 percent) in 2015 implying its progress toward industrialization (Table 9.5). RMG has been the major export item (Fig. 9.4). Food import varies between 15 and 19 percent of total imports, while food export remains miniscule.

Table 9.5 Exports and imports as percentage of merchandise exports and imports

Year	*Manufactures exports (percent of merchandise export)*	*Food export (percent of merchandise export)*	*Manufactures import (percent of merchandise import)*	*Food import (percent of merchandise import)*	*Trade in service (percent of GDP)*	*Share of trade in global trade (percent)*
1990	77.49	14.31	55.85	18.95	3.62	0.05
1995	85.15	10.45	69.14	17.30	5.88	0.07
2000	90.51	7.61	67.65	16.48	5.17	0.10
2005	91.77	6.18	64.94	15.6	5.75	0.09
2010	91.69	4.03	64.09	17.42	5.93	0.12
2015	95.81	2.71	63.17	16.56	5.62	0.19

Source: The World Bank

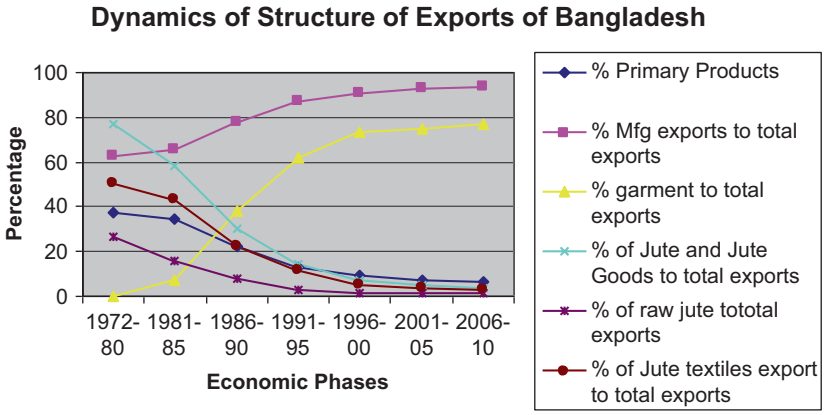

Fig. 9.4 Export dynamics. (Source: Export Promotion Bureau (EPB), Bangladesh)

As Table 9.5 shows, manufactures, particularly merchandise export (about 95 percent), dominate the export basket, while the share of manufactures is about 64 percent in merchandise imports. Food export has been on a declining trend, while food import has been stable at about 17 percent of merchandise import. Trade in services as percentage of GDP has been increasing, but slowly.

Since 2000, Bangladesh had made a remarkable progress in increasing its share in global exports and imports, which together accounts for about 0.19 percent. Bangladesh's trade share in global trade has doubled since

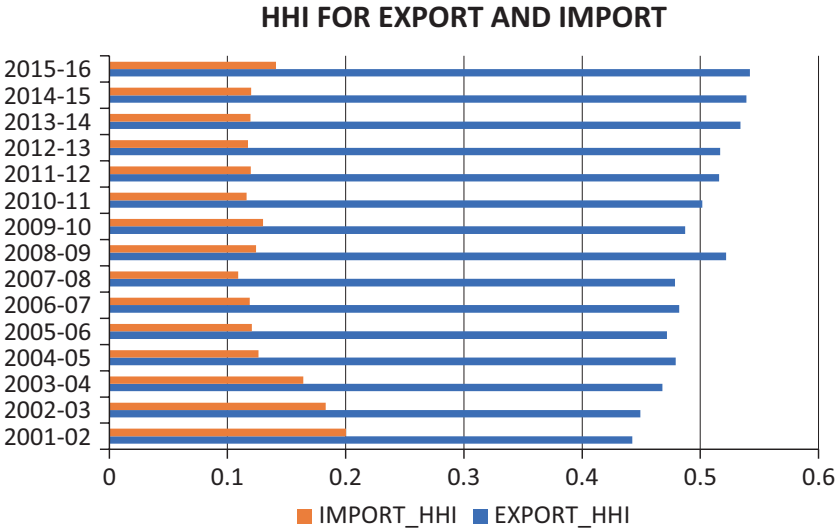

Fig. 9.5 Import and export concentration ratio for Bangladesh, 2005–2015. (Source: Author's calculation)

2000, which is impressive, thanks to the growth of RMG exports. Compared with some other least developed countries (LDCs), the progress is remarkable in terms of increased global share of trade (exports and imports).

However, within the manufacturing sector, lack of export diversity remains a measure of least development, as evident in Fig. 9.5. Estimated export and import concentration ratios, measured in terms of Herfindahl-Hirschman index (HHI), show that export concentrations are much higher than import concentration. The estimated concentration for export is about 0.50, while it is slightly over 0.1 for import in FY 2015–2016. Higher export concentration is due to the dominance of RMG in the export basket, which accounts for around 80 percent exports of Bangladesh. High concentration in exports implies that the country is more vulnerable to external shocks, and therefore Bangladesh needs to diversify its export basket.

9.3.3 Evolving Markets and Export Diversification

It appears that in most cases both volume and value of exports of products that enjoy cash incentives have been on a rising trend, but not significantly. Even, market destinations for these products are not the same for

all the years, indicating that these products could not maintain access to a particular market for long time (Fig. 9.7 in Appendix). In the cases of vegetables, bicycle, leather products and frozen shrimp, a single market dominates for quite a long time; however, in the cases of potato, fruits, tobacco and jute products, destinations have been changing each year. These might have happened for several reasons including tariff structure of those markets, inability to maintain sanitary and phytosanitary standards of those markets, and so on. However, this issue needs to be analyzed further in greater detail.

Considering current slow pace and lower extent of diversification, it is hard for the existing sectors, such as leather, pharmaceuticals, light engineering, chemicals, and so on to take over the place of the RMG sector. What could be the sector that has the potential to take over RMG? East Asian experience can guide us.

The trade specialization of some East Asian countries like Japan, the ASEAN 4 and now Southeast Asian economies may be explained by the "Flying Geese pattern" (Akamatsu 1962). Their specialization follows a trend—initially they have specialized in manufacturing nondurable consumer goods like apparel, and then to durable consumer goods, and then to capital goods of higher value. The industrial transformation that has happened in East Asia could provide a lesson to Bangladesh about its future direction of industrialization as well as export diversification (Fig. 9.6). Bangladesh's specialization in RMG with having no other such potential sector could pave the way for specialization in a different sectors like the hardware and electronics sector. The reason is that the information and communication technology (ICT) sector requires human capital, along with low level of technology, which could allow a country to specialize in hardware and electronics. The hardware segment of the information technology (IT) industry has the largest number of firms, approximately 10,000, but it also appears that this sector is intensely amalgamated with assembling and repairing services (Hossain 2017). Most of these firms sell computer and computer-related accessories, and roughly 60,000 PCs and laptops are sold per month in Bangladesh. There are lots of electronics assembling firms that are now selling their products in domestic market, where only a few are involved in manufacturing of electronics items. Walton is a good example. If the firms are provided with proper incentives and policy support, they might make a strong case for next exporting giant after the RMG.

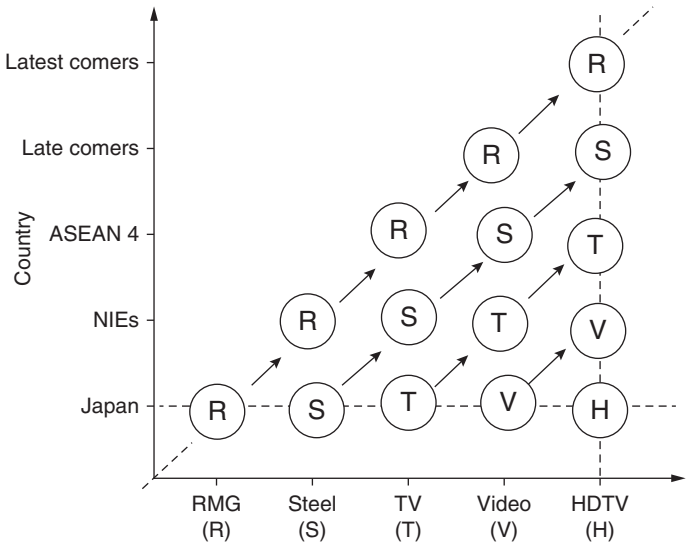

Fig. 9.6 Flying geese industrial pattern of East Asia. Note: The graph is drawn following Lopez-Acevedo and Robertson (2016)

9.4 Evaluation of Policies

In this section we evaluate the impact of exchange rate and cash incentives of Bangladesh's export as part of assessing the impact of trade policies.

9.4.1 Exchange Rate and Trade Performance

In this section, we attempt to examine the effect of exchange rate on exports. There are two primary determinants of export demand (Dornbusch 1988; Hooper and Marquez 1993). First is the foreign income variable which measures the economic activity and the purchasing power of the trading partner country ("income effect"). Second is the relative price or the terms to trade variable ("price effect"). Since real exchange rate volatility might have affected exports, exchange rate volatility is an additional factor that needs to be explicitly taken into account ("volatility effect"). Incorporating these determinants, we can derive a simple export demand function as follows:

$$x_t = \alpha_0 + \alpha_1 \cdot y_t^{world} + \alpha_2 \cdot p_t^{world} + \alpha_3 \cdot V_t + \varepsilon_t, \tag{9.1}$$

where x_t is the natural logarithm of real export (total export is deflated by the export price index) of Bangladesh, y_t^{world} is the natural logarithm of the trade-weighted sum of the real GDP of eight key trading partners, p_t^{world} is the trade-weighted sum of terms of trade of key trade partners, V_t is the real exchange rate volatility measured as the two-quarter moving average standard deviation[1] and ε_t is an error term.

Applying the augmented Dickey-Fuller (ADF) test, we find that all series, such as x_t, y_t and p_t exhibit I(1) process except V_t which is I(0). Thus, we go for estimating cointegration equations considering V_t as exogenous variable. The results are shown in Table 9.6. We estimate the short-term adjustment factors including real effective exchange rate (REER) volatility under the vector error correction model. As apparel (knitwear and woven garments) constitutes major share of Bangladesh's export, we estimate separate cointegrating equations for knitwear and woven for their main destinations, such as the US and the EU. Signs of the coefficients are consistent with the theoretical predictions. The volume of exports (imports) to a foreign country ought to increase as the real income of the trade partner (destination country) rises, and vice versa. So we expect $\alpha_1>0$. A rise (fall) in the terms of trade of a trade partner will cause the domestic goods to become less (more) competitive than foreign goods; therefore, exports will fall (increase) and imports will rise (fall). So we expect $\alpha_2 < 0$.

The results show that overall exports from Bangladesh are inversely related to international prices and statistically significant, implying that price support is crucial for the export sector. Export of knitwear and woven garments constituted around 70 percent of total exports in 2007, of which 70 percent were exported to the US (23 percent) and the EU market (47 percent). The estimation of demand functions for knitwear and woven garments in the US and the EU market shows a significant impact of price and income on woven and knitwear exports, respectively. As a result, woven exports have experienced sharper decline than knitwear in these markets in the latter half of 2008 in the face of global economic recession. Although income is also found to be significant for export demand of the USA and the EU for knitwear and woven, exports of these items are expected to be less affected by the current global recession due to their low income elasticity.

[1] V_t is calculated as follows: $V_t = \left[\frac{1}{m}\sum_{i=1}^{m}\left(\ln REER_{t+i-1} - \ln REER_{t+i-2}\right)^2\right]^{1/2}$.

Table 9.6 Estimated cointegrating equations for exports from Bangladesh (quarterly data: 2000Q1–2008Q4)

	Total export (world)	*USA*			*EU*		
		USA market (USA)	*Knitwear to USA*	*Woven to USA*	*EU market (EU)*	*Knitwear to EU*	*Woven to EU*
Long-term equations:							
Income	1.69	0.02	0.03	0.01	0.014	0.009	0.002
(destination)	(0.375)	(0.004)	(0.006)	(0.003)	(0.0008)	(0.006)	(0.0008)
	[1.69]	[12.96]***	[12.23]***	[9.67]***	[9.88]***	[16.89]***	[2.93]*
Terms of trade	−13.32	−0.016	−0.012	−0.02	−0.057	0.012	−0.06
(destination)	(2.30)	(0.0008)	(0.01)	(0.006)	(0.019)	(0.016)	(0.02)
	[9.60]***	[1.20]	[1.20]	[8.91]***	[5.64]**	[0.53]	[6.15]***
Constant	49.91	−0.07	−0.32	0.05	0.225	−0.067	−0.22
Short-term equations:							
REER Volatility	0.11 (0.04)**	0.0003 (0.0002)**	0.00007 (0.0001)	−0.0001 (0.0001)	0.0003 (0.0002)	0.000006 (0.0005)	0.0002 (0.0002)
Error Correction Term	−0.19 (0.22)	−0.7 (0.30)**	−0.80 (0.33)**	−0.91 (0.24)***	−1.54 (0.27)***	−2.17 (0.43)***	−1.71 (0.26)***
Constant	−0.08 (0.06)	−0.0003 (0.0004)	0.0002 (0.0005)	0.0002 (0.0004)	0.001 (0.005)	0.001 (0.001)	0.001 (0.0002)***

Notes:

1. At most 1 cointegrating equation is significant at both 1 percent and 5 percent level
2. *, **, *** indicates 10 percent, 5 percent and 1 percent level of significance. Standard errors are in parentheses. Chi-square values are reported in third brackets
3. Chi-square values are obtained by imposing cointegrating restrictions on coefficients (Chi-square critical values: at 1 percent = 6.63; at 5 percent= 3.84; at 10 percent = 2.70)
4. REER volatility is used, respectively, for world, US and EU

Although REER volatility has significantly positive effect on overall exports, the impact is very low (Table 9.6). The low magnitude of the coefficient of volatility indicates that the less the REER volatility, the more the positive impact on overall exports. This finding calls for the stabilization of the REER, particularly the foreign exchange market. Thus, price competitiveness and exchange rate management play a critical role in export promotion in Bangladesh.

9.4.2 Impact of Cash Incentives on Export Performance

The impact of subsidy on export has been a contentious issue. On the one hand, it is argued that export subsidy creates "trade distortions" by affecting trading patterns among trading partners. Moreover, it escalates fiscal burden of the government, as well as leads to both inefficiency and inequity in resource allocation as it leads to regressive transfers from the exchequer to a section of industry. On the other hand, export subsidies can be justified from the viewpoint of welfare maximization. Various arguments in favor of export subsidies include neutralization of import duties, supporting the infant-industry and capital market imperfections and use of these by one's counterpart. In many countries where only one or two exporting products dominate the total exports, subsidies are used as a means for expansion and diversification of exports. However, the impact of export subsidy is mixed in the literature. Evidence from India does not justify the application of subsidies on exports (Panagariya 2000). Further, from the experiences of Mexico and Brazil, export subsidies are proved to be a costly instrument of export diversification. However, it is widely argued that export subsidies worked well in East Asia for export expansion and diversification.

For the analysis, quarterly data are used for the period 2000–2009.[2] Equation 1 is used again adding log (cash incentives). REER volatility has a significant and positive impact on exports to the USA, while it is not significant in terms of exports to the EU. The low magnitude of the coefficient of volatility indicates that Bangladesh maintains a stable REER that makes a positive impact on exports.

Cash incentives provided to exporters have no significant effect on total exports to both the EU and the US markets, although the sign is positive

[2] Only quarterly data are available from Bangladesh Bank. A longer and monthly time series of cash incentives, if available, would produce better results.

Table 9.7 Impact of cash incentives on exports, 2000Q1–2008Q2

	Total export (VEC-1)		*Total export (VEC-2)*
Long-term equation:			
US income	4.85 (0.45)***	EU income	1.30 (0.17)***
US price	−1.24 (0.69)*	EU price	−20.63 (3.44)***
Constant	−31.93	Constant	92.58
Short-term equation:			
Vol_REER	0.05 (0.02)**	Vol_REER	0.028 (0.03)
Cash incentives	0.01 (0.05)	Cash incentives	0.04 (0.06)
Error correction term	−1.76 (0.28)***	Error correction term	−0.29 (0.22)

Notes: At most 1 cointegrating equation is significant at both 1 percent and 5 percent level. *, ** and *** indicates 1 percent, 5 percent and 10 percent level of significance, respectively

(Table 9.7). This was expected as cash subsidy given to exports is negligible in amount, which could hardly influence exports. However, the impact could be assessed more rigorously by analyzing product-specific longer time series data.

9.5 Conclusions and Policy Recommendations

This chapter makes an in-depth review and analysis of trade policies pursued by Bangladesh over time and how the policies contribute to trade performances of the country. Trade liberalization was done in phases since her independence in 1971, while major reform measures were undertaken in the 1990s. Bangladesh has made a substantive liberalization in the tariff structures and eliminating QRs. Trade liberalization policies contributed positively toward impressive trade performances of Bangladesh. Trade intensity of Bangladesh witnessed a phenomenal growth, 12 percent in 1990 to 50 percent in 2016, and the trade showed resilience during global economic crisis in 2008–2010. This evidence indicates an increased trade capacity of the economy despite declining aid flow of the economy. The country has been able to improve its capacity to import, which is not only due to increased exporting capacity but also because of increased domestic demand, thanks to higher inflow of remittance income of migrant workers and spending on public infrastructures. The export basket still remains highly concentrated in RMG products, implying less diversification of exports over time. Though various cash incentives are provided to promote exports of non-traditional products, such incentives are not found effective partly due to its insignificant amount and partly due to its allocative inefficiencies.

Recognizing the limitations of the private sector in delivering trade capacity-building services and trade-related infrastructure, international assistance could play an important role to eliminate trade barriers by strengthening public sector capacities. "Aid for Trade" could be one such international assistance mechanism for trade-capacity building. Considering East Asian transformation of industrial sector, after the RMG, Bangladesh could see its huge potential in the ICT sector that could pave the way for specialization in electronics sector. At present, though many electronic assembling plants are now operating in Bangladesh, proper incentives and support could help elevate them into manufacturing plants, which will boost export earnings from the sector. Anti-export biases still remain in some sectors. The tariff structures are still non-predictable, and therefore a proper tariff incidence needs to be analyzed. Therefore, there are scopes of further liberalization of trade sector by eliminating anti-export biases and rationalizing supplementary duties and tariffs. Further liberalization, improving trade infrastructure and technical capacities, and efficient trade policy are some of the future policy agenda that can take trade performances one step ahead.

Appendix

Table 9.8 Trends in average MFN applied tariff rates in developing and industrial countries, 2000–2010 (unweighted in percent)

Country/group	*2000*	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*	*2010*
Afghanistan					4.2		6.2	6.2	6.2		
Bangladesh	22.2	21.0	21.0	19.5	18.2	15.5	15.5	14.5	14.8		
Bhutan	15.4	15.4	17.7		22.2	22.2		17.7	16.0		
India	32.7	30.9	28.4		28.4	16.0	14.5	14.0	9.7	10.1	
Maldives	21.3	21.1	21.3	21.2	21.1	21.3	21.4		21.5	21.5	
Nepal	14.2	14.7	14.6	14.8	14.8	14.7	12.5	12.4	12.7	12.4	12.4
Pakistan	23.6	20.2	17.2	16.8	16.2	14.6	14.8	14.9	14.0	14.7	
Sri Lanka	9.3	8.9	8.9	8.7	9.9	11.3	11.0	10.7		10.1	9.3
Lao, PDR	9.3	9.5			8.7	7.0	6.5	5.8	9.3		
Cambodia	17.0	16.7	16.3	16.3	15.6	14.1		12.5	12.4		
Vietnam	15.1	15.2	14.2	13.7	13.9	13.0	11.9	11.7	8.0		7.1

(*continued*)

Table 9.8 (continued)

Country/group	*2000*	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*	*2010*
Memo: simple average											
Developing countries (134)	14.9	13.6	13.3	12.5	11.1	11.3	10.4	10.4	10.4	10.0	8.9
Low income (34)	15.4	14.9	14.6	14.1	12.4	14.2	12.7	12.1	12.4	12.1	11.2
Middle income (100)	14.8	13.2	12.8	11.8	10.7	10.5	9.6	9.8	9.7	9.2	8.0
High income non-OECDs (19)	6.9	7.3	7.5	5.1	4.0	5.5	6.0	7.3	5.8	4.1	7.8
High income OECDs (11)	3.8	4.4	3.9	3.7	3.3	3.3	3.2	2.9	2.8	3.1	2.8
World, all above co. (164)	12.9	11.9	11.6	10.6	9.5	9.9	9.3	9.4	9.2	8.7	8.1

Sources: UNCTAD TRAINS database (through WITS); WTO IDB database (through WITS); WTO IDB CD ROMs, various years and Trade Policy Review—Country Reports in various issues, 1990–2005; UNCTAD Handbook of Trade Control Measures of Developing Countries—Supplement 1987 and Directory of Import Regimes 1994; World Bank Trade Policy Reform in Developing Countries since 1985, WB Discussion Paper #267, 1994 and World Development Indicators, 1998–2006; The Uruguay Round: Statistics on Tariffs Concessions Given and Received, 1996; OECD Indicators of Tariff and Non-Tariff Trade Barriers, 1996 and 2000; and IMF Global Monitoring Tariff data file 2004

Notes: All tariff rates are based on unweighted averages for all goods in ad valorem rates, or applied rates, or MFN rates whichever data is available in a longer period

Table 9.9 Rate of cash incentives (export subsidy) provided for export of different products (in percent)

Product	*FY 2001–2002*	*FY 2002–2003*	*FY 2003–2004*	*FY 2004–2005*	*FY 2005–2006*	*FY 2006–2007*	*FY 2007–2008*	*FY 2008–2009*	*FY 2009–2010*	*FY 2010–2011*	*FY 2011–2012*
Potato		15	15	15	20	10	10	10	10	10	20
Tobacco		10	10	10	10	10	10	–	–	–	
Leather product	15	15	15	15	15	15	15	15	17.5	15	12.5
Jute product	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	10	10	10
Handloom		15	10	5							
Agro product (veg)		15	25	25	30	20	20	20	20	20	20
Agro product (fruit)		20	25	25	30	20	20	20	20	20	20
Crushed bone	15	15	15	15	15	15	15	15	15	15	15
Bicycle	15	15	15	15	15	15	15	15	15	15	15
Frozen shrimp and other fish	10	10	10	10	10	10	10	10 (Jul–Mar), 12.5 (Apr–June)	12.50	10	10
Halal meat						20	20	20	20	20	20
Home textile						5	5	5	5	5	5
Poultry hatching egg and day old chick						15	15	15	15	15	15
Commodities made of hogla, straw, coir or sugarcane						15–20	15–20	15–20	15–20	15–20	15–20
Light engineering products						10	10	10	10	10	10
Ship										5	5
Crust leather										3	3
Finished leather										4	4
Pet bottle										10	10

Source: Bangladesh Bank, FE Circulars

Fig. 9.7 Evolving markets for exporting (subsidized) products. Notes: Value of exports in thousand taka. (Source: Bangladesh Bank; Export Promotion Bureau (EPB))

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