Czech University of Life Sciences Prague

Faculty of Economics and Management

Department of Economics

Master's Thesis

Relationship between Key Export Industry and Balance of Payment and Exchange Rate of Selected Country (Case Study)

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CZECH UNIVERSITY OF LIFE SCIENCES PRAGUE

Faculty of Economics and Management

DIPLOMA THESIS ASSIGNMENT

Bc. Jabed Mahmud, BBA

Economics and Management

Thesis title

Relationship between key export industry and balance of payment and exchange rate of selected country (case study)

Objectives of thesis

The goal of the diploma thesis is to assess the relationship between the key indicators representing the balance of payments accounts and the key industry for the country of Bangladesh. The researcher is interested in quantifying the effect of selected macroeconomic variables on the annual export of garments in Bangladesh.

Methodology

The methodology of the work is based on the quantitative approach, where econometric estimation is the main tool used for forming the empirical part. The time span covered in the analysis represents 23 years (2000-2022). Data is retrieved from the World Bank and UN Comtrade.

The proposed extent of the thesis

60-80 pages

Keywords

Bangladesh, garments, exports, balance of payments, exchange rate, inflation

Recommended information sources

INTERNATIONALER WÄHRUNGSFONDS, ed., 2014. BPM6 compilation guide: companion document to the sixth edition of the Balance of Payments and International Investment Position Manual; compilation guide. Washington, DC: International Monetary Fund. ISBN 978-1-4843-1275-9.

RAMAZZOTTI, Arthur, ed., 2013. Developing countries: political, economic and social issues. New York: Nova Science Publishers, Inc. ISBN 978-1-62417-231-1.

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STERN, Robert Mitchell, 2007. Balance of payments: theory and economic policy. 1. paperback print. New Brunswick, NJ: Aldine Transaction Publ. ISBN 978-0-202-30893-7.

UNITED NATIONS, 2023. TRANSFORMING BANGLADESH: geography, people, economy and environment. S.l.: SPRINGER INTERNATIONAL PU. ISBN 978-3-031-45092-1.

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Declaration

I declare that I have worked on my master's thesis titled " Relationship between Key Export Industry and Balance of Payment and Exchange Rate of Selected Country (Case Study)" by myself and I have used only the sources mentioned at the end of the thesis. As the author of the master's thesis, I declare that the thesis does not break any copyrights.

In Prague on 31.03.2024 _____

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Abstract

This diploma thesis explores the current relationship between exchange rates, inflation, foreign direct investment (FDI), and the export performance of Bangladesh's garment industry. The study reveals key insights into the dynamics driving the nation's economic development and its emergence as a pivotal center for global garment manufacturing. Findings indicate that exchange rate movements significantly impact garment exports, with a 1-unit depreciation of the domestic currency against the US dollar correlating with a 3.57 percent export increase. Inflation's adverse effects are evident, with a 1 percentage point increase leading to a 0.14 percent decrease in exports. Moreover, FDI inflows positively influence garment exports, with a $1 billion increase resulting in a 0.186 percent export rise. Policy implications include advocating for exchange rate stability, maintaining price stability, and attracting FDI to sustain industry growth. Overall, this research underscores Bangladesh's potential as a manufacturing hub and the importance of proactive policymaking to harness this potential.

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Keywords: Bangladesh, garments, exports, balance of payments, exchange rate, inflation.

Vztah mezi klíčovým exportním odvětvím, platební bilancí a směnným kurzem vybrané země (případová studie).

Abstrakt

Tato diplomová práce zkoumá současný vztah mezi směnnými kurzy, inflací, přímými zahraničními investicemi (FDI) a exportním výkonem bangladéšského oděvního průmyslu. Studie odhaluje klíčové poznatky o dynamice ovlivňující ekonomický vývoj země a její vzestup jako klíčového centra pro globální výrobu oděvů. Zjištění naznačuje, že pohyby směnných kurzů významně ovlivňují export oděvů, přičemž 1 jednotková deprecace domácí měny vůči dolaru znamená 3,57% nárůst exportu. Negativní vliv inflace je patrný, když 1procentní bod nárůstu vede k 0,14% poklesu exportu. Navíc příliv FDI pozitivně ovlivňuje export oděvů, s každým 1 miliardovým dolarem nárůstu FDI se export zvyšuje o 0,186 procenta. Politické důsledky zahrnují podporu stability směnných kurzů, udržování cenové stability a přilákání FDI k udržení růstu průmyslu. Celkově tato studie zdůrazňuje potenciál Bangladéše jako výrobního centra a důležitost proaktivního politického rozhodování k využití tohoto potenciálu

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Klíčová slova: Bangladéš, oděvy, vývoz, platební bilance, měnový kurz, inflace.

Table of Contents

1 Introduction

This dissertation is an attempt to analyze and reveal the relationship between Bangladesh's leading export industry, the garment industry, and the country's Balance of Payments (BOP) and exchange rate. The author seeks to show how the performance of this vital sector affects the international financial position of Bangladesh and the value of its currency, the Bangladeshi Taka (BDT). The theoretical framework will relate to established principles of international trade, in particular how export performance affects a country's balance of payments and exchange rate.

Shifting focus to Bangladesh, the author assessed the current state of its economy, focusing on the fundamental role of the garment industry. This analysis will examine the industry's contribution to foreign exchange earnings, job creation and overall economic growth. By understanding the importance of the garment industry, the author was able to better assess its potential impact on the balance of payments and exchange rate. The economic history of Bangladesh is closely intertwined with the success of the garment industry. This industry, which employs millions of people and generates a significant portion of the country's foreign exchange earnings, acts as the lifeblood of the nation.

Understanding how the apparel industry affects the balance of payments and exchange rates is critical for policymakers seeking to ensure sustainable economic growth and financial stability. This diploma thesis addresses this knowledge gap by offering a comprehensive examination of these vital economic dynamics, ultimately facilitating informed policy decisions that can propel Bangladesh towards a prosperous future.

The structure of chapters is:

- Chapter 2 is dedicated to the breakdown of the objectives and methodology.

- Chapter 3 presents the theoretical overview of theories relevant to the topic of the diploma thesis.

- Chapter 4 is entirely represented by the author's own analysis performed based on secondary data.

- Chapter 5 provides a summary of the author's findings and presents further elaboration on the results.

- Chapter 6 concludes the findings of the thesis.

2 Objectives and Methodology

2.1 Objectives

The goal of the diploma thesis is to assess the relationship between the key indicators representing the balance of payments accounts and the key industry for the country of Bangladesh. Based on the fact that Bangladesh's main specialization is concerned with the production of garment and related goods, the author seeks to measure the quantitative effect the effect of selected macroeconomic variables on the annual export of garment in Bangladesh.

Furthermore, apart from focusing entirely on the identification of the quantitative effect, the author is also interested in observing the development of the exports of this key industry during the 21st century. The thesis is a complex study of Bangladesh's macroeconomic environment as well as of the key industry for the country.

2.2 Methodology

The methodology of the work is represented by two key approaches – the qualitative and quantitative ones. The thesis, alternatively, employs the techniques of induction and deduction, where before the implementation of complex econometric techniques, the technique of document study is used in order to provide a comprehensive overview of the current state of knowledge about the researched topic. Furthermore, the utilization of the empirical approach allows the author to reach conclusions that can be verified mathematically.

Then, the empirical part addresses the econometric approach, where a pertinent econometric model used for the prediction of the country's garment exports is constructed. The time span covered in the analysis represents 23 years starting in 2000 and finishing in 2022, which is explained by data availability. The main sources used by the author for the data collection are the World Bank, OEC and UN Comtrade. The econometric approach relies heavily on the OLS methodology, where the original model is of the double-log nature, which is then linearly transformed in order to make the estimation possible. At last, the model diagnostics follows the estimation process, where fundamental techniques of

statistical inference are implemented that include the following ones: hypothesis testing (F test and t-tests; econometric tests) and the calculation of the coefficient of determination used for the depiction of the variation in the dependent variable explained.

3 Literature Review

3.1 Theory behind foreign trade

At the close of the 18th century and the beginning of the 19th century, the foundations of the classical theory of international trade were established. David Ricardo and Adam Smith, both of whom were English economists that are part of this big evolution of the first theories behind foreign trade. It was Smith's notions of trade liberalization that served as the foundation for the creation of the classical theory of international commerce (Stirati, 1994). His argument, in contrast to that of the mercantilists, was that every state possesses an absolute advantage in both the imports and exports of goods. Smith made an effort to provide a solution to the topic of which commodities are profitable to import when compared to those that are profitable to export. The primary concept that A. Smith presented in his book was that the division of labor is the foundation upon which the prosperity of a nation and its peoples is built (Sawyer, 2017).

Smith demonstrated in his work "Inquiries into the Nature and Causes of the Wealth of Nations" (1776) that nations are interested in the free growth of international trade because they can gain from it regardless of whether they are exporters or importers. This is the reason why nations are interested in the free development of international trade. In his work, he developed the concept of absolute advantage (Smith, 2002). If there is a good that a country is able to produce more of per unit of input than another country, then that country has an absolute advantage over the other country. The abundance of natural resources and extraordinary climatic circumstances are two examples of natural elements that can, on the one hand, be responsible for the generation of these benefits.

When it comes to agricultural and extractive sectors, natural advantages play a particularly important role (Tietenberg & Lewis, 2018). On the other hand, gains can be obtained, which are contingent upon the growth of technology, the advancement of worker training, and the improvement of industrial organization. Under circumstances in which there is no international trade, each nation is restricted to consuming only those commodities and only the quantity of those goods that it produces from its own resources (Kehoe & Ruhl, 2013).

On the home market, the relative costs of production are what determine the relative prices of the various items that are available for purchase. There is a significant disparity in the relative prices of the same product that is manufactured in several nations. In the event that this difference is more than the cost of carrying goods, then it is feasible to generate a profit through international trade (Atkeson & Burstein, 2008). To ensure that both parties benefit from trade, it is necessary for the price of a product on the international market to be higher than the domestic price in the country that is exporting it and lower than the price in the country that is importing it. In his essay "Principles of Political Economy and Taxation" (1817), Ricardo demonstrated that the notion of absolute advantage is merely an exception to the general rule. He also provided evidence to support the theory of comparative advantage (Kurz & Salvadori, 2015).

As long as there are disparities in the domestic pricing ratios of different countries, every nation will have a comparative advantage. This means that every nation will always have a product whose production is more profitable than the production of other nations, given the cost ratio that is now in place. When each good is produced by the nation that has the lowest opportunity cost, the total output will be at its highest possible level. Relative costs are the primary factor that determines the course of international trade (Sykes, 1998).

In both cases, the gain from trade is a result of the fact that the ratios of costs in the absence of trade (the slopes of the production possibility lines) are different in different countries. This means that the direction of trade is determined by relative costs, regardless of whether a country has an absolute advantage in producing any product or not. This is an important conclusion that can be drawn from the comparison of the situations of absolute advantage and comparative advantage (Markusen & Melvin, 1981).

The work of D. Mill, titled "Principles of Political Economy," which was published in 1848, contributed to the further development of the idea of comparative advantage. During his research, he discovered that the relative price of a commodity would typically settle at a value that was somewhere in the middle of the values that the commodity had before the beginning of trading (Mill, 1982). To ensure that the whole of each nation's exports is

sufficient to cover the totality of its imports, the price of exchange is established in accordance with the law of supply and demand at a level that is designed to achieve this. A significant contribution that Mills made was the development of this law of international value, sometimes known as the theory of international value. This theory demonstrates that there is a price that is optimal for the exchange of goods across nations; however, this price is contingent upon the supply and demand of the goods (Gehrke, 2017).

In fact, several theories have made their impact on the global scene of foreign trade relative topics and ideas behind it that help overall to make foreign trade ideas and knowledge far more accessible and studied in current day and age. While first theory that author would like to mention is Heckscher–Ohlin theory that during the 1930s Eli Heckscher and Bertel Ohlin, two Swedish economists, developed their own model of international trade in the 20th century (Findlay, 2006). This model was based on the theory of the link between the components of production. Changes of a significant nature had taken place by this point in time in the framework of international trade and the system of international division of labor. In recent years, there has been a discernible decline in the significance of natural differences as a contribution to international specialization. As a result, industrial commodities have begun to take the lead in the exports of industrialized nations. The purpose of the Heckscher-Ohlin model is to provide an explanation for the factors that lead to international commerce in manufactured goods (Leamer, 1995).

Different countries have different relative costs, and the authors believe that these discrepancies can be explained by the following factors:

1) The manufacture of different items may include the utilization of a variety of elements in varying proportions;

2) There is a considerable disparity in the degree to which countries are provided with factors of production (Caselli, 2005).

In an open economy, each nation has a tendency to specialize in the manufacture of goods that need a greater number of factors, with which the nation is comparably better endowed. This is an example of the law of proportionality of factors. The process of

exchanging abundant elements for those that are scarce is known as international exchange. It is the mobility of goods that has replaced the mobility of factors of production, which was far more difficult (Maskell, 1998). As a result, forces of production that are scarce are imported, while factors of production that are surplus are exported in a covert manner. This means that the movement of goods from one nation to another compensates for the poor mobility of production components on the scale of the global economy.

In terms of the development and improvement of the Heckscher-Ohlin model, Paul Samuelson was the individual who made the most significant contribution. In 1948, he presented a synthesis of this current of economic thought in the form of the following theorem: in the case of homogeneity of factors of production, identity of technology, perfect competition, and complete mobility of goods, international exchange equalizes the price of factors of production between countries (P. Lloyd, 2011).

This theorem was presented in 1949. Indeed, this is the Heckscher-Ohlin-Samuelson theorem, also known as the HOS theorem. The prices of the various elements of production are brought into equilibrium through the process of international commerce. In the beginning, the cost of an element that is accessible in excess will be relatively cost-effective. Excess capital results in the specialization of the production of items that need a significant amount of capital and the movement of capital into businesses that generate exports (Baldwin, 2008). As a result of the rising demand for capital, the cost of capital is also becoming more expensive. In a nation where there is a plentiful supply of labor, the exportation of labor-intensive items is a widespread practice. There is also an increase in the cost of labor, which is represented by wages.

As a result of the fact that the Heckscher-Ohlin theory is considered to be one of the essential theories of international commerce, the numerous empirical studies that have been conducted have focused on its primary provisions. Upon completing his studies at Leningrad University, Vasily Leontiev went on to pursue his education in Berlin. After moving to the United States in 1931, he started working as a professor at Harvard University. Director of the Economic Research Service is a position that has been held since 1948. A method of economic analysis known as "input-output" was developed, which is utilized for forecasting purposes. The Nobel Prize was bestowed upon you in 1973 (Hagemann, 2022).

In 1947, Leontiev made an attempt to empirically evaluate the implications of the Heckscher-Ohlin theory, and he arrived at conclusions that were contradictory to the theory. When he looked at the structure of the United States' exports and imports, he discovered that the majority of the items that were exported from the United States were labor-intensive, whereas the majority of the goods that were imported were capital-intensive (Baldwin, 2008).

This finding was a contradiction to the Heckscher-Ohlin theory, and it was consequently referred to as the "Leontief paradox." This was due to the fact that in the years following World War II, capital was a comparatively abundant component of production in the United States, and salaries were much higher than in other nations. In each given combination with a specific amount of capital, Leontief postulated that one man-year of work from the United States is comparable to three man-years of labor from sources outside the United States. According to his hypothesis, the higher level of expertise possessed by American workers was the reason for the increased productivity of American labor.

The results of a statistical analysis that Leontief carried out demonstrated that the United States exports goods that need a higher level of skilled labor than those that are imported (Paraskevopoulou et al., 2016). This research served as the foundation for the model that was developed by D. Keesing, an American economist, in 1956. This model takes into consideration the qualifications of the workforce. Capital, skilled labor, and unskilled labor are the three components that are engaged in the production process. The export of items that demand a significant quantity of skilled labor is a direct result of the relative abundance of individuals with high levels of expertise. Five components were utilized in later models developed by Western economists. These factors were financial capital, skilled and unskilled labor, land that was suited for agricultural output, and other natural resources (Leamer & Levinsohn, 1995).

The Heckscher–Ohlin model was the subject of various attempts by members of the neoclassical movement to broaden and enhance its scope (Baldwin, 2008). A change in the structure of demand (G. D. Joyce), a change in the endowment of production factors under the influence of the growth of the active population, whether it be capital accumulation (T.

Rybchinsky's theorem) or the mobility of one of the factors (E. Madell's theorem), and the evolution of production structures under the influence of technological progress (J. Hicks, G. Grubel) were some of the factors that were introduced in order to dynamize It (Davis, 1992).

In 1971, P. Samuelson and R. Jones established a model (theory) of certain factors that were taken into consideration. The model presented here, in contrast to Ricardo's model, takes into account the possibility of other forces of production outside labor. If labor is a mobile factor that can migrate from one industry to another, then other factors have a specific nature that enables them to be employed in the manufacture of goods only in certain industries(Jones, 2012). This is because labor is a mobile factor. Within the framework of this theory, the Heckscher–Ohlin notion was developed further. A hypothetical economy that produces two different items and distributes one resource (labor) among three different industries is taken into consideration by the theory. Each of the other two variables, capital and land, is only utilized in a single sector of the economy, and neither of them can be moved around (McKinnon, 2010).

The law of declining marginal returns, which states that each extra unit of labor invested in production results in a lesser increase in its volume, was taken as an initial premise from general economic theory (Hall et al., 1986). This law was proposed by economists. The disparities in the endowment of factors of production are what determine the differences in the relative prices of goods, which in turn stimulates trade between neighboring countries. The process of international commerce results in the development of production in industries that are focused on exporting, the development of factors connected with these sectors, and the movement of mobile factors (labor) into these same industries.

This movement adds to the outflow of labor resources from industries that are focused on importing (Leonidou, 1998). As a result, a redistribution of income takes place, the nature of which is described in the Samuelson-Jones theorem: the income of owners of a component that is special to industries that export increases, while the income of owners of a factor that is specific to industries that compete with imports declines (Erokhin et al., 2023).

The neoclassical two-country, two-factor, two-good model, sometimes known as the "2x2x2" model, is the most well-known example of a simple general equilibrium model. This was done with the intention of expressing the Heckscher-Ohlin theory of the "contributions" of various factors of production in a manner that was simple and straightforward (Bergstrand & Egger, 2007). Consider the following scenario: two nations are solely different from one another in terms of the strict ratio of two elements of production, namely labor and capital. If we evaluate these countries independently of one another, then for the country where the capital-labor ratio is larger, the ratio of wages to rent for the use of capital will be higher and, accordingly, the costs of production of a more labor-intensive product will be higher. As a result, every nation possesses a comparative advantage in the manufacturing of a product that necessitates considerable expenditures in relation to the value of the surplus factor. Heyscher and Ohlin's theorem is presented here (Baldwin, 2008). In addition, three other significant provisions were formulated:

1) A theorem of P. Samuelson concerning the equalization of the prices of the factors. Because of the theorem, we are able to formulate the perspective that Ohlin put up, which is that the movement of elements of production between countries is replaced by the movement of goods that are traded between countries. If there are not too many significant discrepancies between the ratios of production factors in different nations, then free trade can totally replace the movement of those factors. In circumstances in which the prices of the factors of production are equalized, the movement of those factors of production from one country to another, if it were conceivable, would not result in any benefits (Chipman, 1969).

2) The explanation provided by V. F. Stolper and Samuelson regarding the impact that shifts in the prices of commodities have on the actual rewards that factor owners receive. As a result of the fact that an increase in the relative costs of manufacturing a labor-intensive commodity is accompanied by an increase in the ratio of wages to rent for the use of capital, the price of labor services rises in comparison to the prices of both commodities, while the price of capital services falls in comparison to the prices of both goods (Deardorff et al., 1994). Consequently, the real recompense of the owner of labor rises, while the owner

of capital experiences a decline, and this occurs regardless of the manner in which these revenues are utilized to acquire the two items. Because of this conclusion, it is feasible to build a profound connection between the growth of international trade and the distribution of income inside the country. This is something that was not possible with the assistance of earlier explanations, which only took into account elements that were special to each economic sector (Marjit & Acharyya, 2003).

3) The viewpoint that was presented by T. M. Rybchinsky, which was derived from an examination of the general equilibrium model of international trade. If there is an increase in the ratio of capital to labor in the economy as a whole, then production will increase in the industry that is capital-intensive, while the volume of production will drop in the industry that is labor-intensive. These kinds of relationships make it possible for us to build a connection between the expansion of international trade and the expansion of the economy (Stecenko, 2020).

4) The general standard model of economics, sometimes known as the neoclassical model, can be treated as a specific case of the classical model. The most important theoretical instrument for the study of the processes involved in international trade is this model. Over the course of their work, F. Edgeworth, and G. Haeberler created the fundamental ideas that underpin the standard model. Taking into account a two-country economy, the model interprets the concept of world trade as being represented by trade between two countries (Trautwein, 2014).

According to the provisions of economic theory, the standard model is based on the premise that replacement costs are increasing. This assumption is more consistent with economic practice and adheres to the provisions of economic theory. A production potential curve is depicted plotted on the graph. The points that are located above the curve represent the volume of output that is not feasible with the technologies that are now available, while the points that are located within the curve represent the volume of production that occurs when the resources of the country are not functioning efficiently (Lewis, 2003). An increase in the relative price of imported goods results in a drop in the wellbeing of the nation,

whereas an increase in the relative price of exported goods results in an increase in the welfare of the nation (Keohane & Milner, 1996).

Also, there is several alternate schools of thought regarding international commerce like the classical theory of international trade does not always adequately explain the considerable transformations that took place in the structure and orientations of international trade during the last decades of the 20th century. These shifts occurred in the direction of international trade. Among these qualitative transformations, it is important to highlight the transformation of scientific and technological progress into a major component in international trade, as well as the growing proportion of counter deliveries of industrial items that are comparable to those that are being traded (Blyth, 2002).

When developing theories of international trade, it was necessary to take into account the influence that was being discussed. Generally speaking, alternative theories can be broken down into two distinct ways. In the first path, the essential principles of the classical school are being creatively developed, and in the second direction, there is a decisive review of classical notions and the formation of fundamentally new theories. As well as the concept of economies of scale and the promotion of trade within an industry (Bini & Tusset, 2008).

A. Marshall is credited with being the initiator of the concept of economies of scale. Marshall was the first person to recognize the primary factors that contribute to the advantages that a group of companies possesses in comparison to a single company. M. Camp and P. Krugman are credited with making the most significant contribution to the modern theory of economies of scale, which is a theory of international trade that is based on monopolistic competition. For countries that are equally endowed with factors of production, this theory provides an explanation for why there is trade between such countries (May et al., 2001).

When the scale of production increases, which typically takes place within the context of monopolistic competition, the cost of generating each individual unit of output lowers. As a result of the fact that numerous nations are supplied with the fundamental elements of production in proportions that are comparable to one another, it will be lucrative for them to engage in commerce with one another by specializing in industries that are defined by the

existence of the mass production effect. Through specialization, you are able to increase production volumes while simultaneously lowering expenses and prices. In order to achieve economies of scale, it is necessary to have a huge market, which can be thought of as the entire world.

Specialization and the interchange of items that are technologically similar but distinct can be lucrative for nations (Williams et al., 1989). This type of trade is referred to as intra-industry trade. In close proximity to this theory is the theory of intra-industry trade, which was developed by the English economist Bela Balassa. Balassa drew attention not only to economies of scale, but also to differences in the preferences of consumers in various countries, the geographical proximity of their border regions, and the disparity in agricultural seasons. Some of the names that are linked with the continued development of the idea of intra-industry trade are G. Grubel, P. Armington, P. Krugman, K. Lancaster, and E. Helpman, amongst others (P. J. Lloyd, 2002).

In 1961, Swedish economist S. Linder was interviewed. Through research, it has been discovered that overlapping demand is one of the primary factors that contribute to intra-industry trade between countries. It is essential for there to be a saturated domestic demand for the product before it can be exported; only when this requirement is met can the product be sold on international markets. The ideal result from exports, on the other hand, can be attained by trading with a country that has a demand structure that is comparable to or identical to that of it (Sen, 2005). According to the theory put forth by S. Linder, actual demand is bolstered by a high degree of money, which enables an individual to acquire a product of higher quality. Therefore, the most significant degree of demand structure overlaps in partner nations that are characterized by high income levels is the key to expanding the scope of cooperative trade efforts (Zichermann & Linder, 2010).

The theory of the product life cycle is also one of the theories that existed during the middle of the 70s. During the 20th century, the American economist R. Vernon proposed the theory of the product life cycle. In this theory, he attempted to explain the growth of international trade in finished goods by analyzing the stages of their life cycle. The length of time during which a product is financially viable on the market and accomplishes the goals

of the seller is referred to as the product's life stage. Four stages are included in the product life cycle (Vernon, 1992):

1) **The implementation**. During this phase, a new product is produced in order to fulfill a growing demand that has been identified inside the nation. Small-scale production, which necessitates personnel with a high level of expertise, is concentrated in the nation that is at the forefront of innovation. The position held by the manufacturer is very close to that of a monopoly. Only a minor portion of the product is exported to markets outside of the country.

2) **It is growing**. Despite the fact that the product is experiencing an increase in demand, its production is expanding and spreading to other industrialized countries. Eventually, the product will be standardized. The level of competition is rising, and the number of exporters is growing.

3) **This is maturity**. Large-scale production is a defining characteristic of this stage, and the price factor is the most important aspect in the competition. There is no longer a competitive advantage for the nation considered to be the innovator. To take advantage of the lower cost of labor in emerging countries, production starts to transfer there.

4) **Fall into decline.** As a result of the concentration of sales markets in developing countries, output is being cut back in industrialized countries. The nation most known for its innovative spirit becomes a net importer (Vernon, 1992).

There is also neo-technological movement's that are proponents attempted to explain the structure of international trade by positing that technological forces were responsible for it. The most significant benefits are connected to the monopoly position held by the company that is creating the innovation. There is a new ideal approach for businesses, which is to manufacture not what is relatively cheaper, but what everyone needs, but which no one can provide yet. Something fresh should be produced as soon as other people are able to master this technology (Weresa, 2013).

There has also been a shift in the perspective toward the state. It is the responsibility of the government, in accordance with the Heckscher-Ohlin model, to refrain from interfering with businesses. Neo-technological economists are of the opinion that the state ought to encourage the creation of high-tech export commodities and should refrain from interfering with the reduction of industries that are irrelevant to the modern economy (Findlay, 2006).

Among all the models, the technology gap model is the most widely used. The work of the English economist M. Posner, which was published in 1961, served as the basis for its development. R. Vernon, R. Findlay, and E. Mansfield were the authors who contributed to the development of the concept in later years. The occurrence of technological advancements in a single industry in one of the nations that engage in international trade might be a source of trade between those countries (Elmslie & Vieira, 1999).

Because of advancements in technology, this nation is able to create things at lower prices, which gives it a competitive advantage. If a new product is developed, the company that is responsible for the innovation will have a quasi-monopoly (fragile) for a specific period of time, which means that they will gain greater profit (Blind, 2016).

A gap in technological capabilities has emerged between nations as a consequence of the introduction of new technologies. This gap will progressively be closed as a result of other countries beginning to imitate the innovation that is being implemented in the country that is doing the inventing (Gancia & Zilibotti, 2009). Posner proposes the idea of a "flow of innovations" as a means of providing an explanation for the ever-present phenomenon of international trade.

This concept proposes that inventions occur throughout time in a variety of industries and nations. Both countries that engage in trade stand to gain from the invention. The less developed country continues to benefit from the proliferation of new technologies, while the more developed country continues to realize a decline in its advantages. Even if countries have the same endowment of production factors, there is still the possibility of international trade (Gilbert et al., 1990).

The concept of comparative advantage in business is also can be viewed as one of the perspectives on idea of foreign trade and overall historical spikes. Michael Porter, an American economist, created a theory of international competitiveness of nations based on research that was carried out in the late 1980s in the ten greatest industrial countries, which included the United States of America, Germany, and Japan (Porter & Kramer, 2019). The theory of international commerce was analyzed using a new method that was proposed by M. Porter in the essay titled "Competitive Advantages of Countries" which was published in the year 1990. The first thing he did was identify national enterprises that were successful on an international level in certain industries. After that, he carried out research into the beginnings of the industry in each state as well as its subsequent growth. We were able to achieve the following results as a result of this (Grant, 1991):

1. A company's ability to effectively utilize its capacity in the production of goods and services is the primary factor that determines its level of competitiveness.

2. The national and regional environment of a country is a necessary component for the development of productivity.

3. The ability of a nation's private sector to innovate and adapt to changing market conditions is directly proportional to the degree to which that nation is competitive.

4. In today's world, the primary responsibility of the government is to establish the conditions that are essential for the resuscitation of businesses, and this responsibility is always expanding.

Productivity is the primary factor that Porter identifies as being responsible for determining competitiveness on a national level. Companies on a national scale are boosting their productivity by enhancing the quality of their products, using new technologies, and implementing new methods of labor. According to Porter, the following are the primary characteristics (determinants) that affect the competitiveness of a country and, as a result, the growth of modern international trade (Grant, 1991):

1. The conditions of the factors. Porter is of the opinion that these elements are not something that a country inherits, but rather something that is developed via the process of increasing output.

2. Demand conditions have been met. These requirements of the home market are what determine the development of the firm, as well as the relationship between the company's development and the prospective development of the global market. This parameter indicates those criteria. Porter contends that the demands of the home market are the most important factor in determining the performance of a company. For instance, Japanese people who lived in cramped quarters were more concerned with the consumption of low-cost air conditioners that were efficient in terms of energy consumption. This was something that the Japanese industry started producing. This resulted in the widespread adoption of air conditioners of this type all over the world, which enabled Japanese businesses to successfully export their products.

3. Related and service industries. The presence of an efficient production environment that has a direct impact on the activities of the organization is characterized by this. When it comes to the development of machinery for the processing of precious stones and metals, Italy is the world leader, which is why Italian jewelry companies are so successful.

4. Company strategy and competitiveness. On the other hand, it is not possible to identify a single management system that is universal and would be applicable to everyone else in the same way. Dynamism, the absence of strict forms of management, and the ability to make rapid adjustments are characteristics that are exhibited by Italian enterprises, who are leaders in the creation of furniture, lighting devices, and packing machinery. It is common for German businesses that specialize in the manufacture of optics and precision engineering to have a control system that is rigorous and centralized.

When it comes to competitive advantage, the idea places a significant amount of significance on both geographic concentration and internal competitiveness. When there is

intense rivalry in the domestic market, it encourages the company to expand its operations overseas and to look for opportunities in other markets. Geographic concentration brings to an increase in the amount of rivalry inside an organization and elevates it to its highest possible level of intensity (Porter, 1998).

It is a well-established fact that a nation almost never possesses a single industry that is competitive. Competitive industries are integrated by horizontal linkages (shared consumers, technologies, and channels) as well as vertical connections (buyer-seller relationships). As a result of the influence of one competitive industry on the development of another, clusters, also known as industrial groups, come into existence.

A cluster is a collection of companies and organizations that are geographically close to one another, are networked, and operate in a certain region. These companies and organizations are characterized by activities that are complimentary to one another. Within the cluster, the extensive exchange of information is determined by the proximity between the enterprises that make up the cluster and, as a result of this proximity, the presence of contacts, links on suppliers, and technologies. The formation of a cluster can occasionally be attributed to an increase in the demand in the local area. Israel's desire to transition to self-sufficiency in food production was linked to the creation of a cluster for the production of irrigation equipment in the country. This intention became apparent in light of the restricted water resources that the country possessed (Cannon & Perreault, 1999).

3.2 Structure, importance, and the role of balance of payments

A statistical report that reflects all of the economic transactions that individuals, corporations, and government agencies of the country do with individuals, companies, and government agencies of other countries over a specific period of time (quarter, half-year, year, etc.) is referred to as the balance of payments (INTERNATIONALER WÄHRUNGSFONDS, 2014; Schmidt, 1979; Stern, 2007)). The export or import of products and services, the provision or attraction of loans and credits, as well as the payback of such loans and credits, international money transfers, international trading in securities, and other cross-border transactions are all examples of international trade relations (Čihák et al., 2013).

The purpose of this report is to provide a significant statistical foundation for the purpose of analyzing the country's current domestic and international economic condition, as well as for the purpose of implementing monetary and exchange rate policies. The current account, the capital account, the financial account, and the net errors and omissions account are the components that make up the balance of payments, as outlined by the classification system utilized by the International Monetary Fund (IMF) (Edwards, 1989).

Among the transactions that are reflected in the current account of the balance of payments are the exports and imports of goods and services, the income, and expenses of workers from one country working abroad and workers from another country working in that country, the income payable or receivable on a country's foreign assets and liabilities, as well as international remittances, grants, humanitarian aid, and other transactions. The capital accounts of the balance of payments are a reflection of capital transfers, which include the provision of large grants of financial resources or the forgiveness of debt by a domestic enterprise to a foreign enterprise (Mussa, 1974).

Additionally, the capital accounts of the balance of payments also include transactions in non-produced non-financial assets, such as natural resources, contracts, and marketing developments. On top of that, the financial account of the balance of payments takes into account international transactions of assets and liabilities that take place between states. A variety of investments, including direct investments, portfolio investments, financial derivatives (such as swaps and options), other investments (such as currencies and deposits, trade loans and advances, and so on), and reserve assets are all included in the financial account (Parameswaran, 2022).

According to the theory, the balance of the financial account should be equal to the sum of the balances of the current account and the capital account. However, in practice, imbalances in the balance of payments accounts might emerge as a result of the fact that the data used in reporting is collected from a variety of sources, or because changes occur in the value of assets and liabilities, as well as other changes. Pure mistakes and omissions are the terms that are used to describe these irregularities (Obstfeld, 2012).

The current account balance dynamic showed in Figure 1 while being from 2009-2022, as World Bank Data showed. The surplus is most likely due to higher export earnings or lower import costs. Financial account transactions offset any deficit in the current account or capital account. As in Bangladesh, a trade deficit (imports exceeding exports) contributes to the current account balance. However, this deficit is usually compensated by foreign investment and borrowing. Financing of these imports is likely to come from investments attracted into the country and external debt reflected in the financial account.

The compilation and public presentation of the balance of payments is standard worldwide practice and is usually carried out quarterly. This responsibility often falls on the central bank or national statistical agency. Bangladesh Bank, following the same approach, is likely to compile these statistics as per the guidelines set by the International Monetary Fund. They then present this data, along with any analytical publications, to the public within a specified time frame (see **Figure 1**). However, author will describe current state of Bangladesh economic factors in practical part of the thesis (World Bank, 2022).

Figure 1. Current account balance of Bangladesh from 2009 to 2022.
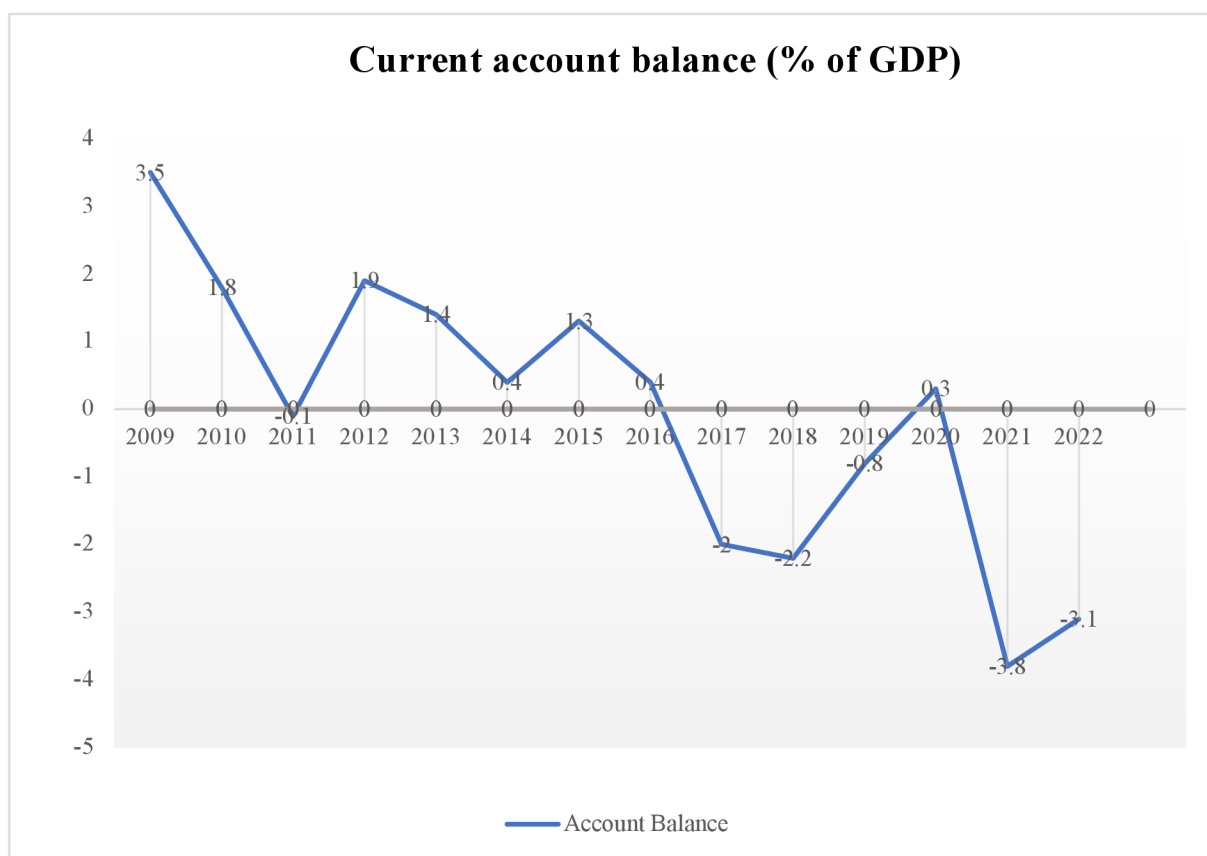
Source: author's own processing based on World Bank, 2022

3.3 The current state of knowledge about the economy of Bangladesh

Bangladesh is a wonderful embodiment of freedom and strength. Experience the incredible birth of this extraordinary nation on December 16, 1971, when it emerged victorious from a courageous nine-month war of liberation (United Nations, 2023). Consider Srana's enchanting location, located in the heart of South Asia. Situated along the picturesque northern coast of the Bay of Bengal, Srana is an untouched gem just waiting to be discovered. It is also important to consider the vibrant cultural diversity when exploring shared borders with Myanmar and India (Khan, 2021). The country of Bangladesh covers a huge area of 147,570 km2 and is located in the heart of the northern tropical zone.

The country has many attractions like the famous Sundarbans, a huge mangrove forest that holds the title of the largest of its kind on Earth. Locals have witnessed the impressive power of nature in Bangladesh, a country deeply affected by the effects of climate change. This land has experienced a wide range of natural disasters, from devastating floods to violent cyclones, from relentless droughts to awe-inspiring tsunamis (M. S. Islam, 2018). But Bangladeshi culture is also broad and includes many languages, such as Bengali (Bangla), the national and official language of Bangladesh, spoken by almost the entire population.

However, the linguistic landscape goes beyond this as indigenous peoples have their own unique languages such as Chakma and Garo, while Sylheti and Chittagong are regional variants of Bengali. There are certain areas where Urdu and Burmese are spoken, influenced by neighboring countries. The linguistic diversity of Bangladesh is a true reflection of its rich cultural heritage and the depth of connections within each of the country's regions (see **Figure 2**) (T. Hossain & Tollefson, 2007).

Figure 2. The map of Bangladesh languages.
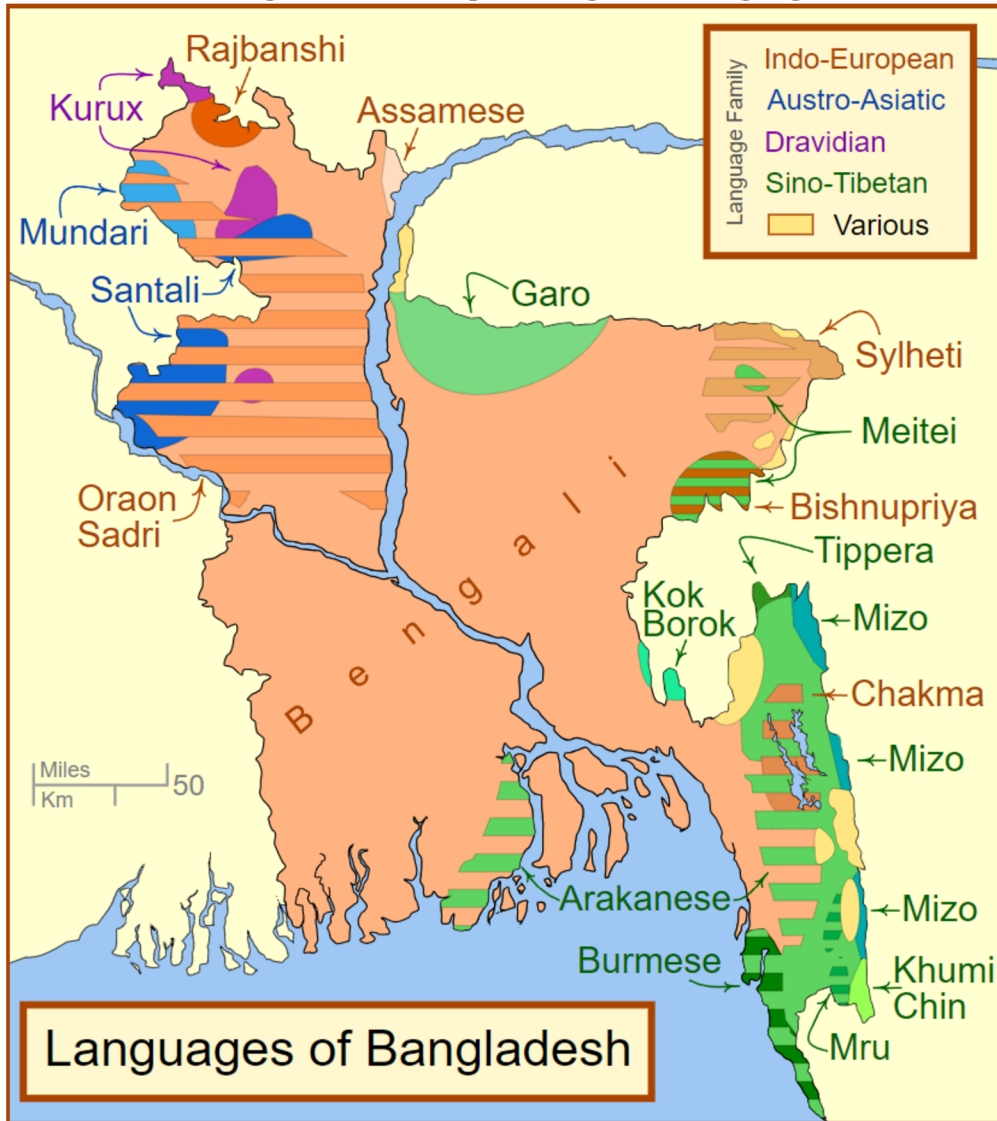
Source: Desk, 2022

Bangladesh is characterized by a strong and rapidly expanding market economy, positioning it as the second-largest in the South Asian region. The region's vast plains and expansive river network serve as a robust agricultural foundation, while its ready-made garment (RMG) industry holds a prominent position on the global stage, making a substantial contribution to worldwide exports. Notwithstanding this achievement, obstacles persist. An extensive and youthful population provides a significant demographic advantage but necessitates investment in education and the generation of employment opportunities. The sustainability of future expansion is contingent upon the development of infrastructure. Bangladesh's narrative is characterized by its ability to endure and advance, with a resolute commitment to achieving upper-middle-income status by 2031 (Munir, 2022).

As of 2024 year, the estimated population of Bangladesh is 175 million people. The average yearly rate of population growth is 1.2%. The density of the population is 1140 inhabitants per square kilometer. The Labor Force Survey report indicates that the employed population in 2023 amounted to around 73.9 million individuals, with men accounting for approximately 48.25 million and women accounting for approximately 25.44 million (Meters, 2024). The majority of the population adheres to the Islamic faith, while the remaining proportion comprises Hindus, Buddhists, Christians, and adherents of other religious traditions.

In 2018, the average life expectancy at birth in the country increased to 72.3 years, compared to 72.0 years in 2017. From 2008 to 2018, there was a significant enhancement in life expectancy for individuals of both genders. Men experienced an increase in average life expectancy from 65.6 years to 70.8 years, while women saw an increase from 68.0 years to 73.8 years. The age group of 15 to 49 years encompasses around 54.6% of the population (Wahida Akther, 2022).

The country's export-oriented industrialization has led to a significant increase in export supplies. The ready-made garments and textiles industry, which employs more than 3 million women, is the second largest in the world. The manufacturing industry contributes a significant portion to the overall GDP. The growth rate of this sector is primarily driven by mass-produced clothing. Bangladesh is considered a major apparel exporter to the European Union and a key player in apparel supplies to the United States. Over the past two decades, Bangladesh has established itself as a highly skilled manufacturer and exporter of mass-produced garments (K. M. Rahman & Chowdhury, 2020).

Some important industries in the country include pharmaceuticals, shipbuilding, ceramics, leather goods and electronics. The telecommunications industry is experiencing significant growth and is largely controlled by international investors. The government's increased focus on developing software services and high-tech industries under the Bangladesh Digital Age program has led to increased market access for overseas outsourcing services (T. Islam, 2022).

Bangladesh is widely recognized for its significant achievements in achieving the Millennium Development Goals. The country has made remarkable progress in various sectors, including poverty reduction, food security, primary education enrollment, gender parity in primary and secondary schools, reduction in infant, under-five and maternal mortality rates, increased coverage of immunization programs and reduction in the incidence of infectious diseases (M. M. Rahman, 2021).

Bangladesh played a significant role in shaping the Post-2015 Development Agenda, which later evolved into the 2030 Agenda. As part of the development of the Post-2015 Development Agenda, Bangladesh submitted proposals to the United Nations that included a significant number of goals, targets, and indicators. The goals were related to important development issues such as human potential, poverty and inequality, food security and nutrition, health and family planning, gender equality, quality education and training, employment and workers' rights, good governance, sustainable production, and consumption (Bexell & Jönsson, 2022). environmental sustainability and disaster management, and international cooperation and partnerships. In particular, Bangladesh's proposals are in line with global trends, with most proposals reflecting those put forward by the United Nations Open Working Group (OEWG). In addition, Bangladesh has included other goals proposed by the OEWG as targets for achieving specific goals. In September 2015, United Nations member states, including Bangladesh, formally adopted the Sustainable Development Goals (SDGs) as a global agenda (Levinson, 2021).

The Government of Bangladesh's Seventh Five Year Plan (FYP) 2016-2020 coincides with the launch of the Sustainable Development Goals (SDGs) (2016-2030), providing an ideal opportunity to include the SDGs in the seventh FP. This enabled Bangladesh to begin implementing the SDGs as soon as possible (Jakaria & Al-Amin, 2022). Bangladesh is a country that has faced numerous challenges, including natural disasters and internal political conflicts.

However, he managed to stay on the development path and show great resilience. Despite various obstacles, Bangladesh is committed to achieving the Sustainable Development Goals (SDGs) by 2030. The country has made progress in many areas such as poverty reduction, gender equality, electricity, sanitation, and annual GDP growth rates.

Bangladesh SDG Progress Report 2018. However, there is still a need for increased global cooperation and assistance to achieve the goals of the 17 SDGs (Nasrullah, 2021).

In early August of 2022, a series of student rallies and riots erupted across Bangladeshi cities, triggered by a significant increase in fuel prices. From August 5, 2022, the government implemented a significant increase in retail prices for diesel fuel, kerosene and gasoline. The authorities justified their decision by the need to adjust prices in connection with the current situation in the global energy market and the need to compensate for losses incurred by the state-owned Bangladesh Oil Corporation in the 2021-2022 financial year. Fuel prices were last updated in November 2021. This sudden increase in prices caused mass protests (see **Figure 3**), even the owners of passenger and freight transport companies expressed their dissatisfaction (Kolbel et al., 2022).

Figure 3. Protests that erupted in Bangladesh.

Source: Xiong, 2022

The rise in fuel prices in November 2021 and August 2022 had a significant impact on various sectors of the economy, including agriculture, manufacturing, and construction. Moreover, it has also affected the vulnerable and less affluent sections of society, given that most vehicles in the country run on diesel. Especially, the increase in transportation costs

has had a significant impact on the income of internal migrant workers who commute daily by train and bus from their hometowns and outlying urban areas to work in major cities, mainly Dhaka, Khulna, and Chittagong (Xinshen et al., 2022).

Experts at the Center for Policy Dialogue, a prominent private think tank in Bangladesh, suggest the decision could have been prevented if the country's authorities had not passed on the price burden to consumers. Instead, they could use the profits of the Bangladesh Oil Corporation. The Center's research highlights the importance of implementing institutional reforms to combat corruption and improve resource mobilization. It also noted that despite the fall in global crude oil prices, due to the lack of these reforms, there has been a significant increase in fuel prices (Hasan et al., 2021).

What is currently happening to Bangladesh's economy and the massive protests in the country have received significant attention in the news recently. There are growing concerns about whether the protests are a short-term response to the situation or whether they could potentially lead to a multi-layered financial crisis similar to what happened in the neighboring island nation of Sri Lanka. Bangladeshi and international media analysts are increasingly asking whether the "Sri Lankan script" can be replicated in Bangladesh (Sengupta, 2024).

A critical aspect of Bangladesh's development strategy in the medium to long term is the country's transition to a developing economy (Ramazzotti, 2013). It is clear that efforts to implement structural reforms to improve the stability of the country's economy in light of both external and internal obstacles will continue. It is important to note that in the new role, Bangladesh will no longer have access to preferential tariffs and quota-free and duty-free access to external markets. Government announcements highlight the importance of exploring new international markets, increasing domestic product diversity, and reducing dependence on the income of foreign migrant workers. It can be expected that the results of the measures implemented by the country's leadership to solve current economic problems will be assessed in the coming days (Okitasari & Katramiz, 2022).

3.4 Fundamentals of garments industry

The clothing industry plays a crucial role in the economic development of the country, as it encompasses the production of clothing, fabric products, fur, leather, finishing materials, and accessories.

Year after year, the clothing industry embraces innovative technologies to meet the ever-growing consumer demand, as competition in this market remains intense. In order to appeal to potential consumers, the clothing production industry has made significant improvements in the speed of production, the quality of finished products, and the release of original designs. At first, clothing served the purpose of safeguarding the body against winter's chill and summer's heat, reflecting the innate self-preservation instinct of early humans. In order to accomplish this, they adorned themselves with animal skins to provide insulation against the harsh cold. During warm climates, individuals sought protection by utilizing grass and hemp (Garcia-Ortega et al., 2023).

The clothing industry plays a vital role in the economic development of any country, as it includes the production of clothing, fabric products, fur, leather, finishing materials and accessories. Year after year, the apparel industry is introducing innovative technologies to meet ever-increasing consumer demand as competition in this market remains intense. To attract potential consumers, the clothing industry has made significant improvements in production speed, quality of finished products, and production of original designs.

At first, clothing served to protect the body from winter cold and summer heat, reflecting the innate instinct of self-preservation of ancient people. To do this, they decorated themselves with animal skins to protect themselves from the harsh cold. In warm climates, people sought protection using grass and hemp. Over time, people began to decorate their clothes with fresh flowers, leaves or bird feathers, not only for practical reasons, such as keeping warm or cool, but also to improve appearance. Over time, a cultural shift occurred where people began to feel the need for modesty, which led them to cover their bodies with clothes (Blum, 2021).

Evolution has seen a shift from using hides, grass and leaves to more natural materials such as linen and cotton to make clothing. These materials made it possible to create fabric that could be cut and shaped into complex shapes, resulting in complex, unique, and aesthetically pleasing garments. Throughout history, the evolution of clothing has been greatly influenced by advances in fabric production and processing technologies (Tonti, 2023).

Thanks to modern technologies, tailoring has become more accessible, which has led to a reduction in the cost of the final product. The clothing industry produces a variety of products:

- Outerwear.

- Headdress.

- Textile.

- Linen for tables, beds and underwear.

The following raw materials were used for the production of clothing industry goods: Various types of fur, both natural and artificial. Also, various types of insulation materials, such as synthetic winterize, batting, hollowfiber. Finishing materials such as braid and cords. Various accessories such as zippers, hooks, buttons, and buckles. Fabrics were classified into different types depending on the type of fiber from which they were made. These fabrics are commonly used to create a variety of items such as bed and table linens, shirts, dresses, bedspreads, drapes, and curtains. These fabrics are characterized by increased strength and wear resistance. They perfectly absorb moisture and promote significant heat transfer, making them an ideal choice for making summer clothing. There are two main types of linen fabrics: pure linen and semi-linen (Allary, 2021).

Silk fabrics are made from a combination of man-made and natural fibers. They are used to create a wide variety of clothing items, including suits, raincoats, jackets, coats, trousers, blouses, and shirts (Ahmed & Mondal, 2021).

Enterprises producing garments carry out the following operations:

- Modeling. At this stage, the product model is carefully designed taking into account various factors such as the purpose of the product, the season in which it will be used, the properties of the fabric and consumer preferences.

- Drawing. After approval of the model, a drawing of the product is created according to the established sample or template. There are two cutting methods: hand cutting or using cutting machines. All parts were transferred to the sewing workshop.

- Embroidery. The process of sewing a product may require the collaboration of several people, each of whom brings their own unique expertise. Most operations are performed by machines, some by hand (Er & Nurmadewi, 2021).

The worldwide apparel business is a massive economic force, manufacturing clothing valued at about $2.5 trillion. The process operates as a network wherein certain nations cultivate raw materials like cotton, others process them into yarn, other countries weave or knit fabric, and ultimately, clothing is cut, sewed, and assembled within an extensive network (Truong, 2021). This association facilitates progress in economies of scale, resulting in reduced costs for global customers. Nevertheless, its effectiveness frequently entails a cost. Fast fashion trends are commonly linked to labor exploitation and environmental degradation due to their focus on rapid production cycles and affordability.

There is a growing recognition among consumers regarding these concerns, resulting in a transition towards sustainable and ethical fashion methodologies. Bangladesh has emerged as the prevailing entity within the context of this worldwide system. The Bangladesh (RF) economy heavily relies on the ready-made garment (RMG) sector, which represents more than 6.5% of worldwide apparel exports. Garment factories employ millions of individuals, predominantly women, who contribute substantially to the country's economic expansion by generating substantial money (A. S. M. J. Hossain, 2021).

The RMG business has a significant impact that reaches well beyond the confines of the factory. Apparel exports contribute significantly to Bangladesh's gross domestic product (GDP) by generating foreign exchange revenues. The provision of financial injections enables the government to allocate resources towards essential infrastructure initiatives, such the construction of roads, bridges, and electricity grids, so facilitating additional economic growth. Furthermore, the augmentation of export revenues serves to bolster the currency of Bangladesh, hence enhancing the affordability of imported commodities for its populace. Despite the positive impact of the RMG business on Bangladesh, there are still notable obstacles that need to be addressed. The perpetual endeavor to guarantee equitable remuneration, secure occupational environments, and safeguard the rights of workers persists.

The sector is confronted with formidable competition from other producers of low-cost clothes, necessitating a continuous pursuit of innovation and diversification in order to sustain its market position. One of the most notable changes pertains to consumer preferences. The emergence and growth of sustainable and ethical fashion necessitate a departure from the exclusive emphasis on rapid fashion and disposable garments (Mian, 2020).

The current concentration of Bangladesh's experience lies in the mass production of clothes; nonetheless, there exists significant potential for the development of a lucrative textile sector. Adopting a planned transition towards premium, ethically procured textiles like organic cotton or handwoven silk has the potential to appeal to a consumer base that is willing to pay a premium for environmentally friendly and opulent goods. The establishment of a unique design style in Bangladesh, maybe influenced by the nation's abundant cultural legacy, has the potential to enhance product differentiation and bolster financial gains. Investment in proficient workforce for artisanal practices, such as manual weaving or elaborate embroidery, has the potential to yield precious and distinctive products that are highly sought after by astute consumers (Junayed & Akter, n.d.).

There exist a number of key techniques that can enhance Bangladesh's standing as a frontrunner in the worldwide garment sector. The implementation of ecologically sustainable techniques and the acquisition of certifications such as Fair Trade have the potential to appeal

to consumers who prioritize ethical considerations and are prepared to allocate a higher budget for clothing that is produced in a responsible manner (Chowdhury, 2023). Consumer confidence can be enhanced by establishing brand trust through the use of transparent supply chains that effectively trace the journey of clothing from its raw material to its final product.

Bangladesh's ability to maintain a leading position in the sector is facilitated by its investment in research and development of cutting-edge fabrics derived from sustainable materials or production techniques that effectively mitigate environmental consequences. The garment industry in Bangladesh has the potential to serve as a significant economic catalyst, assuming a pivotal position in the overall progress of the nation.

4 Practical Part

4.1 Models

After formulating the basis of the diploma thesis in the theoretical and introductory parts, it is feasible to proceed to the formulation of the model that will be estimated. The econometric model estimated in the thesis concerns the total annual export from the garment industry in Bangladesh, where the relationship between the selected indicator and individual macroeconomic indicators is estimated. Based on the economic theory and general assumptions about exports and the balance of payment as a whole, the total number of variables included in the study is equal to 4, where 1 variable is endogenous and the other 3 are explaining.

The dependent variable included in the study is the total value of garment-related exports in Bangladesh (y), which is calculated largely thanks to the implementation of data-processing techniques represented by working with the UN Comtrade dataset. Garment industry, as it was already mentioned in the theoretical part, is the key industry for the country that has recently managed to become one of the world's largest centers of manufacturing and textile processing. The relationship between the variable of the interest and a set of selected explaining predictors will be evaluated.

The first explaining or predictor variable included in the study is the exchange rate (x_1). Bangladesh is considered to be an export-oriented country which arises directly from its specialization in garment and agriculture. Based on that fact, it is interesting to observe the relationship between the exports of the key national industry and the exchange rate. Furthermore, exploration of the exchange rate's development can help to explain the reasons for such a quick accession of Bangladesh's garment industry which resulted in the fact that country today equally competes with such huge economies as India and China in the domain of limited manufacturing.

The second explaining variable is inflation (x_2). Inflation itself is not a part of the balance of payments account, but it is surely related to the country's competitiveness because it partially defines the price level in a given country. Quite logically, in cases when the parity

conditions improve for a given country due to the depreciation of the national currency, a given country becomes more attractive for foreign investors and buyers, which is often regarded to be the case of Bangladesh. The selected variable represents the CPI approach to calculating the inflation rate, which is often viewed as a standard for representing the price level.

The third and the final explaining variable included in the study is the FDI (x_3), which is a part of the BOP accounts. This variable is crucial in terms of the effect that it has on exports of garments in Bangladesh due to the fact that these are mainly international firm based in the country that hire local labor and produce goods for their later exportation to their hubs and developed countries. The thesis proceeds to the formulation of an econometric model, which will define the structural form of the estimated model. Based on general concerns, there are just two particular structural forms that are considered for the estimation – linear and exponential ones.

Linear form is usually regarded as a standard, but when it comes to macroeconomic estimation, this structural form can potentially result in having difficulties with standard errors due to either autocorrelation, heteroscedasticity and absence of normality, or all of them at once. On the other hand, using the exponential structural form might not at all be possible due to the presence of either negative or observations having zero values. Yet, this is not the case of Bangladesh whose selected macroeconomic indicators were constantly positive, indicating absence of deflationary periods and periods of net investment deficit, whilst the exchange rate cannot at all take either negative or zero values. Based on that, the following econometric model is created and further estimated in the diploma thesis:

$$y_t = \gamma_0 x_{1_t}^{\gamma_1} x_{2_t}^{\gamma_2} x_{3_t}^{\gamma_3} + \varepsilon_i$$

For obvious reasons, implementing the ordinary least squares techniques on this equation is impossible because it is not linear in the majority of parameters (partial slopes of the selected variables), but it is linear in variables. Therefore, perform a linear transformation on the aforementioned indicated model becomes imperative. The modified equation that is estimated with the OLS is presented below:

$$y_t = \gamma_0 + \gamma_1 lnx_{1_t} + \gamma_2 lnx_{2_t} + \gamma_3 lnx_{3_t} + \varepsilon_i$$

Further chapters address the data collection process and description of data used in the thesis.

4.2 Data

First, before addressing the development of indicators over time, it is vital to present the dataset that is used for the linear estimation. The main source of data is the World Bank for most variables (inflation, FDI and exchange rate), while data for the export of garments is collected from the UN Comtrade and OEC (see **Table 1**).

Table 1. The estimation data.

Year	Garment Exports	Exchange Rate	Inflation	FDI
	Billion US $	Taka/US $	%	Billion US $
2000	4.67	52.14	2.21	0.28
2001	4.63	55.81	2.01	0.08
2002	4.68	57.89	3.33	0.05
2003	5.59	58.15	5.67	0.27
2004	7.06	59.51	7.59	0.45
2005	7.84	64.33	7.05	0.81
2006	10.07	68.93	6.77	0.46
2007	10.87	68.87	9.11	0.65
2008	13.51	68.60	8.90	1.33
2009	13.84	69.04	5.42	0.90
2010	17.05	69.65	8.13	1.23
2011	18.21	74.15	11.40	1.26
2012	19.10	81.86	6.22	1.58
2013	21.52	78.10	7.53	2.60
2014	24.49	77.64	6.99	2.54
2015	25.49	77.95	6.19	2.83
2016	28.09	78.47	5.51	2.33
2017	28.15	80.44	5.70	1.81
2018	30.61	83.47	5.54	2.42
2019	34.13	84.45	5.59	1.91
2020	27.95	84.87	5.69	1.53
2021	31.46	85.08	5.55	1.72
2022	46.99	91.75	7.70	1.56

Source: World Bank, 2022; OEC, 2023; UN Comtrade, 2023

It strikes as obvious that every variable is dynamic, and their values were constantly changing throughout the analyzed time period. For this purpose, it is essential to proceed with the analysis further, where basic techniques of time series analysis will be applied. Occasionally, for some variables there will be trend functions estimated – only for cases where it will be possible to do so and there is a clear deterministic trend pattern visible. The first variables whose development in time is addressed is the endogenous variable – the total export of garments (see **Figure 4**).

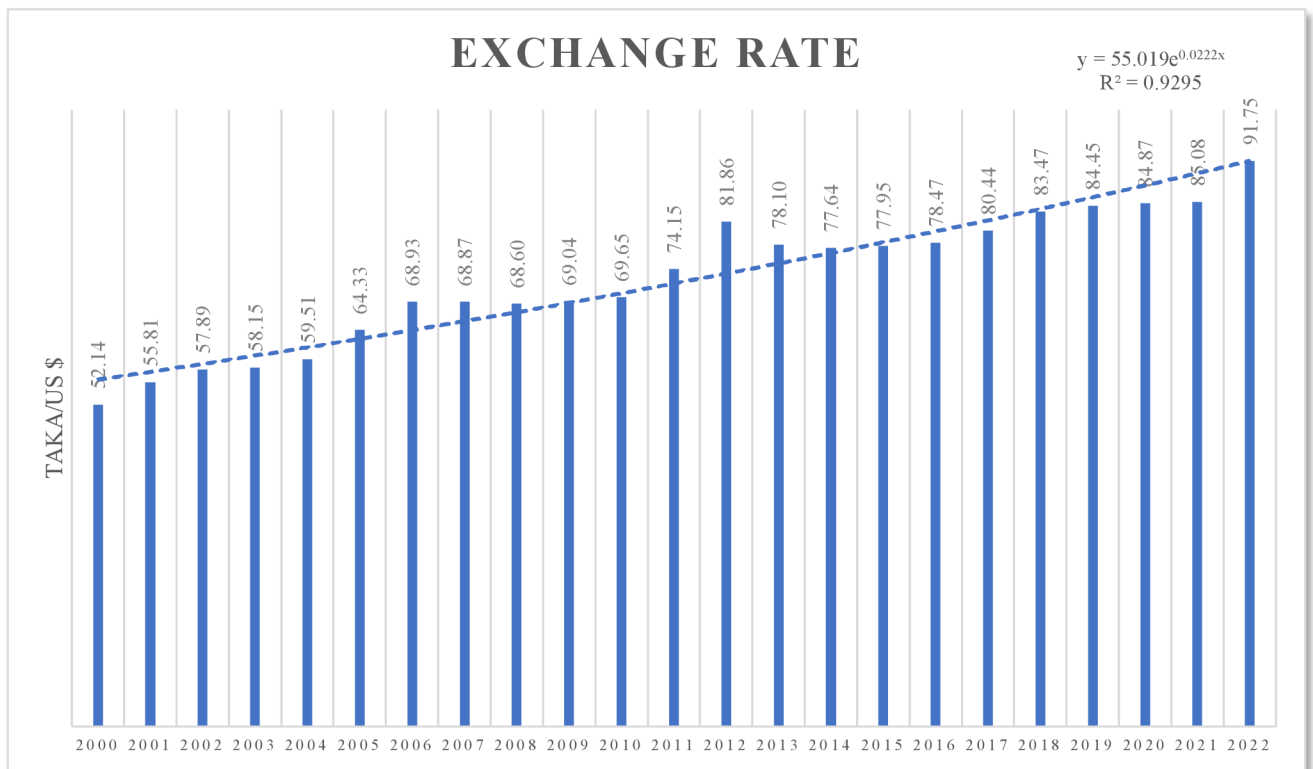**Figure 4. Time series plot of garment exports.**
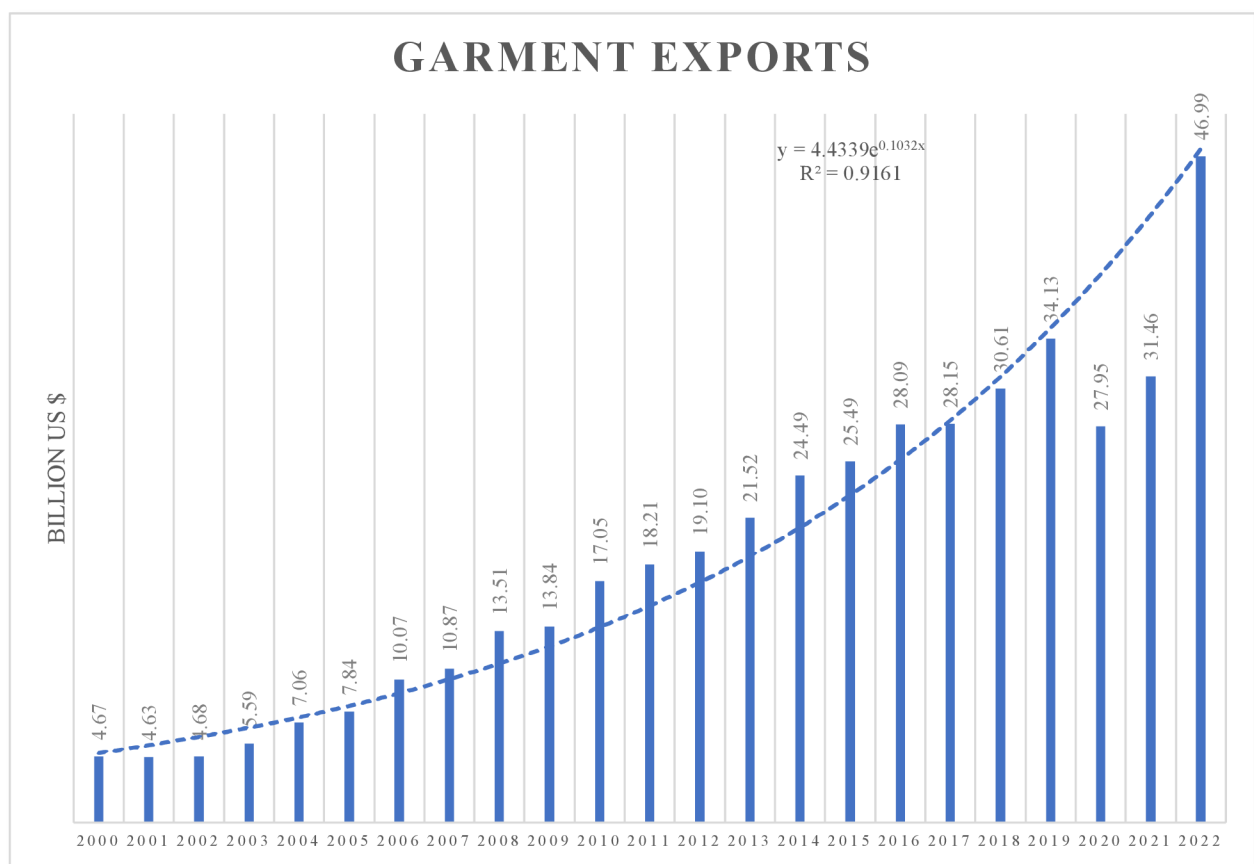
Source: author's processing based on World Bank, 2022; OEC, 2023 and UN Comtrade, 2023

Obviously, the development of the country's garment exports follows a specific deterministic trend that is characterized by a constant augmentation in the value of exports on an annual basis. The pace at which this augmentation was happening indicates that the nature of the development is not linear but an exponential one, which was confirmed by the

trend function. The trend function with the best fit (according to R^2) was the exponential one. According to the fitted trend, the annual increase in the value of garment exports in Bangladesh equals 10 per cent per year, which is an enormous annual increment.

Furthermore, it is pretty apparent as well that the recent dynamic of the garment industry export in Bangladesh is more than satisfying – the country managed to increase the total volume of exports from the industry by more than 1000 per cent by the end of 2022, when comparing it to the base year in 2000. This is an outstanding result. On the other hand, there were major issues encountered by the country during the pandemic, which is pretty logical and it somewhat follows the international trade pattern during the pandemic, when there were significant diminishments in the trade values all around the globe (see **Figure 5**).

Figure 5. Time series plot of exchange rate.

Source: author's processing based on World Bank, 2022; OEC, 2023 and UN Comtrade, 2023

The second variable, as it can become evident, does also have a deterministic trend in its development, which is also of the exponential nature. According to the time series plot of

the exchange rate of Bangladesh's national currency against the US dollar, the current was rapidly depreciating, and the depreciation accounted for 2 per cent per year – 2.2 per cent, to be more specific, according to the estimated trend. This, on one hand, is a bad sign that the country's inflation rate is likely to have risen during the period, but it is a good sign for the country's export potential. With the currency rapidly depreciation, the exporting miracle of Bangladesh's garments could be made possible.

Potentially, this might be one of the leading factors of why the country became so successful in the industry over the course of the last 2 decades, but this is yet to be decided during the linear estimation analysis. Furthermore, it is important to mention that the country's Central Bank is likely to pursue the strategy of not artificially supporting the country's exchange rate since there are seemingly no periods of significant intervention or correction from the Central Bank, which is quite logical, and it fully aligns with the suggested strategy of keeping international competitiveness high (see **Figure 6**).

**Figure 6. Time series plot of inflation rate.**
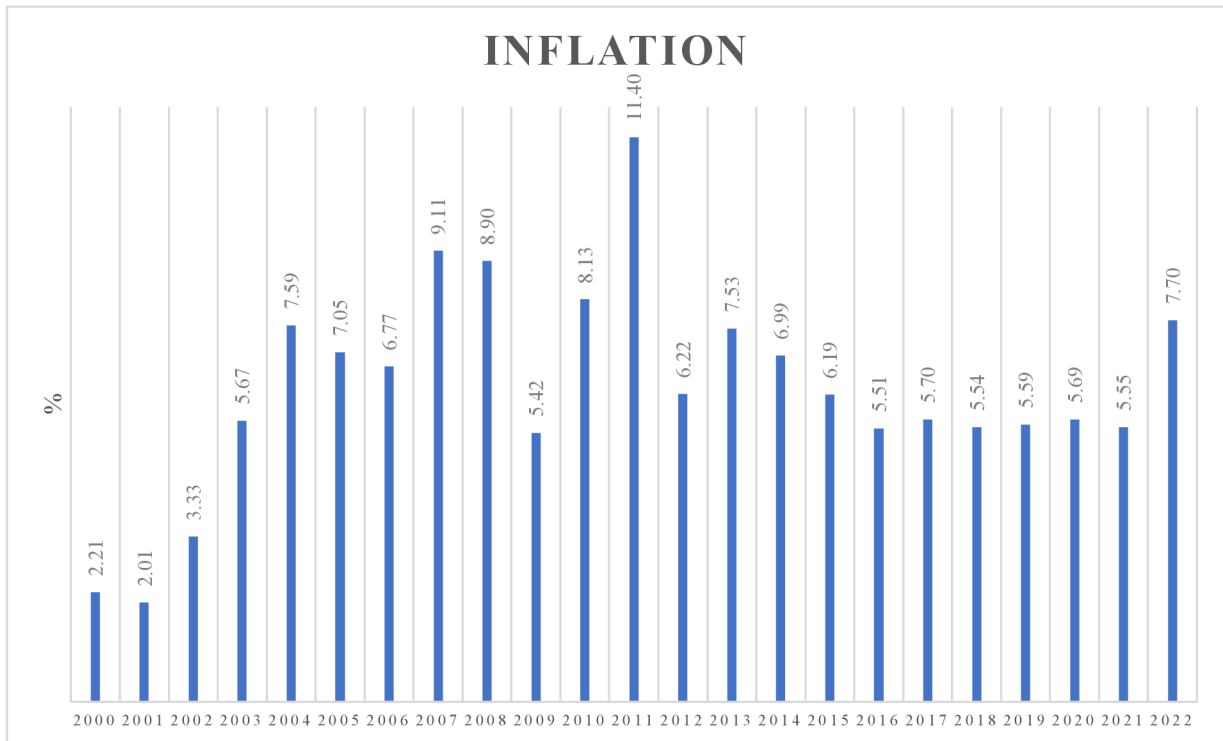
Source: author's processing based on World Bank, 2022; OEC, 2023 and UN Comtrade, 2023

The country's inflation rate, is it was supposed earlier, is rapidly increasing and it is surely not stable. Furthermore, there are no periods of deflation, but this is pretty common in developing countries. Effectively, there is no trend but saying that the indicator is fully static is not fair due to non-constant variance of the inflation rate in Bangladesh. The periods with the highest inflation rate are the period prior to the Great Recession and slightly after the Great Recession, so it can be indicated that the Great Recession significantly worsened the country's price stability, which is a bad sign.

On the other hand, the later periods can be classified as relatively calm and stable ones due to the absence of huge surges in the value of the indicator with the exception of the year 2022, which might itself be a consequence of high uncertainty due to the ongoing military conflict in Ukraine. Overall, the country's inflation rate is a typical example of an inflation rate in a country representing the developing world – fluctuating mainly in the upper border of one-digit numbers and lying on the level of approximately 6-8 per cent (see **Figure 7**).

Figure 7. Time series plot of FDI.
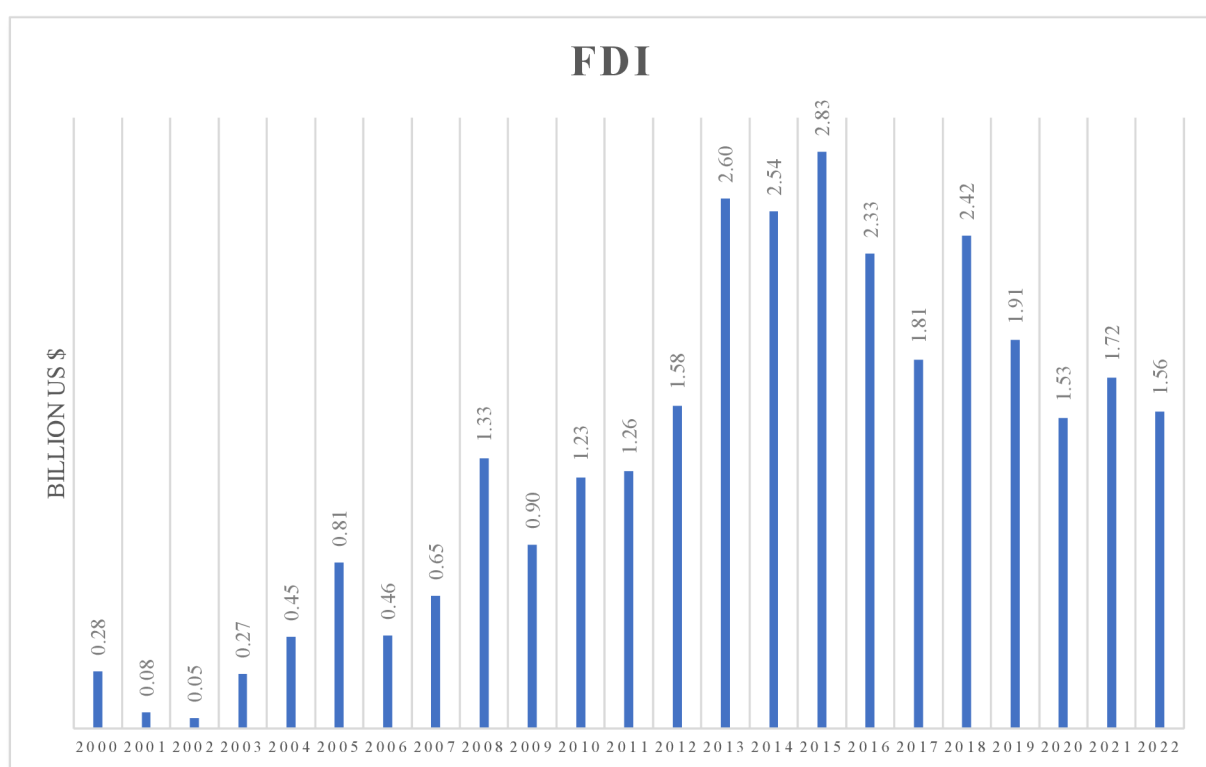
Source: author's processing based on World Bank, 2022; OEC, 2023 and UN Comtrade, 2023

Potentially, there can be a given deterministic trend in the variable of the foreign direct investment in Bangladesh. On the other hand, the latest performance of the indicator, where there was a gradual diminishment in the total value of foreign investment in the country does not allow the author to construct a trend with good statistical properties. On the other hand, apart from the evident diminishment in the value of the indicator, it is still possible to conclude that the country made a huge effort of attracting foreign investors to Bangladesh – the country experienced a vast increase that was constantly continuing until the year 2015, which was followed by a minor decrease.

The mentioned decrease can be a consequence of the fact that the country's price level and economy both were able to catch up with other developing countries, thus resulting in the diminishment of the country's competitiveness. Furthermore, the drop in the value of the FDI in the later period can be explained by the entry of other major players to the garment market and to the manufacturing world such as Vietnam that is also coincidently situated in the same region as Bangladesh.

After addressing the changes that were taking place with every variable, it is important to continue to the descriptive analysis, where the main statistical properties of variables will be discovered, analyzed and presented. Gretl is used for calculations (see **Figure 8**)

Figure 8. The summary statistics of variables.

	Mean	Median	Minimum	Maximum
GarmentExports	18.956	18.214	4.6335	46.990
ExchangeRate	72.659	74.152	52.142	91.745
Inflation	6.3387	6.1943	2.0072	11.395
FDI	1.3309	1.3284	0.052305	2.8312
	Std. Dev.	C.V.	Skewness	Ex. kurtosis
GarmentExports	11.478	0.60553	0.49317	−0.42211
ExchangeRate	10.934	0.15048	−0.26023	−0.96702
Inflation	2.1153	0.33371	−0.012569	0.56439
FDI	0.86074	0.64673	0.11645	−1.1327
	5% perc.	95% perc.	IQ range	Missing obs.
GarmentExports	4.6399	44.418	20.249	0
ExchangeRate	52.875	90.413	17.535	0
Inflation	2.0474	10.938	2.0439	0
FDI	0.057549	2.7855	1.4515	0

Source: author's processing based on World Bank, 2022; OEC, 2023 and UN
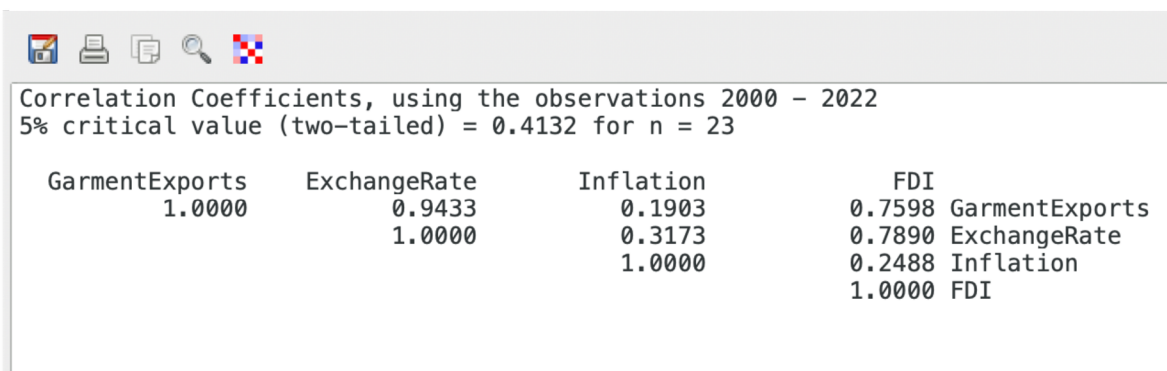Comtrade, 2023

The first variable whose main descriptive indicators are addressed in this paragraph is garment exports. The average for the garment exports is equal to 18.956, which is a good figure but still significantly lower than the current level of exports. The median is almost equal to mean, which can suggest that the distribution is close to being normal. On the other hand, the minimum value of garment exports was equal to 4.63 billion US $, which, obviously, was the case for the earlier years, while the absolute maximum of garment exports was 46.990 billion US $, which was the case for later years. Both the standard deviation and the coefficient of variation indicate that the variable was extremely variable and dynamic during the studied period.

The average level of the exchange rate in Bangladesh to the US $ was 72.659, which is almost equal to the median, potentially indicating a presence of normal distribution. The highest that the current has been valued against the US dollar was at the beginning of the millennium with 52.142 units of domestic currency for 1 US $, while the absolute lowest was during the later periods with 91.745 units of domestic currency per 1 US $. The volatility of the currency is relatively high but not as high as the volatility of the exports – just 15%, when judging the volatility based on the coefficient of variation. This indicates a steep depreciation over time for Bangladesh's domestic currency.

Average inflation for the studied period in Bangladesh was equal to 6.33 per cent, which itself is not an extremely high value but surely enough not a small one either. Yet, the fact that this rapidly changing and transforming country has an inflation rate of just one digit is a good sign indicating that the country's policy makers and government are able to somewhat control the price level and their inflation targeting policy is rather successful. Median is almost identical to inflation, which once again suggests that the distribution is likely to be normal. The inflation rate in Bangladesh was volatile, which comes as no surprise after looking at the coefficient of variation equal to 33.3%.

The average volume of the FDI in Bangladesh over the studied period was equal to 1.33, which itself is not a good value but the fact that it is positive indicates a positive dynamic for the country. The median is somewhat close to this indicator, which is potentially a sign of normal distribution. The lowest level of the FDI in Bangladesh was 0.11 billion US $, which was the case for the earlier years, and the absolute maximum was 2.83 billion US $. The indicator is extremely volatile with volatility well above the level of 50%. The next step after interpreting all main insights about descriptive statistics is the calculation of correlation coefficients between variables (see **Figure 9**).

Figure 9. The multicollinearity check.


```
Correlation Coefficients, using the observations 2000 - 2022
5% critical value (two-tailed) = 0.4132 for n = 23

  GarmentExports   ExchangeRate      Inflation           FDI
        1.0000         0.9433         0.1903        0.7598 GarmentExports
                       1.0000         0.3173        0.7890 ExchangeRate
                                      1.0000        0.2488 Inflation
                                                    1.0000 FDI
```

Source: author's processing based on World Bank, 2022; OEC, 2023 and UN Comtrade, 2023

Luckily for the main course of the analysis, almost all variables are strongly correlated with garment exports, notably the exchange rate and the FDI. On the other hand, inflation is

not significantly correlated with the variable of garment exports, which will obviously result in the absence of significance for the estimated parameter of the variable.

On the other hand, there is not enough evidence to suggest that the dataset suffers from the problem of multicollinearity due to the fact that no correlation coefficient between a given pair of explaining predictors (exchange rate, inflation and FDI) is greater than 0.8. The closest case to multicollinearity is the case of the FDI and exchange rate, but it is still not enough to claim that there is such a problem.

4.3   Estimation

After processing data, constructing models and checking for the multicollinearity, the theses proceeds to the most important part of the diploma thesis – econometric estimation (see **Figure 10**).

Figure 10. The OLS parameters.


```
File  Edit  Tests  Save  Graphs  Analysis  LaTeX

Model 1: OLS, using observations 2000–2022 (T = 23)
Dependent variable: l_GarmentExports

                    coefficient   std. error   t-ratio    p-value
    ---------------------------------------------------------------------
    const           −12.2797      1.42641      −8.609     5.54e−08  ***
    l_ExchangeRate    3.57376     0.329516     10.85      1.40e−09  ***
    l_Inflation      −0.142448    0.0871443    −1.635     0.1186
    l_FDI             0.186292    0.0518197     3.595     0.0019    ***

Mean dependent var    2.727095   S.D. dependent var    0.717218
Sum squared resid     0.332279   S.E. of regression    0.132244
R−squared             0.970639   Adjusted R−squared    0.966002
F(3, 19)            209.3688     P−value(F)            9.91e−15
Log−likelihood       16.09307    Akaike criterion    −24.18614
Schwarz criterion   −19.64416    Hannan−Quinn        −23.04385
rho                   0.150237    Durbin−Watson         1.620398

Log−likelihood for GarmentExports = −46.6301

Excluding the constant, p−value was highest for variable 7 (l_Inflation)
```

Source: author's processing based on World Bank, 2022; OEC, 2023 and UN Comtrade, 2023

After performing the linear estimation, the following model in the log-log form was created:

$$y_t = -12.2797 + 3.57lnx_{1t} - 0.14lnx_{2t} + 0.186lnx_{3t} + \varepsilon_i$$

For obvious reasons, this model has to be reversed back to the exponential form, where the constant will undergo a more complex transformation with the help of exponential function. The following model is the one that will be used for the interpretation of partial slopes of explaining variables:

$$y_t = 4.65E^{-06}x_{1t}^{3.57}\ x_{2t}^{-0.14}\ x_{3t}^{0.186} + \varepsilon_i$$

The interpretation for individual coefficients is:

- When the exchange rate in Bangladesh of one unit of domestic currency to the US \$ depreciates by 1 unit of domestic currency to the US \$, the garment exports increase by 3.57 per cent, ceteris paribus.

- When the inflation rate in Bangladesh increases by 1 percentage point, the exports from the garment industry decrease by 0.14 per cent, ceteris paribus.

- When the FDI in Bangladesh increases by 1 billion US \$, the exports from the garment industry increase by 0.186 per cent.

All signs perfectly make sense and based on the interpretation, the thesis concludes that two relationships are inelastic since the magnitude is lower than 1 – inflation and the FDI, and one relationship is strongly elastic – the exchange rate. After estimating the model, it is essential to proceed to its diagnostics that will be performed in the further chapter.

4.4 Diagnostics

Diagnostics for the linear regression model consists of three steps – mathematical, statistical and econometric. The first step is irrelevant due to the fact that an application was

used to estimate the parameters, so it is a priori expected that the mean of the fitted will be equal to the mean of observed, thus being 2.72 (in log).

Hence, it is essential to continue to the statistical verification, where the first piece of information related to the quality of the estimated model is the coefficient of determination (R^2), which is equal to 0.97 or 97%. This is a very good sign that suggests that there is just 3 per cent of the variation in garment exports that was not explained by the model. On the other hand, the adjusted version of the coefficient suggests that the variation explained is slightly lower – 0.966 or 96.6%, thus resulting in 3.4% of the variation not being explained. Such a high value of the indicator will be addressed slightly later in the section dedicated to the results and discussion as there can be potential issues associated with it.

The model is significant, which comes from the F value equal to 209.36 and the probability associated with it that is lower than the 5 per cent (the selected significant level). Information criteria are irrelevant for this case because they are mainly used for the comparison of different models rather than for their implementation for just one model – but they are negative, which is a sign of a strong model. The DW statistic is close to the value of 2, which might itself be an indicator that there is no problem of serial correlation in the model.

At last, one of the main parts of the estimation is the interpretation of individual significance of variables. In this case, there are 3 out of 4 regressors that are significant at the level of five per cent – constant, exchange rate and the FDI. Those explaining variables' effect on the response variable (the garment exports) can be categorized as significant, so they are influential predictors of Bangladesh's garment exports. On the other hand, the inflation rate is not a significant predictor of the garment exports, which is a somewhat interesting observation to be made.

Finally, the econometric verification involves the implementation of 4 individual tests – Breusch-Godfrey test for autocorrelation, White's test for heteroscedasticity, Jarque-Bera test for normality and the RESET test for the specification (see **Figure 11**).

Figure 11. The verification.

```
White's test for heteroskedasticity –
  Null hypothesis: heteroskedasticity not present
  Test statistic: LM = 5.71879
  with p-value = P(Chi-square(9) > 5.71879) = 0.7677

Test for normality of residual –
  Null hypothesis: error is normally distributed
  Test statistic: Chi-square(2) = 4.4231
  with p-value = 0.109531

LM test for autocorrelation up to order 1 –
  Null hypothesis: no autocorrelation
  Test statistic: LMF = 0.378374
  with p-value = P(F(1, 18) > 0.378374) = 0.546173

RESET test for specification –
  Null hypothesis: specification is adequate
  Test statistic: F(2, 17) = 0.676546
  with p-value = P(F(2, 17) > 0.676546) = 0.52154
```

Source: own processing based on World Bank, 2022; OEC, 2023 and UN Comtrade, 2023

White's test for heteroscedasticity indicates that there is no problem of heteroscedasticity in this model as the null hypothesis about its absence is not rejected. Consequently, the normality test indicates that all variables are normally distributed since the null hypothesis is not rejected once more. This is a direct consequence of employing variables originally having normal distribution. The test of autocorrelation indicates that there is no autocorrelation in the model because the null was not rejected. At last, the RESET test indicates that the specification of the model (double-log) was correct.

Overall, the model that was estimated in the diploma thesis is suitable for generating general reflections and making conclusions about the current state of play with the garment exports in Bangladesh since the model does not suffer from any significant issues related to

its econometric properties, as well as statistical ones. The next chapter proceeds with the detailed elaboration on the results of the empirical part of the diploma thesis.

5 Results and Discussion

First, in order to summarize the findings of the thesis, it is imperative to recall that it was found out that the relationship between 2 out of 3 explaining variables with the response variable of garment exports was categorized as significant – the exchange rate and the FDI are both significant predictors of Bangladesh's garment exports. On the other hand, one predictor does not directly contribute to garment exports, and this is the inflation rate of the country.

Furthermore, magnitudes of the effects that each variable has on the response variable are calculated. The variable having the highest impact on garment exports of the country is the exchange rate, whose relationship with the targeted variable is elastic due to the magnitude of significantly above 1 for the partial slope of the variable. The magnitude of the effect of the FDI is smaller, but it is also positive and significant. On the other hand, the effect of the inflation rate is not positive, and it is not significant. At last, the thesis concludes that there is a very significant relationship between the trade indicators (the BOP indicators) and the performance of the country's key industry being the garment industry.

Additionally, it is crucial to specify that the country is an export-oriented one.This is derived based on the performance of individual macroeconomic variables, notably the exchange rate and the inflation rate. The country's central bank was pursuing the strategy of not artificially holding the exchange rate on a given level and instead of that, they have not put any obstacles for the ongoing depreciation of the currency that directly contributes to the improvement in the value of exports from the key industry.

Surely, suggesting that the value of exports has risen entirely because of the depreciating domestic currency will not be correct – the country managed to host a larger number of international firms, which is visible by looking at the FDI. Also, the country must have almost certainly increased its domestic production of garment without any cooperation with foreign investors as a result of reallocation of profits that the country earned from the garment industry over the course of the last 2 decades.

Overall, the performance of the garment industry in Bangladesh is more than favorable and it is suggested that if the country will manage to properly balance its trade orientation and proper price stability policy, the country can follow in the footsteps of major newly industrialized countries and become a serious competitor to India even despite visible disparities in the sizes of population, land and economies. Bangladesh has a huge potential and as of 2023, it seems that the country properly addresses issues related to the domestic economy and helps people to finally break the circle of poverty by making them richer as a result of this extreme orientation on trade that creates working places and generates profits that are later on reallocated.

Finally, it is important to generate a series of relevant recommendations for future studies and analyses. The most important recommendation concerns the model estimation rather than the economy of Bangladesh. The estimation that was performed in this diploma thesis was performed based on non-stationary data, where literally all variables in the study were non-stationary. On one hand, this is a good sign indicating that all variables are integrated of the same level, i.e., they are stationary in their first differences – both aspects were verified during the additional testing performed by the author.

However, this indicates that the value of the coefficient of determination that is extremely high might itself be an indicator of the presence of the so-called "spurious regression", which is a common case for estimations performed based on non-stationary data. Yet, the main assumption of the model was that there is a cointegration relationship present between the predictors and the predicted variable, so the model that was estimated shows the long-term equilibrium towards which all variables are moving.

However, in case of the presence of this cointegration relationship, another kind of estimation might be more suitable, which is the vector error correction model, where two models will be estimated – the short term (containing first differences) and the long term (the one that was estimated in the thesis). This certainly can be a step forward for the analysis of Bangladesh's garment exports but remains a partial limitation of the study that did not require the implementation of such profound and sophisticated techniques from econometrics. Yet, during further studies and analyses, this can be implemented for the purpose of producing more viable and better estimates that can be interpreted from different

angles and not just from the point of view of the long-term equilibrium, which was exactly the case of the diploma thesis.

6 Conclusion

In conclusion, this diploma thesis has explored the relationship between exchange rates, inflation, foreign direct investment (FDI), and the export performance of Bangladesh's vital garment industry. The findings presented herein contribute to a deeper understanding of the dynamics that underpin the nation's economic development and its status as a burgeoning centre for global garment manufacturing.

The first key finding of this research underscores the significance of exchange rate movements in influencing the export performance of Bangladesh's garment industry. Specifically, when the domestic currency depreciates by 1 unit against the US dollar, garment exports increase by 3.57 percent, all else being equal. This result is consistent with economic theory, which suggests that a weaker domestic currency makes a nation's exports more competitive in international markets. Bangladesh, with its substantial reliance on the garment sector, has evidently benefited from this effect. This finding underscores the importance of exchange rate management and policy decisions for the country's export-oriented industries.

The second critical finding relates to the impact of inflation on garment exports. It was observed that a 1 percentage point increase in the inflation rate in Bangladesh leads to a 0.14 percent decrease in garment exports, holding all other factors constant. This result highlights the adverse effects of inflation on export competitiveness. High inflation rates can erode the purchasing power of consumers and increase production costs, thereby diminishing the competitiveness of Bangladeshi garment products in international markets. It underscores the importance of maintaining price stability to support the growth of the garment industry.

The third important finding pertains to the role of foreign direct investment (FDI) in influencing garment exports in Bangladesh. When FDI in the country increases by 1 billion US $, garment exports experience a 0.186 percent increase, ceteris paribus. This result underscores the positive relationship between FDI inflows and export growth, indicating that foreign investment plays a crucial role in expanding the capacity and competitiveness of Bangladesh's garment industry. It suggests that the government and policymakers should continue to attract FDI to foster the sector's growth and global reach.

Furthermore, this research offers insights into the economic performance of Bangladesh's government, particularly in terms of price stability. It is evident that the inflation rate in the country has remained relatively low and stable over time, with seldom instances of reaching double-digit figures. This is a commendable achievement, as inflation stability is a vital factor in fostering economic growth and investment. The government's efforts in this regard have contributed to the overall economic stability of the nation.

Lastly, this study highlights the rapid development of Bangladesh's economy and its potential to become one of the world's largest centres for garment manufacturing and manufacturing as a whole. The nation's vast population represents a valuable resource for the labour-intensive garment industry. Additionally, its strategic geographical location and proximity to major markets make it an attractive destination for global manufacturers. These factors, combined with a conducive policy environment and a skilled workforce, position Bangladesh on a trajectory toward becoming a major hub for manufacturing activities.

The findings of this research have important implications for policymakers, industry stakeholders, and academics. To maximize the benefits of exchange rate movements, policymakers should consider implementing measures that promote exchange rate stability while simultaneously ensuring the competitiveness of exports. This might involve adopting a managed exchange rate regime to avoid excessive depreciation or appreciation.

In terms of inflation management, it is crucial for the government to continue its efforts to maintain price stability. This includes prudent fiscal and monetary policies, as well as efforts to curb inflationary pressures, such as supply-side constraints and imported inflation. Ensuring price stability will not only support the garment industry but also foster a conducive environment for other sectors of the economy.

Moreover, the positive relationship between FDI and garment exports underscores the importance of attracting foreign investment. Policymakers should prioritize creating an investor-friendly climate by improving infrastructure, streamlining bureaucratic processes, and offering incentives to attract more FDI into the country. Investments in technology and skill development are also essential to enhance the competitiveness of the industry.

In conclusion, Bangladesh's garment industry is a vital pillar of its economy, and the findings of this thesis shed light on the factors that influence its export performance. Exchange rates, inflation rates, and FDI all play crucial roles in shaping the industry's trajectory. The government's role in maintaining price stability and fostering an enabling environment for economic development cannot be overstated. As Bangladesh continues its journey toward becoming a global manufacturing powerhouse, policymakers and industry leaders must remain vigilant and proactive in addressing the challenges and opportunities that lie ahead.

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8 List of Supplements

8.1 List of Figures

8.2 List of Tables

8.3 List of Abbreviations

- **OLS**   *Ordinary Least Squares*
- **US**   *United States of America*
- **FDI**   *Foreign Direct Investment*
- **BDT**   *Bangladeshi Taka*
- **UN**   *United Nations*
- **BOP**   *Balance of Payments*
- **CPI**   *Consumer Price Index*
- **IMF**   *International Monetary Fund*