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The Success of Export and Its Impact on GDP of Bangladesh

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Abstract: Bangladesh, economy has changed a lot in 30 years. On an average, Its GDP is growing by 7% a year with a booming garment industry, which now ranks second, in exports. In this paper, we applied geometric method to calculate the different growth rates whereas for the one-year growth rate (year-to-year) arithmetic method is used. It is found that the export grew at the rate of 15.99% over the last 26 years from the fiscal years 1990 to 2016. Over the last 26 years, the ratio of export to GDP has increased to 3.95% per year on an average. The total export has increased to 47 times in fiscal 2016 compare to 1990. The export was 4.99% of the GDP in 1990 (at current market price) whereas in 2016 it stood to 13.67% of GDP This boost expand of export is mainly driven by the rich and constant growth of the readymade Garments, RMG (including Knit Wear & Hosiery) sector which grew at the rate of 18.56% per year. RMG contributes almost 69% (excluding EPZ) of the total export in the year 2016 whereas it was 38.95% of the total export in 1990. The Tea grew negatively at the rate of -7.57%. Although the growths of Jute; Fish & Shrimp; and Leather were positive which were 6.411%, 6.81%, and 5.36% respectively but the shares of all the products along with Tea to the total export have fallen drastically over the last 26 years. The policy makers should find out the reason behind this and continue to search for new markets.

Keywords: Export, GDP, RMG, Growth Rate

1. Introduction

An export is the shipping of domestic goods or services to a foreign country. Export is a key element in a country's trade balance as the sale of exported goods increases a nation's gross output that is GDP (gross domestic products). Furthermore, the more products a country exports, the greater the competitive advantage as it gains expertise in producing goods and services that foreign countries want to use. On the other hand, exports increase a nation's foreign exchange reserves which allowing the central bank to defend the domestic currency and stabilize its value while lowering the cost of exports to foreign countries..

Export has a huge impact on the economy of a Nation like a developing country, Bangladesh whose huge percent of yearly Budget depends on Export that is, the foreign currencies. Bangladesh's export performance so far presents signs of strength in its export basket [17].

The economy Bangladesh has changed drastically in last 30 years. The economy of Bangladesh is largely driven by its exports of ready-made garments (RMG), remittances and the domestic agricultural sector. Ready-made garments (RMG) industry that now ranks second in export in the world. Within a very short period, it has become the largest export earner of the country through a major positive forward thrust in the early 90s [20]. Bangladesh is expected to come out of the least developed country (LDC) bracket and achieve the status of a mid-income country within the next seven years for making significant progress in some key areas. To take this challenge, faster and sustainable growth rate of export can play a vital role in the coming year. Bangladesh earned US $ 30.3 billion from exports in the fiscal year 2015-2016 which was almost 17.34% of GDP [1]. The readymade garments (Clothing, textiles, Knitwear) comprise about 89% of export whereas the major items are footwear and fish (mainly shrimp). The main destinations of export are USA, UK, Germany and European Union (EU). To make Bangladesh poverty free, it is very important to keep sustainable grown in the economy where export can play a vital role. This is for it necessary to analyze the trend of export over the years from different prospects. It is examined

[21] the relationship between the export and growth and showed that when a country has achieved some level of economic development than the exports have a positive and significant impact on economic growth. In the paper we will analyze the export of Bangladesh from the fiscal 1990 (1 July 1989 to 30 June 1990) to 2016 (1 July 2015 to 30 June 2016).

Back Ground

Export of Bangladesh is calculated with the help of FOB basis, which is one of the renowned trade terms in the world. Free on board (FOB) is a trade term that indicates whether the seller or the buyer has liability for goods that are damaged or destroyed during shipment between the two parties. Bangladesh is the largest exporter of clothing in the world after China. The garment industry is the backbone of the development of the country. Bangladesh has the lowest labor-cost in the region, which contributes to the competitive position of Bangladesh to attract clothing brands. The lucrative performance of export trade has been singlehandedly driven by the RMG sector, which has easily proved by its share in total exports rising from virtually nothing in 1980 to 81.13 percent in 2013 [19].

Main items of export of Bangladesh are Raw jute, Tea, Frozen food (Fish, shrimps, prawns etc.), Agricultural products, Jute products, Leather, Petroleum by products, Woven garments Knit wear, Chemical products (Pharmaceutical products), Footwear, Handicrafts, Engineering products, Ceramic products, and others (Bicycle, Terry towel, home textiles, etc.). The growth of knit garments export was facilitated by the remarkable free market access of EU during the period 1996-2005 resulted in the highest export share of RMG from Bangladesh [18]. The destination of the export products are counties like United States, Germany, United Kingdom, France, Spain, Italy, Canada, Belgium, China, and Japan. But other countries with large population can be a good market for Bangladesh such as Australia, Brazil, Chile, China, India, South Korea, Mexico, Russia, South Africa and Turkey are looking to be the more promising markets, followed by Malaysia, New Zealand, Norway, Saudi Arabia, and Thailand [15]. To increase the inflow of foreign investment and to achieve rapid economic growth of the country, particularly through industrialization, special steps have been taken by the Government of Bangladesh since 1980 by setting up Export processing Zones (EPZ) in the country. EPZ also is playing an important role to uplift the export of Bangladesh.

2. Methodology

In our analysis, mainly we will focus the growth rates. There are many methods to calculate the growth rates. The following two methods will be used to calculate the grow rates. The arithmetic growth rate will be used for the year-to-year or annual (one year) growth rate and the for the overall or average growth over the years the geometric growth rates will be used.

Arithmetic growth rates:

For the growth rate of one year arithmetic method will be used due to the simplistic assumptions (OCED, 1997). The percent change of growth rate from one year to another year is calculated from the formula:

$$r_t = \frac{(Y_t - Y_{t-1})}{Y_{t-1}} \times 100$$

Where:

r_t = The growth rate in year t
Y_t = Represent the value in year t
Y_{t-1} = Previous year value

Geometric growth rates:

Geometric growth rate is widely used for indicators on economic phenomena, such as GDP or trade (Kakwani, 1997 & Mawson, P, 2002). For all international trade time series, the geometric growth rates are used (World Bank, 2015). Geometric growth rates are used for all indicators in all statistical publications and the online statistical database (ESCAP, 2015). The geometric growth rate represents compound growth over discrete periods, where the changes between two periods differ by a constant ratio. The formula to measure the average growth rate of the values say $Y_0, Y_1, \ldots \ldots Y_n$ over the period of n is:

$$r = \left(\frac{Y_n}{Y_0}\right)^{\frac{1}{n}} - 1$$

Where:

r = The growth rate over the year n
Y_n = Represent the value at end year n
Y_0 = The beginning year value
n = The number of periods between the beginning period and the end period (that is n-0=n)

To get the percentage growth rate then it will be multiplied by 100. It is noted that for 1-period interval geometric and arithmetic growth rates are equal, as the arithmetic and geometric formulae become equal.

The geometric growth rate formula is derived from the compound growth formula of

$$Y_n = Y_0(1 + r)^n$$

If the starting year and ending year is considered as Y_1 and Y_n respectively, the geometric growth rate for the values $Y_1, Y_2, \ldots \ldots Y_n$ over the period of (n-1) will be

$$r = \left(\frac{Y_n}{Y_1}\right)^{\frac{1}{n-1}} - 1$$

n -1= The number of periods between the beginning period and the end period (that is n-1)

Like the arithmetic growth rate, the geometric growth also considers only the first and last observation of the time series, and not the intermediate values.

Geometric growth rate is widely used for indicators on economic phenomena, such as GDP or trade [4], [5] and [7].

3. Results

Export of Bangladesh

Growth rates have been calculated based by using the method of geometric model for the changes of overall export as well as for the different major components of export such as Readymade Garments (including Knit Wear & Hosiery); Raw Jute and Jute goods; Fish & Shrimp; Leather (Hides, Skins & Leather products); tea; and export from the export processing zone (EPZ). The export of Bangladesh (at current market price) has been analyzed from the year 1989-90 (1 July 1989 to 30 June 1990) to 2015-16 (1 July 2015 to 30 June 2016) that is, from the fiscal year 1990 to 2016 at the current market price. First of all, the contribution of export in the gross domestic products (GDP) is analyzed in the following.

3.1. Export and GDP

On an average export grew at the rate of 15.99% over the last 26 years from the fiscal year 1990 to 2016 (at current market price). In the year 1990, the amount of total export was 5004 crore taka whereas in the year 2016, total amount of export has reached to 236802 crore taka which 47 times compare to year 1990. It is also noticed that the yearly growth (year to year) of export over the last 26 years was not steady which is shown in figure 1.

Figure 1. Year to year growth of the export of Bangladesh.

It is observed (Figure 1) that the export has grown positively year to year except the year 2002 when it has experienced a decline of 4.58% for the year 2001.

Due to the sharp grow of export over the last 27 years; the ratio of export over the GDP of Bangladesh has also been changed significantly, which is depicted in figure 2.

Figure 2. The ratio of export (in%) to GDP of Bangladesh.

On an average, the ration of export to GDP has increased to 3.95% over the last 26 year. In 1990, export was 4.99% of the GDP (at current market price) whereas in 2016 it stood to 13.67% of GDP, which is more than double.

3.2. Trend of Share in Export

RMG:

Readymade Garments, RMG (including Knit Wear & Hosiery), grew on an average 18.56% over the last 26 years, (from 1990-2016). This tremendous growth of RMG plays a significant role to pick up the export of Bangladesh, which is visible in figure 3.
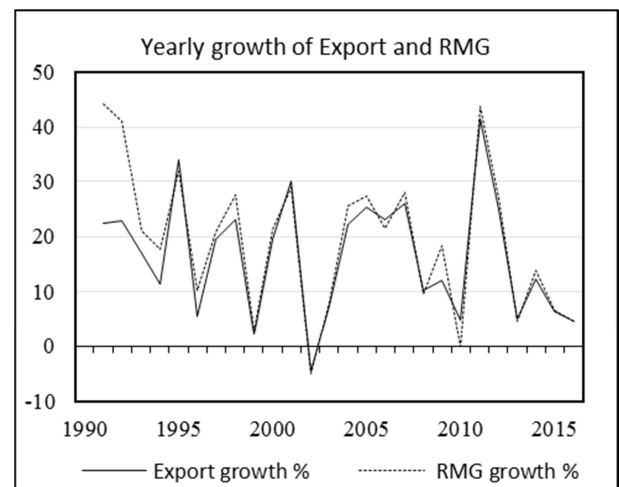
Figure 3. Year to year growth rates of RMG and export (in%) of Bangladesh.

It is clear (Figure 3) that the pace of growth of export per year almost same as the RMG. So it can be said that the growth rate of RMG leading the growth of export over the years 1990 to 2016. On the other hand, RMG contributes almost 69% (excluding EPZ) of the total export in the year 2016, which was only 39% in 1990. From the years 1990 to 2016, the share of RMG to the export has increased constantly, which is shown in figure 4.
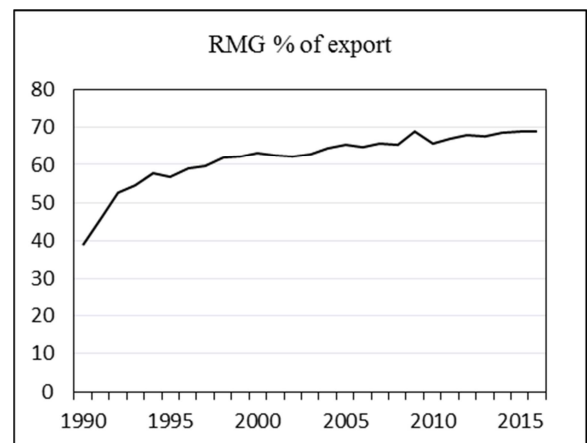
Figure 4. The share of RMG to the export (in%) of Bangladesh for the year

1990 to 2016.

Average share of RMG to the export was 62% over the fiscal years 1990 to 2016. The share of RMG to the export has increased 1.4% per year over the period of last 26 years which was possible due to the tremendous growth of export during the same period of time.

Share of Other Items in Export

The growth trends and the contributions to export of other major items such as Jute (Raw and Jute goods); Fish & Shrimp; Leather (Hides, Skins & Leather products); Tea; and also the products which are exported from the export processing zone (EPZ) are summarized in table 1.

Table 1. *Rates of growth and share over the year 1990 to 2016 in export of Bangladesh.*

Export Items (1990-2016)	Average yearly growth (%)	Share in Export (%) in 1990	Share in Export (%) in 2016	Average growth of Share in Export (%)
RMG	18.56	38.95	68.88	2.22
Jute	6.41	27.66	2.94	-8.26
Fish & Shrimp	6.81	10.83	1.27	-7.92
Leather	5.36	10.97	0.90	-9.17
Tea	-7.57	2.32	0.006	-20.31
Export from EPZ	25.71	2.22	17.98	8.38

From table 1, it is noticed that the average yearly growths of Jute; Fish & Shrimp; Leather; and Tea are far below from the yearly growth of overall export which is 15.99% whereas the growth rates of RMG and EPZ are above the overall growth rate of export. Over the years 1990 to 2016, export from the EPZ has grown on an average 25.71% per year and thus, the share of EPZ in the total export is increased to 17.98% in the fiscal year 2016, whereas it share was only 2.22% in 1990 of the total export.

AS the growths of Jute; Fish & Shrimp; Leather; and Tea are not able to keep pace with the growths of RMG and EPZ, the shares of these products have been fallen drastically over the last 26 years, which are more illustrated in figure 5.
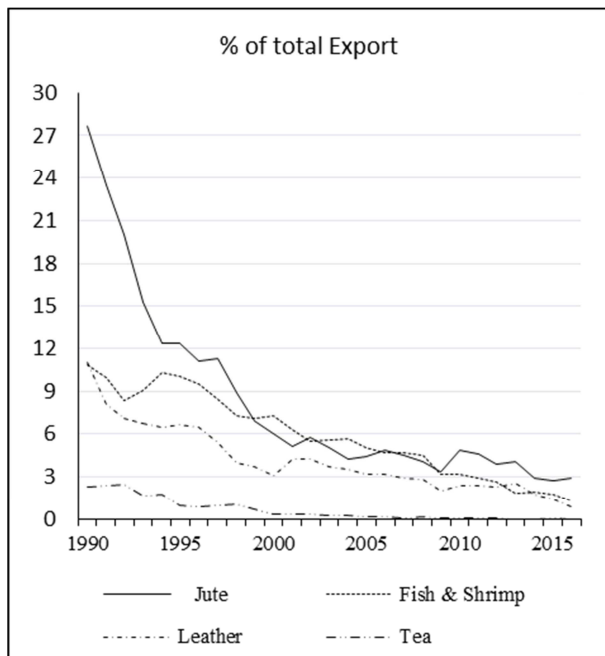
Figure 5. *Share of Jute; Fish & Shrimp; Leather; and Tea to the export (in%) of Bangladesh for the year 1990 to 2016.*

From the figure 5, it is clearly understandable that the contributions of Jute; Fish & Shrimp; Leather; and Tea to the total export (in%) of Bangladesh have been decreasing constantly almost every year which should be taken seriously

to keep the growth rate of overall export in the coming year.

4. Conclusion

The growth rate of export over the last 26 years from the fiscal year 1990 to 2016 was 15.99%, which plays an important role to expand the GDP of Bangladesh and contributes to reduce the poverty level. The total export has increased to 47 times in fiscal 2016 in terms of the fiscal year 1990. In 1990, export was 4.99% of the GDP (at current market price) whereas in 2016 it stood to 13.67% of GDP. On an average, the ratio has increased to 3.95%. over the last 26 years.

The rich and constant growth (18.56%) of the readymade Garments, RMG (including Knit Wear & Hosiery) sector helps to the boost expand of export. RMG contributes almost 69% (excluding EPZ) of the total export in the year 2016 whereas it was 38.95% of the total export. Export from the export processing zone (EPZ) has also been increased tremendously, which was 25.71% per year over the years 1990 to 2016 and thus the share of EPZ in the total export is increased to 17.98% in the fiscal year 2016, compare to only 2.22% in 1990.

The growths of Jute; Fish & Shrimp; Leather; and Tea are far below from the yearly growth of overall export (15.99%), whereas the growth rates of RMG and EPZ are above the overall growth rate of export. Although the growths of Jute; Fish & Shrimp; and Leather were positive but the shares of all the products to the total export have fallen considerably over the last 26 years which should be taken seriously to keep the growth rate of overall export in the coming year. It is also important to notify that the share of RMG to the export has increased to only 2.22% over the last 26 years although RMG itself contributes almost 69% (excluding EPZ) of total export, which indicates that the share of RMG to export has reached to its ceiling.

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