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Intensive Analyses of the Growth Rates and the Trends of Import and Its Impact to the Total Economy of Bangladesh

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Abstract

As a developing country, Bangladesh needs to import lots of foreign goods and materials to keep pace of economic development as well as to meet its necessary demand. It found that the overall import of Bangladesh has been grown at the annual rate of 14.8% over the last 22 year from the fiscal year 1994 to 2016. It is also observed that the year to year growth rate that is one year growth rate of import is not stable The highest rate of growth was in fiscal year 2011 compare to year 2010 which was 46.14% and the second highest growth was in the fiscal year 1995 which was 39.9%; whereas in the fiscal years 2002 and 2013 the growth rates were negative which were -2.62% and -3.07% respectively. It is observed that the growth rates of import items, which are below the overall growth rate of import, have experienced negative growths to share to the total import. It is also observed that in most cases when the growth rate (year to year) of import increase the growth rates of GDP also increase or vice versa. So it can be said that import play a very important role to pick up the GDP and as a whole the overall economy of the country which is very significant for the economic prosperous of a county.

Keywords: *Import, GDP, Export, Economy, Growth*

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I. INTRODUCTION

Import is a process that involves bringing goods and services into one country from another. Nations are most likely to import goods and raw materials, which they cannot produce efficiently and cheaply or might be unavailable in the domestic market. Along with export, import is a crucial component of international trade. There is a common assumption that imports may hinder the economic development of a country, but in reality that might not be the case. The best way of making an economy efficient is to export its excess goods and import the products it has deficiency of which suggests that importing is as much important as exporting in order to build an effective economic system. Bangladesh, as a developing country is no different in terms of meeting its demands through foreign goods, which has been portrayed in this analysis through different aspects of economy over the years.

As a developing country, Bangladesh needs to import lots of foreign goods and materials to keep pace of economic development as well as to meet its necessary demands. Looking into the statistics,it is clear that the import of Bangladesh reached the peak of $38.3 billion in 2015, making it the 54th largest importer in the world whereas in 1995, the amount was about $4.58 billion. This significant growth of import over the last 20 years (more than 8 times) is reflected in the GDP of Bangladesh. From 2000, the economy has been growing at 6 percent on average every year and makes the 28th largest economy in 2016. Furthermore, in 1995, the import and export were respectively 17.3%and 10.9% of total GDP, whereas in 2015, both of the percentages increased to about 24.7% and 17.3% respectively. This change indicates the increased growth of export and import is leading to an eventual growth in GDP. Bangladesh mainly import the items as food grains like Rice and Wheat; other food items like Milk & Dairy Products, Spice, Oil seeds, Edible oil, Pulses (all sorts), Sugar; and other commodities like Clinker, Crude Petroleum, Petroleum Products, Chemicals, Pharmaceutical Products, Fertilizers, Dyeing & Tanning Materials, Plastic & Rubber articles thereof, Cotton Yarn, Textile & articles thereof, Staple fibers, Iron & Steel; and

Capital machinery

In this paper, the import of Bangladesh will be analyzed from different prospects and the growth rates of different import items will be compared over the last 22 years from the fiscal year 1994 to 2016

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and the contribution of import to the growth in the overall economy.

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 rate over the years the least-squares regression (log-linear) growth rates will be applied.

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

Least squares Regression (log-linear) growth rates:

The regression method takes into consideration to all data points in the series; thus, it is the least likely to be biased by a randomly high or low beginning or ending year (The Treasury, 2002). It is also known as log-linear least squares regression method as the time trend equation is obtained through a logarithmic transformation of the compound growth equation:

$$Y_t = Y_0(1+r)^t$$

Where Y_0 is the value of the variable Y at time 0 (beginning year); Y_t is the value of the variable at time t and t is the time taking values 0.1, 2, ….n; and r is average growth rate over the n-period time series. Taking natural logs on the both sides Letting $\alpha = \ln Y_0$ and $\beta = \ln(1+r)$, and adding a disturbance term ε, the equation becomes

$$\ln Y_t = \alpha + \beta t + \varepsilon$$

Then by the Ordinary Least Squares (OLS) method, we obtain an estimate of the slope coefficient $\hat{\beta}$ and thus the compound rate of growth by regression method is obtained as follows:

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$r = e^{\hat{\beta}} - 1$

Or, $r = \exp(\hat{\beta}) - 1$

To get the percentage growth rate then it will be multiplied by 100.

The least-squares growth rate can be used for any type of indicators as it does not assume any pattern of growth (Kakwani, 1997; Mawson, 2002; OCED, 1997 and The World Bank, 2015).

RESULTS

Analysis the Import of Bangladesh:

The import of Bangladesh has been analyzed from the year 1993-94 (1 July 1993 to 30 June 1994) to 2015-16 (1 July 2015 to 30 June 2016) that is from the fiscal year 1994 to 2016. By using the least square regression method, it found that the overall import of Bangladesh has been grown at the annual rate of 14.8% over the last 22 year from the fiscal year 1994 to 2016.

To know the growth rate more details, it is necessary to analyze the growth rate of the overall import from year to year. The annual growth rates that is the growth in the current year compare to the previous year of import is shown in Fig.1.

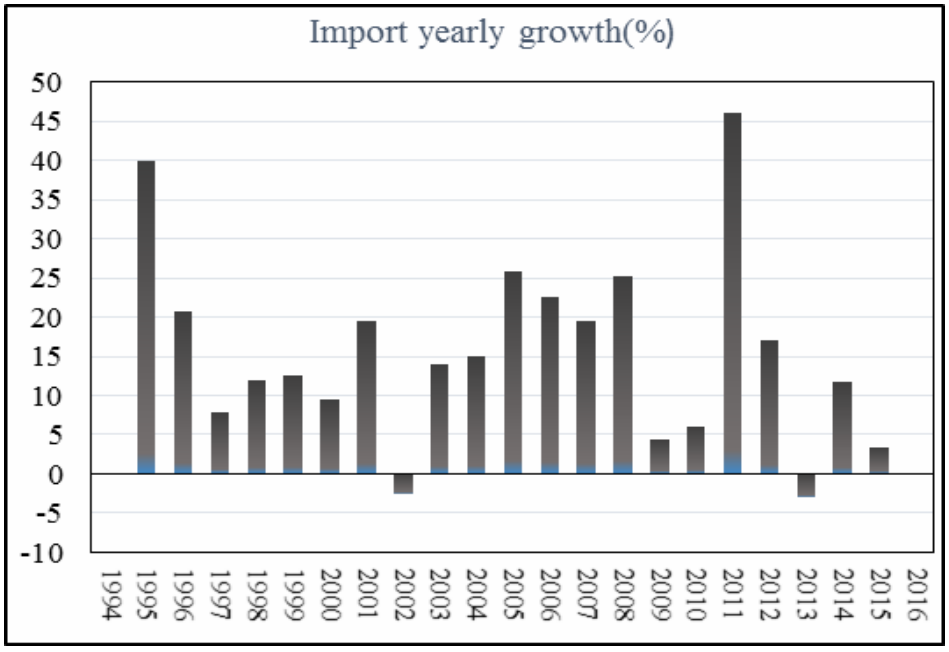

Fig.1: Yearly growth rate of total import for the fiscal year 1994 to 2016.

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From the above fig.1, it is visible that the year to year that is one-year growth rate of import is not stable. The highest rate of growth was in fiscal year 2011 compare to year 2010 which was 46.14% and the second highest growth was in the fiscal year 1995 which was 39.9%; whereas in the fiscal years2002 and 2013 the growth rates were negative which were -2.62% and -3.07% respectively.

Import and GDP

Import plays an import role to raise the overall production, which is known as the gross domestic product (GDP) of a country. This is for it is important to compare the growth rates of import to the grow rates of GDP. In this case the GDP at Current Market Price is considered. In the Fiscal year 1994, the import was 12.4% of the total GDP whereas in the fiscal year 2016, the import rose to 18.1% of GDP. From the time series data, it is found that the share of import to GDP rose on an average at the rate of 2% per year during the fiscal years 1994 to 2016. Let us compare the annual growth rates of total import to the growth rates share of import to GDP for the fiscal years 1994 to 2016 which is shown in fig.2.It has to be mentioned that the growth rates share of import to GDP is calculated from the yearly share of import to the GDP at current market price

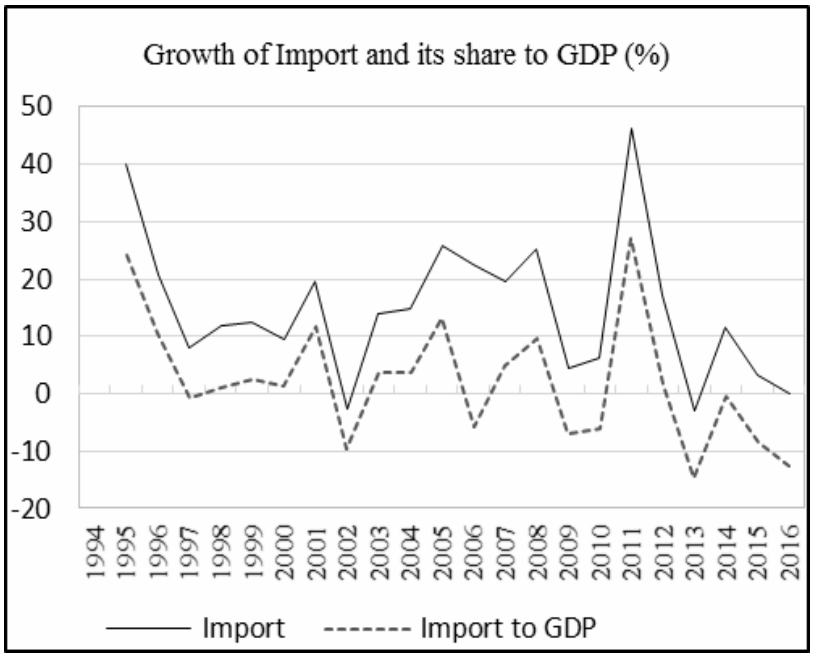

Fig.2: Yearly growth rate of import and its share to GDP for the fiscal year 1994 to 2016

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From the fig.2, it is clearly evident that the annual growth rate of import's shareto GDP is followed by the annual growth rate of overall import which means as the growth of import increase its contribution to the GDP also increase or vice versa. Letus analyze the import in terms of the yearly growth rates of GDP which can be visualized in fig.3 as follows.

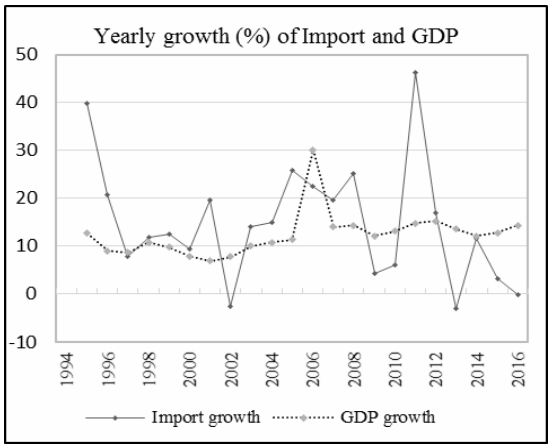

Fig.3: Yearly growth rate of import and GDP for the fiscal year 1994 to 2016.

From the fig.3, it is observed that most of the years the growth rate of import is higher than the growth rate of GDP. It is also important to notice that in most cases when the growth rates of import increase the growth rates of GDP also increase or vice versa.

So it can be said that import plays a very important role to pick up the GDP and as a whole the overall economy of the country which is very significant for the economic prosperous of a county.

Growth rates of different items

Let us summarize the growth rates of items of the import of Bangladesh for the fiscal year 1994 to 2016. The grow rates are calculated by using the least square regression method over the last 22 years from the fiscal year 1990 to 2016.

Although the shares to the total import for the different commodities are shown for the fiscal year 1994 (FY1994) and fiscal year 2016 (FY2016) only, the growth rates of share to import are calculated by considering the shares to import over the last 22 years. The summary of the analysis is shown in the **table-1** below:

From the table I, it is observed that the growth rates of items which are below the overall growth rate of import (14.76%) have experienced negative growth to share to the total import as for example Rice (-5.31%); Milk & Dairy Products (-1.38%); Oil seeds (-2.17%); Crude Petroleum (-0.65%); Pharmaceutical Products (-0.26%); Yarn (-0.22%); Textile and articles thereof (-3.43%); and Others (-2.95%). The highest growth was achieved by Sugar (28,9%) followed by Clinker (23.6%); Cotton (20.87%); Petroleum

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Products (20.13%); Staple fibers (18.5%); Capital machinery (18.48%); Iron & Steel (17.85%) and import from EPZ (17.45%) over the fiscal year 1994 to 2016

Table: 1Summary of the Import items over the fiscal year 1994 t0 2016

Import Items	Growth (%)	Share to Import 1994 (%)	Share to Import 2016 (%)	Growth to Share (%)
1. Rice	8.67	0.239	0.28	-5.31
2. Wheat	15.12	3.37	2.29	0.314
3. Milk & Dairy Products	13.18	0.883	0.56	-1.38
4. Spices	18.67	0.525	0.509	3.41
5. Oil seeds	12.28	0.954	1.301	-2.17
6. Edible oil	16.58	2.79	3.32	1.59
7. Pulses (all sorts)	19.55	0.67	1.16	4.17
8. Sugar	28.29	0.310	1.65	11.79
9. Clinker	23.60	0.262	1.105	7.70
10. Crude Petroleum	14.02	2.79	0.951	-0.65
11. Petroleum Products	20.23	4.01	5.68	4.77
12. Chemicals	16.13	3.44	4.21	1.20
13. Pharmaceutical Products	14.46	0.36	0.299	-0.26
14. Fertilizers	18.64	3.22	2.60	3.38
15. Dyeing & Tanning Materials	17.22	0.86	1.361	2.14
16. Plastic and Rubber articles there of	17.53	2.69	4.54	2.41
17. Cotton	20.87	1.72	5.37	5.32
18. Yarn	14.51	4.01	4.11	-0.22
19. Textile and articles thereof	10.82	20.06	10.29	-3.43
20. Staple fibres	18.50	0.74	1.50	3.26
21. Iron & Steel	17.85	3.10	6.99	2.69
22. Capital machinery	18.48	3.10	7.62	3.24
23. Import for EPZ	17.45	2.89	7.78	2.34
25. Others	11.37	37.05	24.6	-2.95
Total Import	14.76	100	100	

CONCLUSION

The analyses which are done above can be summarized in the table II.

Table: 2 Summary of the analyses of import for the fiscal year 1994 to 2016

	Growth (%)	Share to Import growth (%)
Import	14.8	-
Import share to GDP	1.99	-
Food grains (rice & wheat)	11.8	-2.56
Food items (others than food grains)	17.4	2.32
All Food items (food grains and food items)(	15.3	0.483
Commodities (others than food grains and food items)	14.7	-0.046

From table II it is noted that Food items (others than food grains) include Milk & Dairy Products; Spices; Oil seeds; Edible oil; Pulses (all sorts); and Sugar. It found that the overall import of Bangladesh has been grown at the annual rate of 14.8% over the last 22 year from the fiscal year 1994 to 2016.It is also analyzed that the year to year that is one year growth rate of import is not stable The highest rate of growth was in fiscal year 2011 compare to year 2010 which was 46.14% and the second highest growth was in the fiscal year 1995 which was 39.9%; whereas in the fiscal years 2002 and 2013 the growth rates were negative which were -2.62% and -3.07% respectively. It is also observed from the table II that the annual growth rate of all Food items was 15.3% of which 11.8% was for Food grains (rice & wheat); and 17.4% was for Food items (others than food grains). It is also found that the share of food items increase by

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1.48 % whereas the share of commodities has slightly deceased to 0.05% during the last 22 years.

In the Fiscal year 1994 the import was 12.4% of the total GDP whereas in the fiscal year 2016 the total share of import to GDP rose to 18.1%. From the time series data it is found that the share of import to GDP rose on an average at the rate of 2% per year during the last 22 years for the fiscal years 1994 to 2016. It is observed that the growth rates of items, which are below the overall growth rate of import (14.76%), have experienced negative growth to share to the total import.

Moreover, it is observed that in most cases when the yearly growth rate (year to year) of import increase the growth rates of GDP also increase or vice versa. So it can be said that import play a very important role to pick up the GDP and as a whole the overall economy of the country which is very significant for the economic prosperous of a county.

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