

Does Foreign Trade Affect Inflation in Bangladesh? An Econometric Exercise

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Abstract

Nowadays, inflation is a burning issue in Bangladesh. The purpose of this article is to analyze whether exports and imports affect inflation and whether current inflation is influenced by the previous year's exports and imports. Utilizing annual time series data from 1986 to 2020, the study applies the augmented Dickey-Fuller (ADF) test, the Phillips-Perron (PP) test, Johansen's cointegration test, the ordinary least squares (OLS) method, the fully modified OLS (FMOLS) method, and the lagged regression technique. The econometric results of the study show that exports have a positive, significant impact on inflation. Imports, on the contrary, have a positive but insignificant impact on inflation. Furthermore, the results of the lagged regression show that the previous period's exports have a negative impact on the current period's inflation, while the previous period's imports have a positive impact, though both effects are insignificant. Research indicates that providing incentives and subsidies to major export industries, trade surplus, devaluation of the domestic currency, import prices, distortion of the trade balance, and improvement in terms of trade are the foreign trade-related factors that cause inflation in Bangladesh. The study suggests that the government of Bangladesh should create a competitive trade environment to reduce export-related inflation and lower its tariff rates and non-tariff trade restrictions to encourage other nations to export goods and services to us.

Key Words: Export; Import; Inflation; Fully Modified OLS; Lagged Regression.

1. Introduction:

Inflation is currently one of Bangladesh's most pressing issues. In Bangladesh, headline inflation is currently above 6.0 percent (as of January 2022), surpassing the target rate of 5.70 percent. Compared to a year earlier, the consumer price index (CPI) in the US rose by 5.4 percent in June 2021, while the personal consumption index (PCE) of the commerce department rose by 4.0 percent. Between December 2020 and December 2021, Germany's economy experienced

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5.3 percent inflation, while Spain and Italy experienced 5.5 and 6 percent respectively ("Inflation Is Riding High in the Global Economy," 2022). Inflation can be beneficial if it is moderate, but it can also be harmful if it exceeds the limit.

An increasing trend in a country's general price level is referred to as inflation. It is described as a three-year continuous rise in the price level (Perkins, Radelet & Lindauer, 1996). Inflation is ascertained by three components; known as the "triangle model", namely cost-push, demand- pull, and built-in inflation (Gordon, 1998).

Our economy relies heavily on exports and imports. Bangladesh's total export earnings for fiscal year 2019–20 were US \$33,674.09 million, and export earnings for July–May of fiscal year 2020–21 were US \$35,180.81 million, representing a 13.64 percent increase over export earnings in the same period of fiscal year 2019–20 (Bangladesh Economic Review, 2021). In contrast, import payments in FY 2019–20 totaled US \$54,785 million, while import payments in FY 2020–21 totaled US \$52,489.9 million (Bangladesh Economic Review, 2021). In the case of an open economy, the state of international trade, such as exports and imports, has an impact on inflation (Ahemed, Ghauri, Vveinhardt & Streimikiene, 2018). Trade volumes, as well as excess demand from capacity utilization, have a great impact on price level rises (Dexter, Levi & Nault, 2005).

In the United States, a strong link between import prices and inflation was investigated (Corrigan, 2005) . Import prices can have both direct and indirect effects on inflation. If the price of imported raw materials rises, so will the price of goods and services in the domestic market. This unintentionally leads to competition between domestic and foreign firms. From a theoretical point of view, exports and inflation are inversely related. Inflation enhances the international market price of goods and services. Inelastic demand for local exports in overseas nations will increase exports of goods and services (Fleming, 1962; Mundell, 1963). Inflation significantly affects exports because it affects the exchange rate. Due to the returns on real and financial capital, high inflation may have an impact on production levels (Gylfason, 1998). Increased trade is thought to boost export earnings, promote industrialization, and encourage economic diversification (Ndulo & Mudenda, 2010). Thus, it is necessary to investigate whether foreign trade affects inflation in Bangladesh or not. The sections of the paper are outlined below. The paper's second section

reviews relevant literature. The data and methodologies are explained in the third section. Section 4 depicts the model specification section. The results are analyzed and discussed in section five. In the penultimate section, the results of residual diagnostic tests are discussed, and in section seven, the discussion and concluding remarks are revealed.

2. Literature review:

A study by Ahemed et al. (2018) explored the relationship between CPI inflation and exports and imports in Pakistan. Monthly time series data was utilized for their study from July 2001 to June 2017. To conduct the study, the error correction model, the Johansen cointegration test, variance decomposition analysis, and the Granger causality approach were applied. The econometric outcomes show that, in the long run, a 1 percent rise in exports and imports causes a 0.57 percent and 0.63 percent rise in CPI inflation, respectively. According to the predictable error correction coefficient, the inflation rate's deviation from the long-run equilibrium level is adjusted by approximately 1.18 percent per year. The results of variance decomposition analysis show that among the three indicators of the overall arrangement of inflation, exports have the greatest impact on innovation in CPI inflation. According to the Granger causality test, there was no unidirectional or bidirectional causality found between imports and CPI inflation. On the other hand, a unidirectional causality was observed between exports and CPI inflation in Pakistan.

Using vector auto regression (VAR) to apply variance decomposition analysis (VDA) and impulse response function (IRF), Sethi and Sahoo (2020) investigated the impact of exports on inflation in India (1975–2017) and found that this effect was greater than imports and foreign direct investment (FDI). Furthermore, there was a unidirectional causality between exports and inflation, as well as a unidirectional causality running from inflation to imports. Dexter et al. (2005) demonstrated that international trade is a vital factor in inflation and has a significant effect on the US economy's inflation. They discovered that imports have an inverse connection with inflation while exports have a direct association. The research employs quarterly data and econometric analysis. In 160 countries, Gylfason (1998) investigated the association between inflation and some of its factors. Cross-sectional data from 1985 to 1994 and econometric techniques such as partial correlation and regression analysis were utilized for the study. He summarized that higher inflation is associated with lower exports, with primary commodity exporters experiencing higher inflation than manufactured goods exporters.

Applying the GMM (Generalized Method of Moments) technique and quarterly time-series data from 1981/82 to 2007/08, Zakaria (2014) asserted that liberalization could stimulate both exports and imports in Pakistan. The liberalization has a greater impact on exports than imports, resulting in a deterioration of the trade balance. Liberalization also has an influence on the price elasticity, trade balance, imports and exports, and the study's findings show how much of a degree of liberalization Pakistan should pursue. Corrigan (2005) used quarterly data from 1986 to 2004 and econometric techniques to investigate the relationship between import prices and inflation in the United States and found a strong link between the variables. The impact of import prices on inflation can be both direct and indirect. When the price of imported raw materials goes up, so do the prices of goods and services in the domestic economy. Inadvertently, this stimulates competition between foreign and domestic firms. In Bangladesh, Hossain, Ghosh and Islam (2012) investigated that from 1978 to 2010, inflation and economic growth had no cointegrating association. Furthermore, they applied the VAR-Granger causality approach to check the causality between the two variables with different lags. Using two lags, they got that a unidirectional causality was observed from inflation to economic growth. When they took four lags, they got the same result. Finally, they came to the conclusion that this relationship demonstrates that inflation has an effect on growth.

Murshed (2018) found that terms of trade can play an important role in enhancing its export competitiveness and increasing its export volume in Bangladesh. He suggested that the Bangladeshi government could use terms of trade to boost exports without fear of inducing inflationary pressures. The study used a variety of econometric methods, including the augmented Dickey Fuller (ADF) test, the ordinary least squares (OLS) method, the Chow break-point test, the Johansen cointegration test, and the Granger causality test. He collected annual time series data from 1980 to 2014. Hossain (2002) conducted a study in Bangladesh to look into the exchange rate responses to inflation. Data were collected on an annual and monthly basis between 1972-1973 and 1999, and various econometric methods (including the Augmented Dickey-Fuller test, Phillips-Perron test, error correction model, and Engle-Granger procedure) were employed for the study. The findings suggest that past consumer price inflation has often led to currency depreciation, as measured by trade-weighted nominal effective exchange rates.

Lim and Papi (1997) investigated the factors that influence inflation in the Turkish economy. The study was conducted using quarterly time series data from 1970 to 1995 and the Johansen cointegration technique. The study's results indicate that the exchange rate, as well as export and import prices are significant factors to influence inflation in the Turkish economy.

The majority of evidence on the impact of trade, as shown above, has focused on the estimation of cross-country averages of many different economies. Furthermore, only a few studies have solely focused on the dynamics of export and import impacts on inflation in Bangladesh, to my knowledge. In some Bangladesh perspective studies, the time series data covers the years up to 2010 and 2014. But the recent trade scenarios and trade regimes have changed a lot in Bangladesh. Therefore, to get a clear idea about the impacts of exports and imports on inflation here, I have utilized annual time series data up to 2020. Furthermore, most of the studies applied the vector error correction (VECM) mechanism, the Granger causality approach, and the auto-regressive distributed lag (ARDL) model to conduct their studies. The application of FMOLS and regression with lagged value of export and import in my research paper distinguishes it from previous studies' econometric analysis. Thus, this research paper will fill these research gaps in the exploratory literature.

3. Data and Methodology:

The data series used throughout the analysis were collected from various secondary sources. Bangladesh CPI index data is derived from the World Data Atlas, Bangladesh Consumer Price Index, 1960-2021-knoema.com, and is based on the 2010 base year. The data for export revenue (in million US dollars) exchange rate and import expenditure (in million US dollars) are from the Bangladesh Economic Review 2021. Furthermore, data on per capita GDP (in US dollars) is gathered from World Bank and OECD national accounts data files. The annual data set covers the years 1986 to 2020. All variables are transformed into logarithmic form. It is often very useful to understand the nature of the data when selecting an appropriate regression model. Phillips-Perron (PP) and augmented Dickey-Fuller (ADF) are two popular tests for determining unit root. For this study, all variables were subjected to both unit root tests. Cointegration techniques are recommended when time series variables are non-stationary at the level but stationary at the first difference. There are a number of different cointegration techniques, but in this research, the Johansen cointegration technique (Johansen, 1988) was used to establish a

long-term relationship among variables. The OLS and FMOLS methods were used to determine whether exports and imports affected inflation or not. Although the results of both methods are roughly comparable, the explanation of the empirical results was analyzed on the basis of the FMOLS method's results because it has some good aspects. Furthermore, to determine whether current inflation is influenced by the previous year's exports and imports or not, another regression method was estimated using lagged export and import values. Finally, diagnostic tests were used to validate some of the classical linear regression model's assumptions.

4. Models Specification:

The major goals of this study are to analyze whether exports and imports affect inflation and whether current inflation is influenced by the previous year's exports and imports. For the empirical analysis, the following models are considered:

$$LNINF_t = \alpha_0 + \alpha_1 LNEXPT_t + \alpha_2 LNIMPT_t + \alpha_3 LNEXR_t + \alpha_4 LNGDP_t + U_t \dots \dots \dots (1)$$

Where, LNINF = Log of inflation. The CPI (Consumer Price Index) has been used as a proxy for inflation in this case. LNEXPT = Log of exports, LNIMPT = Log of imports, LNEXR = Log of nominal exchange rate, LNGDP = Log of GDP (Gross domestic product) per capita, U_t = Disturbance term.

Furthermore, the following lag regression model is written to examine whether current inflation is influenced by the previous year's exports and imports or not:

$$LNINF_t = \alpha_0 + \alpha_1 LNEXPT_t + \alpha_2 LNIMPT_t + \alpha_3 LNEXR_t + \alpha_4 LNGDP_t + \alpha_5 LNEXPT_{t-1} + \alpha_6 LNIMPT_{t-1} + E_t \dots \dots \dots (2)$$

Here, export and import variables that are one year lagged are considered as determinants of inflation.

5. Results and Discussion:

5.1. Time series plot:

All of the data is converted to logarithmic form. As seen in Figure 1, inflation, export, and import show a significant trend, indicating a long-term relationship among these variables.

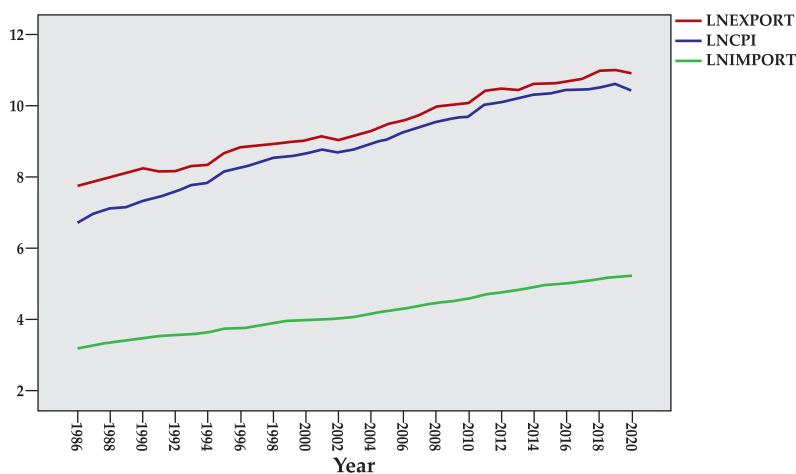


Figure 1: Time series plot of CPI, export, and import

5.2. Descriptive statistics:

Table 1 depicts the variables' descriptive statistics from 1986 to 2020. The table displays the variables' mean, median, maximum, minimum, and standard deviations.

Table 1: Descriptive statistics

	LNCPI	LNEXPT	LNIMPT	LNEXR	LNGDP
Mean	4.200	8.909	9.393	3.992	6.316
Median	4.094	8.786	9.175	4.058	6.100
Max	5.246	10.609	11.000	4.440	7.585
Min	3.190	6.708	7.768	3.397	5.455
Std. Dev.	0.616	1.189	1.023	0.345	0.631
Observations	35	35	35	35	35

Source: Eviews software on the basis of annual time series data (1986-2020).

5.3. Unit root test:

Time series data of macroeconomic variables is generally non-stationary in nature. As a result, before conducting any econometric exploration, it is important to ascertain the variable's unit root. Stationary variables can be represented as levels, and we can apply the cointegration method to non-stationary variables to detect long-run relationships among the variables (Akca & Demirhan, 2005). To investigate the stationarity of the variables augmented Dickey-Fuller test (Dickey &

Fuller, 1979) and Phillips-Perron test (Phillips & Perron, 1988) are very popular. Table 2 and 3 show the outcomes of the augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) tests with a constant and constant plus trend. Table 2 and 3 also demonstrate that at this level, all variables are non-stationary. It means that neither test has a unit root at the unit level. They become stationary with a constant and constant plus trend when we take the first difference. So the integrated order of the variables is one (i.e., I (1)) and they have a unit root. Between the two tests, the Phillips-Perron test is considered superior to the augmented Dickey-Fuller (ADF) test since the Phillips-Perron (PP) test takes into account heteroskedasticity in the error terms (Agbola & Damoense, 2005). The augmented Dickey-Fuller (ADF) test is more sensitive to small samples than the Phillips-Perron (PP) test (Hamilton, 1994).

Table 2: Augmented Dickey-Fuller (ADF) unit root test

Variables	Level		First Difference	
	Constant	Constant and Trend	Constant	Constant and Trend
LNCPI	0.980	0.913	0.001***	0.007***
LNEXPT	0.153	0.944	0.000***	0.000***
LNIMPT	0.861	0.333	0.000***	0.000***
LNEXR	0.267	0.981	0.000***	0.001***
LNGDP	1.000	0.988	0.015**	0.013**

Source: Eviews software on the basis of annual time series data (1986-2020).

Note: *** indicates significance at the 1 percent level and ** indicates significance at the 5 percent level

Table 3: Phillips-Perron (PP) unit root test

Variables	Level		First Difference	
	Constant	Constant and Trend	Constant	Constant and Trend
LNCPI	0.975	0.845	0.002***	0.007***
LNEXPT	0.151	0.919	0.000***	0.000***
LNIMPT	0.861	0.292	0.000***	0.000***
LNEXR	0.291	0.978	0.009***	0.000***
LNGDP	0.999	0.988	0.016**	0.019**

Source: Eviews software on the basis of annual time series data (1986-2020).

Note: *** indicates significance at the 1 percent level and ** indicates significance at the 5 percent level

5. 4. VAR lag order selection criteria and Johansen cointegration test:

To test cointegration, the precondition is that all variables must be non-stationary at level and should be stationary at the first difference. But before running cointegration tests, it is a very crucial matter to determine the optimum lag length because lag length has a big impact on cointegration tests. An unrestricted VAR (vector auto regression) technique was applied to select an optimum lag length. From table 4, it is observable that most of the lag selection criteria (AIC, LR, FPE, HQ) support my taking three lags. A further cointegration test was run considering 3 lags. According to Engle and Granger (1987) the results of ordinary least squares (OLS) could be spurious if the variables are not cointegrated. Therefore, before running OLS and FMOLS, it is very crucial to test whether the variables are cointegrated or not. Engle and Granger and the Johansen cointegration test procedure are very popular among researchers. In this case, Johansen cointegration is used to determine whether the variables are cointegrated over the long run. The Johansen cointegration test has some advantages over the Engle and Granger approach. Because it does not presuppose the existence of more than one cointegrating vector (Agbola & Damoense, 2005). Furthermore, the Johansen cointegration test takes all variables as endogenous variables, and the Engle-Granger technique is sensitive to dependent variable choice (Johansen & Juselius, 1990). The outcomes of the Johansen cointegration analysis are shown in Table 5. The Max-Eigen statistic and trace statistics both report three and five cointegrating equations at a 5 percent level of significance, respectively. Therefore, inflation and the explanatory variables have a long-run cointegrated relationship.

Table 4: VAR lag order selection criteria

Lag	Log L	LR	FPE	AIC	SC	HQ
0	128.941	NA	2.97e-10	-7.746	-7.517	-7.670
1	327.515	322.682	5.91e-15	-18.594	-17.220*	-18.139
2	355.131	36.246	5.68e-15	-18.758	-16.238	-17.923
3	397.482	42.350	2.72e-15*	-19.842*	-16.178	-18.628*

Source: Eviews software on the basis of annual time series data (1986-2020).

Table 5: Johansen cointegration test**Unrestricted cointegration rank test (Trace)**

Hypothesizes No. of CE(s)	Eigen value	Trace statistic	0.05 critical value	Prob.**
None*	0.7951	132.9202	69.8188	0.000
At most 1*	0.5883	83.7696	47.8561	0.000
At most 2*	0.4893	56.2557	29.7970	0.000
At most 3*	0.4702	35.4208	15.4947	0.000
At most 4*	0.3979	15.7279	3.8414	0.000

Source: Eviews software on the basis of annual time series data (1986-2020).

Unrestricted cointegration rank test (Maximum Eigenvalue)

Hypothesizes No. of CE(s)	Eigen value	Max-Eigen Statistic	0.05 critical value	Prob.**
None*	0.7951	49.1505	33.8768	0.000
At most 1	0.5883	27.5139	27.5843	0.051
At most 2	0.4893	20.8348	21.1316	0.055
At most 3*	0.4702	19.6929	14.2646	0.006
At most 4*	0.3979	15.7279	3.8414	0.000

Source: Eviews software on the basis of annual time series data (1986-2020).

Note: Trace test and Max-Eigen value test indicates 5 and 3 cointegrating equation(s) at the 0.05 level respectively.*Denotes rejection of the hypothesis at the 0.05 level.

** MacKinnon-Haug-Michelis (1999) p-values

5. 5. Ordinary least squares (OLS) and fully modified OLS (FMOLS):

Table 6 illustrates the estimated result of model 1 for the ordinary least squares (OLS) method and the fully modified OLS (FMOLS) technique. The FMOLS estimator outperforms the OLS estimator in terms of overcoming endogeneity. In table 6, it is clearly discernible that the econometric outcomes of FMOLS and OLS are quite similar. This suggests that endogeneity is not a major issue in this case. Here I have concentrated my econometric analysis on the model estimated by FMOLS. FMOLS estimates the coefficients of the model's explanatory variables and depicts the expected sign. According to FMOLS findings, exports and imports are positively related to inflation. It is noticeable that the impact of imports on inflation is very small and insignificant. But the impact of exports on

inflation is higher than that of imports, and it is highly significant. These results are supported by (Ahemed et al., 2018; Sethi & Sahoo, 2020). However, it can be assumed that every 1 percent increase in exports and imports leads to a 0.12 percent and 0.02 percent increase in inflation, respectively. Furthermore, the effects of the exchange rate and GDP per capita on inflation are both positive and statistically significant. This demonstrates that every 1 percent increase in the exchange rate and GDP per capita leads to a 0.49 percent and 0.48 percent increase in inflation, correspondingly. These findings are similar to those by Hossian et al. (2012) and Lim and Papi (1997), who also found that the exchange rate and GDP per capita have positive impacts on inflation. For the FMOLS estimates, the adjusted R-squared goodness-of-fit is 0.99. This clearly shows that the model is a good fit. Another noticeable issue is that the value of R-squared (0.99) is less than the Durbin-Watson statistics (1.24). So it also confirms that the regression is not a spurious regression (Gujarati, 2003).

Table 6: Results of Least squares and fully modified OLS

Dependent variable: LNCPI

Variables	OLS		FMOLS	
	Coefficient	Prob.	Coefficient	Prob.
C	-1.9486	0.000***	-2.0048	0.000***
LNEXPT	0.1250	0.001***	0.1162	0.004***
LNIMPT	0.0126	0.800	0.0170	0.722
LNEXR	0.4779	0.000***	0.4926	0.000***
LNGDP	0.4763	0.000***	0.4817	0.000***
R2	0.99		0.99	
F-Statistic, Prob (F-Statistic)	7040.279, 0.000		NA	
Durbin-Watson Stat	1.274		1.249	

Source: Eviews software on the basis of annual time series data (1986-2020).

Note: *** indicates significance at the 1 percent level

5. 6. Regression results with lagged variables:

Regression results with lagged variables of export and import are represented in table 7. One year-lagged variables are considered to determine whether current inflation is affected by exports and imports from the previous year. From table 7, it is clearly observable that inflation in the current year is positively influenced by the imports of the previous year and that it is statistically insignificant. Conversely, it is noticeable that inflation in the current

year is negatively influenced by exports from the previous year, although it is also statistically insignificant. However, it can be implied that a 1 percent increase in exports from the previous year tends to result in a 0.023 percent decline in inflation in the current year, whereas a 1 percent increase in imports from the previous year results in a 0.003 percent rise in inflation in the current year.

Table 7: Results of Least squares with lagged regression

Dependent variable: LNCPI

Variables	Coefficients	Std. Error	t-Statistics	Prob.
C	-2.0212	0.1581	-12.783	0.000***
LNEXPT	0.1268	0.0682	1.858	0.07*
LNIMPT	0.0181	0.0643	0.281	0.780
LNEXPT(-1)	-0.0238	0.0632	-0.376	0.709
LNIMPT(-1)	0.0038	0.0605	0.064	0.949
LNEXR	0.5092	0.0858	5.934	0.000***
LNGDP	0.4849	0.0480	10.098	0.000***
R² = 0.99, F-Statistic = 4076.867, Prob (F-Statistic) = 0.0000, Durbin-Watson Stat = 1.375				

Source: Eviews software on the basis of annual time series data (1986-2020).

Note: *** indicates significance at the 1 percent level and * indicates significance at the 10 percent level

6. Residual diagnostics tests:

The results of residual diagnostic tests are presented in table 8.

Table 8: Diagnostic tests results

Test	OLS		FMOLS		Lagged variables' regression		Conclusion
	Prob.	Level of significance	Prob.	Level of significance	Prob.	Level of significance	
Normality (JB test)	0.94	0.05	0.98	0.05	0.93	0.05	Residuals are normally distributed
Breusch-Godfrey Serial Correlation LM Test	0.07	0.05	Not applicable		0.08	0.05	No serial correlation exists
Breusch-Pagan Godfrey heteroskedasticity test	0.08	0.05	Not applicable		0.25	0.05	Homoskedasticity exists

Source: Eviews software on the basis of annual time series data (1986-2020).

6. 1. Cusum test and Cusum square test OLS:

The Cusum and Cusum Square test statistics (Brown, Durbn & Evans, 1975) have been used to assess the model's stability at a 5% level of significance. Because the Cusum statistic portions remain within the critical points of the 5% level of significance, the statistics show that the model is stable. According to the findings, the coefficients are stable and statistically significant.

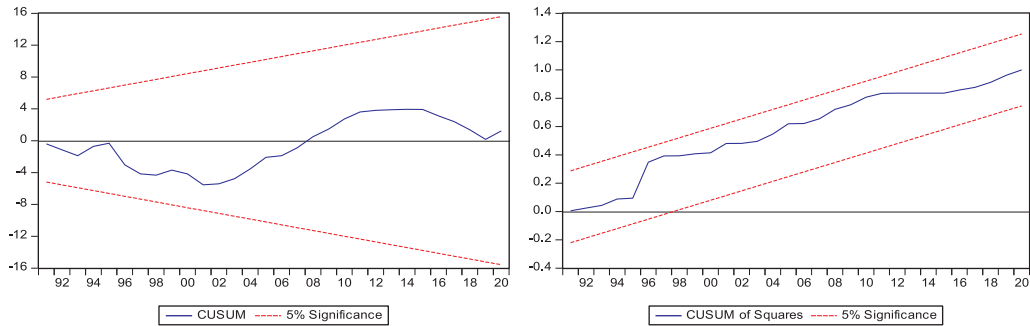


Figure 2: Cusum and Cusum square test

7. Discussion and concluding remarks:

The paper's main goals were to see whether exports and imports affected inflation in Bangladesh from 1986 to 2020, as well as whether current inflation is influenced by the previous year's exports and imports. From the above empirical analysis, it has been understood that exports have a significant and positive effect on inflation. It shows that exports have a notable impact on inflation over time. In this situation, the government should create a competitive trade atmosphere and provide stimulants for local industries to produce at prices that are competitive in the global market (Sethi & Sahoo, 2020).

On the contrary, imports have a positive effect on inflation, but it is highly insignificant. Here, the impact of imports is also very small. Therefore, the Bangladeshi government should not worry about this and should adopt policies to stimulate imports without worrying about triggering inflationary pressures. Moreover, Bangladesh should lower tariff rates and non-tariff trade barriers in order to encourage foreign countries to export goods and services to our country. The outcomes of lagged regression show that the current period's inflation is negatively affected by the previous period's export and positively affected by the previous period's import, although both the impacts are highly insignificant.

Like some developed countries, the government of Bangladesh is providing incentives to some broad export-led sectors (RMG, agriculture, etc.). To increase exports, devaluation of the domestic currency (taka) has occurred. Due to the huge devaluation of the domestic currency, the export volume of the country can suddenly increase sharply, and this can stimulate demand-pull inflation. In this case, although exporting is easy for us to foreign countries, import expenditure rose dramatically. Therefore, the prices of some necessary goods (onion, rice, pulses, oil, spices, etc.) increase, which we import, and inflation occurs. When exports outweigh imports, the economy is said to be in a trade surplus. In this case, employment is high, and output may surpass the natural level of output, stimulating inflation. Furthermore, if a country's exports surpass imports, it indicates that a large amount of money is flowing into the country, increasing consumption and economic growth. According to some economists, economic growth causes inflation.

Import prices are also a major factor in Bangladesh's rising price levels. When the price of goods and services or raw materials rises on the global market, it becomes more expensive for a domestic country to import those goods and services or raw materials. As a result, domestic countries raise the price levels of the respective commodities, causing price levels to rise in Bangladesh. In Bangladesh, this is common for oil products. Besides, oil prices are a crucial factor for inflation, and every year we import a large amount of petroleum products. The price of necessary goods may rise as the price of oil rises. Still, we are going through a pandemic situation and a huge number of people have become unemployed. The government is providing subsidies and trying to expand the economy. So inflation can be continued for the next few months. If governments all over the world declare lockdown again, then prices of oil can go down and inflation can be declined. The balance of trade can be distorted if import volumes are higher than export volumes, which creates a devaluation of the domestic currency. Because of the distortion in the balance of trade, the devaluation of the Bangladeshi currency happens frequently. The devaluation of the domestic currency has a huge impact on inflation. Currency depreciation has contributed to inflation in imported goods in emerging markets and developing economies (EMDEs) due to lower influxes of overseas capital and a reduction in independent credit ratings ("The Return of Global Inflation," 2022). Globalization enhances the economic development of a country through improving terms of trade (TOT). When a country's terms of trade improve, the domestic country purchases more imported items for every unit of export. Improvement in terms of trade (TOT) can instigate cost-push inflation (Murshed, 2018).

References:

- Agbola, F. W., & Damoense, M. Y. (2005). Time-series estimation of import demand functions for pulses in India. *Journal of Economic Studies*, 32(2), 146–157.
- Ahemed, R. R., Ghauri, S. P., Vveinhardt, J., & Streimikiene, D. (2018). An Empirical Analysis of Export, Import, and Inflation: A Case of Pakistan. *Romanian Journal of Economic Forecasting*, 21(3), 117–130.
- Akcay, S., & Demirhan, E. (2005). The Causal Relationship between Openness and Economic Growth: Evidence from selected MENA Countries. *Yapi Kredi Economic Review*, 16(2), 77–84.
- Bangladesh Economic Review*. (2021). Ministry of Finance, Government of the People's Republic of Bangladesh. <https://mof.portal.gov.bd/site/page/28ba57f5-59ff-4426-970a-bf014242179e/Bangladesh-Economic-Review-2021>.
- Brown, R. L., Durbin, J., & Evans, J. M. (1975). Techniques for Testing the Constancy of Regression Relationships over Time. *Journal of the Royal Statistical Society*, 37(2), 149–192.
- Corrigan, T. D. (2005). The Relationship Between Import Prices and Inflation in the United States. *WCOB Faculty Publications*.
- Dexter, A. S., Levi, M. D., & Nault, B. R. (2005). International Trade and the Connection between Excess Demand and Inflation. *Review of International Economics*, 13(4), 699–708.
- Dickey, D. A., & Fuller, W. A. (1979). Distribution of the Estimators for Autoregressive Time Series With a Unit Root. *Journal of the American Statistical Association*, 74(366), 427.
- Engle, R. F., & Granger, C. W. J. (1987). Co-integration and error correction: Representation, estimation, and testing. *Econometrica*, 55(2), 251–276.
- Fleming, J. M. (1962). Domestic Financial Policies Under Fixed and Under Floating Exchange Rates. *IMF Staff Papers*, 9(3), 369–380.
- Gordon, R. J. (1998). Foundations of the goldilocks economy: Supply shocks and the time-varying NAIRU. *Brookings Papers on Economic Activity*, 2, 297–346.
- Gujarati, D. N. (2003). *Basic Econometrics* (4th ed.). McGraw Hill.
- Gylfason, T. (1998). Output gains from economic stabilization. *Journal of Development Economics*, 56(1), 81–96.
- Hamilton, J. D. (1994). *Time Series Analysis*. Princeton University Press.
- Hossain, A. (2002). *Exchange Rate Responses to Inflation in Bangladesh* (02/166).
- Hossian, M. E., Ghosh, B. C., & Islam, M. K. (2012). Inflation and Economic Growth in Bangladesh. *Journal of Arts, Science & Commerce*, III(4(2)), 85.
- Inflation is riding high in the global economy. (2022, February 24). *The Financial Express*, 4.
- Johansen, S. (1988). Statistical analysis of cointegration vectors. *Journal of Economic Dynamics and Control*, 12(2–3), 231–254.
- Johansen, S., & Juselius, K. (1990). Maximum Likelihood Estimation and Inference on Cointegration — With Applications to The Demand For Money. *Oxford Bulletin of Economics and Statistics*, 52(2), 169–210.
- Lim, C. H., & Papi, L. (1997). An Econometric Analysis of the Determinants of Inflation in Turkey. *International Monetary Fund European I Department* (WP/97/170).
- Mundell, R. A. (1963). Capital Mobility and Stabilization Policy under Fixed and Flexible Exchange Rates. *The Canadian Journal of Economics and Political Science*, 29(4), 475–485.
- Murshed, M. (2018). An Empirical Assessment of the Nexus between Terms of Trade and Inflation in Bangladesh. *Bangladesh Development Studies*, 41(1), 89–105.
- Ndulo, M., & Mudenda, D. (2010). Trade Policy Reform and Adjustment in Zambia. *United Nations Conference on Trade and Development*.
- Perkins, D. H., Radelet, S., & Lindauer, D. L. (1996). *Economics of Development* (6th ed.). WW Norton & Company.

- Phillips, P. C. B., & Perron, P. (1988). Testing for a Unit Root in Time Series Regression. *Biometrika*, 75(2), 335.
- Sethi, N., & Sahoo, M. (2020). The Dynamic Relationship between Export, Import and Inflation: Empirical Evidence from India. *The Indian Economic Journal*, 66(3-4)(3-4), 294-311.
- The return of global inflation. (2022, February 24). *The Financial Express*, 6.
- Zakaria, M. (2014). Effects of Trade Liberalization on Exports, Imports and Trade Balance in Pakistan: A Time Series Analysis. *Prague Economic Papers*, 23(1), 121-139.