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The Effect of Exports and Imports on Exchange Rate over Short and Long Time Horizons: Evidence from Asian Countries

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ABSTRACT

Purpose: The purpose of this study is to examine the effect of export and imports on exchange rates.

Design/Methodology/Approach: This study includes eighteen Asian countries as the sample for the period of ten years from 2010 to 2019 and analyzed using Autoregressive Lag (ARDL) model. Annual exports and imports of each country are used as the Independent variable along with the dependent variable, real exchange rate.

Findings: The results show that the impact of exports on the exchange rate is significant and negative in both short and long run. However, the impact of imports on the exchange rate is significant and negative in short run whereas the effect is significant and positive in the long run.

Originality: This study uses Asian countries as the context of the study to examine the effect of exports and imports on real exchange rate. There are a limited number of studies have examined the current debate by covering the entire Asian Region. In examining the relationship between international trade and exchange rate, the majority of the literature investigate the impact of exchange rate on imports and exports whereas; this study contributes to the literature by examining the impact of exports and imports on exchange rate over the short and long-time horizons.

KEYWORDS

Asia, Exports, Real effective exchange rate, Imports

JEL CLASSIFICATION

C32, F31, N15

I. Introduction

Globalization has led the researchers to move into International trade as an emerging area, which focuses on the macroeconomy instead of the individual markets. International trade compacts on the macroeconomic factors that occur between two or more countries. International trade has two main aspects, namely, exports and imports. The exports of a country are considered as one of the main driving forces in determining the wealth of a nation. There should be a value exchange mode to carry out the trade which is known as exchange rate. The exchange rates of the two countries are not constant over time due to the demand and supply of foreign currencies. The value changes of these exchange rates are known as exchange rate volatility. The exchange rate can be considered as one of the main factors under international trade as it is consistent with both exports and imports. Exchange rate fluctuations occur due to the demand and supply of a particular currency that would float freely on a recurrent basis. Higher demand for a specific currency would eventually increase the value of that currency. Currently, the world economies tend to share their economic trends along with the imports and exports of goods and services, labor, technology and capital; regardless of the geographical boundaries, transactions between countries include exchange rates. The expansion of international operations has significantly influenced the exchange rate fluctuations. In

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open economies, foreign exchange rate policies are considered as one of the most important macroeconomic indicators, because they play a vital role in affecting the business world's investment decisions (Genc & Artar, 2014).

Exchange rate fluctuations occur due to the demand and supply of a particular currency that would float freely on a recurrent basis. Higher demand for a specific currency would eventually increase the value of that currency. The inflation rates, interest rates, balance of payment, government debt and political stability of a country are some of the factors which affect the exchange rate. Trade decisions of exports and imports highly affect the fluctuations in the foreign exchange rate. In determining the exchange rate, there is no specific time-bound nor specific opening and duration. Thus, it functions 24 hours a day and seven days per week as a continuous process in which the volatility creates advantages to the traders. Rajan & Siregar (2002), elaborate that price and exchange rate volatility encourages to diminish the export volume with a large involvement in trade and investment in India.

The high competitiveness of the international trade market has led the researchers to move on to studies, which enable them to provide suggestions to survive. The majority of the past studies indicate that when a country's exchange rate is more volatile, it creates more fluctuations and ultimately results in vulnerability in the trade market. Ahmed, Butt and Alam (2000); Epaphra (2016); Senadza and Diaba (2017) imply that the GARCH, EGARCH models estimate the exchange rate volatility with leverage effect on currency similar to trade. Exchange rate fluctuation creates trade and investment risk to both foreign and domestic markets, which ultimately hamper both the fiscal policy and monetary policy of countries. According to Genc and Artar (2014), financial decisions such as risk management, hedging, portfolio, and price-setting are considered in resulting the volatility of the foreign exchange rate. Kemal (2005), emphasized the importance of stability in the forex market and highlighted that the volatility hampered the total trade volume in the world trade market. The import volumes and values have drastically increased throughout the past decade. As the forty-eight Asian countries have shed light due to their importance to the investment world, international trade, and the world economy by providing the majority of the world exports, having the largest exporter in the world; China and as no prior study has been conducted to examine the impact of exports and imports on the exchange rates in Asian countries, which is identified as the empirical gap of the study. To fill the gap, we examine the impact of exports and imports on the exchange rate over the short and long-time horizons in Asian countries. In examining the relationship between international trade and exchange rate, the majority of the literature investigates the impact of exchange rate on imports and exports, whereas this study contributes to the literature by examining the effect of exports and imports on exchange rate over the short and long-time horizons.

Section 2 of the study includes the review of previous studies and hypotheses development, section 3 consists of the research methodology, section 4 includes the findings and discussion, section 5 concludes the study.

II. Literature Review and Hypotheses development

Studies on The Exchange Rate and Trade Balance

Well-planned exchange rate policies reduce the trade deficits of economies by motivating export diversification and ultimately increase economic growth. According to Meade (1951); Sweidan (2013), the currency depreciation results in making the home country's goods cheaper compared to the goods from the foreign countries, which ultimately increases the exports of the home country. This leads to a higher competition of the goods between the home country and foreign countries. As per Meade (1951), who led the foundation to the simultaneous

analysis of the factors affecting the trade in an open economy, the exchange rate depreciation could produce a positive impact on trade balance only if the demand for exports of the home country and the demand for imports from the foreign country are relatively elastic. Kang (2018), examined the link between international trade and exchange rate levels in the context of the global financial crisis and the rise of the global and regional value chain. The findings reveal that the increased participation in a global and regional value chain lowers the impact of the exchange rate on exports and imports. Furthermore, Morrison and Labonte (2013), posit that after depreciation of the currency of an importer, will further raise the prices of imports. In order to stabilize prices in the importing country, an exporter may reduce the prices of the exported goods from its local currency. However, these actions are industry-specific and depend on the demand curve experienced in a given country by the exporter. Therefore, the specific relationship between the exchange rate and imports-exports can be identified. As per Curcuru et al., (2009), when a nominal exchange rate system exists, real exchange rates and terms can also be self-adjusted as the nominal exchange rate policy does not affect in determining effective resource allocation. Exchange rate policy changes can be identified as the changes in the exchange rate of countries by analyzing emerging countries and it was concluded that there is a small but significant impact from a large variation in the exchange rate policies. (Obstfeld., 2009). Several empirical studies conducted to measure the impact on the exchange rate by using macroeconomic variables. These studies provide controversial results as the literature includes different variables in different samples for various periods using different methodologies. Some studies revealed that international trade; exports and imports, are not related to the exchange rate. As per the results of Dhankar and Chakraborty (2007), using stock returns and exchange rates for South Asian countries indicate that the returns of the foreign exchange market are not identically distributed. Even though some studies identified a significant negative relationship between the exchange rate and export volumes (Hooy & Choong, 2010; Hooy & Baharumshah, 2015) by analyzing the SAARC countries and Nigerian data, Ahmad (2017), investigated the impact of exchange rate on exports in the case of Pakistan by using annual time series data throughout 1970 to 2016 and it was revealed that the exchange rate has a negative but insignificant impact on exports of Pakistan whereas World's income has positive and significant effect to exports. Furthermore, Rahman (2020) examined the effect of exchange rate volatility on trade in Bangladesh to identify the exports, import risk and leverage effect. The findings of the GARCH model estimate that the exchange rate volatility creates a negative impact on trade, however EGARCH model reveals that there is no leverage effect in the studied country. Asteriou, Masatci and Pilbeam, (2016) revealed that there is no link between the exchange rate and the trade in Turkey by analyzing exports, imports, and real exchange rates. Exchange rates have impacted the volumes of both exports and imports along with the country's balance of payment positions (Gharaibeh., 2017). Todani and Munyama (2005), conducted the study using exports, income on trade, relative price, and exchange rate in South Africa and revealed that the empirical results would differ based on different variables used for the study. Following the previous studies, Moshen (2013), studied the effect of exchange rate on imports, export product prices and other macroeconomic variables by using the Vector Autoregression model, Cointegration test and Impulse Response Function and revealed that the exchange rate has no effect on macroeconomic variables.

As per the results of Azeez, kolapo and Ajayi (2012), it was revealed that the exchange rate volatility is identified when there is a deviation of the exchange rate from the equilibrium over a period of time. Further, some latter studies reveal that the exchange rate volatility can be represented in both fixed

and floating exchange rates (Oyovwi, 2012). The findings of Obstfeld (2009) suggest the volatility of exchange rate influence the trade pattern by using fixed and floating exchange rates. According to Aliyu (2011), exchange rate appreciation results in an increase in the imports and a decrease in the exports, whereas an exchange rate depreciation results in an expansion of exports and a reduction of imports. Jarita (2008) conducted a study to measure the impact of exchange rate shocks on imports and exports in Malaysia by using Vector Error Correction model, Impulse Response Function and Variance Decomposition. As per the results of the study, it is revealed that the exchange rate shocks significantly affect the imports in Malaysia. The study of Chit, Ritzov and Willenbockel (2010) reveals that the exchange rate volatility in South Asian countries occurs due to the policies initiated. As per their results, the exchange rate policies have a significant effect on the nature of the international trade carried out with each country. Similarly, the findings of Khalighi (2017), reveal that the exchange rate is a crucial factor for date exports and for exporters. Moreover, short-term outsourcing foreign policy has reduced the export value, applying the exchange rate unification policy without an appropriate exchange rate to encourage exporters has created a negative impact on dates export. Muhammed (2014) argued that there is a significant positive relationship between the exchange rate depreciation and exports; these results were driven by analyzing imports, trade balance, foreign exchange reserves, and Gross Domestic Production in Pakistan from 1952 to 2010.

As per the results of Clark, Tamirisa, and Wei (2004), insignificant evidence was found for the relationship between exchange rate volatility and trade flows. Sikarwar (2014) investigated the exchange market exposure to India and identified that the depreciation in exchange rates might benefit Indian industries. Rajković (2020) examined the impact of the exchange rate on the foreign trade imbalance during the economic crisis by analyzing the new EU member states and the Western Balkan countries. The study's findings reveal that during the economic crisis, the countries that use their own currency cannot substantially adjust their trade deficit by depreciating the local currency.

To summarize, there is a vast amount of literature that analyses the determinants, measurements, impact and relationship between the exchange rate and macroeconomic variables. The relationship and the effect of the exchange rate changes due to the nature of the market, level of risk and other macroeconomic factors such as inflation, competitive advantage, size and the degree of competitiveness, Gross Domestic Production, trading behaviour and government policies. Even though several past studies provide controversial results that can be identified as the gap by analyzing the existing literature. The research hypothesis developed to test the impact of exports and imports on the exchange rate is discussed in the next section.

Development of Research Hypotheses

This study develops a research hypothesis to examine the impact of exports and imports on the exchange rate in the short run and long run time horizon. Kemal and Qadir (2005) analyzed the long-run and the short-run dynamics among the three variables; real exchange rate, exports, and imports, and concluded that there is a long-run relationship between; and real exchange rate, exports, and imports. The real exchange rate is negatively associated with exports and positively associated with imports. In the short run, imports and exports adjust towards their equilibrium when there is disequilibrium. Later, Darva (2012) and Darvas and Jean (2010) discovered that the large exporters are regularly large importers; therefore, it is expected to have a co-integration between exchange rate and exports-imports. Furthermore, Hasan, Muktadir and Islam (2015) conducted a study to test the long run relationship between the exchange rate and

the exports in Bangladesh, which resulted in a long run relationship of the exchange rate that causes exports. Furthermore, Odili (2015) identified a significant positive effect on imports in the long run and causality from the exchange rate and imports were identified by analyzing the long run and short run effects of real exchange rate volatility on the economic growth on international trade (exports and imports) by using the co-integration and Parsimonious Error Correction models. Accordingly, we hypothesize,

H1: There is a long run impact among exports, imports, and exchange rate.

Haseeb and Rubaniy (2014), measured the relationship between the exchange rate instability and sectoral exports in Pakistan by using the Autoregressive Distributed Lag method (ARDL) as the data analysis technique and Gross Domestic Production as the control variable for the study. As per the results, it was revealed that there is a significant negative relationship between the exchange rate volatility and the export of food processing machinery, grapes, meat, and petroleum products. Bahmani, Oskooee and Kovyryalova (2008) point out that the volatility of the real bilateral dollar-pound rate has a short run significant effect. The results were driven by analyzing 177 commodities trade between the United States and the United Kingdom from 1971 to 2003. Consequently, we hypothesized:

H2: There is a short run impact among exports, imports, and exchange rate.

III. Methodology

This study has been conducted through a Panel data analysis using RStudio software to achieve the research objectives. The secondary data for the three variables; Real Effective Exchange Rate, imports of goods and services (as a percentage of GDP) and exports of goods and services (as a percentage of GDP) are collected from the World Bank Open Data Base. The population includes forty-eight Asian countries and considering the data availability, annual data from 2010 to 2019 for eighteen Asian countries are used as the sample of the study. The basic model to identify the effect of the real effective exchange rate on exports and imports is provided through the following equation.

$$\text{Effective rate}_t = \beta_0 + \beta_1 \text{E xports}_t + \beta_2 \text{Imports}_t + \xi_t \quad \text{.....(1)}$$

The basic model is modified by taking a natural logarithm of both sides and considered as the primary model of this study. For prediction and economic analysis, the variables are used in logarithms. In time series analysis, this transformation is often regarded as stabilizing the variance of the time series (Lütkepohl, 2009). This study examines the conditions under which using a logarithm is beneficial for forecasting.

$$\ln(\text{Effective rate}_t) = \beta_0 + \beta_1 \ln(\text{Exports}_t) + \beta_2 \ln(\text{Imports}_t) + \xi_t \quad \text{.....(2)}$$

Where ξ_t is the error term of the model and is assumed Normally Distributed with zero mean and constant variance.

Preliminary Data Analysis

The preliminary tests should be conducted in order to identify any outliers and missing values before conducting any complex analysis. Thus, the identified missing values are replaced by the average variables and outliers are treated using the Winsorizing method. The nature of the data set is identified by the descriptive statistics of all the variables (Spriestersbach, Rohrig, Prel, Gerhold-Ay & Bleyyner, 2009).

Unit Root Test

The study uses, Phillips–Perron test to identify the stationarity of the data set. Since this test uses Non-Parametrically adjusted test statistics, it improves the test results than the ADF test (Fedorová, 2016).

Cointegration

Cointegration investigates whether there is any possible long-term correlation between multiple time series. It usually assumes each individual component of a multivariate time series may be nonstationary, but linear combinations of these components are stationary. Identifying cointegration is essential to forecast data using time series mathematical models and apply the results in the real world (Granger, 2004).

In the study both Bounds t-test and Bounds F-test investigate any long run correlation between exports of goods, imports of goods, and the exchange rate.

Model Fit

ARDL (Autoregressive Distributed Lag Modeling) approach identifies the effect of exchange rate on exports and imports of goods. The ARDL model is one of the most used and reliable models used in econometric literature (Kwofie., 2018). The results of ARDL models are beneficial in investigating any long run relations among the variables (Pesaran, 1998). To fit the ARDL model to a data series, all the variables should hold stationarity either on I (0) or I (1) or both, which is considered a key factor in using the ARDL model. Hence the unit root test results and identifying any cointegration between the variables are required before the model fitting. The general ARDL model is as follows.

$$Y_t = \beta_0 + \beta_1 Y_{t-1} + \ldots\ldots + \beta_p Y_{t-m} + \alpha_0 X_t + \alpha_1 X_{t-1} + \alpha_2 X_{t-2} + \ldots\ldots\ldots + \alpha_q X_{t-n} + \varepsilon_t \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (3)$$

Where m and n are the number of years for lag, ε_t is the disturbance terms and β_i's are coefficients for the short run and α_i's are coefficients for long run relationship

IV. Results and Discussion

Table 1 summarizes the descriptive statistics of the three variables. Results show that there are five missing values in the variables, Exports and Imports, and they are replaced by the average value of the respective variables. In addition, all three variables are minorized to deal with the outliers.

Table 1. Descriptive Analysis

Statistics	Exchange rate	Exports	Imports
Minimum	69.42	8.257	13.58
1st Quartile	22.746	21.45	97.75
Median	32.162	33.23	101.15
Mean	48.314	47.03	103.17
3rd Quartile	65.725	60.66	107.48
Maximum	203.328	175.77	155.45
Standard Deviation	13.09	40.96	34.59
Jarque-Bera	0.0421*	0.0025**	0.0382*
NA's	5	5	

Note: This table represents the descriptive statistics for the Exchange rate, Exports and Imports. The sample represents 180 annual observations. The descriptive statistics are given for minimum, 1st quartile, median, mean, 3rd quartile and maximum. ***, ** denotes the rejection of null hypothesis 1% and 5% significant levels.

As per the Table 1, the Exchange rate has a mean value of 48.314. It has a maximum value of 203.328 with a minimum figure of 69.42 and a Standard Deviation of 13.09. However,

Exports has 47.03, 33.23, 175.77, 8.257 and 40.96 as values for mean, median, maximum, minimum and standard deviation respectively. The mean imports value of the sample countries over the sample period is recorded as 103.17 indicating a higher amount of imports compared to exports in Asia. According to the Jarque-Bera test result, all the three variables are normally distributed at 5% level of significance.

Unit Root test

According to the results in Table 2, it is observed that the Exchange rate, Exports, and Imports are stationary at level (I (0)). As all the variables are stationary at level precondition to employ the ARDL model is satisfied.

Table 2. Results from Unit root test

Phillips-Perron Unit Root Test		
Variable	**I (0)**	**I (1)**
Exchange Rate	-4.685***	-4.9865**
	(0.0000)	(0.01)
Exports	-2.9429***	-2.9974***
	(0.0000)	(0.0000)
Imports	-2.8048***	-2.8841***
	(0.0000)	(0.0000)

Source: Author complied

Note: This table represents the results of Unit Root test in I(0) and I(1) for the variables, Exchange rate, Exports and Imports. ***, ** denotes the rejection of null hypothesis 1% and 5% significant levels, respectively. The parentheses are the corresponding probability values.

Cointegration

Table 3 and Table 4 summarize results from the tests for the Cointegration. Both the results show that p-value is less than that of the significance level (5%). That is the data series in the study has cointegration among the variables and can investigate any long run relationship between the variables.

Table 3. Cointegration

Bounds t-test for no cointegration	
t-statistics	-4.9242
Lower bound I(0)	-2.86
Upper bound I(1)	-3.53
P Value	0.0007996

Source: Author complied

Table 4. Bounds F-test (Wald)

Bounds F-test (Wald) for no cointegration	
F value	8.2169
P value	0.0009794

Source: Author complied

Model Fit

Prior to fit the ARDL model we investigate the optimum lag orders for the model to be fitted. "auto_ardl" function in RStudio gives the optimum lag order by considering all possible ARDL models and using many Goodness of fit tests. Akaike's Information Criterion (AIC) is used with maximum 8 lags to select the optimal lag model suggested by (Pasaran, 2001). The optimum lag order of the study following the Rstudio output is ARDL (1,1,1) (Refer Table 5).

Table 5. ADRL (1,1,1) Model

	Coefficient	Std. Error	Pr(>|t|)
Intercept	1.097272	0.227350	3.04e-06 ***
L(lrate, 1)	-0.238827	0.048501	1.97e-06 ***
L(lexports, 1)	0.004380	0.018783	0.000816 **
L(limports, 1)	-0.002096	0.021102	0.000921**
d(lexports)	-0.041777	0.034426	0.00227 *
d(limports)	-0.001024	0.038313	0.00979 *
Multiple R-squared: 0.2695,		Adjusted R-squared: 0.2352	
F-statistic: 6.568 on 5 and 173 DF, p-value: 1.273e-05			

Note: This table summarizes the results of the ARDL (1,1,1) model for the Exchange rate, Exports, and Imports. ***, ** denotes the rejection of null hypothesis 1% and 5% significant levels, respectively. The parentheses are the corresponding probability values.

According to the results in Table 6, all the coefficients are significant at 5% level of significance. Furthermore, according to the calculated p-value for the model, the overall model is significant at 5% level of significance, which consistent with the argument of John (2018) that the volatility of the real exchange rate significantly affects imports and exports. The R-squared value for the estimated model is 23.52%. Hence 23.52% of the variance in the exchange rate is predictable from the exports and imports.

Table 6. Short run coefficient estimates

	Coefficients	Std. Error	Pr(>|t|)
Intercept	1.097272	0.219658	1.41e-06 ***
d(lexports)	-0.041777	0.032451	0.00200*
d(limports)	-0.001024	0.036056	0.01977*
ect	-0.238827	0.047827	1.43e-06 ***
Multiple R-squared: 0.3195, Adjusted R-squared: 0.3051			
F-statistic: 11.07 on 3 and 175 DF, p-value: 1.083e-06			

Note: ***, ** denotes the rejection of null hypothesis 1% and 5% significant levels, respectively. The parentheses are the corresponding probability values.

Short term effects are measured through the Vector Error Correction Model (VECM). Table 7 shows the short run elasticities. The Error Correction Term (ECM_{t-1}) is identified from ARDL through a simple linear transformation which integrates short run adjustment with the long run equilibrium without losing long run information (Pesaran & Shin., 1999) The error correction coefficient shows how quickly variables converge to equilibrium and it should have a statistically significant coefficient with a negative sign. Hence, Error Correction Term (ECM) in short run dynamics provides the speed of adjustment. According to the results ECM is negative and significant. Therefore, there is 23.8827% adjustment correction of the disequilibrium of the real exchange rate towards long run equilibrium after one period for Asian countries. Table 7 shows that a percentage increase in exports and imports contributes to a decrease in exchange rate return. As indicated by Arize, Osang, & Slottje (2000), there is a significant negative impact on the real effective exchange rate from the exports in the short run. More precisely, the significant negative coefficients of sample countries show that 1% increase in exports leads to a 4.17% decrease in exchange rate return, and 1% increase in imports leads to a 0.1% decrease in exchange rate return. The ECM value, which is statistically significant at 1%, specifies the long-run relationship among the variables.

Table 7. Long run coefficient estimates

	Coefficients	Std. Error	t value	Pr(>|t|)
Intercept	4.594420599	0.12669552	36.26348236	9.302979e-83
lexports	-0.018337900	0.07887301	0.23249906	8.164252e-01
limports	0.008776817	0.08840738	-0.09927697	9.210333e-01

Source: Author complied

According to the results in table 8, long run coefficients are significant at 1%. It shows that a 1% increase in exports result in a decrease in exchange rate return by 0.18% whereas a 1% increase in imports results in a rise by 0.8%. The results are consistent with the findings of Kemal & Qadir (2005) which states that in the long-run the real exchange rate negatively associated with the exports and positively associated with the imports. The constant in the long run equation shows that when exports and imports are zero, the exchange rate return is 4.59.

Model Assumptions

The summary of the results is as follows (Table 8 and Table 9).[1]

Table 8. Model assumption

Test	Test Value	p-Value
Breusch-Godfrey Test for the autocorrelation in residuals	0.1413	0.7075
Ljung-Box Test for the autocorrelation in residuals	0.0065115	0.9357
Breusch-Pagan Test for the homoskedasticity of residuals	4.8042	0.5692
Shapiro-Wilk test of normality of residuals	0.9466	0.316

Source: Author complied

Table 9. Pesaran, Shin and Smith Cointegration Test

F-statistic = 7.5371		
	I(0)	I(0)
10% critical value	3.17	4.14
5% critical value	3.79	4.85
1% critical value	5.15	6.36

Source: Author complied

According to the results of both Breusch-Godfrey test and Ljung-Box test, the p-value is greater than the significance level (5%) leading to the acceptance of null hypothesis. Hence there is no autocorrelation presence in the residuals. Breusch-Pagan test (Halunga 2017) result implies the acceptance of the null hypothesis at the 5% level of significance and it can be concluded that the residuals are homoscedastic. p-value obtained in the Shapiro-Wilk test is greater than that of the significance level, implying that the residuals are normal at 5% level of significance.

In the Pesaran, Shin and Smith Cointegration test, the null hypothesis is rejected if the calculated F-statistic is greater than the I (1). Model in this study has a calculated F-statistic = 7.5371 which is greater than the I (1) values of the significance levels, 10%, 5% and, 1%. Hence according to the results, there is cointegration between the variables, Exchange rate, Exports, and Import

V. Conclusions

This study attempts to examine the impact of exports and imports on the exchange rate in Asian countries. Even though many past studies are conducted to examine the relationship between international trade and exchange rate, most of the literature investigates the impact of the exchange rate on imports and exports whereas, this study contributes to the literature by examining the impact of exports and imports on the exchange rate. The study ARDL model checks the effect of exports and imports on exchange rate in Asian countries from 2010 to 2019. The results obtained through the ARDL and VECM model show that the impact of the exports on exchange rate is significant and negative in both short run and long run. However, the effect of imports on the exchange rate is significant and negative in short run. Though the effect of imports on the exchange rate is significant and positive in the long run. The findings are consistent with the existing literature (Hooy & Choong, 2010; Hooy & Baharumshah., 2015; Odili, 2015). Even though various investigations on exchange rate affect trade balance, the study results vary regarding methodology and data set. The study aims to examine the impact of exports and imports on the exchange rate in Asian countries; however, only 18 Asian countries are used as the sample due to lack

[1] "ardlBound" function in RStudio software is used to check the assumptions of the fitted ARDL model.

of data availability. Nevertheless, this study provides valuable information to policymakers of Asian countries in recognizing and making efficient decisions regarding the balance of payment, government budgets exchange rate and international trade policies and agreements.

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