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DIFFERENT APPROACHES TO MERCHANDISE TRADE BALANCE IN PAKISTAN: AN ECONOMETRIC EVIDENCE

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ABSTRACT

The current study empirically examines the three major approaches to trade balance for Pakistan by utilizing the yearly data from 1972 to 2016. Monetary, elasticity, and absorption approaches were tested by developing a model that incorporates all three approaches. The significant contribution of the study is that it uses only the merchandise trade deficit account, which includes trade of only physical goods. The study used time-series data; therefore, variables have been tested for the stationarity, and it is found that there is a combination of I (0) and I (1) variables, so ARDL bounds testing approach to co-integration has been employed to find the short run and long run associations among the variables. The bound test results discovered that there is a presence of stable long-term association among the merchandise trade deficit account, real broad money supply, real effective exchange rate, and real domestic absorption. The results further revealed that merchandise trade discrepancy is determined purely by the real effective exchange rate, which specifies that the exchange rate's devaluation increases the deficit in the long run whereas in the short-run increase in domestic absorption decreases the merchandise trade deficit.

Keywords: Merchandise, absorption approach, monetary approach, elasticity approach, bound test, trade balance.

INTRODUCTION

Balance of payments is a record-keeping manuscript that displays the worldwide transaction of the resident state with the rest of the world; any transaction payments to the foreigners are entered into the Balance of payments account as a debit with a negative sign, whereas a receipt from the foreigners is entered into the balance of payments accounts as a credit with a positive sign (Krugman 2014). Net of Current account, a reserve account, and capital account together make Balance of payment. Balance of payment keeps the full record of a nation's worldwide trade for a definite time duration comprises net foreign assets, import, and export of the nation, financial capital, and transfer (Rajesh Kumar, 2014). The most crucial and significant statistical statement of any country is the Balance of payment. It provides information about various factors that are extremely important for any state. The particular factors cover a broad range comprising numeral of services and goods being imported and exported by the nation, loaning to and borrowing from the world, accumulation or lessening of reserves by Chief Monetary Authority, the relationship between National supplies of Money and Foreign Supplies to name a few. A detailed and thorough study of the Balance of Payment is beneficial for the country in many ways. This is not only important for the country's economic advancement but similarly to the prosperity of the country (Alassane, 2019; Pritam, 2012).

Different aspects in which it assists the treasury are helping in maintaining track of transactions, providing insight into the implications of international transactions of the country, assessing the position of the country in the international economy, to know what is happening in international trade, and help in taking decisions about trade and payments. The Current account, financial account, and capital account make the account of the Balance of Payment. International Monetary Transactions' different forms are accounted for by various sub kinds of these three accounts. The outflow and inflow of the goods and services in which the nation is involved is providing by the current account. (World Bank, 2012; International trade center, 2011; Troy Segal, 2019).

The Trade balance of a nation is a combination of the services and goods provided by the country. Trade Balance usually constitutes the largest part of the Balance of payment of a developing state as it accounts for the overall import and export of the country. Trade deficit refers to when the import of the nation is more than the export, whereas trade surplus points towards more export than the imports. The Current account also includes receipts from non-physical assets such as stocks. Besides these, unilateral transfers are an essentials element of the current account. Direct receipt of foreign aid and remittance of workers makes this flow. (Economic Survey of Pakistan, 2019; Deimante Blavasciunaite, 2020).

Another component of BOP is a capital account, which accounts for all international capital flows. The funds coming in and out of the country as loans and investments help track capital income and expenditure. The net inflow of investment, private and public, in an economy is counted in the Capital Account, and it consists of a portfolio and foreign investments. The Financial account is the third category of the Balance of Payment. It not only accounts for the assets owned by the foreigners but also by the government, foreign reserves, special drawing rights reserved with IMF, monetary, gold, etc. (Claudio Borio, 2015).

Trade Balance is an account that reflects the economic power of an economy. The lower the trade deficit, the greater is the economic power of a country. Developing countries sometimes face this problem because they are in the process of development. Still, when trade deficits continue for years, it is relatively difficult for a country to tackle this problem. Pakistan is fronting the issue of trade deficit since its independence. For the whole period from 1947 till date it is suffering from the Balance of trade deficit except for the three years namely 1947-48 due to the high amount of exports and the country was newly born, so the direction of imports and exports were not appropriately set, the second period was 1950-51, and the major reasons for the surplus were increased export of jute and cotton. Another reason was that

exports also increases due to the Korean War. The third was in 1971-72, and the reason was a very significant devaluation of the Pakistani Rupee. Except for these three years, Pakistan is facing a deficit in the trade balance. The deficit is uninterruptedly increasing, which is alarming for the policymakers and should be appropriately addressed. Pakistan is considered an agriculture-based country; the major exports of Pakistan are rice, wheat, and raw cotton, which constitute almost 50% of the total export earnings, so we need to diversify our exports and focus on industrial exports (SBP, 2016; Deimante Blavasciunaite et al., 2020; John Baffes et al., 2015; Tariq Banuri, 1998).

The objective of the present study is to understand which approach is effective in determining the trade deficits of merchandise in Pakistan. The current study consists of five sections. Section two describes the three approaches to Balance of trade and a detailed literature review. In section three, the methodology of the current study has been described. The next sections present empirical results and the conclusion of the study.

LITERATURE REVIEW

Alterations in the policy always influence the Balance of trade. There are many theoretical explanations regarding the explanation of the effects of these changes on the trade balance. Below three widely acclaimed methods to trade balance are discussed.

The Elasticity Approach

This approach refers to the various assets that occur due to variations in the exchange rate. It similarly describes a stagnant and partial balanced approach to trade balance known as the elasticity approach (Metzler, 1948; Robinson, 1947). Significant determinants of the elasticity approach are changes in prices. The exchange rate is the price of imports and exports, which is included in the model as a contributing factor to the trade balance; subsequently, imports and exports affect the trade balance. The demand for price deviation is enlightened by the elasticity of demand for the price. Demand is considered relatively elastic when the demand is very much responsive to a change in price. Similarly, demand is known as somewhat inelastic when the demand is not very receptive to the altered price. The depreciation in the nation's currency leads to a decrease in the price of national goods and a rise in the price of overseas goods in the domestic marketplace. Therefore, in this scenario, growth in export and weakening in import is expected.

The Absorption Approach

The absorption approach to the trade balance appears at the start of the 1950s when authors like Meade (1951) and Alexander (1952, 1959) shift the emphasis of economic investigation to the trade balance. This approach is seen as additional to the elasticity method by many. The Major focus of the method is on real domestic income. The surge in real income would be prime to expansion in the productive capacity, which results in the improvement of a deficit; domestic absorption has been included in the model after subtracting the exports and adding the imports in the gross domestic product; this has been described in detail in the chapter of methodology. The variables are real measures as the prices are kept as unceasing. There are four categories into which the expenditures of any nation can be sectioned, namely consumption (c), investment (i), government (g), and imports (m). The aggregate of these four groups is local absorption ($a \equiv c + i + g + m$). A nation's real income (y) is equal to entire expenditures on its output $y \equiv c + i + g + x$, where x symbolizes exports. Earlier, there was no sign of the capital flows; therefore, absorption model was highly used. Trade flows, therefore, determine the current account (ca) Balance and is equal to $ca \equiv x - m$. For example, if exports exceed imports, $x > m$, and the state is running a current account excess. The absorption approach conjectures that a state's current account balance is determined by the distinction among real income and absorption, which can be written as: $y - a =$

$(c+i+g+x) - (c+i+g+m) = x - m$ or $y - a = ca$. During the absorption and narrowing periods, the absorption approach is advantageous irrespective of the nation's external enactment. For instance, during an economic contraction, does the nation's current account be better and the nation's currency appreciate? Is it the opposite during economic expansion? An example of economic expansion will help us to understand these situations. It depends on two variables, Real income and real expenditures or absorption. A rise in real income will lead to a rise in real expenditure or absorption. The relative deviations in real income and real outlays or absorption determine if the current account balance will recover or else deteriorate. The current account will improve when the real income increases quicker than absorption. Similarly, the current account will be worse off when real income goes up slower than absorption.

The Monetary Approach

This approach differs somewhat from the previous monetarist approach (Polak, 1957; Prais, 1961; Mundell, 1968, 1971), which materialized in the late fifties. It is said that the country's trade balance will be determined by the interaction of supply and demand for money. Therefore, for each country, the value of the global reserves and the monetary authorities' national assets together reflect the monetary base of that country. Thus, the deviations in the supply of money reflect the alteration in the country's reserves. In short, if the amount of money provided by the state bank is less than the demand for money from the people, the foreign cash flow will satisfy the excess demand. This will help to restore a negative trade balance. On the contrary, if the money provided by the central bank is more than required, the outflow of money to other nations will eradicate the excess money supply. This situation worsens the trade balance.

All these approaches described above exhibit that a trade balance of a country would be affected by fluctuations in the domestic level of income (the absorption approach), money supply (monetary approach), and exchange rate (elasticity approach). Regarding these three theoretical views, this study will develop a model that incorporates all these approaches instantaneously. We will use this model to examine the trade balance in Pakistan. This present study includes all the variables from these approaches because our objective is to verify all of them and make our model strong empirically.

Hypothesis Development

Here is some recent and essential review of empirical investigations relating to the subject matter of this research. This review will provide valuable information from the previous research description and provide a basis and idea for selecting variables. The three above discussed approaches had been verified by several investigators in Pakistan and other nations also. Many researchers did not mention the name of these approaches precisely. They researched with the name of determinants of the trade balance. Still, these approaches were always the center of importance whenever we discuss the policy measures for correcting or reducing a country's trade balance.

Niroomand (1999) and Bahmani Oskooee verified the condition of Marshall-Lerner intended for thirty developing countries from 1960 to 1992. Gomes and Paz (2005) have established a long-term association between the real domestic and foreign income, trade balance, and exchange rate for Malaysia and Brazil during 1965 and 2002. Some other studies empirically examined the link in the middle of the trade balance and exchange rate, as Rose (1991) surveyed the association amongst the real effective exchange rate and trade balance for five OECD countries, considering how to trade Balance remains unaffected by the exchange rate.

There is a range of research that has been undertaken on monetary and absorption methods that are related to trade Balance. Tufail et al. (2014) and Pandey (2013) determined that if there is an increase in the local economy's per capita GDP production will recover the trade balance in that nation. However,

Irhan et al. (2011), Shah and Majeed (2014) have exhibited opposite outcomes that GDP growth per capita in the local economy worsens the trade balance. Ajayi (2007) suggested that an increase in the money supply will boost people to buy more imported goods, eventually increasing the trade deficit. On the other side, Shah & Majeed (2014) suggest that expansionary monetary policy increases the domestic investment, which enhances local production and exports, which may decline trade deficit in the long term. Extant literature directs an insignificant effect of the supply of money on the trade balance.

Linda Akoto (2019) empirically verified the trade balance determinants in post-liberalization Ghana from 1984 to 2015. The study is focused on the verification of the Marshall Lerner condition and the J curve phenomenon. The results specify the absence of Marshall Lerner and the J curve effect. Other variables like household consumption expenditure, government consumption expenditure, and domestic prices are negative and significant in the long-run and short-run. In contrast, money supply and foreign income are positive and significant. Their key finding suggests that the currency depreciation is not an appropriate step to improve the country's Balance of trade.

Bernard et al. (2017) gauge the influence of the exchange rate on Ghana's trade balance. They utilized three-monthly data from 1986Q1 to 2016Q3. For empirical findings, they have employed the ARDL method to co-integration in linear and nonlinear forms. The results specify no long-term and short-term connection between the real exchange rate and trade balance in Ghana when they used the linear ARDL model according to the linear model. It indicates that the phenomenon of J-curve does not exist in both and long and short run. On the other hand, when they used the nonlinear model, they found evidence of the relationship between real exchange rate and Balance of trade.

Essa Alhanom (2016) examined the factors affecting the trade balance for Jordan. He used data from 1970 to 2010 and for empirical verification. He utilized the ARDL approach to find the co-integration. The study used the real exchange rate, national income, and world income to determine the Balance of trade. The findings of this research showed that there is a presence of stable long-term association between the Balance of trade and its determinants. The real exchange rate exercises an adverse influence on the trade balance in the long run, but it is insignificant. The short-run results reveal that the real exchange rate is not a significant factor of trade balance in Jordan, and there is no indication of the J-curve hypothesis in the country.

Waliullah et al. (2010) observed the determinant of the trade balance in Pakistan. He utilized the error correction and co-integration models of the ARDL approach to assessing the short and long-term correlation amid the trade balance and its determinants for the period 1970-2005. He has tested the three theories of the trade balance: theories of elasticity, monetary, and absorption. The results specify a firm long-term link among trade, income, exchange rate, and supply of money variables. The outcomes show that income and money supply play a very significant part in defining the Balance of trade in Pakistan. Conversely, the trade balance is positively linked with the short long-term exchange rate, money supply, and income.

Falk et al. (2008) explored the causes of the trade balance deficit in industrialized and emergent economies. He used the panel data for 32 industrialized countries and employed fixed-effect models and mixed models that allow random slope coefficients. The study used GDP of the trading partners, real effective exchange rate, domestic GDP, and primary Balance of government budget as a percentage of GDP as explanatory variables and trade balance as a dependent variable; he also included foreign direct investment (FDI) as an interactive dummy to discover the impact of the above explanatory variables if the countries have more or less FDI in their country. The findings showed, which is based on the mixed model and fixed-effect models, that depreciation of the exchange rate is directly proportional to the Balance of trade, which means devaluation recovers the Balance of trade, which is stable with the theory and supports the elasticity approach to the trade balance. The trade balance is positively linked to foreign

income; the trade balance is negatively related to national income, which means growth in domestic income will deteriorate the trade balance.

Jarita Duasa (2007) studied the factors affecting trade balance in Malaysia by employing the data from 1974 to 2003. They include monetary and income variables to observe the absorption and monetary approaches to trade balance besides adding the conventional approach's exchange rate, which is the elasticity approach. They explore an indication of a long-term connection of the Balance of trade with money supply and income variables but not among trade balance and real exchange rate. The studies mentioned above concluded that money supply, exchange rate, and income (GDP) are the essential variables affecting trade balance. The above discussion has formulated the following hypothesis:

H₁ = There is a significant relationship between trade balance (g) and domestic absorption.

H₂ = There is a significant relationship between trade balance (g) and money supply (M3).

H₃ = There is a significant relationship between trade balance (g) and the real exchange rate (RER).

RESEARCH METHODOLOGY

As discussed in the literature review in this study, three approaches will be tested. The monetary approach will be captured by the M2 (broad money supply). The elasticity approach is captured by the real exchange rate (RER) that is the price of exports and imports, and the GDP captures the absorption approach. Our concern is domestic absorption, which includes investment, consumption, government expenditure, and imports but not exports. All these variables are already included in the GDP calculation; however, net export (export minus import). The domestic absorption will be measured as GDP + Trade balance + Imports; this calculation gives a correct measure of domestic absorption. Based on these variables, the following hypothesis has been developed.

Data Source

In the current study to analyze the trade balance of Pakistan, the time series data has been utilized from 1972 to 2016. All the data has been used from a statistical handbook available on the Pakistan State Bank website. Data on the Gross domestic product (GDP), real effective exchange rate REER and Broad Money Supply are in their actual numbers available on the website. Data on exports and imports of goods and services are available in a million dollars while Data of GDP & broad money (M2) were in a million Rupees to transmute them in the same measure, GDP and broad money have been transformed into million dollars via the nominal exchange rate in the corresponding years. Real measures are all-time reflects better for economic analysis as they provide flawless influence in real terms; for this purpose, in the present study, we have transmuted all the data in real terms via the GDP deflator, which is divided by Broad Money (M2), GDP, imports and exports of goods and services to find the real broad money, real GDP and real imports and exports of goods and services. Data on real exports and real imports of services are calculated by deducting the real merchandise export and importing total real imports and exports of goods and services. To find the trade deficits of merchandise trade deficit account discussed earlier, we have subtracted the real exports of merchandise goods from real imports of merchandise for the trade deficit account on goods. The study will use the merchandise trade deficit account in actual value and capture the impact of the variables on trade deficit account whether it is deteriorated or improved that is the reason we have subtracted the real values of exports from imports and this has been done because in the whole study period there is not a single year in which we have exports more than the imports.

Model Specification

The model given below is the standard model, which incorporates all three approaches simultaneously. Many empirical readings have utilized this model to measure these approaches. Dausa (2007), Waliullah (2010) follow the same model to find the empirical evidence, and other studies also used the same variables to measure the same approaches but separately.

Model:

$$TDg = f(RDA, RBM, RREER) \text{ --- (1)}$$

$$TDg = \beta_0 + \beta_1 RDA + \beta_2 RBM + \beta_3 REER + \mu \text{ --- (2)}$$

Where

- TDg = Merchandise Trade Deficit
- RDA = Real Domestic Absorption
- RBM = Real Broad Money Supply (M2)
- REER = Real Effective Exchange Rate.

The above equation shows the three variables to incorporate all three approaches which have discussed previously and the Balance of trade of goods (BTg) has been used as a dependent variable which includes the import and export of only physical products and it is taken as an overall value of deficit.

Log Transformation and ARDL equation

To estimate the robust results, the current study utilized the Autoregressive Distributed Lag Approach (ARDL) approach to ascertain the presence of short-run and long-run associations. ARDL is very constructive because it allows us to explain the existence of equilibrium association in expressions of short-run and long-run dynamics in the absence of losing extended run information. ARDL approach to co-integration consists of estimating the following standard ARDL equation for all the three models discussed in the above section. The variables are taken in natural logarithm form to estimates their elasticities.

$$\Delta LnTDg = \beta_0 + \sum_{i=1}^n \beta_1 \Delta Ln(TDg)_{t-i} + \sum_{i=1}^n \beta_2 \Delta Ln(RDA)_{t-i} + \sum_{i=1}^n \beta_3 \Delta Ln(RBM)_{t-i}$$

$$+ \sum_{i=1}^n \beta_4 \Delta Ln(REER)_{t-i} + \lambda_1 Ln(TDg)_{t-i} + \lambda_2 Ln(RDA)_{t-i} + \lambda_3 Ln(RBM)_{t-i}$$

$$+ \lambda_4 Ln(REER)_{t-i}$$

The initial part of the above equation with $\beta_1, \beta_2, \beta_3 \& \beta_4$ shows the short-run underlying forces of the model while the parameters $\lambda_1, \lambda_2, \lambda_3 \& \lambda_4$ explain the long-run relationships between the variables. The investigation will begin by assessing a bound test to confirm the null hypothesis, which is of no co-integration on the source of F statistics and critical value, which is tabularized by Pesaran (2001). After finding the long-run association, we will estimate the error correction model (ECM) to find the short-run dynamics and measure the promptness of correction to the long-run equilibrium. A detail of the estimation procedure is discussed in the next section.

Estimation Technique

The current study employed the ARDL bound testing approach to co-integration, popularized by Pesaran (2001), to find the variables' causality path. ARDL approach provides reliable and robust results for both short-run and long-run relationships; in recent times, it becomes the most popular technique to find the

co-integration among the variables. This proposition does not entail presenting the variables, which implies that the assessment to find the association among the variables is suitable regardless of the fundamental variables are merely I (0), I (1), or a combination of both.

The present study employs two-step processes to conclude the link among the variables. The primary stage includes forming the order of integration by using the Augmented Dickey-Fuller (ADF) to form whether each data series is integrated and has a unit root; the order of integration of the data is one of the important assumptions in determining the co-integration between the variables especially when you are dealing with time-series data. Our data is time series in the current study, so first, the order of integration will be checked, and then the analysis would move further. The second stage involves analyzing co-integration by using an Autoregressive Distributed lag (ARDL) bound testing approach to co-integration for the long-run and short-run associations among the variables under study.

EMPIRICAL RESULTS

Before moving towards the co-integration test to find the long run and short run associations amongst the variables, the order of integration test has been accompanied to verify integration. For this Augmented Dickey-Fuller (ADF) assessment is conducted, and their results are reported in table 1.1. Log of real broad money, a log of the real effective exchange rate, and real domestic absorption log are non-stationary at the level. They are stationary at the first difference at a 10% level of significance, and probabilities are also insignificant. In contrast, significant at the first difference, it means they all are I (0). The log of trade deficit of goods is stationary at level; it is I(0). These results indicate that there is a blend of I(0) and I(1) that designates we can proceed with the Autoregressive Distributed Lag (ARDL) bound testing approach to co-integration for further inferences.

Augmented Dickey-Fuller (ADF) Test

Table 1.1

Augmented Dickey-Fuller (ADF)

Variables	Level			First Difference		
	t-statistics	Critical value at 5%	Probability	t-statistics	Critical value at 5%	Probability
Log of Real Trade Deficit (Goods)	-3.361	-3.518	0.0785	-5.439	-3.520	0.0003
Log of Real Broad Money	-2.339	-3.515	0.4048	-7.056	-3.518	0.0000
Log of Real Effective Exchange Rate	-0.402	-3.515	0.9844	-6.742	-3.518	0.0000
Log of Real Domestic Absorption (GDP)	-2.129	-3.515	0.5157	-6.859	-3.518	0.0000

Now we turn to the ARDL approach results for the long-run and short-run associations for each model that had been deliberated previously. In ARDL, the first long-run co-integration has been tested using

the bound test, which specifies the long-run association amongst the variables. The long-run and short-run normalized outcomes will be debated for each model.

Bound Test

Table 1.2

Bound test

Null Hypothesis	No Long-run relationship exists	
Test Statistic	Value	K
F-Statistic	6.917	3

Critical Value Bounds		
Significance	I0 Bound	I1 Bound
10%	2.72	3.77
5%	3.23	4.35
2.5%	3.69	4.89
1%	4.29	5.61

The above table (1.2) is showing the result of the bound test, which is showing that there exists a long-run co-integration amongst the variables because the value of F-statistics (6.90769) is higher than the critical value of upper bound I1 (4.35) at the 5% level of significance. When the value of F-statistics is higher than the upper bound value, it implies the rejection of the null hypothesis of no co-integration. It thus concludes the existence of a long-run association in the model. However, when the calculated F value is lesser than the lower bound, it implies accepting the null hypothesis of no co-integration. We determine no long-run relationship between the variables. When it is between the upper bound and lower bound, it is called inconclusive. The level of significance is also given at each bound test statistic; here, we are considering a 5% level of significance in this study. According to the above result, F-statistics is highly significant and higher than the upper bound even at a 1% level of significance, and the null hypothesis of no co-integration has been dismissed. After concluding the long-run association's presence, we can further move for the long-run coefficients and their interpretation.

Estimated Long Run Coefficients using the ARDL Approach

Table 1.3

Long Run Coefficients

Dependent Variable LMTD (Log of Merchandise Trade Deficit)

Variables	Coefficients	Std. Error	t-values	Prob-values
LRDA	0.019	0.874	0.022	0.983
LREER	2.611	0.572	4.562	0.000
LRBM	1.278	0.735	1.738	0.092

The result in table 1.3 shows the long-run association; the outcomes indicate that the domestic absorption as measured by the real domestic absorption (LRDA) does not have a significant impact on the merchandise trade balance, so the null hypothesis of no significant association amongst merchandise trade deficit and domestic income cannot be rejected. The Absorption approach, in this case, is not a significant tool to improve the merchandise trade deficit account. The next variable, which is the real effective exchange rate (REER), is highly significant as the probability is smaller than 5%. It is positively

associated with the merchandise trade deficit account, which indicates that when the exchange rate increases, it will increase the merchandise trade deficit account; when the local currency depreciates, it will further raise the deficits.

According to the above results, a 1% depreciation of the real effective exchange rate will increase the merchandise trade deficit by 2.61%. This result is steady with the elasticity approach, which postulates that imports and exports are the important determinants of a nation's trade balance. However, the depreciation of the exchange rate further deteriorates the trade balance, which means that demand for imports is inelastic and expensive imports could not decrease the demand for imports; therefore, the outcome is different from the theory. The last variable, which is real broad money (LRBM) is also insignificant at a 5% level of significance; the null hypothesis of no significant connection between money supply and merchandise trade deficit cannot be rejected. So the only significant relationship of merchandise trade deficit is with real effective exchange rate in the long run.

Error Correction Representation for the selected ARDL-Model (Short-run Co-integration)

Dependent Variable: Δ MTB

Variables	Coefficients	Std. Error	t-values	Prob-values
Δ LMTD t-1	0.475	0.122	3.879	0.000
Δ LRDA	1.660	0.828	2.004	0.054
Δ LRDA t-1	-0.765	0.863	-0.886	0.383
Δ LRDA t-2	-0.691	0.166	-4.177	0.000
Δ LREER	0.022	0.913	0.024	0.981
Δ LRBM	-1.116	0.838	-1.331	0.193
Δ LRBM t-1	1.029	0.886	1.161	0.255
CointEq t-1	-0.434	0.090	-4.827	0.000

The above results in table 1.4 are the co-integrating short-run dynamics outcomes of the ARDL model. They indicate that the only statistically significant relationship of merchandise trade deficit is with real domestic absorption (LRDA) in the short run, and the null hypothesis of no significant association is rejected. In the short run, the merchandise trade deficit is affected by domestic absorption merely. The Absorption approach hypothesized that an increase in real income raises real expenditure or real absorption. If real income increases more rapidly than domestic absorption, then the trade balance will recover. If real income grows slower than absorption, then the trade balance deteriorates. Here, the trade deficit is reduced when real domestic absorption is increased; this implies that real income grows quicker than the absorption. The lagged error term (CointEq t-1) is negative and statistically significant, as shown in table 1.5; it means causality exists in at least one direction. The coefficient of -0.434467 specifies a

degree of transformation to equilibrium, which suggests that deviance from the long-run equilibrium is adjusted by about 43.44% each year. All other variables are not significant at all in the short run.

CONCLUSION

The present study examines the three foremost alternate approaches to the trade balance. The theories are the elasticity and absorption approaches related to the Keynesian school of thought besides the monetary approach associated with the monetarist. The important determinant is the real exchange rate, which has a positive association with the deficit of merchandise trade in the long run. The most important policy implication from this finding is that the deficit of merchandise trade cannot be reduced by using exchange rate policy in the long run because depreciation of the local currency cannot bring improvement in the deficit and it is increasing the deficit, which is indicating that demand for imports is inelastic. The country should move towards the development of import substitution industries, while in the short-run domestic absorption can reduce the deficit of merchandise trade. In this case, domestic income can play a major role in determining the trade deficit. Future studies may focus on the overall Balance of payment behavior or some specific account of it like services trade.

POLICY RECOMMENDATIONS

The critical policy implication is that exchange rate depreciation cannot improve the deficit of the merchandise trade deficit in the long run. On the other hand, in the short-run, the important variable is domestic income, which can improve the merchandise trade deficit. It means that the country may reduce the deficit by encouraging domestic production, which will increase the income and reduce the deficit.

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