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#### Revisiting the Trade Balance Nexus: The Role of Exchange Rates and Oil Price in Developing Countries

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	Abstract
<p><b>Muhammad Akbar Noor</b> Associate Professor of Economics Govt Alamdar Hussain Islamia College Multan, Pakistan. <a href="mailto:akbarnoor4422@gmail.com">akbarnoor4422@gmail.com</a></p> <p><b>Muhammad Suleman Bara</b> Master of Business Administration, University of Central Punjab, Pakistan. <a href="mailto:sulemanbara4@gmail.com">sulemanbara4@gmail.com</a></p> <p><b>Javaid Hussain*</b> PhD Scholar, Bahuddin Zakariya University, Multan, Pakistan. Corresponding Author Email: <a href="mailto:javidh10@gmail.com">javidh10@gmail.com</a></p> <p><b>Muhammad Tanzel</b> Bachelor of Economics, Bahauddin Zakariya University Multan, Pakistan. <a href="mailto:tanzeclarain109@gmail.com">tanzeclarain109@gmail.com</a></p>	<p>This study investigates the impact of real effective exchange rate, oil price, economic growth, and capital account balance on trade balance in developing economies. Using panel data for ten developing countries over the period 1970–2023, the study applies dynamic panel ARDL techniques to capture both short-run and long-run dynamics. The findings indicate that an appreciation in real effective exchange rate negatively affects trade balance by reducing export competitiveness, while economic growth and capital account balance positively contribute to improving trade balance. Oil price fluctuations have asymmetric effects depending on countries’ net oil positions. The error correction term confirms convergence toward long-run equilibrium, highlighting the importance of coordinated macroeconomic and external sector policies. The study provides updated empirical evidence and offers policy insights for enhancing trade balance sustainability, optimizing capital inflows, and managing oil price exposure in developing economies.</p> <p>Jell Codes: F31, O47, Q41, F31, F1</p>
<b>Keywords:</b>	Real Effective Exchange Rate, Oil Price, Capital Account Balance, Trade Balance. Panel ARDL. Developing Countries



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### 1. Introduction

Openness has been a well-known factor in the progress and improvement of an economy, especially in the developed economies. In a broad sense, openness is the trade collaboration of a country in the global world which includes trade liberalization, capital mobility. The classical economic theories of Adam Smith and Ricardo have been highlighting the advantages of trade openness with comparative advantage (Seti et al., 2025). Exchange rate stability has become a major factor of economic performance in the global finance environment. The exchange rates, the price at which an exchange of a currency can be made with another currency, affect the international trade, investment decisions and the general economic well-being. Multinational corporations and investors are particularly interested in their stability as it directly influences returns on the investment and strategic economic choices. The environmental, social, and governance (ESG) performance of firms has become prominent in recent years as well since it is a metric of long-term corporate sustainability and resilience (Al Amosh, 2024). The example of South Africa is that when the Bretton Woods system failed, the country switched to a flexible exchange rate regime, which enabled the market forces of demand and supply to set the value of the currency (Mokgokong & Choga, 2025). Exchange rate movements have a great impact on trade, which is a key element of the CA. The export-import balance is a determining factor in the stability of the current account (Kose and Unal, 2024). Equally, the ASEAN region has experienced tremendous growth in the last 20 years characterized by a strong GDP growth, and vibrant trade balances. However, exchange rate changes are a decisive element that defines the trade balances and growth in output in these nations (Parianom et al., 2025). Exchange rates serve as an important price mechanism in open economies, where they have an impact on business activities, investment policies and policy formulation (Liew et al., 2003). Since the Bretton Woods system was dismantled in 1973, researchers have performed a vast amount of studies on the impacts of exchange rate levels and volatility on trade flows in different economies (Kim et al., 2024). The fluctuation of exchange rates, which is caused by fluctuations in interest rates, inflation, or economic productivity, may increase the cost of transactions and nullify the advantages of international trade (Lal et al., 2023). The trade balance is affected by economic growth which is usually measured by the growth in GDP in a dual way. Under the absorption approach, a fast growth will stimulate domestic demand, which may increase trade deficits in the event that the growth in exports is slow. On the other hand, growth has the capacity to increase the production capacity, competitiveness, and export potential, which will improve trade balances in the long run (Zia et al., 2025). Recent facts indicate that the correlation between growth and external balances is very contextual, especially in developing economies whose export structures are diverse and their degrees of integration into global value chains are not the same. According to panel studies, financial and trade openness has the potential to reinforce the long-term advantages of economic growth on the performance of the external sectors (Ali et al., 2025). The oil prices have a direct effect on the balance of trade of the developing economies, particularly to the net oil importers. Increasing oil prices in the world market raise the cost of imports, create trade imbalances, raise the cost of production and may create inflationary pressures. Empirical studies prove that oil price shocks have a negative impact on the external accounts of net oil-importing emerging economies, but on the other hand, oil-exporting countries tend to gain due to the rise of export revenues (Khan et al., 2025). This highlights the need to consider the energy trade structure and net oil position of a country in determining the impacts of oil price changes on the performance of trade. The balance of payments closely relates capital account which shows net inflows of capital in form of FDI, portfolio investments and external borrowing. Although a surplus in the capital account can be used to fund short-term trade deficits, productive inflows can be used to increase long-term export capacity and competitiveness. Recent research indicates that there are changing trends of capital flows to emerging markets with financial integration potentially generating sustained inflows with complicated effects on trade balances through exchange rates, investment, and production (Moyo & Garidzirai, 2022). Crude oil as a key source of energy to families, companies, and the state is a major contributor to economic activity which includes heating, production, and transportation. Crude oil price volatility impacts on macroeconomic stability and trade flows, especially in the sub-Saharan African nations that are highly dependent on oil imports (Chen & Hsu, 2012). The oil-exporting countries benefit as oil prices rise, and importers have to borrow more and have to experience poor trade conditions (Nusair, 2016). In addition, volatility may decrease the consumption of durable goods and decrease production and investment, thus limiting the total flow of trade (Forson et al., 2023). The developed nations normally seek positive trade balances where export revenues are more than the import payments. Conversely, developing economies, such as South Africa, Algeria, Nigeria, and Egypt (SANE countries) tend to have current account deficits, which is a sign of increased imports compared to exports. These deficits imply low domestic savings, high consumption, and reliance on foreign resources to fund domestic investment and consumption effectively making the country an efficient rest of the world (Gruber, 2007).

This paper adds contribute to the current body of literature in a significant ways. First, it expands the empirical knowledge of the dynamics of trade balance in the developing economies through a combined study effects of growth, OP movements, and capital account balance in a single framework. Although most of the previous research studies tend to consider them individually, this study combines the domestic macroeconomic performance, external commodity price shocks and financial flow dynamics into one model, which provides a more detailed study of the external sector behavior. Second, the research offers recent evidence based on recent data, which reflects the adjustments after



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the global financial crisis and recent oil price volatility, which are under-researched in the context of developing countries. Third, the research targets the specific developing economies, which narrows down to structural weaknesses of energy importation and fluctuations of capital flows that are not comparable to those of the developed nations. Lastly, the results provide policy-relevant information on enhancing the external sustainability, oil price exposure management, and capital inflows optimization to enhance the trade balance stability.

The rest of the research is laid out in the following way. Section 2 is the review of the pertinent empirical and theoretical literature on the bond between economic growth, capital account balance, oil prices and trade balance in the developing economies. Section 3 runs the theoretical background of the model and formulates the study hypotheses. Segment 4 explains the data used, variables and econometric analysis. Section 5 summarizes the empirical findings and comments on them concerning the available literature and policy implications. Lastly, Section 6 is a conclusion of the study that summarizes the most important findings and provides recommendations to policy makers and future studies.

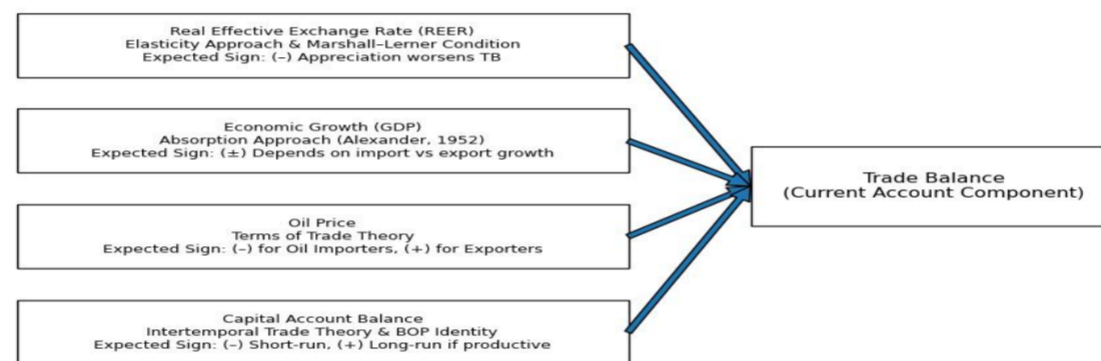
### 2. Literature Review

Many of studies have been directed to consider the connection among EXR movements and trade with special emphasis on how exchange rate volatility affects exports. Nevertheless, the results are inconclusive and ambivalent. There are studies that show positive correlation and there are studies that report negative or insignificant effects. The main cause of these inconsistencies is the differences in data sets, methods of estimating and country-specific economic structures. Several studies record a adverse impact of EXR. As an example, Serenis & Tsounis (2013) discovered that the changes of the exchange rate has an adverse effect on exports in Croatia. In the same vein, Sugiharti et al. (2020) in the ARDL methodology, found that variations in the EXR had a destructive impact on the exports of Indonesia in the 2006-2018 period. There is evidence in Ethiopia Mehare & Edriss (2013) that devaluation of the exchange rate lowers the export of primary goods and declines the terms of trade. In Uruguay, Mordecki & Miranda (2019). used cointegration methods and found out that exchange rate volatility has an adverse outcome on exports in both time periods. Based on monthly panel data and ARCH-based measures of volatility, Sharma (2020) founded that exchange rate had a contractionary impact on the exports of India. Moreover, Rajkovic et al., (2020) investigated how the real exchange rates would impact the exports. Using GARCH to estimate instability and FMOLS, DOLS and ARDL to estimate, they established that EXR instability has an important bad impression on U.S. exports to BRICS. On the same note, Ekanayake & Dissanayake (2022) validated the contractionary consequence of EXR on exports in the Asian economies in the short run. Research on bilateral trade relationships also brings negative effects to the fore. As an illustration, Zhu et al., (2022) documented the negative short-run impacts of uncertainty on exchange rates on the trade of commodities between the United States and Australia. Similarly, Oskooee & Wang (2008) established that exchange rate fluctuation lowers trade movements between the United States and Canada, whereas Oskooee & Bolhassani (2012) noted that exchange rate has a negative impression on Canada and Japan exports to the US and also on Australian exports to the rest of the world. There is also evidence by the Organization of Islamic Cooperation (OIC) countries Choudhry (2005) examined that the exchange rate volatility has a negative impact on both the short and long-term major export commodities. To examine manufacturing exports in the ASEAN-5 countries, Qian & Varangis (1994) used ARCH/GARCH derived volatility measures and ARDL and nonlinear ARDL models. Their findings show that in the short run, exchange rate volatility decreases exports. Equally, Handoyo et al. (2022) with an annual data between 1980 and 2012, found a negative effect of exchange rate volatility in ASEAN-4 countries when a model of the error was used. The asymmetric effects were found in evidence by Handoyo et al. (2023) in Turkey, where higher volatility is linked to lower exports both in the short and long term. Nevertheless, Soleymani et al. (2017) discovered that the exports of Turkey are not responsive to the exchange rate depreciation in the period between 1992 and 2010. A random effects model was used by Tarakçi et al. (2022) in Thailand, which concluded that export of garments and textile is adversely impacted by exchange rate volatility. Akinlo and Apanisile (2015) studied 8 oil-exporting African states from 1988-2014 and discovered that there was a encouraging association between OP and growth. Equally, Nusair (2016) noted that oil prices are encouraging economic development in the GCC nations. Similar findings were reported by Mehrara (2008) who reported a positive correlation between the oil rents and economic growth in eleven oil-dependent Middle East and North African (MENA) countries between 1996 and 2014. Similarly, Matallah and Matallah (2016) established that oil prices boost economic growth in 13 oil-exporting nations between 1965 to 2004. Conversely, Moshiri and Banihashem (2012) revealed that the price of oil has no significant effect on economic growth in six countries that are members of OPEC in 1970 to 2009. In general, the empirical evidence on the effects of exchange rate volatility on exports and oil prices on economic growth is mixed and inconclusive as indicated in the empirical literature. Although numerous studies have found the negative impact of exchange rate volatility on exports, some studies have found that the effect is insignificant and this could be due to country-specifics, model-specifics, and estimation methods.

### 3. Theoretical Framework

This study is grounded in established open-economy macroeconomic theories that explain the determinants in developing nations. The association between economic growth, oil prices, and capital account balance with trade balance can be theoretically justified through the absorption approach, elasticity approach, intertemporal trade theory, and the balance of payments identity. The absorption approach developed by Sidney S. Alexander (1952) argues that the trade balance depends on the difference between national income ( $Y$ ) and domestic absorption ( $A$ ), expressed as  $TB = Y - A$ . According to this framework, higher economic growth increases income, but if domestic absorption (consumption + investment + government spending) rises faster than output, imports increase and the trade balance deteriorates. In developing economies, rapid growth often stimulates demand for imported capital goods, intermediate inputs, and energy, potentially widening trade deficits. Elasticity Approach and the Marshall–Lerner condition—associated with Alfred Marshall and Abba P. Lerner—explain trade balance adjustments through price competitiveness and exchange rate effects. Oil price fluctuations influence trade balance through import price elasticity. For net oil-importing developing nations, a rise in international oil prices raises import expenditures, worsening the trade balance unless export revenues adjust proportionately. Intertemporal Trade Theory, developed by Maurice Obstfeld and Kenneth Rogoff (1995), emphasizes that trade imbalances reflect intertemporal consumption and investment decisions. Countries borrow (capital inflows) when domestic investment exceeds savings, leading to trade deficits. In this context, a capital account surplus (net inflows) corresponds to a trade deficit through the balance of payments identity. However, if capital inflows finance productive investments that enhance export capacity, long-run trade balance may improve.

Figure 1: Theoretical Framework of Trade Balance Determinants



### 4. Data and Methodology

#### 4.1 Model Specification

In this study we use trade balance as dependent and real effective exchange rate, economic growth, oil price, and current account balance as independent variables.

$$TB = f (REER, EG, OP, CAB) \quad (1)$$

Where,

TB= Trade Balance (Dependent Variable)

REER= Real Effective Exchange Rate

EG= Economic Growth

OP= Oil Price

CAB= Current Account Balance

General equation of model:

$$TB_{it} = \phi_1 + \phi_2 REER_{it} + \phi_3 EG_{it} + \phi_4 OP_{it} + \phi_5 CAB_{it} + \mu_{it} \quad (2)$$

Standard theory assumes that in the above model,  $\phi_2 > 0$ ,  $\phi_3 > 0$ ,  $\phi_4 > 0$  and  $\phi_5 > 0$ . The error term is considered to be normally distributed. The coefficients  $\phi_2$ ,  $\phi_3$ ,  $\phi_4$ , and  $\phi_5$  are the elasticity of trade balance concerning the exchange rate, economic growth, oil price, and current account balance. The specifications of the ARDL model are as follows:

$$\Delta TB_t = \alpha_0 + \sum_{i=1}^l \alpha_{1i} \Delta REER_{t-i} + \sum_{i=1}^p \alpha_{2i} \Delta EG_{t-i} + \sum_{i=1}^q \alpha_{3i} \Delta OP_{t-i} + \sum_{i=1}^q \alpha_{4i} \Delta CAB_{t-i} + \phi_1 TB_{t-1} + \phi_2 REER_{t-2} + \phi_3 EG_{t-3} + \phi_4 OP_{t-4} + \phi_5 CAB_{t-5} + \mu_t \quad (3)$$



#### 4.2 Data and Source

The analysis uses panel data covering 2000-2023 on 45 developing and emerging economies. Trade balance (TB) in terms of exports and imports (WDI) is the dependent variable. The independent variables are real effective exchange rate, economic growth (GDP constant 2015 US\$), oil prices (BP Statistical Review), and capital account balance (CAB, % of GDP, WDI). The selection of data also covers the global financial liberalization periods, the 2008 global financial crisis, and recent oil market shocks. The data properties and the appropriateness of the data to be used in dynamic panel ARDL estimation are evaluated using summary statistics, correlation analysis, panel unit root and cointegration tests.

**Table 1: Data Specification**

Indicators	Unit of Measurement	Symbols	Source of Data
Trade Balance	Export – Import	TB	WDI
Exchange Rate	Real effective exchange rate index	EXR	WDI
Economic Growth	GDP (constant 2015 US\$)	EG	WDI
Oil Price	Oil price in Barrels	OP	BP Stat
Current Account Balance	Current account balance (% of GDP)	CAB	WDI

#### 4.3 Methodology

This study focuses on analyzing the impact of the exchange rate and economic growth on trade balance in 45 developing economies. The study employs the Panel ARDL technique to analyze the relationship among the variables. Unit root tests LLC, and IPS use to verify data stationarity. For cointegration checking among the variables uses cointegration tests like Pedroni and Kao tests. For this purpose, we take data from the WDI of real effective exchange rate, economic growth, capital account balance, trade balance and British Petroleum Statistics (BPS) sources. Covering panel data of 24 years from 2000-2024. The 45 countries are taking in this study.



### 5. Results and Discussions

#### 5.1 Descriptive Statistics

Its calculated the central location and extreme values which can significant impacts the value. In this table below shows where mean value of trade balance is  $3.12E+13$ , real effective exchange rate 98.1169, economic growth  $8.07E+11$ , oil price 76463.34, and current account balance -0.5369 respectively. The maximum value of the data set represents the upper bound and here the maximum value of trade balance is  $9.07E+14$ , real effective exchange rate 156.9775, economic growth  $4.58E+12$ , oil price 83574.00, and current account balance 12.2562 respectively. The minimum value is smallest and explains the overall spread and range of data here the value of minimum of trade balance is  $5.26E+09$ , real effective exchange rate 57.5540, economic growth  $1.19E+10$ , oil price 67552.00, and current account balance -22.9392 respectively. The standard value of the data found the spread out, quantify variation point relative to a mean the value of trade balance is  $1.17E+14$ , real effective exchange rate 12.6158, economic growth  $1.03E+12$ , oil price 4300.792, and current account balance 5.2154 respectively. The skewness value is asymmetric of a probability distribution the value of skewness of trade balance is 5.4200, real effective exchange rate 0.8813, economic growth 1.9018, oil price -0.3832, and current account balance -0.6641 respectively.

**Table 2:**

	<b>TB</b>	<b>REER</b>	<b>EG</b>	<b>OP</b>	<b>CAB</b>
Mean	3.12E+13	98.1169	8.07E+11	76463.34	-0.5369
Median	5.05E+11	98.4701	3.00E+11	76685.00	-0.4647
Maximum	9.07E+14	156.9775	4.58E+12	83574.00	12.2562
Minimum	5.26E+09	57.5540	1.19E+10	67552.00	-22.9392
Std. Dev.	1.17E+14	12.6158	1.03E+12	4300.792	5.2154
Skewness	5.4200	0.8813	1.9018	-0.3832	-0.6641
Kurtosis	33.46058	7.1442	6.2036	2.6600	4.6169
Jarque-Bera	28877.94	560.2731	683.1961	19.4253	120.9577
Probability	0.000000	0.0000	0.0000	0.0000	0.0000
Sum	2.07E+16	65051.54	5.35E+14	5.0695	-355.9936
Sum Sq. Dev.	9.06E+30	105362.8	7.04E+26	1.22E+10	18007.17

#### 5.2 Correlation Matrix

The correlation matrix shows the direction and strength of relationships among variables, with values ranging from -1 to 1. The diagonal is always 1, as a variable is perfectly correlated with itself. Economic growth shows a weak positive correlation with trade balance (0.1557) and a weak negative correlation with the real effective exchange rate (-0.0825). Oil prices are weakly positively correlated with all variables. The CAB is positively connected with trade balance (0.1283), real effective exchange rate (0.0854), economic growth (0.2684), and oil prices (0.1841).

**Table 3:**

	<b>TB</b>	<b>REER</b>	<b>EG</b>	<b>OP</b>	<b>CAB</b>
<b>TB</b>	1				
<b>REER</b>	0.3429	1			
<b>EG</b>	0.1577	-0.0825	1		
<b>OP</b>	0.0699	0.0643	0.0562	1	
<b>CAB</b>	0.1283	0.0854	0.2684	0.1841	1

#### 5.3 Unit Root Test

In both LLC, and IPS real effective exchange rate, oil price and current account balance become stationary at level but all variables become stationary at 1<sup>st</sup> difference. And showing the mix order of cointegration among the variables.

**Table 4:**

	LLC		IPS	
	<i>I</i>	<i>I(0)</i>	<i>I</i>	<i>I(0)</i>
TB	0.34012 (0.6341)	-17.5676 (0.0015)	6.40715 (1.9876)	-17.5555 (0.0025)
REER	-2.29775 (0.0108)	-11.3984 (0.0002)	-3.01550 (0.0013)	-12.0758 (0.0000)
EG	0.49320 (0.6891)	-16.5425 (0.0009)	5.22496 (1.0000)	-16.3908 (0.0000)
OP	-6.17652 (0.0000)	-11.9307 (0.0000)	-3.22956 (0.0006)	-9.87590 (0.0000)
CAB	-2.73516 (0.0031)	-14.0732 (0.0000)	-3.16550 (0.0008)	-17.1753 (0.0000)

### 5.4 Cointegration Results

#### 5.4.1 Pedroni and Kao

This table define the results of cointegration tests. The Panel v-Statistic and Kao test indicate evidence of cointegration at 5% significance. Most Panel rho, ADF, and PP statistics suggest that variables are non-stationary at levels but may become stationary after differencing. Overall, the results confirm a long-run relationship among the variables in the panel.

**Table 5:**

	Statistic	Prob.	Statistic	Prob.
Panel v Statistic	0.284073	0.0382	0.219496	0.0131
Panel rho-Statistic	1.670793	0.9526	1.549144	0.9393
Panel PP Statistic	-0.486759	0.0132	-1.605939	0.0541
Panel ADF Statistic	-0.406828	0.3421	-1.055799	0.1455
Group rho Statistic	3.709029	0.9999		
Group PP-Statistic	-1.553014	0.0302		
Group ADF Statistic	-0.939023	0.0139		
Kao	0.3536	0.0131		

### 5.5 CSD Test

This table reports cross-sectional dependence tests for all variables. The Breusch-Pagan LM, Pesaran scaled LM, bias-corrected LM, and Pesaran CD tests all have p-values of 0.0000, indicating strong cross-sectional dependence. This means that shocks in one country or panel unit significantly affect others.

**Table 6**

	TB	REER	EG	OP	CAB
CSD Tests	Statistic (Prob)	Statistic (Prob)	Statistic (Prob)	Statistic (Prob)	Statistic (Prob)
Breusch-Pagan LM	11220.73 (0.0000)	2266.687 (0.0000)	10316.25 (0.0000)	10440.00 (0.0000)	2293.454 (0.0000)

Pesaran scaled LM	364.6536 (0.0000)	67.67255 (0.0000)	333.9888 (0.0000)	338.1842 (0.0000)	61.99041 (0.0000)
Bias-corrected scaled LM	364.1178 (0.0000)	67.17255 (0.0000)	333.4531 (0.0000)	337.5320 (0.0000)	61.45470 (0.0000)
Pesaran CD	105.8065 (0.0000)	13.46907 (0.0000)	98.49768 (0.0000)	102.1763 (0.0000)	10.75072 (0.0000)

### 5.6 Panel ARDL Results

#### 5.6.1 Long Run

The long-run outcomes indicate that the trade balance in developing economies is significantly influenced by all key explanatory variables. An appreciation in the real effective exchange rate tends to worsen the trade balance, reflecting reduced export competitiveness and higher import costs, and findings from similar studies in emerging markets (Kumar & Mukherjee, 2022; Ahmed et al., 2021). Economic growth, on the other hand, has a positive effect on TB, suggesting that expansion in domestic production and export capacity can offset rising import demand, supporting the absorption approach as noted in Alexander (1952) and recent analyses by Rahman et al. (2023). Oil price fluctuations also significantly impact the trade balance, with higher oil prices generally increasing trade deficits for oil-importing countries due to higher import bills, while potentially benefiting oil exporters—a result in line with the terms-of-trade theory (Ghosh & Kanjilal, 2021; Bouri et al., 2022). Finally, the capital account balance contributes positively to trade balance in the long run, indicating that productive capital inflows can strengthen external accounts by enhancing investment and export capacity, supporting evidence from intertemporal trade models (Obstfeld & Rogoff, 1995; Shahbaz et al., 2017).

**Table 7:**

	Coefficient	Std. Error	t – Statistic	Prob
LREER	-0.237158	0.073022	-3.247780	0.0012
LGDP	0.424346	0.086605	4.899812	0.0000
LOP	1.046129	0.207429	5.043322	0.0000
CAB	0.017776	0.003279	5.421154	0.0000

#### 5.6.2 Short Run

The short-run results highlight the immediate effects of key macroeconomic variables on the trade balance in developing economies. The error correction term is negative and significant, confirming that any short-run deviations over time, consistent with standard Panel ARDL dynamics (Pesaran et al., 1999; Rahman et al., 2023). In the short run, a rise of the REER still adversely affects the trade balance, reflecting reduced export competitiveness and higher import costs, aligning with findings from Kumar and Mukherjee (2022). Economic growth has a strong positive effect, suggesting that even in the short run, expanding domestic production and exports can improve the trade balance, supporting the absorption approach (Alexander, 1952; Ahmed et al., 2021). Oil price changes show a marginally positive effect on trade balance in the short run, although the significance is weaker, indicating that immediate terms-of-trade effects are less pronounced than long-run adjustments (Bouri et al., 2022; Ghosh & Kanjilal, 2021). The capital account balance does not show a significant short-run impact, suggesting that capital inflows may take time to translate into trade balance improvements, consistent with intertemporal trade theory (Obstfeld & Rogoff, 1995). Overall, the results indicate that while short-run shocks affect trade balance, the long-run adjustment mechanisms are crucial for restoring equilibrium, highlighting the importance of coordinated macroeconomic and external sector policies in developing economies.

**Table 8:**

	Cfcnt	S. E	t-S	P Value
COINTEQ01	-0.082674	0.031425	-2.630856	0.0088
D(LEXR)	-0.244958	0.058541	-4.184398	0.0010
D(LGDP)	1.565252	0.163002	9.602672	0.0100
D(LOP)	0.292776	0.153976	1.901444	0.0578

D(CAB)	0.000637	0.001223	0.520710	0.6028
C	0.469054	0.174160	2.693237	0.0073

### 6. Conclusion and Policies

The analysis confirms that exchange rate, economic growth, oil price, and capital account balance in developing economies are significant in determining trade balance in the developing economies. To analyze it use 45 developing economies and collect data between 2000 and 2024. REER depreciation enhances the competitiveness of trade and minimizes pressures of imports, whereas economic growth enhances the production and export potential in the country. The changes in oil prices have adverse effects on net oil-importing countries, but can favor oil exporters, which is why it is necessary to strategically manage the energy dependence. The surpluses in the capital account increase trade balance when invested in productive activities. The paper highlights that short term shocks affect the balance of trade, but long term adjustments show a very imperative role in ensuring external equilibrium. The long-run outcomes of the Panel ARDL model demonstrate some valuable lessons in policy making in developing economies.

#### 6.1 Policy Recommendation

The policy makers are encouraged to maintain a competitive exchange rate to improve the competitiveness of exports. Targeted foreign exchange interventions, export incentives or encouraging currency hedging instruments are some of the measures that can be taken to avoid overvaluation that negatively affects trade performance. The governments are supposed to put in place policies that drive sustainable economic growth like investing in infrastructure, encouraging industrial diversification, and encouraging innovation and the use of technology. The trade balance will be positively impacted by growth-oriented policies that will increase productivity and competitiveness. These may be strategic oil reserves, energy diversification programs and encouragement of renewable energy to minimize dependence on imported oil. In the case of oil-exporting nations, the policies must seek to stabilize export earnings by using sovereign wealth funds or hedging to protect the economy against oil price shocks in the world market. Lastly, TB has a positive relationship with the CAB (0.018), which is important in terms of external sector management. To enhance external accounts, policymakers need to implement policies that increase the diversification of exports, inflows of productive foreign capital, and domestic savings in order to decrease overdependence on external funding. The current account surpluses can be maintained by coordinated fiscal and trade policies and the trade balance stabilized in the long run.

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