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### DETERMINANTS OF TRADE BALANCE IN SELECTED EMERGING COUNTRIES

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#### **ABSTRACT**

The most significant part of the economy of any country is the Trade Balance. The trade balance has had a major impact on the country's industrial and commercial growth and has had an incredible direct impact on the country's economy. The purpose of this research is to measure the impact of leading trade of balance, export and import such as, foreign direct investment, net inflows, household final consumption expenditure, GDP, real effective exchange rate index, and tax revenue. This study is identifies the trade of balance and how it can influence in the country import and export in Selected Emerging Countries, namely India, Indonesia, Ireland, Malaysia, Mexico, and Pakistan. The confirmed period is from 1990 to 2015. The relevant data will be obtaining from World Development Indicators (WDI). This study will help to understand the trade of balance, exports and imports. Exporting and importing helps grow national economies and expands the global market. Every country is endowed with certain advantages in resources and skills.

#### **INTRODUCTION**

Trade Balance has a significant impact on the growth of industry and commerce of the country and that has a direct effect on the economy of the country to an incredible extent [1, 2]. The trade balance is the net sum of a country's exports and imports of goods without taking into account all financial transfers, investments and other financial components [3, 4]. The impact of the trade balance and import and export on the six countries namely India, Indonesia, Ireland, Malaysia, Mexico, and Pakistan are outlined.

### ***Determinant of Balance of Trade in India***

Ray [5] claims that in the era of globalization, global macroeconomic crises and the changes in the international trade pattern have highlighted the need for clearer understanding of the factors underlying a country's balance of trade position. There are various determinants in India like real effective exchange rate, domestic consumption; FDI and foreign income on balance of trade in determining short-and-long-run trade balance behaviour, there are some techniques and tools that use in long run as well as short run causality among different macro- economic variables under consideration of the study. The result suggests that long run and short run they have different macro-economic variables like real effective exchange rate, FDI, domestic consumption and foreign income and foreign direct investment and foreign income have significant positive impact on balance of trade whereas domestic consumption and real effective exchange rate impacted negatively on balance of trade in India.

### ***Determinant of Balance of Trade in Indonesia***

Robilliard et al. [6] discuss about the effects of real exchange rate depreciation and supply side shocks on exports and imports in Indonesia. When the Asian crisis episode occurred, Indonesia experienced a large depreciation, banking sector collapse, and socio-political turbulence, after devaluation through an increase in exports and a collapse in imports. The study suggests that the trade balance will improve. Because the flexibility of imports with respect to the real exchange rate is greater than that of exports, improvement in trade balance would be fundamentally come from import compression. If Indonesia was not suffering from banking problems and socio-political turbulence, the export performance could have been far better.

### ***Determinant of Balance of Trade in Ireland***

Ferreira [7] realizes that Ireland have regular trade surpluses since 1985. The trade surplus in 2017 widened to an all-time high of EUR 45 billion, as both exports and imports were at the highest level on record. The largest deficits were recorded with France and the United Kingdom, and the largest trade surpluses were recorded with the United States, Belgium, Switzerland, the Netherlands and Germany.

### ***Determinant of Balance of Trade in Malaysia***

Ng et al.[8] identifies the relationship between Malaysia's trade balance and real exchange rate from year 1955 to 2006. The main findings are long run relationship exists between trade balance and exchange rate variables that determine trade balance are very important such as domestic income shows a long run positive relationship between foreign income and trade balances income shows a long run negative relationship. Existence the real exchange rate is an important variable to the trade balance and devaluation will improve

trade balance in the long run. The results mention no J-curve effect in Malaysia case.

### ***Determinant of Balance of Trade in Mexico***

Carvalho [9] realizes that Mexico has many of exports the main exports are manufactured products, oil and oil products, and the Main imports are: machinery and equipment, metallic products, oil products and agricultural goods. The country's top trading partner is the United States has 80 percent of total exports and 46 percent of total imports. Others country's: Germany, Japan and China In 2017, trade between the United States and Mexico reached USD 522 billion, with Mexico posting a surplus of near USD 132 billion. Main exports to US include: trucks, buses and special purpose vehicles; passenger cars, other parts and accessories of vehicles, buses and special purpose vehicles passenger cars, telecommunication equipment, computers. Main imports from the United States are: electric apparatus, computer accessories, petroleum products and other parts and accessories of vehicles

### ***Determinant of Balance of Trade in Pakistan***

Mohammad [10] discuss about the deficit in Pakistan and it is explore the long run as well as short run by using Johansen co integration approach and Error correction model (ECM). The result is that the foreign income, foreign direct investment, domestic house hold consumption and real effective exchange rate are significantly affecting the trade deficit. To determine the short run you can use VECM (Vector Error correction model), the outcome of the short run that that there is disequilibrium and they will be adjusted within one year.

## **METHODOLOGY**

This research will quantify the effect of Trade Balance in the Selected Emerging Country. The countries are India, Indonesia, Ireland, Malaysia, Mexico, and Pakistan.

The model of this study is:

$$\log TradeBalance = \log FDI + \log GDP + \log Consumption + REER + \log Tax Revenue$$

Where,

*FDI* = Foreign direct investment

*GDP* = Gross Domestic Product

*Consumption* = Household final consumption expenditure

*REER* = Real effective exchange rate index

*TR* = Tax Revenue

For Stock Return, return on the index of World Development Indicators (WDI) for India, Indonesia, Ireland, Malaysia, Mexico, and Pakistan' market were used. The duration of the market study is between years 1990-2015.

### ***Result And Discussion***

#### ***OLS estimation for Pakistan***

In order to estimate the major determinants Trade Balance in Pakistan, the following model is estimated:

$$\log TradeBalance = \log FDI + \log GDP + \log Consumption + REER + \log Tax Revenue$$

$$Trade Balance = 0.134 FDI - 0.0108 Consumption + 24.956 REER + 1.861 Tax Revenue$$

The dependent variable is Trade Balance growth, while the explanatory variables include FDI, Consumption, REER, Tax revenue. For each variable, growth values are obtained in order to quantify the relationship in percentage terms.

Employing OLS estimation reveals that broad money growth and exports are statically significant, implying that these macroeconomic indicators strongly influence economic growth in Pakistan. The estimation results indicate that a 1 percentage point increase in FDI lead to 0.134 percentage point increase in trade balance. Similarly, a 1 percentage point increase in Consumption leads to -0.010 percentage point decrease in Trade Balance. The estimation results indicate that a 1 percentage point increase in REER lead to 24.956 percentage point increase in Trade Balance. The 1 percentage point increase in Tax Revenue leads to 1.861 percentage point increase in Trade Balance.

#### ***OLS estimation for Mexico***

In order to estimate the major determinants Trade Balance in Mexico, the following model is estimated:

$$\log TradeBalance = \log FDI + \log GDP + \log Consumption + REER + \log Tax Revenue$$

$$Trade Balance = 0.554 FDI + 0.168 Consumption + 5.264 REER + 0.686 Tax Revenue$$

The dependent variable is Trade Balance growth, while the explanatory variables include FDI, Consumption, REER, Tax revenue. For each variable, growth values are obtained in order to quantify the relationship in percentage terms.

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to 0.168 percentage point increase in Trade Balance. The estimation results indicate that a 1 percentage point increase in REER lead to 5.264 percentage point increase in Trade Balance. The 1 percentage point increase in Tax Revenue leads to 0.686 percentage point increase in Trade Balance.

#### *OLS estimation for Malaysia*

In order to estimate the major determinants Trade Balance in Malaysia, the following model is estimated:

$$\log TradeBalance = \log FDI + \log GDP + \log Consumption + REER + \log Tax Revenue$$

$$Trade Balance = -0.000 FDI -0.058 Consumption + 19.24 REER -0.706 Tax Revenue$$

The dependent variable is Trade Balance growth, while the explanatory variables include FDI, Consumption, REER, Tax revenue. For each variable, growth values are obtained in order to quantify the relationship in percentage terms.

Employing OLS estimation reveals that broad money growth and exports are statically significant, implying that these macroeconomic indicators strongly influence economic growth in Malaysia. The estimation results indicate that a 1 percentage point increase in FDI lead to -0.000 percentage point decrease in trade balance. Similarly, a 1 percentage point increase in Consumption leads to -0.058 percentage point decrease in Trade Balance. The estimation results indicate that a 1 percentage point increase in REER lead to 19.24 percentage point increase in Trade Balance. The 1 percentage point increase in the Tax Revenue leads to -0.706 percentage point decrease in Trade Balance.

#### *OLS estimation for Ireland*

In order to estimate the major determinants Trade Balance in Ireland, the following model is estimated:

$$\log TradeBalance = \log FDI + \log GDP + \log Consumption + REER + \log Tax Revenue$$

$$Trade Balance = 0.034 FDI + 0.007 Consumption + 0.192 REER -2.145 Tax Revenue$$

The dependent variable is Trade Balance growth, while the explanatory variables include FDI, Consumption, REER, Tax revenue. For each variable, growth values are obtained in order to quantify the relationship in percentage terms.

Employing OLS estimation reveals that broad money growth and exports are statically significant, implying that these macroeconomic indicators strongly influence economic growth in Ireland. The estimation results indicate that a 1 percentage point increase in FDI lead to 0.034 percentage point increase in trade balance. Similarly, a 1 percentage point increase in Consumption leads

to 0.007 percentage point increase in Trade Balance. The estimation results indicate that a 1 percentage point increase in REER lead to 0.192 percentage point increase in Trade Balance. The 1 percentage point increase in Tax Revenue leads to -2.145 percentage point decrease in Trade Balance.

#### *OLS estimation for Indonesia*

In order to estimate the major determinants Trade Balance in Indonesia, the following model is estimated:

$$\begin{aligned} \log TradeBalance &= \log FDI + \log GDP + \log Consumption + REER + \log Tax Revenue \\ Trade Balance &= -0.594 FDI + 0.245 Consumption + 2.204 TaxRevenue \end{aligned}$$

The dependent variable is Trade Balance growth, while the explanatory variables include FDI, Consumption, Tax revenue. For each variable, growth values are obtained in order to quantify the relationship in percentage terms.

Employing OLS estimation reveals that broad money growth and exports are statically significant, implying that these macroeconomic indicators strongly influence economic growth in Indonesia. The estimation results indicate that a 1 percentage point increase in FDI lead to -0.594 percentage point decrease in trade balance. Similarly, a 1 percentage point increase in Consumption leads to 0.245 percentage point increase in Trade Balance. The 1 percentage point increase in Tax Revenue leads to 2.204 percentage point increase in Trade Balance.

#### *OLS estimation for India*

In order to estimate the major determinants Trade Balance in India, the following model is estimated:

$$\begin{aligned} \log TradeBalance &= \log FDI + \log GDP + \log Consumption + REER + \log Tax Revenue \\ Trade Balance &= -0.041 FDI -1.634 Consumption -7.734 TaxRevenue \end{aligned}$$

The dependent variable is Trade Balance growth, while the explanatory variables include FDI, Consumption, Tax revenue. For each variable, growth values are obtained in order to quantify the relationship in percentage terms.

Employing OLS estimation reveals that broad money growth and exports are statically significant, implying that these macroeconomic indicators strongly influence economic growth in India. The estimation results indicate that a 1 percentage point increase in FDI lead to -0.041 percentage point decrease in trade balance. Similarly, a 1 percentage point increase in Consumption leads to -1.634 percentage point decrease in Trade Balance. The 1 percentage point increase in Tax Revenue leads to -7.734 percentage point decrease in Trade Balance.

### *Overall Discussion*

The result is that Trade Balance is the most important because it will impact on GDP for the country; also important for calculating GDP. GDP is the summation of Consumer Spending, Investment Spending, Government Spending and Net Exports. It is different from country to country.

Determinant of Balance of Trade in India indicates that the era of globalization, global macroeconomic crises and the changes in the international trade pattern have highlighted the need for clearer understanding of the factors underlying a country's balance of trade position.

Determinant of Balance of Trade in Pakistan reveals the deficit in Pakistan and it is explore the long run as well as short run by using Johansen co integration approach and Error correction model (ECM).

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Determinant of Balance of Trade in Mexico is that they realize that Mexico has many of exports the main exports are manufactured products, oil and oil products, and the Main imports are: machinery and equipment, metallic products, oil products and agricultural goods. The country's top trading partner is the United States has 80 percent of total exports and 46 percent of total imports. Others country's: Germany, Japan and China In 2017, trade between the United States and Mexico reached USD 522 billion, with Mexico posting a surplus of near USD 132 billion.

Determinant of Balance of Trade in Malaysia attempts to identify the relationship between the trade balance and real exchange rate in Malaysia from year 1955 to 2006.

### **CONCLUSION**

This paper is to examine the role of Determinants of trade balance in exchanging economies and explore the factors that cause fluctuations in trade balance on the six Selected Emerging Countries, namely India, Indonesia, Ireland, Malaysia, Mexico, and Pakistan using annual data over the period 1990 to 2015. The obtained result help in identifying the trade balance that influence in Selected Emerging Country, which has a significant impact on the growth of industry and commerce of the country and that has a direct effect on the economy of the country.

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