Determinants of Balance of Payment: A Comparative Review of Developing and Least Developed Countries

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Abstract

The purpose of this paper is to comparatively review the literature focused on the Balance of Payment (BOP) management in developing countries and Least Developed Countries (LDCs). Though a significant body of literature has explored the impact of various variables on BOP for different countries, they are all in a fragmented manner and have produced contradictory results whether each improves or deteriorates the BOP. Therefore, this study initially compiles a comprehensive index of the main determinants of BOP and then summarizes the dimensions of BOP problems for developing countries and LDCs. Subsequently, it introduces a new typology classifying the BOP indicators into two sets of direct and indirect categories and discusses the importance and application of each. Finally, it compares the impact of identified determinants of BOP on developing countries and LDCs. The main findings indicate that exports and imports, fiscal policy, money supply, inflation rate, structural changes similarly impact the BOP of developing countries and LDCs while liberalization, terms of trade, FDI, exchange rate, loss of confidences investors, stage of developing and quality of infrastructure differently impact their BOPs.

Keywords: Balance of Payment, Determinants, Developing Countries, Least Developing Countries (LDCs), Literature Review

JEL Classification: F1, F13, M41, O24

I. INTRODUCTION

The balance of payment (BOP) represents the history of international transactions (Sujianto, 2020), describes the external economic position, and economic health of a country (Jadhav, 2020). A BOP provides necessary information on the demand and supply of goods, services, and money (Tijani, 2014), and shows the structure of exports, imports, and the labor market of the reporting country. Besides showing how an economy performs in the international market, a BOP performance substantially affects the performance of domestic firms in a
country as they are all vulnerable to external shocks (Ocampo, 2016). An imbalanced BOP demonstrates how uncompetitive a country is in the international market because it is unable to maintain a relative balance between its long-term investment and short-term consumption (Mittal, 2018). Likewise, a persistent BOP disequilibrium undesirably influences economic growth, employment, and price stability (The Bank of Uganda, 2003). Therefore, a country must put BOP management as an essential objective of economic policy and overemphasize the sustainability of the health of the BOP.

In general, it’s close to impossible for a country to maintain constant favorable BOP for a very long period; however, a continuous BOP deficit of more than 20 consecutive years without a single year of the surplus is problematic, and it is more problematic if the persistent deficit keeps increasing at a constant proportional rate (Chandramouli, 2009). Many researchers have explained the socio-political and economic factors affecting the BOP. Although they differ from time to time and country to country, the underlying economic factors are unexpectedly fairly similar (Bernstein, 1956).

The present study synthesizes the existing literature by identifying the key determinants of the BOP and summarizing the common BOP problems. Many studies have explored the factors affecting the BOP in a fragmented fashion and systematically unorganized manner. This study compiles the key variables that impact the BOP to enable researchers and other users to use them as a dominant framework for empirical studies. This paper also introduces a new typology for the BOP determinants and discusses their importance and application. Further, it compares the identified determinants between developing countries and Least Developed Countries (LDCs).

The rest of the paper puts the theory of BOP and its components in the context and discusses the main dimensions of the BOP problems. It then extracts the main BOP determinants, reintegrates them to introduce a new typology, and compares them among developing countries and LDCs. Finally, the conclusion and references will end the study.

II. THEORETICAL FOUNDATION

The balance of payments is a statement that records economic transactions between residents and non-residents of a country during a specific period (IMF, 2009). In brief, it shows the aggregate receipts and payments of a country's residents to foreigners (Johnson, 2013). The BOP represents transactions in goods, services, income, unilateral transfers, and receivables combined with financial claims on and liabilities to foreigners (Pirlogeanu and Bulau, 2018) and represents the changes in holdings of monetary gold and Special Drawing Rights of a country. The BOP information signifies if a country saves enough to pay for its imports (Afolabi and Kolawale, 2020) and other financial obligations.

The BOP account uses a double-entry bookkeeping standard such that any transaction bringing foreign currency is credited, while any spending of foreign currency is debited to the BOP account (Gebeyehu, 2017). In short, all receipts from foreigners are credited, while all the payments to foreigners are debited to the BOP account. At an optimum point, the BOP account should tally, and the difference between the credit and the debit amount should be zero. In case of disequilibrium, a BOP status can be either surplus or deficit. A BOP surplus implies an excess of receipts over payments to foreigners in a particular period and helps increase the foreign exchange reserve. In contrast, a BOP deficit indicates the excess payments over receipts and decreases
the foreign exchange reserve. The BOP mainly includes (1) current account, which accounts for goods, services, primary and secondary incomes, (2) capital account that accounts for transactions in financial assets in a foreign country, (3) financial account, which shows the difference between net acquisition and disposal of financial assets and liabilities between residents of a country and foreigners, and (4) net errors or omissions representing natural imbalances in the process of data compilation (IMF, 2009).

International Monetary Fund (IMF) is an international organization that provides facilities for BOP imbalances adjustment. A member country that faces economic problems can apply to IMF for financial supports through its concessional and non-concessional credit facilities. Concessional loans are for low-income countries and do not carry any interest payment, while non-concessional loans bear interest at market rate (IMF, 2012).

### III. DIMENSIONS OF THE BALANCE OF PAYMENT PROBLEMS

A BOP is proper (1) when it enables a country to meet its payments over a period of time that is an average of several goods and bad years out of its receipts from its existing transactions and prevalent capital inflow, without being forced to restrict its imports or keep the economic activities below a desirable level to escape a deficit in its BOP and (2) when it enables a country to add its monetary reserve proportionally with the share of newly mined gold going into the world stock of monetary gold or its equivalent in foreign exchange. The BOP of a country has a problem when it fails to pass this test (Bernstein, 1956). The main symptoms of BOP problems are (1) when an economy has a liquidity problem and does not have enough cash to pay its international bills charged for imports or repay its debt; (2) when overvalued exchange rate causes exports to become uncompetitive, and a country cannot earn enough money from exports to pay for its imports (Rajadhyaksha, 2013); and (3) when foreign exchange reserve starts to decrease (Pahurkar, et al., 2020). In such cases, a country must sell its reserves at an inappropriate exchange rate because it should fund its expenditure. Furthermore, reduced demand can also cause BOP problems. When demand reduces in a country, supply won’t be exploited, the investment will reduce, technological development will sluggish, and the commodity produced in the country will be less desirable in respect of foreign goods, which gradually even worsen the BOP position. (Thirlwall, 2011).

The BOP imbalances can be in either of the following forms. (a) temporary, which is a short-period lasting imbalance caused by factors like crop failure, environmental factors, and so forth. (b) fundamental, which are persistent imbalances with deep root, and affects the volume of output at the firm and the economy-level. (c) cyclical, which is usually the result of business cycle fluctuations. (d) structural, that originates from structural changes in an economy such as changes in sources of supply, technology, taste, etcetera. (Gebeyehu, 2017). (e) Developmental, which is due to massive expenditure for developmental purposes such as high import of capital goods.

The BOP items can be well-explained by a pure time series model, and the volatility of balancing item series plays a significant role in explaining the balancing items; however, one should pay enough attention to interpret the results (Tang and Hooy, 2007).
Balance of payment accounts represent a wide range of information; therefore, numerous determinants exist to determine it. To investigate the BOP performance, the explanatory variables of BOP should send signals on the BOP position to enable a country to take necessary initiatives to correct the BOP problems. It will be difficult for a country to prevent a BOP crisis if it doesn't know how sensitive the responses are. To determine the warning signals for a possible BOP crisis in the very short-run, the ratio of short-term debt to international reserves and the growth rate of credit to the private sector are used; however, the over-appreciation of the nominal effective exchange rate signals for a crisis at a distant horizon (Bussière, 2007). The main determinants of BOP are as follow:

4.1 Balance of trade (export and import)

The Balance of Trade (BOT) is positively related to BOP, such that a favorable BOT always stabilizes the BOP (Tijani, 2014). All exports positively impact the BOP while all imports negatively affect the BOP position of a country (IMF, 2009). In general, the increased volume of the trade itself deteriorates the BOP in developing countries and LDCs because import volumes generally surpass earlier, swifter, and higher than the export volumes. A shred of evidence to support this claim includes the Arab Maghreb Union (Hadili, et al., 2020), India (Srivastava, et al., 2016), and Ethiopia (Anega, 2010).

Studies also found that it is a disadvantage for developing countries and LDCs to trade with developed countries (Ocampo, 2016, Futerman and Block, 2020), and trade with developed countries is the key reason behind the continuous trade balance deficit of many developing countries and LDCs (Rehman and Rashid, 2015; Rashidin, et al., 2016). The reason is that developing countries and LDCs need to import high-priced capital goods for development, but they primarily export lower-priced agricultural goods. So, they should export more volume of domestically produced commodities such as agricultural products to import the same quantity of industrial products such as an airplane. Hence, such trade adversely impacts their BOP.

No country can stop imports. Developing countries and LDCs require more imports to enable them to access domestically unavailable inputs, technology, and capital goods to enhance their productive capacity (Mishra, 2012). The import of machinery brings in research and development in these countries to help in their economic growth. Economic growth deteriorates the BOP when the import growth rate increases above the export growth rate. Therefore, a vigilant pooled import substitution and export promotion policy can synchronously ensure economic growth and BOP improvement.

Exports of LDCs and most developing countries include natural resources and limited agricultural products, which increases their vulnerability to external shocks. The dependence of these countries on natural resource export will make their BOP unsustainable in the long run (Magacho and McCombie, 2016). Also, export diversification has a positive relationship with BOP (Ojha, 2013), but LDCs and many developing countries are yet to diversify their exports into different products and different markets. Some developed countries have provided market preferences to LDCs and some developing countries. So, they should target developed markets for their export. Likewise, intense competition from other exporting countries makes exports of LDCs and many developing countries uncompetitive (Gupta and Kumar, 2017) which is an obstacle to the BOP improvement.
4.2 Trade liberalization

Supporters of trade liberalization argue that trade openness promotes the efficient allocation of resources via exploiting comparative advantage, facilitates technology improvement, disseminates knowledge, and promotes specialization (Chang, et al., 2009). The advocates argue that trade liberalization improves the BOP. They maintain that free trade enhances the specialization of a country in producing goods in which it has a competitive advantage, and increases the volume of production at a lower cost. Free trade also helps them transfer their commodities to other countries at a reasonable price. At the same time, domestic industries face foreign competition, which would lead to increased production efficiency and reduce costs (Hadili, et al., 2020).

Literature provides enough evidence that liberalization deteriorates the BOP and BOT in developing countries and LDCs due to a rapid increase of imports than exports (Chinn and Prasad, 2003; Santos-Paulino, 2004; Pacheco-Lopez, 2005; Parikh, 2006; Allaro, 2012; Qayed, 2013; Hadili, et al., 2020; Odebode and Aras, 2020). A study has also found an insignificant impact of liberalization on BOP in the long run (Hoque and Yusop, 2010). Theory and experience both are against fully opening the capital market in developing countries and necessitate government intervention (Stiglitz, 2000); though, capital account liberalization increases investment and stimulates domestic monetary and financial systems. Current account liberalization with a relatively closed capital account causes losing capital and deteriorates the BOP (Schneider, 2001). In general, Trade liberalization promotes growth, while growth negatively impacts the BOP (Parikh, 2006).

LDCs are not in the position to gain from trade openness (Santos-Paulino and Amelia U, 2007), but globalization has become a reality, and liberalization is not a matter of choice for a country anymore. Therefore, a gradualist approach to liberalization supported by fiscal and financial reforms is advisable for developing countries and LDCs. Government intervention is vital as LDCs and most developing countries undergo poor infrastructures, immature regulations, political instability, and other organizational inadequacies.

4.3 Terms of trade

The literature provides contradictory arguments on whether the trade barriers improve the BOP or not. The advocates state that regulatory controls using trade laws, taxes, and tariffs protect domestic industries in a globally competitive environment, and imposing tariffs plays a defensive role against the influence of external exchanges on domestic life in developing countries (Marangos, 2020).

Literature reveals that deterioration of terms of trade increases the current account deficit (Debelle and Faruqee, 1996; Calderon, et al., 2002; Christiansen, et al., 2009) and the improving antidumping duties considerably restricts imports, and improves BOP (Malhotra and Malhotra, 2008).

The common belief that terms of trade improve BOP has been challenged by the study arguing that terms of trade have a low and even null effect on the BOP (Médici and Panigo, 2015). Studies also found that although import controls may protect BOP in developing countries, they decrease the efficiency of these economies (Santos-Paulino, 2004; Mah and Kim, 2006; Arif, et al., 2020). For LDCs, the case of 19 Sub-Saharan Africa shows that increasing tariffs deteriorated the export growth behavior in the long run (Odebode and Aras, 2020).
4.4 Foreign Direct Investment (FDI)

Foreign Direct Investment (FDI) is a prominent source of capital, and a form of cross-border cash or non-cash capital flow invested by a foreign enterprise in a country (Rahman, 2016). FDI brings in the capital, intensifies entrepreneurial activities, facilitates inflow of inaccessible resources, technology, and managerial capabilities, and stimulates domestic innovation (Shugurov, 2015; Zekarias, 2016; Pirlogeanu and Bulau, 2018).

The general view is that FDI is the most efficient means to improve the BOP, though FDI can have a positive or negative effect on the BOP. Studies that document a positive relationship of FDI with the current account and the BOP include (Ehimare, 2012; Kennedy, 2013; Nguku, 2013; Dakhil, et al., 2019; Mostafa, 2019); whereas, studies that reveal the negative impact of FDI on the BOT and BOP include (Arabi, 2014; Rahman, 2015; Sharif and Ali, 2016). Studies also indicate the vague impact of FDI on BOP (Spasova, 2016; Alencar, et al., 2019). Further, the literature reveals that vertical FDI improves exports if its purpose is to improve a step in producing a final product; but horizontal FDI increases import because the domestic market business model will be imitated (Pirlogeanu and Bulau, 2018); hence, all kinds of FDI will not improve the BOP of a country. Meanwhile, LDCs are generally ranked low in the Ease of Doing Business Survey by the World Bank (Biswas, 2018), and this can be a challenge for these countries to attract FDI to improve BOP. LDCs and developing countries can strengthen regional integration, develop the necessary infrastructure, and human capital to attract growth-oriented FDI to substitute imports, increase exports, and improve their BOP (Zekarias, 2016).

4.5 Fiscal policy

Fiscal policy balance includes government revenue and expenditure (Batool, et al., 2015) and is highly vulnerable to external influences and the BOP performance. The literature shows that the fiscal balance deficit has a significantly negative effect on the current account balance and the BOP (Debelle and Faruquiee, 1996; Batool, et al., 2015; Eita, et al., 2018). It implies that an increase in government consumption deteriorates the BOP, while fiscal reforms improve the BOP. If fiscal deficits are financed by borrowing, it increases the burden of debt on an economy (Pahurkar, et al., 2020). Therefore, governments should manage their expenditure in such a way to benefit domestic suppliers to help decrease imports and improve the BOP.

4.6 Monetary policy

The monetarist approach to the BOP argues that money supply and demand are causes of the BOP imbalances, and proper monetary policy can solve BOP problems (Howard, 2002). Monetary policy refers to the combination of measures designed to regulate the value, supply, and cost of money in an economy (Abomaye-Nimenibo, et al., 2016). The BOP surplus occurs when money demand exceeds its supply, and a deficit condition arises when the supply of money exceeds the demand (Howard, 2002).

An expansionary monetary policy deteriorates the BOP, while a spending reduction monetary policy via offering domestic credit and money supply improves the BOP (Gatawa, et al., 2018). As a component of monetary policy, money supply positively impacts the BOP in the short-run and negatively in the long-run (Batool, et al., 2015). Domestic credit has a negative relationship with the BOP (Braima and Korsu, 2013; Osisanwo, et al., 2019). Also, there is a negative relationship between interest rates and BOP (Braima and
Korsu, 2013; Batool, et al., 2015), while a study also shows a positive relationship between interest rate and BOP (Sujianto, 2020).

4.7 Inflation
When prices rise in a country, a large proportion of total domestic money will be directed to foreign trade, both export and import; therefore, increased spending in a country immediately affects BOP. Studies that find that inflation has a significantly negative impact on the BOP include (Mavi and Sharma, 2014; Tijani, 2014; Yousif and Musa, 2017; Sujianto, 2020). It implies that an increasing inflation rate increases BOP deficits because more domestic currency should be paid out for imports. However, inflation does not determine the BOT in Somalia (Sharif and Ali, 2016).

4.8 Exchange rate
The exchange rate is the cost of domestic currency for buying one unit of a foreign currency, and a country must decide on retaining exchange rate arrangements to manage its international payments and receipts (Afolabi and Kolawale, 2020).

Studies that found positive relation of the foreign exchange with the BOP include (Imoisi, 2012; Braima and Korsu, 2013; Kennedy, 2013; Tijani, 2014; Afolabi and Kolawale, 2020) and it infers that exchange rate volatility has a negative relationship with the BOP. Studies that found a significantly negative effect of real exchange rate on the BOP include (Batool, et al., 2015; Yousif and Musa, 2017; Udochi, et al., 2017; Gebremariam, et al., 2018; Gatawa, et al., 2018; Sujianto, 2020). A change in the exchange rate in one country affects the BOP performance of several other countries (Priyatharsiny, 2017). Additionally, a weak domestic currency positively impacts the BOP, while a strong domestic currency negatively affects the BOP (Rashidin, et al., 2016). An overvalued exchange rate makes exports uncompetitive and makes it difficult for a country to earn enough from exports to pay for its imports (Rajadhyaksha, 2013).

Devaluation and depreciation of the domestic currency are initiatives to improve the BOP via the exchange rate. Studies that suggest a positive impact of domestic currency devaluation on the BOP include (Bineau, 2016; Hassan, et al., 2017), while a study (Osman, 2016) showed that devaluation negatively impacts the BOP.

4.9 Loss of investors’ confidence
Political uncertainty negatively affects the investors’ confidence, and the lack of confident foreign investors makes it difficult for an economy to attract investment (Kolte and Daryani, 2018; Rajadhyaksha, 2013). Often, the BOP deficit itself results in the loss of foreign investors’ confidence (Gebeyehu, 2017). Moreover, studies found that capital account problems generally occur when investors lose confidence (Pahurkar, et al., 2020), and loss of confident investors leads to capital flight as overseas investors may take their assets out (Mittal, 2018), which negatively impacts the BOP. A study also found that political instability, corruption, and macroeconomic uncertainty result in capital flight which deteriorates the BOP (Geda and Yimer, 2016).
4.10 Human capital

Human capital plays a significant role in how increased free trade affects the position of BOP in a country. The population growth improves the current account (Seguino, 2010; Eita, et al., 2018). Demographic factors have a long-term effect on the current account (Debelle and Faruqee, 1996) and affect the BOP via saving behavior. As per life-cycle theory, people save less and borrow more while they are young; they save more during their productive years and again avoid saving at their retirement age (Cheung, et al., 2010). It implies that countries with high young-old population ratios will tend to have a current account deficit. Thus, most of LDCs and developing countries have high young-old population ratios and their BOP will be natural under pressure. Likewise, a study found that gender equality in wages improves the BOP in low-income agricultural economies and deteriorates it in semi-industrialized economies (Seguino, 2010).

4.11 Structural changes

Structural changes refer to the changes in the sectoral composition of imports and exports (Gouvea and Lima, 2010). Literature reveals that structural changes negatively affect both imports and exports (Gouvea and Lima, 2010; Thirlwall, 2011) in the short run. Yet, it a dilemma for developing countries and LDCs to bring structural changes or maintain relative BOP equilibrium. Structural changes impact net exports and increase the current account deficit in the short run because it enhances the need for external financing (Olivié and Pérez, 2017). Studies also found that structural changes have a positive relationship with BOP in the long run because it results in enhanced productivity and increased competitive exports (Blecker, 1998; Spasova, 2016).

4.12 Other macro-economic indicators

National income has a significantly positive impact on the BOP in the long run (Mittal, 2018; Sujianto, 2020), and public saving reduces the current account deficit and improves the BOP (Calderon, et al., 2002). Net foreign assets and financial deepening status in developing countries is positively related to the current account (Chinn and Prasad, 2003). Similarly, the stage of development has long-term effects on the current account (Debelle and Faruqee, 1996; Cheung, et al., 2010). Additionally, the existence of the social and physical infrastructure in a country improves the BOP in the long run (Ghosh, 2012), while inappropriate infrastructures make doing business difficult in LDCs and developing countries (Rajadhyaksha, 2013), which negatively impacts the BOP. Further, macroeconomic stability, financial sector development, and natural resources determine the capital inflows for LDCs. Finally, a decrease in internal demand for domestic goods negatively impacts the BOP (Khan and Zahler, 1985; Hernández, et al., 2019).

V. DISCUSSION AND FINDINGS

The explanatory variables of the BOP can be primarily grouped into two categories, namely direct determinants and indirect determinants. The direct determinants of BOP are those whose data are recorded in the BOP accounts, such as exports and imports, FDI, loans, foreign assets, etc. In contrast, the indirect determinants of BOP are those whose data are not recorded in the BOP accounts, but significantly impact the BOP performance, such as terms of trade, exchange rate, etc.
Table 1. Characteristics of direct and indirect BOP determinants

<table>
<thead>
<tr>
<th>Determinants</th>
<th>Characteristics</th>
<th>Relevant Determinant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct</td>
<td>o Their data are recorded in BOP accounts</td>
<td>Exports and imports, FDI, foreign assets, foreign liabilities (debts), income, foreign aids, reserve assets</td>
</tr>
<tr>
<td></td>
<td>o Their impacts are shown in BOP statements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>o They are components of the BOP statement</td>
<td>Include current account, capital account, and financial account (IMF, 2009).</td>
</tr>
<tr>
<td></td>
<td>o They are components of the BOP statement</td>
<td></td>
</tr>
<tr>
<td>Indirect</td>
<td>o Their data are not recorded in BOP accounts</td>
<td>Trade Liberalization, terms of trade, exchange rate, inflation rate, infrastructure, loss of investor's confidence, fiscal policy, monetary policy, etc.</td>
</tr>
<tr>
<td></td>
<td>o Their impacts are reflected through direct determinants in BOP accounts</td>
<td></td>
</tr>
</tbody>
</table>

Source: Authors’ classification, studies reviewed

This classification is important because it helps researchers and other users to analyze the BOP of a particular country and identify the nature and sources of data. To investigate the impact of direct determinants of BOP, one can take the relevant data from the BOP accounts for analysis and investigation. On the other hand, analysis of the impact of indirect determinants on BOP would require investigating their impact primarily on direct determinants and their overall impact on the BOP. Therefore, it requires more complex analysis tools.

It is important to note that this classification does not indicate higher intensity or greater impact of direct determinants on the overall BOP than indirect determinants. The degree of severity of the determinants depends upon the extent, volume, and amount of each explanatory variable irrespective of being direct or indirect. Sometimes, the impact of an indirect determinant such as exchange rate, infrastructure, etc. may be greater than that of a direct determinant such as foreign aids on the BOP of a country.
Figure 2 illustrates the variables that considerably impact the BOP performance in country, but their data are not recorded in the BOP accounts. The effect of some of these variables requires data regarding their component to determine their impact on BOP. For instance, to determine how fiscal policy impacts a BOP, one would need to analyze the data regarding the government's revenue and expenditure. Though the exchange rate, inflation rate, and interest rate are considered part of monetary policy, they are illustrated individually because of their significant impact on BOP.

### 5.1. Determinants with similar impact on BOP of developing countries and LDCs

The *balance of trade* similarly determines the BOP in both developing countries and LDCs such that an increase in exports improves the BOP while an increase in imports deteriorates the BOP account. For both LDCs and developing countries, the increased volume of trade negatively impacts their BOP in the short-run as import surpasses earlier than export. Meanwhile, trade with developed countries deteriorates the BOP of developing countries and LDCs for two reasons. First, export volume increases earlier than import volume. Second, low-priced commodities constitute the exports of LDCs and developing countries, while their imports are high-priced industrial products.

Though developed countries provide the advantage of free-market access to LDCs and some developing countries, it is a challenge for them if they can export quality goods to be acceptable to those countries. Exports in LDCs are characterized by poor infrastructure, inadequate technology, limited knowledge, insufficient skilled human capital, corruption, political instability (Akhter, 2015), dependency on limited agricultural products, and vulnerability to natural disasters like earthquakes, etc. (Biswas, 2018). LDC’s imports are featured by import of essential goods, high capital goods expenditure, and low custom duties, while industrial goods, machinery, and controlled customs duties are fundamental attributes of imports in developing countries.

*Fiscal policy* determines the BOP through government revenue and expenditure. There is an indirect relationship between fiscal deficit and BOP in both developing countries and LDCs. It infers that when government expenditure surpasses its revenue, it deteriorates the BOP because the government would require to finance the deficit by borrowing and selling domestic assets.
As a component of Monetary policy, money supply improves the BOP in the short run while it deteriorates the BOP in the long run in both developing countries and LDCs. The inflation rate is negatively related to the BOP in both developing countries and LDCs. The reason is that inflation requires higher domestic money to be paid out for imports.

Structural changes in sectoral compositions of exports and imports negatively impact the BOP in the short run, but it positively impacts the BOP in the long run in both developing countries and LDCs. Structural changes have a negative relationship with BOP in the short run because it requires an initial huge import of capital goods and external financing, which usually takes place in form of debt. Structural changes do not only enhance productivity, but also help substitute imports, and increases exports in the long run. Macroeconomic stability and financial sector development attract capital inflows for developing countries and LDCs and improves the BOP.

Table 2. Summary of determinants with similar effect on BOP in developing countries and LDCs

<table>
<thead>
<tr>
<th>Determinants</th>
<th>Developing Countries and LDCs</th>
<th>Study Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Export and Import</td>
<td></td>
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</tr>
<tr>
<td>o An increase in exports improves BOP</td>
<td>Tijani (2014)</td>
<td></td>
</tr>
<tr>
<td>o An increase in imports deteriorates BOP</td>
<td>Hadili, et al. (2020)</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Srivastava, et al. (2016)</td>
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<tr>
<td></td>
<td></td>
<td>Anega (2010)</td>
</tr>
<tr>
<td>Fiscal policy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>o A decrease in government spending improves BOP,</td>
<td>Eita, et al. (2018)</td>
<td></td>
</tr>
<tr>
<td>o An increase in government revenue improves BOP</td>
<td>Batool, et al. (2015)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Debelle and Faruque (1996)</td>
</tr>
<tr>
<td>Monetary Policy (Money Supply and Domestic credit)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>o The money supply is negatively related to BOP in the long-run</td>
<td>Braima and Korsu (2013)</td>
<td></td>
</tr>
<tr>
<td>o Domestic credit has a negative relationship with BOP</td>
<td>Osisanwo, et al. (2019)</td>
<td></td>
</tr>
<tr>
<td>Inflation Rate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>o The inflation rate has a negative relationship with BOP.</td>
<td>Mavi and Sharma (2014)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Yousif and Musa (2017)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sujianto, 2020</td>
</tr>
<tr>
<td>Structural Changes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>o Structural changes have a negative relationship with BOP in the short run but a positive impact in the long run.</td>
<td>Gouveia and Lima, (2010)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Olivié and Pérez (2017)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Spasova (2016)</td>
</tr>
<tr>
<td>Macroeconomic stability</td>
<td></td>
<td></td>
</tr>
<tr>
<td>o There a positive relationship between macroeconomic stability and BOP.</td>
<td>Hernández, et al., (2019)</td>
<td></td>
</tr>
<tr>
<td>Financial Sector development</td>
<td></td>
<td>Khan and Zahler (1985)</td>
</tr>
<tr>
<td>o Financial sector development is positively related to BOP as it facilitates capital inflow.</td>
<td>Hernández, et al. (2019)</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Khan and Zahler (1985)</td>
</tr>
</tbody>
</table>

5.2. Determinants with divergent impact on BOP of developing countries and LDCs

Trade liberalization negatively affects the BOP of LDCs, and low to middle-income developing countries except for the few richest developing countries like China and India. Liberalization benefits those countries where a proper economic environment exists to support such policy (Khan and Zahler, 1985). Thus, free trade only improves the BOP of those countries, which possess quality governance, adequate infrastructure, a proper business environment, and sufficient human capital.

Terms of trade positively impact the BOP of developing countries in the short run, but it has no impact on the BOP of LDCs because their domestic output cannot fulfill the increased demand created by terms of trade development in LDCs. The effect of terms of trade on BOP is also related to the type of consumers in these countries. Terms of trade improvement in countries with thrifty consumers help generate and accumulate...
domestic capital and improve the BOP. In contrast, in countries whose consumers are not frugal, their domestic output growth will reduce with the expansion of their external sector growth (Osang and Pereira, 1997). The literature reveals that imposing import duty initiatives requires exclusive caution, investigation, and care throughout its implementation process to encourage domestic economic activities and improve the BOP. Otherwise, imposing unsystematic tariff barriers to discourage imports is not always correct as it will reduce the efficiency of an economy.

*Foreign Direct Investment (FDI)* improves the BOP through initial capital inflow and an increase in the domestic output, which may substitute imports or increase exports (Kennedy, 2013; Rana, 2014). In contrast, FDI negatively impacts BOP when FDI investors import the required inputs. Similarly, FDI deteriorates the BOP in the long run when the recipient country cannot utilize FDI inflow as a means for reduction of import, and expansion of export, or when FDI is used only for the purchase of assets in a country. Generally, FDI improves the BOP for developing countries and LDCs. FDI effectiveness depends upon the availability of required resources such as natural and human resources (Rana, 2014). LDCs and most developing countries are not in the position to provide the necessary economic, political and social environment required to attract FDI from large MNCs due to poor infrastructure, and resource market deficiencies; hence, FDI is currently motivated to go to the few richest developing countries.

*Exchange rate* stability has a positive relation with BOP in all the countries irrespective of their level of development. The overvalued exchange rate has a significantly negative effect on the BOP in the short and long runs. The exchange rate positively impacts the BOP when it signifies a weak domestic currency, but a stronger domestic currency negatively impacts the BOP.

Generally, devaluation and depreciation are used as exchange rate corrective initiatives to make the export cheaper and improve a BOP. In some LDCs, exports are insensitive against the exchange rate adjustment because they have low export volume, and their exports include low-priced agricultural products. In some LDCs, devaluation even worsens the BOP.

*Human capital* determines the BOP in several aspects. (1) An increase in the population improves the BOP in developing countries but increases the import in LDCs. (2) The increased saving attitude of people strengthens the BOP in both developing countries and LDCs. As per life-cycle theory, people save less and borrow more while they are younger (Cheung, et al., 2010); therefore, most developing countries and LDCs have a high young-old population ratio, which naturally puts the BOP of these countries under pressure. (3) The low stock of educated and skilled labor deteriorates the BOP. The reason is that the small stock of capable workforce restricts the ability of a country to supply the human capital required by foreign investors and new technology. Generally, the human capital is unskilled and less professionally trained in LDCs; however, some developing countries could collect relatively educated and skilled human capital by investing in their higher education. LDCs and most developing countries still require to invest in their higher education to accumulate sufficient skilled human capital. (4) Workforce remittances earned abroad increase foreign currency inflow and improve the BOP in both developing countries and LDCs.
Loss of investor's confidence leads to capital account problems and causes capital flight such that overseas investors take their assets and investments out; therefore, loss of investor’s confidence negatively impacts the BOP. The capital market significantly responds to political uncertainties, which leads to a loss of investors' confidence. In LDCs and some developing countries, political instability has caused a loss of investors' confidence, while in some developing countries, the socio-political environment has paved the way to attract foreign investment. Lack of confident foreign investors makes it difficult for LDCs and some developing countries to attract foreign investments. Hence, the absence of investors and creditors downgrade a country's credit rating, and it is usually hard for a downgraded economy to borrow from abroad.

Table 3. Summary of determinants with divergent effect on BOP in developing countries and LDCs

<table>
<thead>
<tr>
<th>Determinants</th>
<th>Developing Countries</th>
<th>LDCs</th>
<th>Study Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liberalization</td>
<td>Negatively impacts the BOP of most developing countries.</td>
<td>Liberalization negatively impacts the BOP of LDCs</td>
<td>Allaro (2012), Qayed (2013), Hadili et al. (2020), Odebode and Aras (2020)</td>
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<tr>
<td></td>
<td>Has benefited few developing countries like India &amp; China</td>
<td></td>
<td>Odebode and Aras (2020)</td>
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<tr>
<td>Terms of Trade</td>
<td>Has a positive impact on the BOP in the short run</td>
<td>Vague impact in the short run</td>
<td>Calderon et al. (2002), Malhotra and Malhotra (2008), Christiansen et al. (2009), Arif et al. (2020).</td>
</tr>
<tr>
<td></td>
<td>Decreases the efficiency of an economy</td>
<td></td>
<td></td>
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<tr>
<td>FDI</td>
<td>Requires infrastructure, and human resources, so only a few richest developing countries benefited the most</td>
<td>Not significantly benefited from FDI</td>
<td>Kennedy (2013), Nguku (2013), Dakhil, et al. (2019), Mostafa (2019)</td>
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<td></td>
<td>Devaluation improves BOP.</td>
<td>The exchange rate negatively impacts the BOP</td>
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<td></td>
<td></td>
<td>BOP is insensitive against devaluation.</td>
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<tr>
<td>Loss of Investors’ Confidence</td>
<td>Relative political stability &amp; increasing investors’ confidence.</td>
<td>Political instability has led to a high loss of confidence and capital flight</td>
<td>Gebeyehu (2017), Pahurkar, et al. (2020), Mittal (2018), Geda and Yimer (2016)</td>
</tr>
<tr>
<td></td>
<td>A higher saving attitude of people improves the BOP</td>
<td>An increase in population increases imports; hence, worsen the BOP.</td>
<td></td>
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<tr>
<td></td>
<td>Have a relatively educated and skilled workforce which helps attract FDI and improve BOP.</td>
<td>The low stock of educated and skilled human capital is an obstacle to attract FDI, so adversely impacts BOP</td>
<td></td>
</tr>
<tr>
<td>Stage of development</td>
<td>Has a relatively positive impact on the current account.</td>
<td>Has negatively affected the current account.</td>
<td>Cheung, et al. (2010), Debelle and Faruqee (1996)</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>Moderately developing socio-physical infrastructures, which improves to BOP</td>
<td>Have poor socio-physical infrastructure; thus, negatively impacts BOP</td>
<td>Ghosh (2012)</td>
</tr>
</tbody>
</table>

interest rate negatively impacts the BOP in most developing and LDCs; however, literature shows a positive impact of interest rate on the BOP in some developing countries. Infrastructure availability and natural resources have a direct and positive impact on the BOP in developing countries and LDCs such that poor infrastructure deteriorates the BOP, and increased availability of natural resources improves BOP because
different countries demand natural resources. Natural resources mainly constitute the export in most LDCs and developing countries, which makes their BOP unsustainable in the long run. An increase in *domestic demand* in developing countries improves the BOP; however, increase demand in LDCs increases imports and deteriorates the BOP.

The World Trade Organization members have agreed to give LDCs special and differential treatment like duty-free and quota-free preferential market access to help them increase their export and improve their BOP. European Union’s (EU) Everything But Arms (EBA) programs grant LDCs duty-free and quota-free market access to the EU for all products except arms and armaments (EU-Commision, 2020). The United States gives duty-free access to the US market for many developing countries and LDCs through the Generalized System of Preferences program (GSP, 2019). The provision of preferential market access depends on the quality and structure of export industries of LDCs; therefore, such access has not helped most of LDCs.

6. **CONCLUSION**

This paper reviews the literature on the Balance of Payment (BOP) management in developing countries and LDCs. The study identifies the main determinants of BOP, summarizes the dimensions of BOP problems. Further, it compares the impact of BOP determinants on developing countries and LDCs and introduces a new typology by classifying the BOP determinants into direct and indirect categories.

The findings show that export and imports, fiscal policy, monetary policy, inflation rate, structural changes, macroeconomic stability, and financial sector development similarly impacts the BOP in developing countries and LDCs. In contrast, trade liberalization, Terms of Trade, FDI, exchange rate, Loss of Investor's confidence, Human capital, stage of development and infrastructure, and saving attitude differently impact the BOP in developing countries and LDCs.

The BOP problems are similar among all the countries with a different stage of development, but the causes, the magnitude, composition, consequences, and remedial measures for the treatment of the BOP may substantially differ from country to country. However, the effect of BOP problems will be the most harmful for LDCs, rather than developing and developed countries. Every country tries to maintain an equilibrium in international payments and receipts. So, LDCs and developing countries should stress stimulating domestic demand and fulfill the demand by taking supportive initiatives to substitute their imports with domestically produced goods instead of emphasizing on expansion of export or overseas demand. These countries can also develop the domestic bond market to reduce their dependence on external financing. LDCs and developing countries may attempt to avoid increasing demand for imports in excess level instead of promoting exports.
7. REFERENCES


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