IMPACT OF EXPORTING AND IMPORTING ON SOCIAL-ECONOMIC DEVELOPMENT: A CROSS-COUNTRY STUDY OF SOUTH AFRICA AND BRAZIL

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ABSTRACT

This paper tests the predictions of various conflicting theories on international trade and development by examining the impact of exporting and importing on economic level and basic needs in two developing countries of two different developing regions of the world; one in Latin America & Caribbean, and one in Sub-Saharan Africa. The two countries are Brazil and South Africa, respectively. Using fifteen-year lagged data that spanned 1984-2019, the paper finds that exporting tends to have negative and significant impact on both economic level and social basic needs in these two countries. Importing, on the other hand, was found to have positive and significant impact on economic level, and social basic needs in both countries. Implications of these findings for public policy and international trade theory development are discussed, and directions for future research are given.

INTRODUCTION

Two of the most important environmental forces that an international marketer must contend with in foreign markets are political and legal forces. Even if all other factors look favorable, but the government has hostile trade policies, an international marketer might consider the political risk too high to enter the foreign market. Although international firms can and do lobby governments to ensure favorable trade legislations, such efforts can be counterproductive, costly, and or time consuming, and often favor just a few firms or industry groups (Manuel & Shooshtari, 2021). A better scenario is when the government, on its own accord, adopts policies that are favorable to international trade, because it is convinced of its long-term benefits (Srivastava et al., 2022). Whereas the international marketer is more interested in the monetary or financial performance of international trade activities, the government, or policy maker is more concerned about their effects on the wider national welfare. He would more readily adopt policies that are favorable to exports and imports if convinced of their positive effects on the economic and social development of the country. Hence the need to study, not just the monetary or financial aspects of exports and imports, but also their socio-economic dimension. This latter area has received relatively little attention in the literature compared with the former.

As rightly noted by Oyewole (1997), the less developed countries, like the ones studied in this paper, will be particularly more concerned about the socio-economic dimension of exports and imports. In their quest for national development, they often seek aid and advice from the developed countries and international organizations like the IMF and the World Bank. Some of the policy

recommendations that are offered them are however looked at with skepticism. They are viewed as being particularly meant for the developed economies. Open trade policy recommendation in particular has not been enthusiastically received by many developing countries. For example, as noted by Foroutan (1993) and Nash (1993), although African governments have attempted various development policies and structural adjustments including trade reforms, these are often carried out with characteristic inconsistency. This betrays a lack of assurance of the positive impacts of these reforms on national development. An empirical evaluation of the socio-economic dimension of exports and imports in two developing countries, and belonging to two different regions of the world, as conducted in this paper, should therefore prove enlightening to policy makers in developing countries. Such study should also be of great interest to multinational corporations seeking to enter foreign developing countries, as well as domestic firms in those developing countries wanting to reach out to the international market. It is vital to find answers to such questions as: To what extent should these developing countries participate in the international market? What are the effects of exporting and importing on their national development? Which dimension of their development is being served, and which is being disserved by exporting on one hand, and by importing on the other? Answers to these questions will be of great interest to public policy makers, macromarketers, international business managers, and national interest groups alike. As succinctly stated by Gatfield and Rugimbana (2007), the State and Federal Governments around the world are becoming proactive in assisting their industries in their export endeavors. Shin and Kim (2010) for example, discussed how different government subsidies can affect quality of products meant for export. In all this venture, public policy makers need to be convinced of the positive impact of exporting and importing on their national development before entering into either bilateral or multilateral agreements and/or relaxing any policies on economic protectionism. As pointed out by Kishor (2004), businesses themselves also play significant roles in the export performance of most countries of the world. They sometimes take proactive actions lobbying governments to secure better trade conditions. These international marketers could lobby governments for more favorable trade policies only if armed with hard data showing the positive impacts of their marketing activities on national development (Manuel & Shooshtari, 2019; Shooshtari & Reece, 2017). Thus, studies of the type conducted in this paper are essential to effective policy and practice of international marketing in developing countries as they search for the best path to growth in this 21st century.

The important role that active participation in export and import can play in the development of the third world countries has long been emphasized in the literature (World Bank, 1995). Theoretically, export expands the market and can lead to benefits of specialization and economies of scale. It increases capacity to pay for the imports needed for development. It stimulates investment, learning and entrepreneurship. Import exposes a country to international competition, new products, technology, and ideas, with the positive effect of improving domestic efficiency. It increases consumer product choice with possible improvement in living standard. Especially for developing countries, importation of certain products is essential to their socio-economic development. For example, importation of books and other school materials enhances educational development, which in turn enhances the skill of the labor force. Likewise, importation of drugs and other medical supplies promotes better health which in turn promotes labor force efficiency and productivity. Interestingly, better health and wealth have been found to be positively related (Pritchett & Summers, 1993).The Development Committee of the IMF has thus encouraged giving increased attention to the role of international trade in national development as a vehicle to

stimulate sustained development of the less developed countries (IMF, 1985). It was pointed out that in the 19th century, exports of primary products were an important source of growth for many developing countries, and that in the last two decades or so, labor-intensive manufacturing have served the same function for the newly industrializing countries that have followed export-oriented policies. The committee therefore submitted that the developing countries' best hope for realizing their economic and social objectives lies in fuller integration into the international economy. Expanding world trade is said to be essential for resolving their financial problems, restoring economic growth, and effectively tackling such vital issues as employment and equity. In view of the forgoing discussion, this paper presents empirical evidence, from two developing countries in two different regions of the world for comparisons. They are South Africa in Sub-Saharan Africa, and Brazil in the region of Latin America & Caribbean. These two countries are among the relatively more advanced economies in their respective regions. Hence, it would be highly informative to explore how exporting and importing have, or have not, contributed to their socio-economic development.

LITERATURE

Several authors have written on the topic of national development with differing viewpoints. Earlier writers have equated national development with economic growth measured by such variables as GNP or GNP per capita (Bennett & Green, 1972; Green & Cunningham, 1975). However, macromarketers have increasingly become more concerned about actual benefits to the society by any purported development, such as decrease in poverty rate and unequal distribution of income (Dholakia & Dholakia, 1984; Todaro, 1989). Thus, consensus among macromarketers has swayed towards development being viewed as multi-dimensional rather than uni-dimensional focusing only on economic growth (Kinsey, 1982; Lazer, 1987; Sherry, 1989). It is now widely held among macromarketers that national development has at least two dimensions, namely: (i) economic growth, and (ii) basic needs (Duhaime et al., 1985; Mullen, 1993; Mullen et al., 1996). In connection with international trade, basic needs in the society have been measured by such variables as safe water, medical care, shelter, educational opportunities, life expectancy, birth weight of babies, level of pollution, and protein consumption among others (Karim, 2023; Pierce & Schott, 2020; Bombardini & Li, 2020; Dix-Carneiro et al., 2018; Olper et al., 2018).

Based on this two-dimensional paradigm of development, Mullen (1993) conducted a global study of the effects of exporting and importing on both economic growth and basic needs in the countries of the world. His study found that exports have a direct positive effect on economic dimension of development but a direct negative effect on basic needs. Contrariwise however, imports were found to have a direct negative effect on economic dimension and a direct positive effect on basic needs. Interestingly though, the study reported that total effect of exports on basic needs was positive and statistically significant while total effect of imports on basic needs was negative though not statistically significant. The situation was the same for total effect on economic dimension. It was positive and significant for exports while negative and significant for imports.

In another study on the effect of exporting and importing on development, Mullen et al. (1996) replicated and refined Mullen (1993). A major refinement was the use of lagged data, whereby

effects of 1975 exports and imports were assessed on 1980 economic level and basic needs. This was done to address the prior study's limitation of using cross-sectional data to study a longitudinal phenomenon. Findings of the two studies were however very similar. As in the prior study, Mullen et al. (1996) found that exports have a positive direct effect on economic level but a negative direct effect on basic needs. The reverse was the case though with imports. They have negative direct effect on economic level and a positive direct effect on basic needs. The authors however reported a positive direct effect of economic level on basic needs suggesting a trickle-down effect. Consequently, the authors found that the total effects of exporting on basic needs and economic level were both positive and statistically significant. On the other hand, total effect of importing on economic level was negative and significant. Total effect of importing on basic needs was also negative though not statistically significant – hence held to be negligible.

Using 1975 and 1980 lagged data for several countries of the world in another study, Mullen et al. (2001) examined separately the effects of exports and imports of raw materials, agricultural products, and manufactured goods on national development. They found that while exports of manufactured goods and raw materials tend to have positive effects on economic growth and basic needs, exports of agricultural products have the opposite negative effects. While this finding is of interest, the countries studied are a mixture of developed and developing countries of the world, not specifically developing countries as is done in the present paper.

In yet another study involving some 104 countries of the world, Mullen et al. (2009) also examined the effects of international trade on quality of life. They reported that while international trade enhances the well-being of the people through economic growth, this comes with negative impacts on global warming through increased emission of carbon dioxide into the environment. Of course, this finding does not relate specifically to developing countries as the countries studied are all-inclusive of both developed and developing countries.

While useful information was gained from Mullen (1993), Mullen et al. (1996), Mullen et al. (2001), and Mullen et al. (2009) the studies were general in nature, encompassing all countries of the world. They were not particularly focused on developing countries although these are known to exhibit different traits and problems from the developed world. A few authors have focused on developing countries in their study of impact of exporting and importing on national development. Oyewole and Okoro (2010) for example, studied sub-Saharan Africa as a group and reported that exporting tends to have positive and significant impact on both economic level and basic needs in Africa. Importing was found to have negative and significant impact on economic level while having negative but not significant impact on basic needs. Hojjat (1994) found that export was a major contributor to socio-economic development of Argentina and Brazil. Similarly, Yu et al. (1995) found a positive relationship between international trade and socio-economic development of India. In their own study on Nigeria and Kenya, Oyewole and Choudhury (1996) reported a positive relationship between level of exports and imports on key economic, educational, industrial, and health indicators. Similar result was found in a later study on Malawi and Cameroon by Oyewole (1997). More recently, Murakami and Hernández (2018) studied the direct impacts of bilateral exports to China on economic growth of three developing South American countries of Brazil, Chile, and Peru, during the commodity boom between 2001 and 2008. They reported that the magnitude of China's impact was less than 1 percent! The authors attributed this to the continued increasing trends of income elasticity of demand for imports in those countries, and the

growth rates of the export volumes were not sufficient to counteract this trend. In their own study of bilateral trade, between developing countries of India and four Latin American and Caribbean countries of Brazil, Colombia, Mexico, and Trinidad and Tobago, Srivastava et al. (2022) examined what factors contribute to increase in imports, exports, and total trade, as dependent variables, rather than what impacts these variables have on economic growth – in opposition to the aim of the present paper. They reported that GDP, GNP, per capita GDP, and per capital GNP, as well as openness of the economy, as independent variables, have positive and significant impacts on volume of trading activities between India and its four Latin American and Caribbean bilateral partners. Another study more related to the goal of the present paper is that of Santos-Paulino (2017). Using panel data spanning 1980-2014, the author studied the impact of trade specialization and trade policy on poverty in developing countries. The conclusion was that the amount of reduction on poverty varied by type of exports by those countries. Manufacturing exports contribute to poverty reduction more so than commodity exports, but agricultural exports have a more significant effect on poverty in low-income countries amongst these developing countries, the study reported.

Although these foregoing studies focused on developing countries, most of them did not separate analysis of exports from that of imports as did Srivastava et al. (2022). Either they analyzed only one of them (say export) or lumped the two together as one variable termed international trade. Consequently, it was difficult to extract the effects of exporting from those of importing as was done in Mullen (1993) and Mullen et al. (1996). Most of them also failed to lag the data used for their analyses. The present paper combines the best of both worlds. It (i) focuses on developing countries, (ii) separates exports from imports in its analysis, (iii) examines the effects of these on both economic level and basic needs dimensions of national development, and (iv) uses lagged data for its analysis to avoid the limitations of using cross-sectional data to study a longitudinal phenomenon.

THEORETICAL FOUNDATION

Debates on participation of developing countries in the international market have often wrapped around the dependency theory and its closely related world systems theory. Both theories predict that international trade is detrimental to the economic growth of developing countries! Dependency theory had its root in Lenin's (1917) thoughts on imperialism and Ricardo's (1817) tenet of comparative advantage of nations. The theory holds that international trade cannot favor developing countries because, being mainly primary producers, they export raw materials and import manufactured goods in accordance with Smith's (1776/1963) principle of absolute advantage of nations. It is held that the latter (manufactured goods) always commands higher prices in the world market than the former (raw materials) resulting in net loss to developing countries hurting their economic growth. Contemporary dependency theory submits that even if trade leads to economic growth, it will not lead to enhancement of basic needs. It is held that the structural framework of trade in developing countries is such that resources are concentrated in the hands of multinational corporations and the elite groups (Gultung, 1971). Hence, any economic growth from trade will only widen the gap between the rich and the poor (Evans, 1979; Chirot & Hall, 1982).

Closely related to dependency theory is the world systems theory (Wallerstein, 1974, 1979, 1980). Rooted in macrosociology and Karl Marx's thought on class distinctions in society, world systems theory holds that the world is made up of three classes of countries namely: the core, the semi-periphery, and the periphery. The core consists of the developed countries of the West, while the periphery consists of developing countries. The theory holds that using their superior political and military power, the core always gets favorable terms of trade from the periphery. Thus, international trade is said to benefit only the core while it leads to further underdevelopment of the periphery.

Neoclassical economic trade theory however sees things differently. In opposition to dependency theory and world systems theory, neoclassical economic trade theory (Ohlin, 1933; Heckscher, 1949) holds that mutual benefits accrue to trading nations. It is held that a nation's comparative advantage in the international market depends mainly on its relative possession of such factors of production as land, labor, and capital more so than political or military power! Hence, developing countries, such as the countries of Sub-Saharan Africa, and Latin America & Caribbean region, could also benefit from international trade. Could they indeed? What would the data say? A country was selected from each of these developing regions of the world to test the theories. Brazil was selected from Latin America & Caribbean region, and South Africa from Sub-Saharan Africa. These two countries are among the relatively more advanced economies in their respective regions.

To use these two countries to test the foregoing theories, the following eight hypotheses are stipulated and tested, namely:

H1: Imports have a positive effect on economic level in Brazil.
H2: Exports have a positive effect on economic level in Brazil.
H3: Imports have a positive effect on economic level in South Africa.
H4: Exports have a positive effect on economic level in South Africa.
H5: Imports have a positive effect on basic needs in Brazil.
H6: Exports have a positive effect on basic needs in Brazil.
H7: Imports have a positive effect on basic needs in South Africa.
H8: Exports have a positive effect on basic needs in South Africa.

METHODOLOGY

Data for this study was obtained from The World Bank's "World Development Indicators" (World Bank, 2022a); "Education Statistics-All Indicators" (World Bank, 2022b); and "Health, Nutrition, and Population Statistics" (World Bank, 2022c). From these sources, data on imports and exports were collected for a period of 35 years covering 1984 to 2019, and data were also collected on a number of selected 16 socio-economic variables that are often used in the literature as indicators of socio-economic development (World Bank, 1995; Oyewole & Okoro, 2010). Eight variables were selected as indicators of economic growth and eight for social basic needs development. For economic growth, the following variables were retained: (i) the GDP (constant 2015 US$), (ii) GNI (constant 2015 US$), (iii) GNI per capita (constant 2015 US$), (iv) value added in industry (% of GDP), (v) value added in industry (constant 2015 US$), (vi) value added in manufacturing

(% of GDP), (vii) value added in manufacturing (constant 2015 US$), and (viii) urbanization (% of population living in urban areas). As for indicators of social basic needs, the following variables were retained: (i) life expectancy at birth, (ii) crude death rate (per 1,000 people) (iii) infant mortality rate (per 1,000 live births), (iv) female % of total labor force, (v) number of people who are undernourished, (vi) percentage of population using at least basic sanitation services, (vii) percentage of total labor force with basic education, and (viii) percentage of female labor force with basic education.

A multiple regression econometric model was fitted to the data taking the form:

$$Y_i = \beta_i + \beta_1 X_{1i} + \beta_2 X_{2i} + \varepsilon_i$$

Where:
Y_i = dependent variable
X_{1i} = independent variable 1
X_{2i} = independent variable 2
$\beta_1 = coefficient\ of\ independent\ \text{var}iable 1$
$\beta_2 = coefficient\ of\ independent\ \text{var}iable 2$
$\beta_i = cons\tan t$
$\varepsilon_i = error\ term$

The independent variables were exports as percentage of GDP and imports as percentage of GDP. Dependent variables were indicators of the two dimensions of development: on one hand economic growth and on the other, social basic needs, as specified above. In fitting the multiple regression model, natural logs of the dependent and independent variables were used to reduce the levels of skewness and kurtosis. Also, to overcome the problems associated with studying longitudinal phenomenon by cross-sectional data, lagged data of the dependent variables were used. Various lagged periods were attempted including 1-year, 5-year, 10-year, and 15-year. The 15-year period was found to be the most adequate based on the amount of explained variance as indicated by the computed R^2s. Thus, for example, 1999 data of the dependent variables was fitted with the 1984 imports and exports data in the final multiple regression model.

RESULTS

Trends of Exports and Imports in Brazil and South Africa, 1999-2019

Charts 1 and 2 show the trends of international trade in Brazil and South Africa respectively during the twenty-year period of 1999-2019. Generally, imports and exports in the two countries have followed a relatively upward trend during the period. In 1999, Brazil imported $107.38 billion, and exported $99.25 billion worth of goods and services. By 2019, the corresponding figures were $264.03 billion for imports, and $249.88 billion for exports! As for South Africa, in 1999, it

imported $42.71 billion, and exported $63.24 billion worth of goods and services. By 2019, the corresponding figures were $101.57 billion for imports, and $95.54 billion for exports!

In Brazil, imports and exports grew at average annual rates of 4.26%, and 4.92% respectively over the period 1999-2019. The corresponding figures for South Africa were 4.09% and 2.20%.

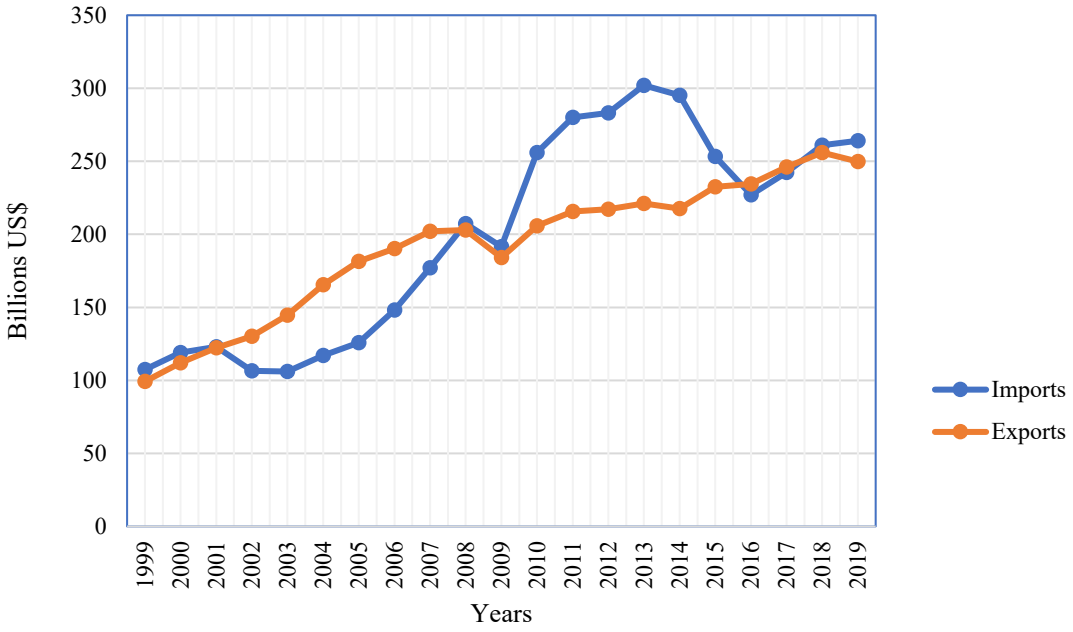

CHART 1. BRAZIL: TRENDS OF IMPORTS AND EXPORTS, 1999-2019 (IN CONSTANT 2015 US$)

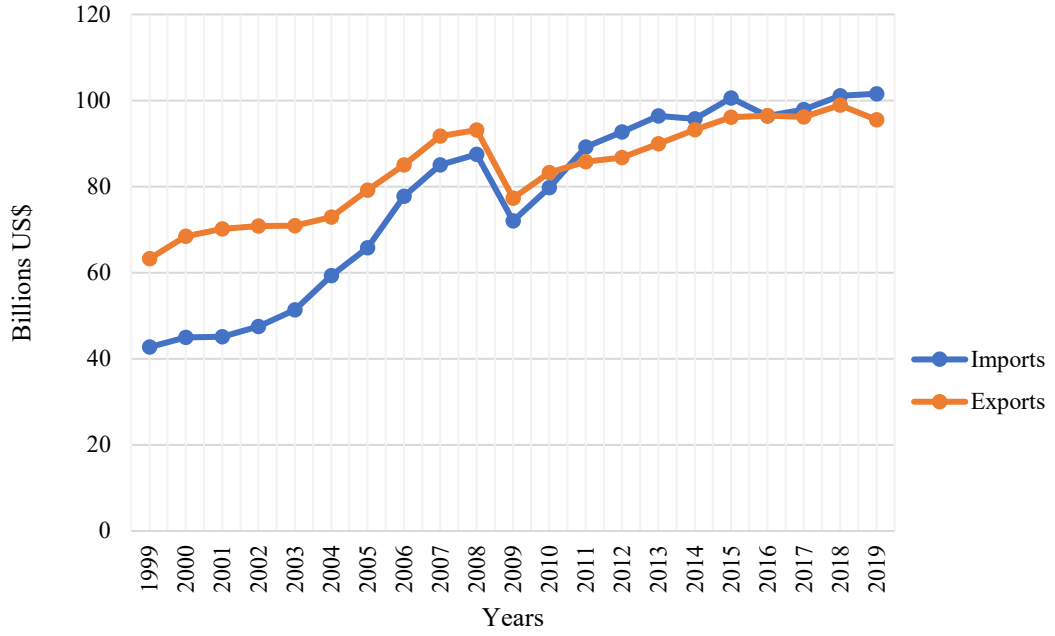

CHART 2. SOUTH AFRICA: TRENDS OF IMPORTS AND EXPORTS, 1999-2019 (IN CONSTANT 2015US$)

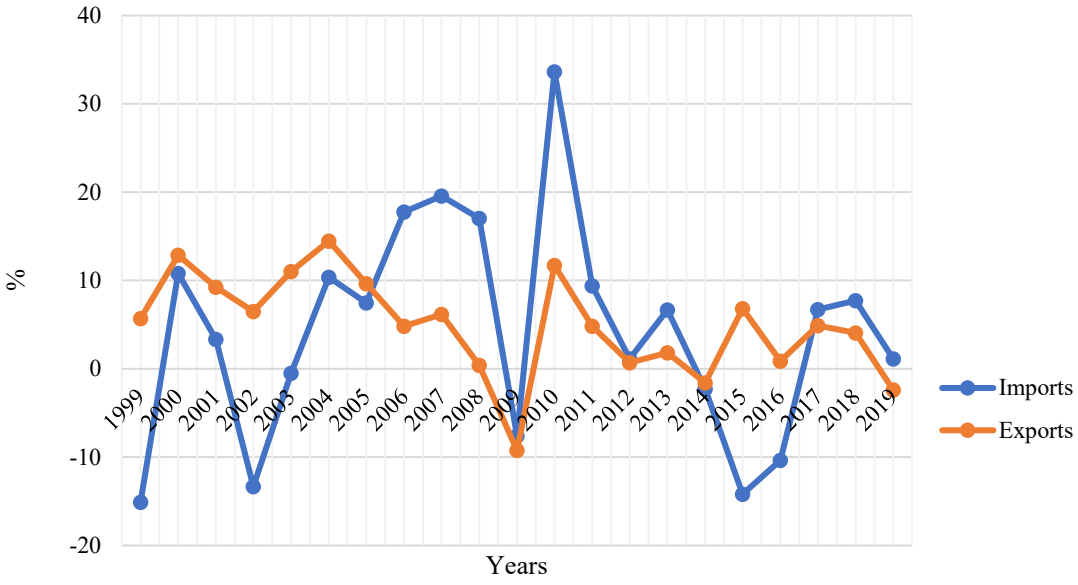

CHART 3. BRAZIL: ANNUAL % GROWTH RATES OF IMPORTS AND EXPORTS, 1999-2019

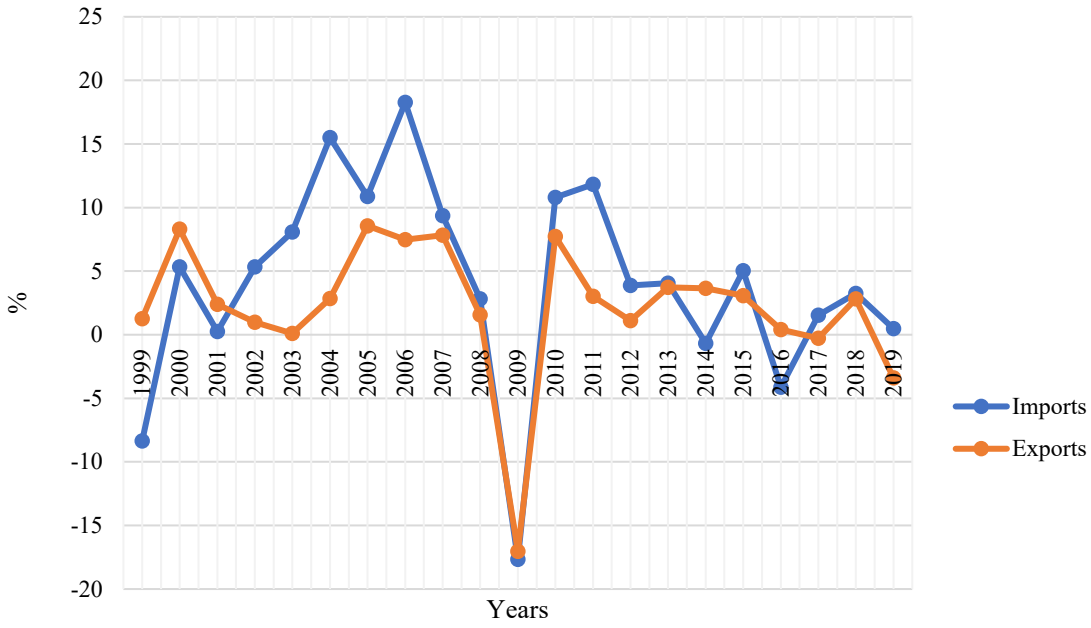

CHART 4. SOUTH AFRICA: ANNUAL % GROWTH RATES OF IMPORTS AND EXPORTS, 1999-2019

Thus, on average, exports have grown at a greater rate than imports in Brazil, while imports have grown at a greater rate than exports in South Africa. However, we noticed wide fluctuations from year to year in these growth rates as shown in Charts 3 and 4. For example, negative growth rates were recorded for several of the years in both countries. In Brazil, out of the 20 years examined, 7, and 3 negative growth years were recorded for imports and exports, respectively. Corresponding figures for South Africa were 4 and 3.

As shown in Charts 5 and 6, imports and exports as percentage of GDP followed slightly different trends in the two countries. In Brazil, the trend of imports as percentage of GDP was slightly upward, while that of exports was rather flat, despite the bump recorded in 2004. In the case of South Africa, both imports and exports as percentage of GDP tended to have an upward trend from 1999 to 2019, albeit minimal.

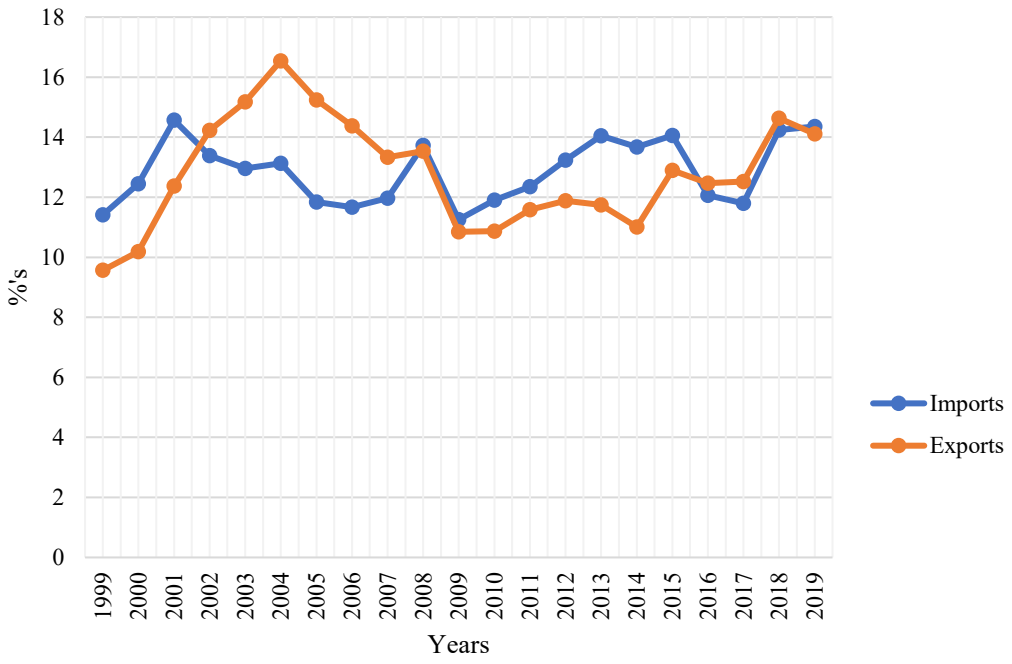

CHART 5. BRAZIL: IMPORTS AND EXPORTS AS % OF GDP, 1999-2019

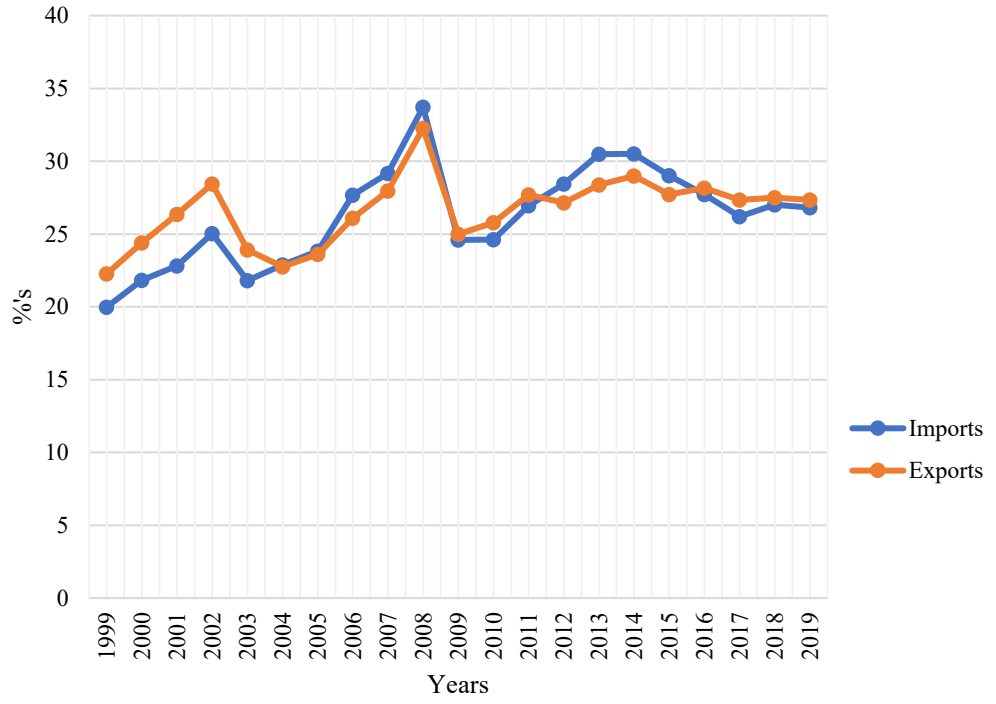

CHART 6. SOUTH AFRICA IMPORTS AND EXPORTS AS % OF GDP, 1999-2019

Given this background, the relationship between the level of imports and exports on socio-economic performance of both countries is empirically examined in the sections that follow.

Multiple Regression Analysis Results

The result of multiple regression analysis of imports and exports on economic level indicators for Brazil is shown in Table 1a. As could be seen in the Table, all the F ratios are significant at 0.05 level (as indicated in parentheses), thus indicating a good fit of the model to the data set. Likewise, all the t's of the coefficients, except one, are significant at 0.05 level as indicated by their p-values. This indicates that the impact of the independent variables on the dependent variables is significant. However, there is a striking difference between the impact of imports on economic growth, and that of exports. Looking at the coefficients, all of imports' coefficients, except two, are positive. Hence, the hypothesis H1, that says, "Imports have a positive effect on economic level in Brazil," could not be rejected by the data of this study. On the other hand, the coefficients of exports are negative across all economic level indicators except one. From this result, the hypothesis H2, that says, "Exports have a positive effect on economic level in Brazil," could not be accepted based on the data of this study. It appears that they tend to have negative effects.

TABLE 1A. ECONOMIC LEVEL INDICATORS IN BRAZIL: RESULTS OF MULTIPLE REGRESSION ANALYSIS.

Dependent Variables	F (Sig)	Independent Variables	Coefficients	t	p-value
GDP (constant 2015 US$)	47.327 (.000)	Imports (% of GDP)	.976	9.600	.000
		Exports (% of GDP)	-.516	-5.077	.000
GNI (constant 2015 US$)	45.342 (.000)	Imports (% of GDP)	.971	9.383	.000
		Exports (% of GDP)	-.522	-5.040	.000
GNI per capita (constant 2015 US$)	49.461 (.000)	Imports (% of GDP)	.951	9.522	.000
		Exports (% of GDP)	-.623	-6.245	.000
Value Added in Industry (% of GDP)	52.999 (.000)	Imports (% of GDP)	-.771	-7.950	.000
		Exports (% of GDP)	-.297	-3.068	.007
Value Added in Industry (constant US$)	39.565 (.000)	Imports (% of GDP)	.882	8.053	.000
		Exports (% of GDP)	-.715	-6.532	.000
Value Added in Manufacturing (% of GDP)	19.882 (.000)	Imports (% of GDP)	-.870	-6.124	.000
		Exports (% of GDP)	.129	.910	.375
Value Added in Manufacturing (constant US$)	15.506 (.000)	Imports (% of GDP)	.580	3.761	.001
		Exports (% of GDP)	-.805	-5.220	.000
Urbanization	31.055 (.000)	Imports (% of GDP)	.946	7.848	.000
		Exports (% of GDP)	-.276	-2.289	.034

The result for South Africa, of multiple regression analysis of imports and exports on economic level indicators, is presented in Table 1b. Again, all the F ratios are significant at 0.05 level (as shown in parentheses), thus indicating a good fit of the model to the data set. Likewise, all the t's of the coefficients, except two, are significant at 0.05 level as indicated by their p-values. This indicates that the impact of the independent variables on the dependent variables is significant. Again, however, there is a noted difference between the impact of imports on economic growth and that of exports. Looking at the coefficients, all of imports' coefficients, except two, are positive. Hence, the hypothesis H3, that says, "Imports have a positive effect on economic level in

South Africa," could not be rejected by the data of this study. As for Brazil, the coefficients of exports are negative across all economic level indicators except two. From this result, the hypothesis H4, that says, "Exports have a positive effect on economic level in South Africa," could not be accepted based on the data of this study. They tend to have negative effects.

TABLE 1B. ECONOMIC LEVEL INDICATORS IN SOUTH AFRICA: RESULTS OF MULTIPLE REGRESSION ANALYSIS.

Dependent Variables	F (Sig)	Independent Variables	Coefficients	t	p-value
GDP (constant 2015 US$)	8.702 (.002)	Imports (% of GDP)	.655	3.004	.008
		Exports (% of GDP)	-.903	-4.145	.001
GNI (constant 2015 US$)	8.901 (.002)	Imports (% of GDP)	.656	3.027	.007
		Exports (% of GDP)	-.909	-4.194	.001
GNI per capita (constant 2015 US$)	10.538 (.001)	Imports (% of GDP)	.445	2.146	.046
		Exports (% of GDP)	-.932	-4.496	.000
Value Added in Industry (% of GDP)	10.870 (.001)	Imports (% of GDP)	-.806	-3.922	.001
		Exports (% of GDP)	.913	4.441	.000
Value Added in Industry (constant US$)	8.129 (.003)	Imports (% of GDP)	.442	1.996	.061
		Exports (% of GDP)	-.880	-3.973	.001
Value Added in Manufacturing (% of GDP)	15.672 (.000)	Imports (% of GDP)	-.843	-4.567	.000
		Exports (% of GDP)	.997	5.404	.000
Value Added in Manufacturing (constant US$)	6.257 (.009)	Imports (% of GDP)	.400	1.703	.106
		Exports (% of GDP)	-.816	-3.476	.003
Urbanization	8.877 (.002)	Imports (% of GDP)	.795	3.665	.002
		Exports (% of GDP)	-.853	-3.936	.001

A second series of multiple regression analysis was conducted for basic social needs in the two countries of Brazil and South Africa. The result for Brazil is shown in Table 2a. All the F ratios are significant at 0.05 level (as indicated in parentheses), thus indicating a good fit of the model to the data set. Likewise, all the t's of the coefficients, except one, are significant at 0.05 level as indicated by their p-values, thus indicating that the impact of the independent variables on the dependent variables is significant. Note that, to be structurally favorable to basic human needs, the signs of the coefficients of crude death rate, infant mortality rate, and number of people who are undernourished should be negative. This is because the positive, or desirable thing is to reduce the figures of such indicators as much as possible. Thus, coefficients with a positive sign on those indicators should be interpreted as structurally negative. Given this understanding, Table 2a shows that 5 of imports' coefficients are positive, and 3 are negative. This is less than 75% in either direction as a rule of thumb. In view of this, the hypothesis H5 that says: "Imports have a positive effect on basic needs in Brazil," could not be conclusively rejected nor accepted by the data of this study. The tendency would be to accept this hypothesis. However, more study would be needed before any affirmation could be made from a statistical standpoint. On the hand, all the 8 coefficients of exports are negative. Given this result, the hypothesis H6 that says: "Exports have a positive effect on basic needs in Brazil," could not be accepted by the data of this study. Rather, they tend to have negative effects.

TABLE 2A. BASIC NEEDS INDICATORS IN BRAZIL: RESULTS OF MULTIPLE REGRESSION ANALYSIS.

Dependent Variables	F (Sig)	Independent Variables	Coefficients	t	p-value
Life expectancy at birth, total (years)	36.938 (.000)	Imports (% of GDP)	.966	8.578	.000
		Exports (% of GDP)	-.308	-2.733	.014
Crude death rate (per 1,000 people)	25.216 (.000)	Imports (% of GDP)	.497	3.810	.001
		Exports (% of GDP)	.537	4.118	.001
Infant mortality rate (per 1,000 live births)	33.075 (.000)	Imports (% of GDP)	-.956	-8.121	.000
		Exports (% of GDP)	.408	3.468	.003
Female % of total labor force	4.579 (.025)	Imports (% of GDP)	.627	3.026	.007
		Exports (% of GDP)	-.236	-1.139	.270
Number of people who are undernourished	36.342 (.000)	Imports (% of GDP)	-.964	-8.505	.000
		Exports (% of GDP)	.425	3.751	.001
% of Population using at least basic sanitation services	45.944 (.000)	Imports (% of GDP)	.975	9.464	.000
		Exports (% of GDP)	-.222	-2.153	.045
% of Total labor force with basic education	18.137 (.000)	Imports (% of GDP)	-.510	-3.478	.003
		Exports (% of GDP)	-.476	-3.246	.004
% of Female labor force with basic education	20.375 (.000)	Imports (% of GDP)	-.506	-3.593	.002
		Exports (% of GDP)	-.498	-3.535	.002

The result of multiple regression analysis of the impact of imports and exports on basic social needs in South Africa is presented Table 2b. Again, all the F ratios are significant at 0.05 level (as indicated in parentheses), thus indicating a good fit of the model to the data set. Likewise, all the t's of the coefficients are significant at 0.05 level as indicated by their p-values, thus indicating that the impact of the independent variables on the dependent variables is statistically significant. Table 2b shows that all of imports' coefficients, except one, are structurally positive. In view of this, the hypothesis H7 that says: "Imports have a positive effect on basic needs in South Africa," could not be rejected by the data of this study. Contrariwise, however, all the coefficients of exports, except one, are structurally negative. Given this result, the hypothesis H8 that says: "Exports have a positive effect on basic needs in South Africa," could not be accepted by the data of this study. They tend to have negative effects.

TABLE 2B. BASIC NEEDS INDICATORS IN SOUTH AFRICA: RESULTS OF MULTIPLE REGRESSION ANALYSIS.

Dependent Variables	F (Sig)	Independent Variables	Coefficients	t	p-value
Life expectancy at birth, total (years)	17.941 (.000)	Imports (% of GDP)	1.056	5.979	.000
		Exports (% of GDP)	-.721	-4.083	.001
Crude death rate (per 1,000 people)	19.535 (.000)	Imports (% of GDP)	-1.070	-6.235	.000
		Exports (% of GDP)	.623	3.632	.002
Infant mortality rate (per 1,000 live births)	15.778 (.000)	Imports (% of GDP)	-1.000	-5.433	.000
		Exports (% of GDP)	.840	4.559	.000
Female % of total labor force	5.530 (.013)	Imports (% of GDP)	.557	2.318	.032
		Exports (% of GDP)	-.797	-3.315	.004
Number of people who are undernourished	10.302 (.001)	Imports (% of GDP)	.943	4.520	.000
		Exports (% of GDP)	-.533	-2.557	.020
% of Population using at least basic sanitation services	11.957 (.000)	Imports (% of GDP)	.849	4.242	.000
		Exports (% of GDP)	-.916	-4.576	.000
% of Total labor force with basic education	3.877 (.040)	Imports (% of GDP)	.682	2.672	.016
		Exports (% of GDP)	-.589	-2.305	.033
% of Female labor force with basic education	5.020 (.019)	Imports (% of GDP)	.725	2.963	.008
		Exports (% of GDP)	-.674	-2.752	.013

In summary, the results of the tests of the hypotheses are as follows:

H1: Imports have a positive effect on economic level in Brazil – Not rejected.
H2: Exports have a positive effect on economic level in Brazil – Not accepted.
H3: Imports have a positive effect on economic level in South Africa – Not rejected.
H4: Exports have a positive effect on economic level in South Africa – Not accepted.
H5: Imports have a positive effect on basic needs in Brazil – Not conclusive.
H6: Exports have a positive effect on basic needs in Brazil – Not accepted.
H7: Imports have a positive effect on basic needs in South Africa – Not rejected.
H8: Exports have a positive effect on basic needs in South Africa – Not accepted.

DISCUSSION AND IMPLICATIONS

The findings of this study tend to conflict with those reported in Mullen (1993), Mullen et al. (1996), as well as in Oyewole and Okoro (2010). Those studies reported that the total effect of exporting on economic level and basic needs was both positive and statistically significant. However, the reverse was the case in this paper with the non-acceptance of hypotheses H2, H4, H6, and H8. Findings in this paper actually showed significant and negative impact of exports on economic level and basic needs in the two countries studied. On the other hand, Mullen (1993), Mullen et al. (1996), as well as Oyewole and Okoro (2010) reported that the total effect of importing was negative and statistically significant for economic level but negative and non-significant for basic needs. Again, the findings of the present paper conflict with this report. This is shown by the non-rejection of hypotheses H1, H3, and H7 of the present study, and its inconclusive acceptance or rejection of hypothesis H5 that nonetheless had a positive sign. Overall, exports tend to have a negative effect on the two dimensions of development in Brazil and South

Africa while imports tend to have positive impact. These findings have some implications for theory and public policy development as discussed below.

Although dependency theory and world systems theory posit that international trade is detrimental to developing countries, the findings of this study challenge this prediction for the two developing countries studied. From the findings of this study, while exporting tends to have negative impact on development, importing is shown to have positive impact. In the same vein, while neo-classical economic theory holds that international trade has mutual benefits for participating partners, the findings of this study tend to show that while developing countries benefit from importing, their development does not significantly benefit from exporting. One implication of all these conflicting findings is that, rather than having one single body of theories solely for international trade, researchers should develop separate theories for (i) importing, and for (ii) exporting instead of lumping the two together. This will give better direction to the study of impacts of exporting and importing on national development.

The results of the analyses in this paper have shown that there is a statistically significant relationship between imports and exports and socio-economic development in the two countries studied. Policy implications of the findings of this study are many. In the first place, they show that developing countries would benefit themselves socially and economically if they adopted favorable trade policies. The fact that 15-year lagged data was found to be the most adequate based on the amount of explained variance as indicated by the computed R^2s implies that the impact of imports and exports was slow to be noted on socio-economic development of the countries studied. Thus, international trade policies should be taken as a long-term project by the government not just a quick fix to systemic problems of the country. Even then, governments should find ways for a quicker even development for the positive impacts of these trade policies to be spread across the country, as is usually the case in developed countries. The practice of concentrating development only in certain parts of the country, such as the capital cities, and urban centers, should be reexamined. When favorable trade policies are in place, both the country and the international marketers will benefit. There will be a reduction of perceived, or actual political risk, encouraging imports and inward flow of foreign investment. It also encourages domestic firms to reach out to the international market thus enlarging their customer base. There will be less need for international marketers to lobby government with all its attending expenses of time and money. The government will promulgate favorable trade policies for its own sake because these contribute to long term national socio-economic development.

The usual practice of many governments in developing countries, to restrict imports at the first sign of negative balance of payment, as noted by Foroutan (1993), and Swamy (1994), should be discontinued. Likewise, the policy of import substitution, rather than outward orientation leading to export expansion, should be re-examined. What the findings in this paper show is that imports have significant and positive impacts on socio-economic development in the two countries studied. Hence, the main issue should not be whether imports will lead to negative balance of payment, but whether the right goods and services are imported to promote economic growth and higher standard of living for the populace.

The negative impact of exports, on both economic and social developments, found in this study was rather unexpected! Two policy implications of this finding present themselves. One is that the

countries studied should reexamine *the structure* of their exports and shift to exporting products that have high growth demand in this 21st century global market. As Santos-Paulino (2011) found in a cross-country study, it is not the volume of exports that is important but also the type of specialization patterns, or structure of the exports of a country. Business as usual may not be the best policy as the world changes. For example, as pointed out by Hassan and Nassar (2018), increased service components of manufacturing have given a boost to international trade in services in recent years. Hence, shifting to such services that accompany manufactured goods would enhance the export structures of the countries studied. Even if this means giving automatic controlling power to foreign investors to boost influx of FDI's into the country in this sector of services, it will still be worthwhile (Hassan & Nassar, 2017; Nwachukwu, 2011). The second implication is that perhaps the right products are being exported but the resulting revenues are not well utilized by the government to support necessary areas of social and economic developments in the country. Just like a household (or a person) may spend its money on non-essentials and be left wanting for necessities, a nation can likewise spend its revenues on non-essentials – that do not meet the most important basic needs of the populace. In other words, how the money is spent may require greater fiscal planning, discipline, and accountability.

As a direction for future research, although the findings of this study point to positive relationship between imports and socio-economic development, but negative relationship for exports, they are not conclusive for all developing countries, not even for all of Sub-Saharan Africa, or Latin America & Caribbean region to which the two countries studied here belong. It is thus recommended that similar studies be conducted for several other developing countries. Results of such studies could then be pooled to give a fuller picture of the impact of increasing level of exports and imports on socio-economic development in the less developed world. Should conflicting results be found for various countries, the intervening variables that determine positive versus negative relationship between socio-economic development and level of exports and imports could then be isolated for further study and recommendation.

In future studies, it might be good to use actual quantity or volume, rather than monetary value of exports and imports in the analysis to reduce the effect of different price levels for the same products across countries. The data available for this study did not permit a thorough examination of this area at the present time.

The analysis done in this paper was at aggregate nation-wide level only. Due to uneven development, some parts of the countries studied may have better or worse figures than the reported here. For example, urban centers may differ from rural areas by a wide margin. This divergence was not studied in the present paper due to limitation of data availability. Hence, future studies could examine this phenomenon with availability of necessary data for such more in-depth analysis.

CONCLUSION

Using lagged data, this paper has examined the impact of importing and exporting on economic level and basic needs in two developing countries of Brazil and South Africa. The paper tested the

predictions of three conflicting international trade theories namely: the dependency theory, the world systems theory, and the neo-classical economic trade theory. Based on the findings of the present study, none of these theories could be discarded as untruth nor upheld as the whole truth! In harmony with the tenets of the dependency theory and the world system theory, exporting was found to have negative effects on economic level and basic needs in the two countries studied. This, however, is contrary to the tenet of the neo-classical economic trade theory.

On the other hand, in harmony with the tenet of the neo-classical economic trade theory, importing was found to have positive effects on economic level and basic needs in the two countries studied. This, however, is contrary to the predictions of the dependency theory and the world systems theory. In view of these conflicting verdicts, the paper agrees with the suggestion of Oyewole and Okoro (2010) that separate development theories are needed for exporting on one hand, and for importing on the other instead of lumping both together (as is currently the practice) under one single body of theories termed trade, or international trade theories. For example, the work of Yu (2010) tends to suggest that democracy as a form of government affects exporting differently than it does importing. This would support different development theories for the two. It goes without saying though, that developing such separate sets of theories will require extensive additional studies analyzing data from several other developing countries and experimenting with an array of different lagged periods than what was done in this paper.

In the meantime, the findings of this paper suggested some policy directions for the governments in developing countries. They should refrain from restricting imports as a quick fix to negative balance of payment problems. Likewise, the policy of import substitution by these countries should be reexamined. Greater fiscal planning, discipline, and accountability is also called for in the way that the government spends the revenues from exporting to ensure even development in the country and satisfaction of the most important basic needs of the populace. By doing this, the negative effects of exporting on economic level and basic needs will be minimized, while the positive effects of importing on those two dimensions of development will be maximized.

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