LINKAGING THE INDIRECT EFFECTS OF EXCHANGE RATE TO ECONOMIC GROWTH AND POVERTY THROUGH ECONOMIC PERFORMANCE IN DEVELOPING COUNTRIES

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ABSTRAK

Kajian ini meneliti kesan susut nilai kadar pertukaran pada prestasi ekonomi, yang secara tidak langsung mempengaruhi pertumbuhan ekonomi dan pengurangan kemiskinan di 11 negara membangun dengan menggunakan data tahunan selama tempoh 1980-2016. Tiga kaedah analisis iaitu Autoregressive Distributed Lag (ARDL), Fully Modified Ordinary Least Squares (FMOLS), dan Panel Autoregressive Distributed Lag (P-ARDL) digunakan untuk menganalisis lapan model yang dibina. Kadar pertukaran nominal adalah pemboleh ubah bebas utama dalam model prestasi ekonomi. Pelaburan langsung asing, rizab antarabangsa, dan imbangan perdagangan merupakan pemboleh ubah bebas utama masing-masing dalam model pertumbuhan ekonomi dan model pengurangan kemiskinan. Dengan mempertimbangkan kejadian perubahan struktur, keputusan analisis siri masa menggunakan kaedah ARDL menunjukkan bahawa kadar pertukaran nominal memberi kesan positif terhadap pelaburan langsung asing di 7 negara. Keputusan juga menunjukkan bahawa kadar pertukaran nominal memberi kesan negatif terhadap rizab antarabangsa dalam jangka pendek, kemudian memberi kesan positif dalam jangka panjang di 5 negara. Penemuan lain kajian ini membuktikan bahawa susut nilai kadar pertukaran nominal meningkatkan keseimbangan perdagangan dalam jangka pendek, tetapi memperburuk keseimbangan perdagangan dalam jangka panjang di 8 negara. Setelah menjalani ujian Cumulative Sum (CUSUM) dan Cumulative Sum of Squares (CUSUMSQ), keputusan menunjukkan bahawa struktur tiga model prestasi ekonomi adalah stabil. Keputusan FMOLS menunjukkan hubungan jangka panjang yang negatif antara Keluaran Dalam Negara Kasar dan pelaburan langsung asing serta rizab antarabangsa, tetapi hubungan jangka panjang yang positif antara Keluaran Dalam Negara Kasar dan imbangan perdagangan. Keputusan P-ARDL menunjukkan bahawa pendapatan per kapita dipengaruhi secara positif oleh pelaburan langsung asing, rizab antarabangsa, imbangan perdagangan, dan pengiriman wang. Kajian ini menyeru negara-negara membangun memikirkan semula sisi negatif yang timbul terhadap pertumbuhan ekonomi daripada sekedar mengejar pelaburan langsung asing dan menimbun rizab antarabangsa.

LINKAGING THE INDIRECT EFFECTS OF EXCHANGE RATE TO ECONOMIC GROWTH AND POVERTY THROUGH ECONOMIC PERFORMANCE IN DEVELOPING COUNTRIES

ABSTRACT

This study examines the effects of exchange rate depreciation on economic performance, which indirectly affects economic growth and poverty reduction in 11 developing countries by using annual data during 1980-2016. Three methods of analysis, namely Autoregressive Distributed Lag (ARDL), Fully Modified Ordinary Least Squares (FMOLS), and Panel Autoregressive Distributed Lag (P-ARDL) applied for analysing eight models constructed. The nominal exchange rate is the main interest variable in the economic performance model. Foreign direct investment, international reserve, and trade balance are the main interest variables in the economic growth model and poverty reduction model, respectively. By considering the incidence of the structural break, the results of time-series analysis using the ARDL method shows that the nominal exchange rate contributes positively to foreign direct investment in 7 countries. The results also show the nominal exchange rate negatively affects international reserve in the short run, then has a positive effect in the long-run in 5 countries. Other findings of the study prove that the nominal exchange rate improves trade balance in the short-run, but it worsens trade balance in the long-run in 8 countries. Having Cumulative Sum (CUSUM) and Cumulative Sum of Squares (CUSUMSQ) tests, the results show that the structures of three models of economic performance are stable. The results of FMOLS show a negative long-run relationship between gross domestic product and foreign direct investment as well as international reserve, but a positive long-run relationship between gross domestic product and trade balance. The results of P-ARDL show that per capita income is influenced positively by foreign direct investment, international reserve, trade balance, and remittance. This study calls for a rethinking of the importance of foreign direct investment and international reserve in boosting economic growth. The developing countries should rethink the negative-sides incurred for economic growth rather than pursuing foreign direct investment and hoarding international reserves.

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LIST OF ABBREVIATIONS

ADB	Asia Development Bank
ADF	Augmented Dickey-Fuller
AfDB	Africa Development Bank
AIC	Akaike Information Criteria
ARDL	Autoregressive Distributed-Lag
CUSUM	Cumulative Sum
CUSUMSQ	Cumulative Sum of Squares
DF	Dickey-Fuller
DW	Durbin Watson
DOLS	Dynamic Ordinary Least Squares
ECB	European Central Bank
ECM	Error Correction Mechanism
ECT	Error Correction Term
EGT	Endogenous Growth Theory
ELGH	Export-Led Growth Hypothesis
FDI	Foreign Direct Investment
FMOLS	Full Modified Ordinary Least Squares
GDEH	Growth-Driven Export Hypothesis
GDP	Gross Domestic Product
GFCF	Gross Fixed Capital Formation

HDGM	Harrod-Domar Growth Model
HDI	Human Development Index
HO	Heckscher-Ohlin
IMF	International Monetary Fund
IPS	Im, Pesaran, Shin
IRES	International Reserve
KPIs	Key Performance Indicators
LCU	Local Currency Unit
LDC	Low-Developing Countries
MENA	Middle East and North Africa
MNCs	Multinational Companies
NEXR	Nominal Exchage Rate
OECD	Organisation for Economic Co-operation and Development
OLS	Ordinary Least Squares
PARDL	Panel Autoregressive Distributed-Lag
PMG	Pooled Mean Group
PPP	Purchasing Power Parity
SIC	Schwarz Information Criterion
SS	Stopler-Samuelson
SSA	Sub-Sahara Africa
TB	Trade Balance
TFP	Total Factor Productivity
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nation Development Programme

UNECA	United Nations Economic Commission for Africa
USD	United States Dollar
VAR	Vector Autoregression
VECM	Vector Error Correction Model
WB	World Bank
WEF	World Economic Forum
WTO	World Trade Organisation

CHAPTER 1

INTRODUCTION

1.1 Background of the Study

The roles of the exchange rate in stimulating economic growth and alleviating poverty have long been explored and discussed by economists in the context of developing countries. This study concerns with subject matter about the extent to which exchange rate depreciation can succeed in promoting economic performance, economic growth, and poverty reduction. The phenomena observed during 1980-2016 in 11 developing countries, such as (i) prolonged depreciation of the exchange rate against the United States Dollar (USD) and (ii) high poverty rates, led this study to investigate the extent to which the exchange rate depreciation contributes to economic performance and further linked to economic growth and poverty reduction.

This study views that economic performance measures the strength of a nation's macroeconomic fundamentals, which indispensable to economic growth and poverty reduction. As said by conventional wisdom, economic growth is the most powerful instrument for reducing poverty, i.e., if economic growth sustains, then it helps to increase per capita income. In this regard, per capita income is a proxy for poverty alleviation. In this study, the contribution of exchange rate depreciation on foreign direct investment inflow (FDI), international reserve (IRES), and trade balance (TB) would view as linkages through which economic growth and poverty reduction address. Thus, it implies an indirect link, which linking the exchange rate depreciation to economic growth and per capita income in the developing countries.

1.2 Overview of Selected Developing Countries

The selected developing countries in this study are those classified as lower-middle-income countries with per capita income range between USD1358 and USD3835 in 2016 (World Bank Indicator, 2016). These countries are from three regions: Sub-Sahara Africa (SSA) covering Ghana, Kenya, Nigeria, Swaziland, and Tunisia; South Asia comprising Bangladesh, India, Pakistan, and Sri Lanka; and Southeast Asia covering Indonesia and the Philippines. These countries are chosen for two reasons. Apart from the persistent experience of the exchange rate depreciation, these developing countries are pivotal in the world economy for certain products but high in poverty incidences.

Table 1.1 presents the poverty headcount in developing countries in three categories of poverty lines, i.e. USD1.90, USD3.20, and USD5.50 based on 2011 purchasing power parity for selected years. A notable feature of the table is that the higher the poverty ratio, the greater the incidence of poverty in each developing country. For instance, the poverty incidence based on the poverty line of USD5.20 is higher than those of the poverty line of USD3.20 and USD1.90, respectively.

Table 1.1

Poverty headcount in 11 developing countries, selected years

Country	Year	Population	Ratio at USD1.90	Ratio at USD3.20	Ratio at USD5.50
Bangladesh	2016	162,951,560	14.8	52.9	84.5
Ghana	2012	25,733,049	12.0	32.5	60.5
India	2011	1,247,236,029	21.2	60.4	86.8
Indonesia	2016	261,115,456	6.5	30.9	62.3
Kenya	2015	47,236,259	36.8	66.2	86.5
Nigeria	2009	154,402,181	53.5	77.6	92.1
Pakistan	2015	189,380,513	3.1	29.7	89.5
Philippines	2015	101,716,359	8.3	33.7	64.2
Sri Lanka	2016	21,203,000	0.7	9.5	39.0
Swaziland	2009	1,180,675	42.0	64.4	82.0
Tunisia	2010	10,639,931	2.0	9.1	30.3

Source: World Bank Indicator database (2019).

Based on the respective poverty ratios in 2009, Nigeria recorded the poverty incidence of 53.5 percent, 77.6 percent, and 92.1 percent. For that year, Swaziland also experienced a very high poverty rate, in which the poverty incidents was recorded 44 percent, 66 percent, and 92 percent. On the contrary, Tunisia experienced a low poverty incidence in 2010, respectively by 2 percent, 9.1 percent, and 30.3 percent. As of 2011, India demonstrated a high poverty rate, which was 21.2 percent, 60.4 percent, and 86.8 percent. Meanwhile, Ghana recorded the poverty incidence by 12 percent, 32.5 percent, and 60.5 percent in 2012. Moreover, Kenya experienced a high poverty rate, in which the poverty was recorded by 42 percent, 68 percent, and 87 percent for each poverty ratio in 2012. For that year, based on poverty ratios of USD1.90 and USD3.20, the poverty rate was quite low in the Philippines and Pakistan. The poverty rate was recorded by 9 percent and 33 percent in the Philippines. Pakistan recorded 12 percent and 29 percent for each ratio. Based on the poverty ratio of USD5.50, both countries recorded high poverty incidences by 89.5 percent for Pakistan and 64.2 percent for the Philippines.

Furthermore, as of 2016, Sri Lanka recorded 0.7 percent, 9.5 percent, and 39 percent for each poverty line in 2016. For that year, Indonesia experienced poverty incidents of 6.5 percent, 30.9 percent, and 62.3 percent. Meanwhile, Bangladesh figured the poverty incidence by 14.8 percent, 52.9 percent, and 84.5 percent for the respective poverty line.

Alongside the poverty situation, the study also reveals the importance of developing countries in the world economy. The developing countries are similar in some aspects of economic background but diverse in terms of political systems and cultural traditions. They are prominent in the world economy, in which the market and international institutions hold strong beliefs that they are the potential to become some of the world’s largest economies in the 21 st century. For instance, India, Indonesia, and Nigeria are the biggest economy in their respective region. These countries are primary producers for some commodities as they also successfully implement economic transformation.

Indonesia is one of the G-20 members and emerges as the biggest economy in Southeast Asia and has become one of the major emerging economies in the world (World Bank, 2018). Adopted significant market-opening measures to ensure long-term growth prospects, India is one of the G-20 members, the largest economy in South Asia, and the fifth in the world. Meanwhile, Nigeria is the largest economy in West Africa and ranked the 26th largest economy in the world in terms of nominal GDP (World Bank Indicator, 2020).

Bangladesh was among the least developed countries with a per capita income of less than USD300 in the mid-1990s. The economy is dominated by agriculture, textiles, and the garment industry. Starting from a closed economy, the country is classified among the Next Eleven countries and emerges as the 39th largest country in the world in terms of nominal GDP in 2019 (World Bank Indicator, 2020). In the first quarter of 2019, the World Bank announced that Bangladesh was the seventh fastest-growing economy in the world with the real GDP annual growth was 7.3 percent (World Bank, 2019).

Similarly, Pakistan starts as a low-income country, moves out of that group by adopting relevant economic reforms to emerge as a strong economy in South Asian and one of the Next Eleven countries. International institutions view this country as a country with a high potential to become the world's largest economy in the 21st century. Pakistan performs high growth in manufacturing sectors (World Development Indicators, 2017) and one of the ten emerging economies in the world (World Economic Forum, 2016).

Moreover, the Philippines is classified as a newly industrialized economy, which fosters the economy towards export-promotion based strategy on the manufacturing and services sectors. Named as one of the Next Eleven countries and the Tiger Cub economies, the Philippines is the world's 36th largest economy in terms of nominal GDP in 2019 (World Bank Indicator, 2020). Ghana is a rich natural and mineral resource country, i.e. hydrocarbons and mining minerals. The country is one of the world's largest producers and exporters of gold and cocoa. Ghana also produces manufacturing goods and export digital technology goods, automotive, and ships. The country is one of the highest GDP per capita in West Africa and one of the best trade destination for foreign investment and trade in Africa. As of 2011, Ghana became the fastest-growing economy in the world (World Bank, 2011).

Kenya is a major regional player in East Africa and one of the fastest-growing economies in Africa (World Bank, 2017). The economy of Kenya is market-based with major industries include agriculture, forestry, fishing, mining, manufacturing, energy, tourism, and financial services. In 2007, the Kenyan government launched Vision 2030, a vision to build a prosperous, high quality of life and globally competitive nation by the year 2030. In 2020, Kenya is the third-largest economy in Africa, follow behind Nigeria and South Africa (World Bank, 2020).

Meanwhile, Sri Lanka is a free-market economy. The economy has transformed from a rural-based economy towards a manufacturing and services-based economy. The main economic sectors of the country are tourism, textile and apparel, agriculture, and overseas employment. Sri Lanka is among the highest in South Asia in terms of human development and social indicators and favorably compared with those in middle-income countries (World Bank, 2017). The country experienced an average annual growth of 6.4 percent from 2003 to 2012, which the rate above its regional peers. The economy grew by an average rate of 5.6 percent between 2010 and 2019 (World Bank, 2020).

In addition, Tunisia is a rich country in both human and physical capital and one of the fastest-growing and competitive economies in the Middle East and North Africa (MENA). Tunisia's economy is on the process of turning away from the command-economy model toward a liberalized and market-oriented economy. The main export of the country includes textiles and apparel, food products, petroleum products, chemical, and phosphates. About 80 percent of the country's export market is the European Union. World Bank (2014) mentioned Tunisia as a role model for other developing countries. Finally, Swaziland is a country endowed with mineral resources include coal, asbestos, diamonds, gold, iron ore, kaolin, and silica. During its time, mining has been central to the social and economic narrative story in Swaziland. United Nations Economic Commission for Africa (UNECA) in 2016 reported that Swaziland ranked twelfth in terms of annual real GDP growth rate and the lowest debt country in Southern Africa.

In the past four decades, the developing countries promote the policies towards market-oriented economies. Yet, they undertake the social and economic transitions to strengthen their economies to become more resilient and stable. Table 1.2 presents some of the key social indicators in 11 developing countries. In terms of population, the total population of these countries is about 2.34 billion, compared with the world population, it was 31.45 percent of the total 7.44 billion world population in 2016 (World Bank, 2016).

Table 1.2

Social indicators of 11 developing countries, selected years

Population (million)[1]	1990	1995	2000	2005	2010	2015	2016
Bangladesh	106.0	118.4	131.3	142.9	151.6	161.2	162.9
Ghana	14.6	16.8	18.8	21.4	24.3	27.6	28.2
India	870.6	960.9	1,054	1,144.3	1,231	1,309	1,324
Indonesia	181.4	197.0	211.5	226.3	241.6	258.1	261.1
Kenya	23.4	27.4	31.1	35.3	40.3	47.2	48.5
Nigeria	95.6	108.4	122.9	139.6	159.4	181.2	186.0
Pakistan	107.6	122.6	138.3	153.4	170.0	189.4	193.2
Philippines	61.9	69.8	77.9	86.1	93.0	101.7	103.3
Sri Lanka	17.3	18.2	18.8	19.5	20.2	20.9	21.2
Swaziland	0.86	0.96	1.06	1.10	1.20	1.31	1.34
Tunisia	8.2	9.1	9.7	10.1	10.6	11.2	11.4
Human Development Index	1990	1995	2000	2005	2010	2015	2016
Bangladesh	0.39	0.42	0.47	0.51	0.55	0.58	0.61
Ghana	0.46	0.47	0.49	0.51	0.55	0.58	0.59
India	0.43	0.46	0.49	0.54	0.58	0.62	0.64
Indonesia	0.53	0.56	0.60	0.63	0.66	0.69	0.69
Kenya	0.47	0.46	0.45	0.48	0.53	0.56	0.59
Nigeria	na	na	na	0.47	0.50	0.53	0.53
Pakistan	0.40	0.43	0.45	0.50	0.53	0.55	0.56
Philippines	0.59	0.59	0.62	0.65	0.67	0.68	0.70
Sri Lanka	0.63	0.65	0.69	0.72	0.75	0.77	0.77
Swaziland	0.55	0.54	0.51	0.50	0.53	0.54	0.59
Tunisia	0.57	0.61	0.65	0.69	0.71	0.73	0.74
Governance[2]	1996	1998	2000	2005	2010	2015	2016
Bangladesh	21.78	26.52	23.84	17.50	24.64	26.12	26.12
Ghana	45.10	45.60	56.24	50.09	54.21	48.88	48.88
India	47.16	50.00	52.59	51.50	49.91	50.32	50.32
Indonesia	37.46	29.58	38.97	30.03	38.34	47.43	47.43
Kenya	30.73	29.67	32.35	32.66	35.02	38.62	38.62
Nigeria	14.99	11.81	17.08	17.58	16.39	14.90	14.90
Pakistan	30.72	30.61	24.01	29.39	27.50	25.48	25.48
Philippines	51.16	58.40	49.60	48.67	45.34	47.44	47.44
Sri Lanka	55.04	54.08	54.87	47.24	48.48	50.16	50.16
Swaziland	37.45	31.38	31.06	23.19	34.02	34.61	34.61
Tunisia	54.97	56.47	56.23	56.92	57.71	44.71	44.71

Note: The governance data commencing in 1996. Governance is the average of combining three perceptions of the good governance measure such as (i) government effectiveness, (ii) regulatory quality, and (iii) rule of law.
Source: [1] United Nation Development Programme (2019) and [2] World Bank Indicator database (2019).

The United Nations (2019) released that countries such as India, Indonesia, Pakistan, Bangladesh, and Nigeria, and the Philippines are among the top 13 of the most populous countries in the world. Kenya and Ghana are ranked respectively 27 and 47 in the list of countries by population. Meanwhile, Sri Lanka, Tunisia, and Swaziland are ranked respectively 58, 79, and 159.

Moreover, Table 1.2 shows the Human Development Index (HDI). The HDI reflects a comprising measure of the long and healthy life, level of knowledge, and standard of living in a country. The HDI is established in 1990 by the United Nation Development Programme (UNDP), in which the index is ranged between 0 and 1. If the value is close to 1, it shows a better achievement in human development. Sri Lanka is a country with the highest HDI among the developing countries, followed by Tunisia, the Philippine, Indonesia, and Swaziland. These countries have experienced a moderate index in human development since 1990. The HDI has grown substantially in other countries such as India, Ghana, Bangladesh, and Pakistan. The four countries have also succeeded in achieving a moderate index in 2005. Meanwhile, Kenya and Nigeria experienced moderate HDI in 2010.

Another important indicator in selection of the countries is the relatively good governance performance, as shown in Table 1.2. Nigeria is the poorest country in governance index among the developing countries. It is followed by Bangladesh and Pakistan. Tunisia is the top performer in governance index followed by Sri Lanka, India, Ghana, and the Philippines. Meanwhile, Indonesia is ranked below, but slightly above Swaziland and Kenya. With the social background in mind, the study proceeds to economic indicators of developing countries such as the manufacturing value-added, financial development, and trade openness as shown in Table 1.3.

Table 1.3

Economic indicators of 11 developing countries, selected periods

Manufacturing value added[a]	1980-1984	1985-1989	1990-1994	1995-1999	2000-2004	2005-2009	2010-2014	2015-2016
Bangladesh	14.61	13.70	14.58	14.65	14.22	15.72	16.22	16.91
Ghana	5.53	10.43	9.37	9.00	8.95	8.26	8.31	11.24
India	16.65	16.37	16.15	16.58	15.64	16.88	15.86	15.39
Indonesia	14.25	17.34	21.65	25.51	28.34	27.23	21.47	20.75
Kenya	10.54	10.16	9.46	10.57	9.93	12.01	10.93	9.34
Nigeria	19.86	20.04	18.85	18.40	12.52	8.66	8.00	9.05
Pakistan	13.91	14.75	15.13	14.58	14.69	14.25	13.61	12.44
Philippines	25.04	25.02	24.26	23.00	24.48	22.90	20.82	19.85
Sri Lanka	14.44	13.95	13.68	14.63	17.12	18.66	18.17	16.32
Swaziland	16.56	23.37	31.05	32.54	33.76	34.67	31.24	31.38
Tunisia	12.76	15.95	17.21	17.43	16.16	16.61	16.18	15.10
Financial development[b]	1980-1984	1985-1989	1990-1994	1995-1999	2000-2004	2005-2009	2010-2014	2015-2016
Bangladesh	11.71	Na	Na	23.23	35.20	44.83	52.38	56.66
Ghana	8.50	7.78	9.79	12.64	16.03	21.57	27.53	31.70
India	32.75	37.97	40.16	42.98	55.73	65.40	73.02	74.31
Indonesia	13.34	20.40	31.97	41.44	42.87	34.22	31.45	33.72
Kenya	19.88	19.13	23.23	30.67	32.41	33.84	38.60	39.02
Nigeria	29.73	26.18	12.20	10.54	12.84	15.53	20.15	19.51
Pakistan	29.81	30.88	30.41	33.67	38.29	42.19	38.12	41.35
Philippines	22.00	24.62	32.30	49.74	53.26	52.81	60.87	71.80
Sri Lanka	23.88	24.38	23.52	29.54	31.49	31.68	32.34	42.29
Swaziland	13.87	18.15	20.49	17.60	16.70	19.20	24.41	26.05
Tunisia	Na	Na	43.52	44.11	51.39	55.08	66.68	69.07
Trade openness[c]	1980-1984	1985-1989	1990-1994	1995-1999	2000-2004	2005-2009	2010-2014	2015-2016
Bangladesh	20.07	17.59	20.75	27.37	28.98	39.03	44.83	40.02
Ghana	12.88	38.03	49.98	75.47	104.11	74.11	76.34	72.47
India	14.50	13.42	18.33	23.44	30.43	47.16	52.79	41.00
Indonesia	51.77	45.00	53.16	64.27	62.74	55.91	48.64	39.63
Kenya	60.18	52.40	61.93	56.04	55.61	56.41	55.37	41.15
Nigeria	37.05	37.39	55.87	63.27	68.05	61.32	40.35	18.96
Pakistan	34.44	34.59	37.28	35.53	30.44	34.32	32.57	26.06
Philippines	49.61	52.24	66.25	94.43	102.11	84.26	65.15	63.79
Sri Lanka	73.79	62.17	73.04	79.59	80.14	65.20	50.47	50.04
Swaziland	169.70	158.03	132.29	141.89	158.05	125.54	102.99	100.14
Tunisia	83.15	76.81	89.41	83.56	85.34	99.61	105.31	91.73

Notes, a) Manufacturing value added is measured by the share of GDP (percentage); b) Financial development is indicated by the ratio liquid liabilities to GDP (percentage); c) Trade openness is measured by the ratio total trade to GDP (percentage)
Source: World Bank Indicators Website database (2019).

Table 1.3 shows the top three performers in manufacturing value-added are Swaziland, Indonesia, and the Philippines. Swaziland maintained the manufacturing value-added by more than 30 percent during 1990-2016. The Philippines maintained manufacturing value-added by more than 20 percent during 1980-2016. Meanwhile, Indonesia improved its manufacturing value-added during 1985-2005, which manufacturing value-added recorded by more than 20 percent during 1990-2016.

Additionally, Ghana experienced the lowest manufacturing value-added among the developing countries. Nigeria showed a decline in value-added of the manufacturing sector, particularly during the period 2005-2016. Other countries such as Kenya, Bangladesh, India, Pakistan, Sri Lanka, and Tunisia were in moderate in value-added which manufacturing value-added indicated between 10 and 20 percent during 1980-2016.

Table 1.3 also shows the financial development of the developing countries. India and the Philippines maintained financial deepening during 1980-2016. Both countries are among the highest financial development throughout the period. In the same period, Ghana, Pakistan, the Philippines, and Bangladesh also experienced an improvement in financial deepening between 1980 and 2016.

Indonesia, Kenya, and Sri Lanka experienced a comparable performance in financial development for the period 1980-2016. Moreover, Nigeria and Swaziland shared a similar pattern in financial development, experienced a decline in financial development during the first four periods. Although the financial development was improving in subsequent periods, recently both countries were among the lowest in financial development.

Another economic indicator presented is the trade openness ratio. This ratio implicitly shows the relative importance of international trade in the economy of a country. As shown in Table 1.3, the importance of international trade for developing countries differs considerably during 1980-2016. Swaziland and Tunisia were the most open countries during 1980-2016. Swaziland recorded an openness ratio of 170 percent in 1980 and 100 percent in 2016. Tunisia, Ghana, and the Philippines have also experienced a degree of trade openness of higher than 100 percent. Tunisia experienced the situation over two consecutive periods, by 101 percent over the period 2005–2010 and 103 percent over the period 2010-2015, respectively. Ghana and the Philippines have experienced the situation during 2000-2004, with their openness ratio showing 104 percent and 102 percent, respectively. As of 2016, Tunisia showed a higher ratio than both countries, with the trade openness ratio of each country was 91.2 percent, 89.3 percent, and 64.9 percent, respectively.

Moreover, Kenya, Indonesia, and Sri Lanka. experienced moderate performance in trade openness. Kenya's trade openness ratio was between 52.40 percent and 61.90 percent during 1980-2014. A quite similar achievement was also experienced by Indonesia, with trade openness ratio was between 45 percent and 64.30 percent during the period. In the case of Sri Lanka, the trade openness was quite high, with ratios range from 62.20 percent to 80.10 percent over the period 1980-2009. It declined, which the ratio on average was 50 percent during 2010-2014. In 2015-2016, Sri Lanka ahead Kenya and Indonesia, in which the ratio of trade openness of each country showed 50.5 percent, 36.7 percent, and 37.4 percent, respectively. Similarly, Nigeria's trade openness recorded 37 percent throughout the 1980s. It gradually improved, in which the ratio was between 55.90 percent and 68.10 percent during 1990-2009. But, the performance fell to 40.40 percent in 2010-2014 and 19.00 percent in 2015-2016.

The importance of international trade in India was less prominent in the 1980s and 1990s as the trade openness ratios were between 14.50 percent and 23.40 percent during 1980-1999. The trade openness gradually improved, which the ratio was between 30.40 percent and 52.80 percent during 2000-2014. However, Bangladesh and Pakistan have limited trade openness in most cases during 1980-2014. Pakistan experienced a quite static achievement in trade openness, in which the ratio was between 30 percent and 37 percent during the period 1980-2014. It slightly declined by 26 percent in 2015-2016. Bangladesh's trade openness was 20 percent in 1980-1984 and 18 percent in 1985-1989. Bangladesh recorded trade openness ratio ranged between 21 percent, and 45 percent during 1990-2014, and 40 percent in 2015-2016.

1.2.1 Exchange Rate

The exchange rate is a fundamental in economic as its importance in embarking and bridging international transactions. In the world economy, every country has its currency and exchange rate system. The price of currencies referred to their respective exchange rate. The exchange rate is defined as the price of one currency in terms of other currencies primarily by one of the major currencies, such as the Euro, Japanese Yen, and the US dollar.

Under the floating exchange rate system, the exchange rate of a currency may appreciate or depreciate in terms of another currency or other currencies. It is because the exchange rate is determined by the demand and supply of domestic currency in foreign exchange markets. According to McDonald (2007), an increase in demand for foreign currency causes a depreciation of the local currency, vice versa. Meanwhile, under a fixed exchange rate system, a government or central bank ties its currency official exchange rate to another country's currency or a basket of foreign currencies.

Due to its importance in international transactions, the exchange rate inevitably equips the national economy to work on the right path, shield the economy from external disturbance, and effectively ensure long-term economic growth. The conventional wisdom states that exchange rate depreciation is a pivotal instrument to strengthen economic performance and sustain economic growth, with exchange rate appreciation acting vice versa. Thus, the exchange rate depreciation is perceived can lead the economy to a further stage of economic development. The study concerns with the developing countries with persistent exchange rate depreciation. Figure 1.1 plots the experiences of exchange rate depreciation in 11 developing countries.

The developing countries experienced exchange rate depreciation in most cases during 1980-2016. The exchange rate depreciation in Ghana, Swaziland, and Tunisia is much lower than in other countries. In the case of Indonesia, the exchange rate depreciation during 1980-1996 was narrower than those during 1997-2016.

Nigeria experienced a narrow exchange rate depreciation from 1980 to 1993 and much stable from 1994 to 1998. Nigerian Naira plunked in 1999 and deteriorated from 2000 to 2016. Bangladesh experienced exchange rate depreciation during 1980-2012 and relatively stable from 2013 to 2016. Meanwhile, India recorded an exchange rate depreciation during 1980-2002. It appreciated during 2003-2008 and slightly depreciated in recent years. Pakistan showed exchange rate depreciation from 1980 to 2001. It was slightly appreciated in 2002 and 2003 before depreciation in subsequent years.

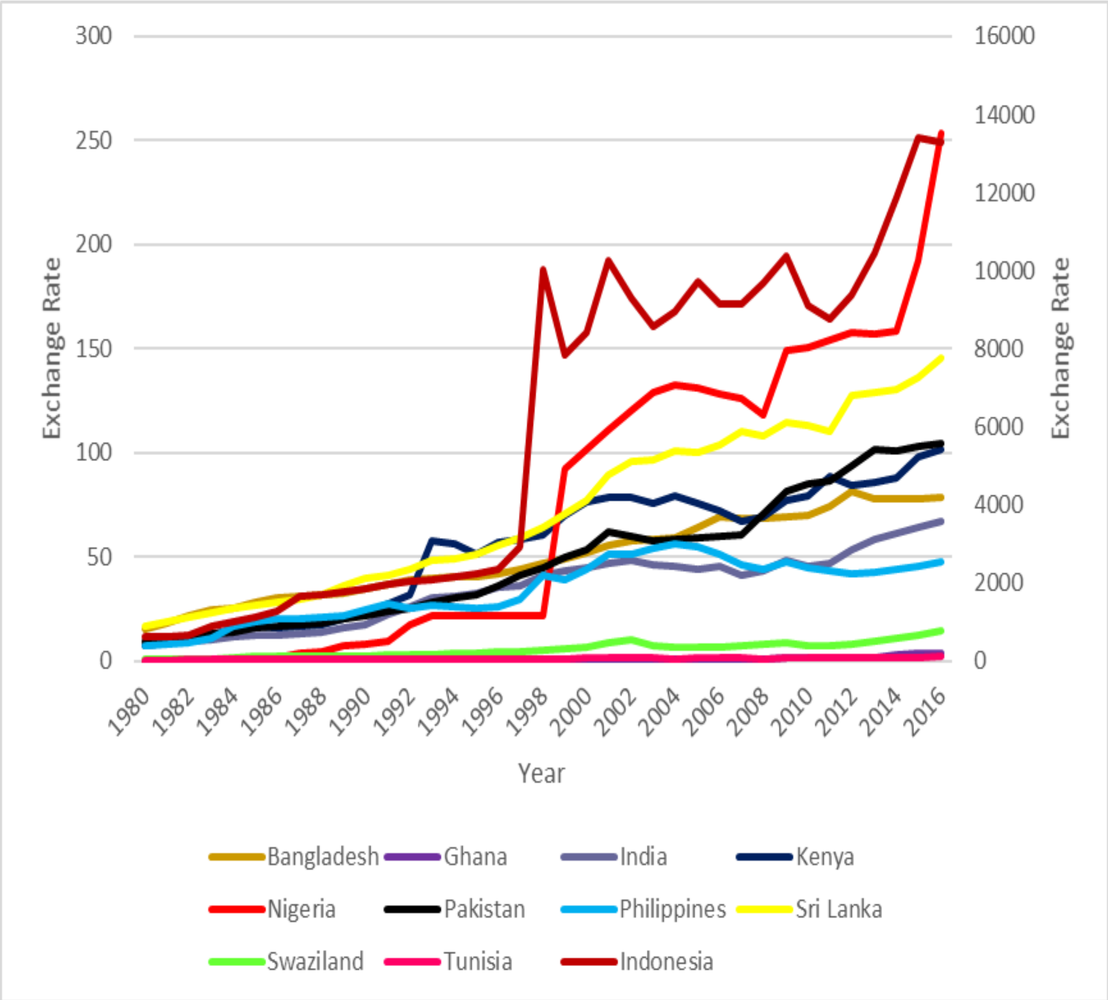

Figure 1.1. Exchange rate per USD in 11 developing countries, 1980-2016

Moreover, Sri Lanka recorded an exchange rate depreciation during 1980-2016, except in 2005, 2008, and 2011. The Philippines experienced narrow exchange rate depreciation until 1991 and subsequently fluctuated from 1992 to 1997. The Peso significantly depreciated from 1998 to 2004 and appreciated from 2005 to 2013. Since then, the exchange rate has depreciated. Finally, Kenya experienced exchange rate depreciation in most cases but recorded appreciation in certain years such as during 1994-1996, 2005-2008, and 2012-2014.

1.2.2 Economic Performance

Economic performance refers to the ability of a country to reap the benefits of foreign capital, international trade, and international reserve accumulation for providing high economic growth. The performances of the three variables are then justified as a country's economic performance. The variables are focused because of their significances to address the long-term structural issues associated to economic growth acceleration. By sustaining economic performance, it further ensures the economy of the country is on the right platform in creating jobs, raising income, and paving poverty. This section presents the performance of foreign capital inflow, international reserve accumulation, and trade balance in 11 developing countries.

Figure 1.2 shows the trend of foreign capital measured by the sum-up of FDI and personal remittance. The upward trends dominantly were indicated in Bangladesh, Ghana, India, Pakistan, the Philippines, and Sri Lanka. In contrast, Indonesia recorded an upward trend during the 1980s and some years in the 1990s. It then declined to below zero levels from 1999 to 2001, before recovering to an upward trend in subsequent years. The foreign capital declined during 2014-2016. Finally, the trend in foreign capital was rather static in Kenya, Nigeria, and Swaziland.

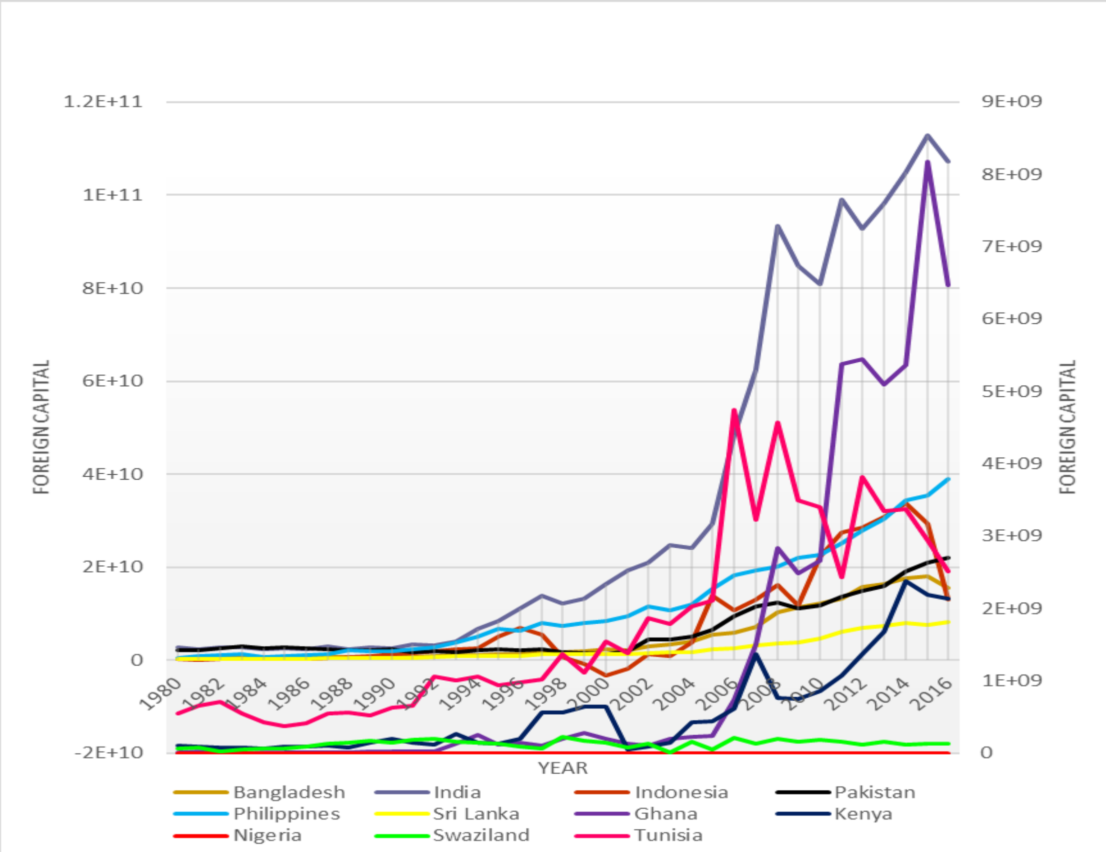

Figure 1.2. Foreign capital in 11 developing countries (USD million), 1980-2016

The trend of international reserve (IRES) accumulation in 11 developing countries is exhibited in Figure 1.3. Nigeria and India are the countries with the largest international reserves compare to nine other developing countries. Meanwhile, Swaziland and Sri Lanka are countries that accumulate relatively low international reserves.

There are upward trends in international reserve accumulation in India, Indonesia, the Philippines, Bangladesh, and Pakistan. The rather flat upward trend in Ghana, Swaziland, and Tunisia. Nigeria indicated an upward trend from 2003 to 2006. It fluctuated in some years and experienced a downward trend during 2013-2016.

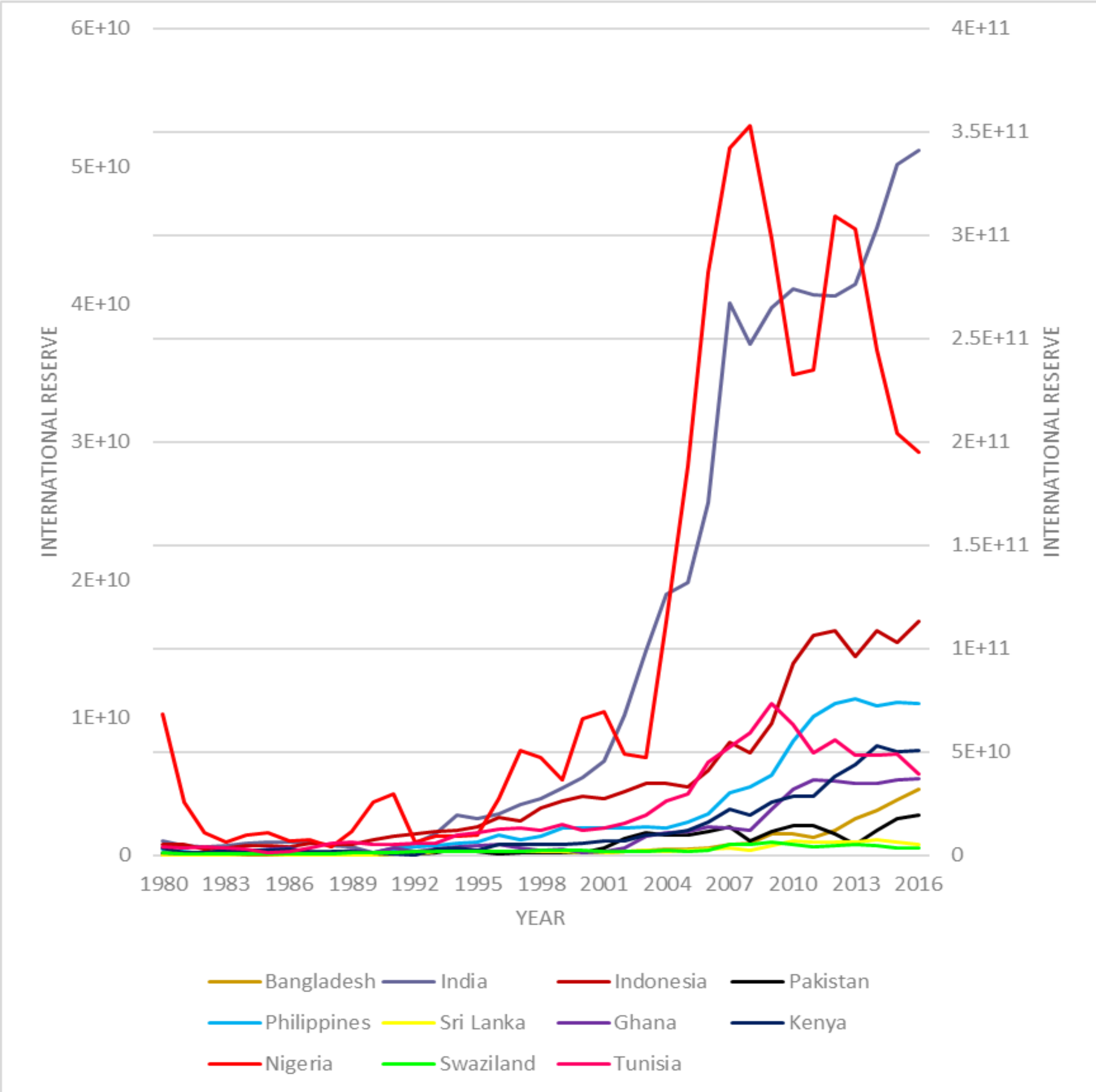

Figure 1.3. International reserve in 11 developing countries (USD million), 1980-2016

Moreover, the performance of trade balance (TB) in the developing countries is plotted in Figure 1.4. The vertical axis on the left side consists of 6 Asian countries, and the vertical axis on the right side consists of 5 African countries. Among the developing countries, Nigeria and Indonesia experienced the trade balance surplus in most cases during 1980-2016. Indonesia recorded the highest trade surplus in 2011. Meanwhile, Nigeria experienced the highest trade surplus in 2012.

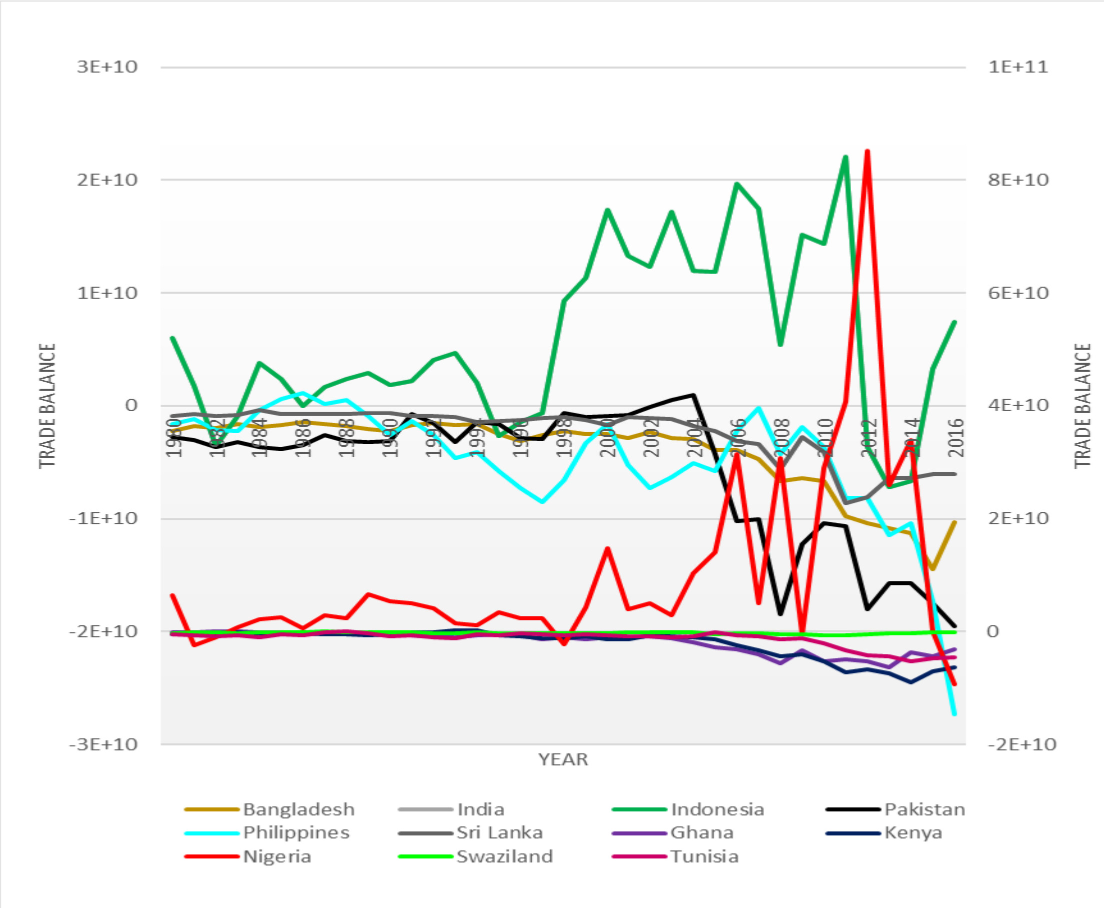

Figure 1.4. Trade balance in 11 developing countries (USD million), 1980-2016

Pakistan experienced a trade balance deficit during 1980-2001. The country recorded a surplus in trade balance during 2002-2004. The deficit trade balance worsened in subsequent years and reached the deepest point in 2008. Trade balance deficit improved during 2009-2011 but deteriorated during 2012-2016. Meanwhile, the Philippines experienced trade balance deficit for most of the year over the period 1980-2016. After the surplus of 1985-1988, trade balance returned to the deficit trend and even worsened for several years from 1989-2010. Then, it sharply fluctuated in a downward trend in 2011-2016.

Furthermore, Bangladesh's trade balance deficit substantially had grown in most cases except in 2016. Ghana and Kenya shared a quite similar trend in trade balance deficit. Ghana experienced a low deficit trade balance during 1980-1996, but. deteriorated since 1997. Quite similarly, Kenya experienced a low trade balance deficit during 1980-1992. The country recorded a surplus in trade balance between 1993 and 1994, but the trade balance deficit worsened since 1995. India experienced a trade balance deficit during the 1980s and 1990s. The trade balance deficit continued until 2008. It slightly improved in 2009 and worsened during 2010-2011. The trade balance deficit reduced during 2012-2016. Finally, Swaziland and Tunisia were the countries with the lowest trade balance deficits.

1.2.3 Economic Growth

Economic growth is the ultimate goal of economic development. Economic growth is an increase in production of goods and services over a specific period. GDP is the standard measurement of economic growth. Gross domestic product is the best way to measure economic growth. It takes into account the country's entire economic output. Economic growth is the most-watched economic indicator. The way to increase income is to produce goods or service that provides benefits to the country. It is supported by how well the country's economic performance. Figure 1.5 shows the trend of economic growth in 11 developing countries during 1980-2016.

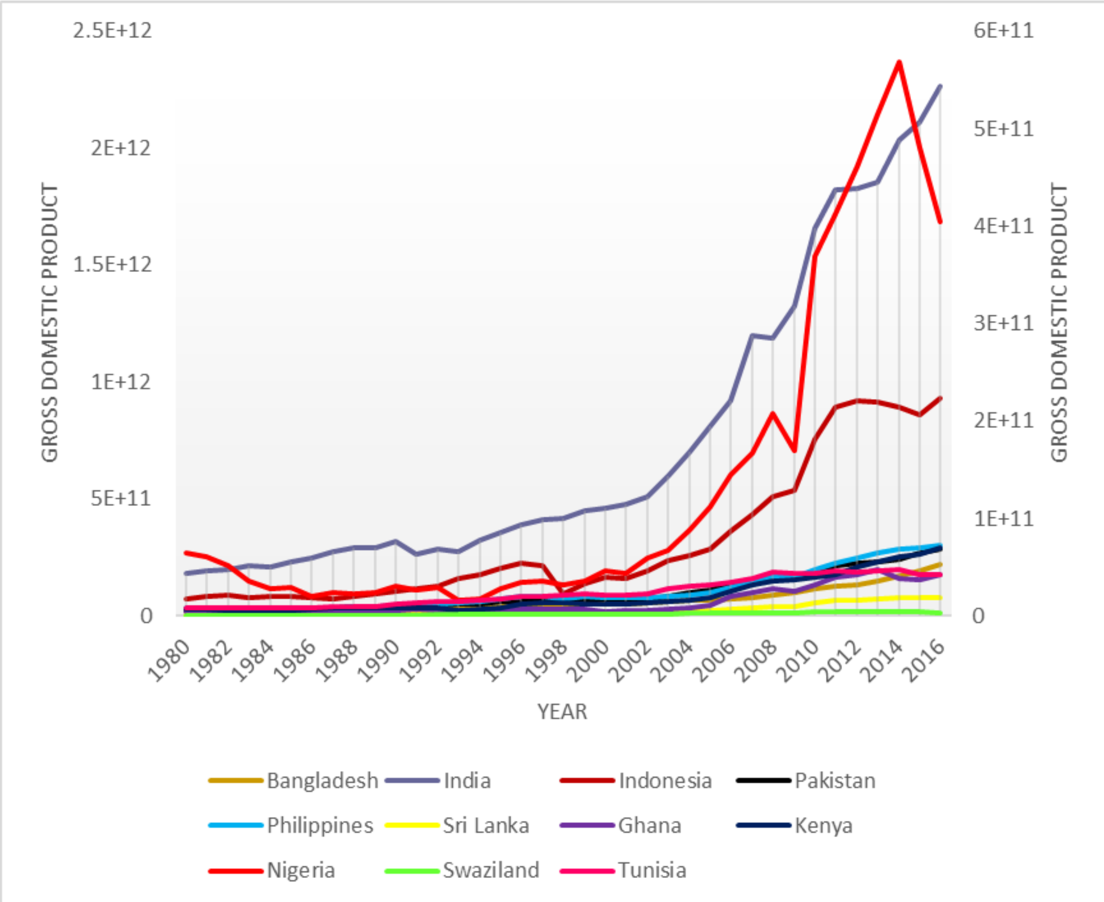

Figure 1.5. Gross domestic product in 11 developing countries (USD million), 1980-2016

As presented by Figure 1.5, India experienced a larger GDP than other developing countries over the period 1980-2016. The country experienced an upward trend in GDP in most of the years during the period. Meanwhile, Indonesia experienced an upward trend in GDP in most of the years, except in 1998. Starting in 1999 the economy recovered and peaked in 2012. It slightly decreased in subsequent three years and increased in 2016.

Figure 1.5 also shows Nigeria's GDP was smaller than India and Indonesia. However, the economic growth of Nigeria exceeded three comparable countries such as the Philippines, Bangladesh, and Pakistan. Nigeria experienced a flat downward trend in GDP during 1980-1994. Economic growth improved during 1995-2008 and fell in 2009. By the 2010s, economic growth continued to rise and peaked in 2014. But, it declined from 2015 to 2016. Meanwhile, Bangladesh, Pakistan, and the Philippines shared quite similar trends in GDP, which their GDP respectively has increased in most of the years during 1980-2016. Kenya and Sri Lanka also experienced flat upward trends in GDP during 1980-2016.

In addition, Tunisia's economic growth experienced a flat upward trend during 1980-2014 but slightly fell from 2015 to 2016. Ghana experienced a flat upward trend in GDP during 1980-2016, except during 1992-1994 and 2014-2015. Finally, Swaziland was a country with the lowest GDP compared to other developing countries. The country experienced a flat increase in GDP during 1980-2012 and slightly decreased during 2013-2016.

1.2.4 Per Capita Income

The phenomenon of poverty is not solely a question of the qualitative aspect of life. Poverty is also a matter of quantitative measurement. Per capita income is selected for analysis, as it is the most common indicator used in poverty discussions. Per capita income is measured by the total amount of GDP of a country divided by its population. It serves as a measurement of the stability and wealth within an economy and one of the national Key Performance Indicators (KPIs) introduced by the World Economic Forum (2017). Figure 1.6 plots per capita income in developing countries during 1980-2016.

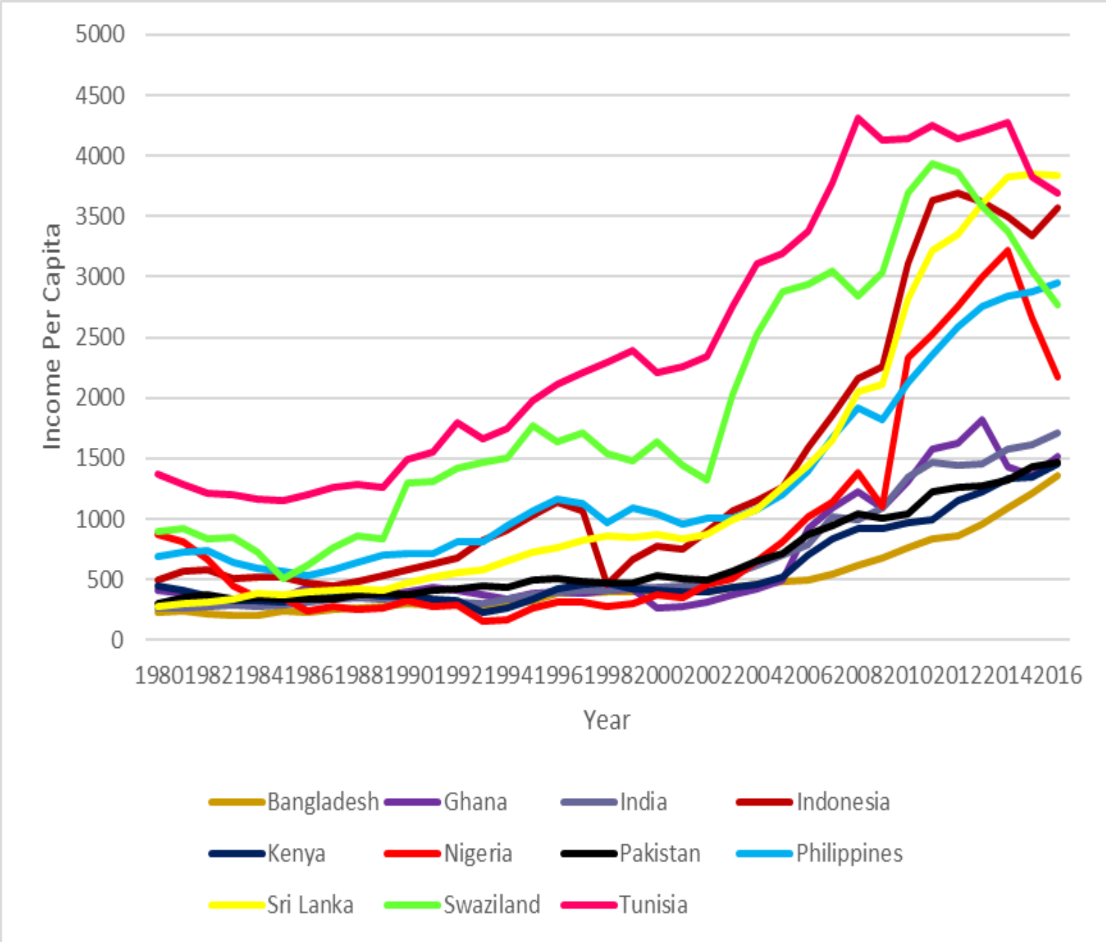

Figure1.6. Per capita income in 11 developing countries (unit USD), 1980-2016

As shown in Figure 1.6, Tunisia was the highest-income country during 1980-2016. Swaziland recorded higher per capita income than other developing countries. Followed by two comparable countries, namely Indonesia and Sri Lanka. Nigeria exceeded the Philippines in terms of per capita income from 2010 to 2014. Meanwhile, Ghana, India, Kenya, and Pakistan were among the lowered-income countries, and Bangladesh was the lowest among the countries.

In addition, Indonesia experienced a downward trend in per capita income until 1987. Indonesia's per capita income increased in subsequent years except for the period 1997-1998 and 2014-2015. Sri Lanka exceeded Tunisia in terms of per capita income from 2015 to 2016. The per capita income has fluctuated with an upward trend in Nigeria and Swaziland, but the countries were on downward trends in recent years. Meanwhile, per capita income in Bangladesh, India, Sri Lanka has grown steadily in most of the years over the past 37 years. The per capita income considerably fluctuated in Kenya during 1980-1995 but showed an upward trend since 1996. The Philippines experienced a decline in per capita income during 1980-1986 before the upward trend began in 1987.

1.3 Problem Statement of the Study

Issues of economic growth and poverty have received tremendous attention in recent years, yet these issues still require future attention. Yusuf and Stiglitz (2001) identified four issues in development such as (i) what are the sources of growth?, (ii) does macroeconomic stability matter, (iii) how can it be sustained?, and (iv) is poverty reduction a function of growth?. Looking at the issues, it is implicitly said that economic growth is linked with poverty reduction. This study would analyse each of these issues in the context of the exchange rate.

Although there are factors of economic growth and poverty reduction, the exchange rate often considered in models as an exogenous variable, perceived as a tool to influence economic performance. Economic performance would sustain economic growth and affect poverty in many ways. There are studies, for instance, Ito and Krueger (1994), and Auboin and Ruta (2011), become the ground in explaining the roles of exchange rate depreciation in influencing economic growth and poverty reduction. The first problem addressed in this study is about the extent to which exchange rate depreciation affects macroeconomic variables. The sustained economic performance strengthens the economy and would bring the economy to long-term economic growth and higher per capita income. In sequence, the second issue mentioned above ascribes that the macroeconomic stability determined by the economic policies and its environment (Koopmans & Montias, 1971). Thus, this study states that economic growth and higher per capita income are associated with economic performance.

The third issue refers to the viability of the macroeconomic environment in facing crises and contingencies, and the exchange rate is perceived as a pivotal instrument in coping with the situation (Balassa, 1987 and IMF, 2011). The fourth is often ascribed with a phase that poverty would improve along with accelerated economic growth (Ravallion, 2001 and Dollar & Kraay, 2002). Based on these issues, this study constructs that the exchange rate is a contributing factor or indirect link to the process of economic growth and contributes to higher per capita income.

Having the above information, the issues of economic growth and poverty reduction have absorbed in the subject of the exchange rate. Such an idea that links these issues as a whole is rarely evaluated or has yet to be explored. Therefore, the study addresses these issues by proposing an in-depth study of a mechanism through which exchange rate depreciation sustains the economic performance and brings benefits for accelerating growth and improving per capita income in developing countries that have many things in common.

1.4 Research Questions

The subject of exchange rate depreciation is important and offers a significant contribution toward understanding economic performance, economic growth, and poverty reduction. Because the concern of the study is the persistence of exchange rate depreciation in the developing countries, exchange rate depreciation is a subject matter of some path-dependent economic process or economic performance in influencing economic growth and thus improving the income level of a country. The following four critical questions are examined in this study:

i what is the influence of the exchange rate on economic performance?

ii does the economic performance influence economic growth?

iii what is the effect of economic performance on poverty reduction?

iv are there any other economic variables affect per capita income?

1.5 Objectives of Study

This study aims to link the indirect effects of exchange rate depreciation on economic growth and poverty through economic performance. In general, the objective of this study is to assess the effects of exchange rate depreciation on economic performance and its implications for economic growth and poverty in developing countries. The specific objectives of the study are stated as follows:

i to investigate the influence of exchange rate depreciation on economic performance.

ii to examine the effect of economic performance on economic growth.

iii to estimate the effect of economic performance on poverty reduction.

iv to evaluate other economic variables that affect the per capita income.

1.6 Significance of the Study

This study is to build a new perspective on linking the effects of exchange rate depreciation on economic growth and poverty through economic performance. The way to increase per capita income must implement to reduce poverty. The exchange rate depreciation is perceived as the key, as it may provide expansionary opportunities and leads the economy to enhance economic growth, henceforth higher income. By having wide-covered issues, this study can be helpful to students, academicians, economists, development agencies, and concerned organizations, as it works out what specific links among the variables are mean for addressing economic growth and poverty reduction. It is the hope that this study will not just be the extraction of truths, but give insights and information in the subject of study. In this line, I am committed to sharing the findings of this study with any parties for future collaboration, as there is still much to explain economic and poverty.

1.7 Scope of the Study

This study focuses on 11 developing countries with high poverty incidence persistent exchange rate depreciation from 1980 to 2016. The period is chosen because the global economy has passed-through the challenging problems that could be the major causes of the exchange rate depreciation for the developing countries. Also, the developing countries have passed the period through which economic shifts and reforms undertook. The period also eyed the ups and downs of macroeconomic variables examined in this study. There are a variety of measurements to justify poverty. One of the poverty measurements is per capita income. It is an expression of welfare commonly applied in theory and practice. The analysis of economic growth and poverty designed in such a way through which exchange rate depreciation indirectly affects the performance of a nation's economy measured by FDI, IRES, and TB. The variables have been selected because of their prominent roles concerning economic growth and poverty.

1.8 Structure of the Study

The study consists five chapters. Chapter 1 is an introduction. Chapter 2 reviews theories and empirical studies on the issues addressed. It covers three subjects matter of the study such as (i) exchange rate and economic performance, (ii) economic performance and economic growth, and (iii) economic performance on poverty reduction. Chapter 3 discusses the research methodology. Chapter 4 presents a discussion of the empirical findings of the study. The conclusion is provided in Chapter 5.