IMPACT OF OIL REVENUE ON ECONOMIC GROWTH, AGRICULTURE AND TOURISM SECTORS OF DEVELOPING OIL EXPORTING COUNTRIES

RIZGAR ABDLKARIM ABDLAZIZ

FEP 2019 11

IMPACT OF OIL REVENUE ON ECONOMIC GROWTH, AGRICULTURE AND TOURISM SECTORS OF DEVELOPING OIL EXPORTING COUNTRIES

By

RIZGAR ABDLKARIM ABDLAZIZ

Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia, in Fulfillment of the Requirements for the Degree of Doctor of Philosophy

March 2019

Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfilment of the requirement for the degree of Doctor of Philosophy

IMPACT OF OIL REVENUE ON ECONOMIC GROWTH, AGRICULTURE AND TOURISM SECTORS OF DEVELOPING OIL EXPORTING COUNTRIES

By

RIZGAR ABDLKARIM ABDLAZIZ

March 2019

Chairman : Mohd Naseem Niaz Ahmad, PhD
Faculty : Economics and Management

This study investigates the impact of oil revenue on economic growth, agriculture and tourism in developing oil-exporting countries, which are divided into major and minor oil-exporting countries based on their oil revenue shares to their respective GDPs. While developing oil-exporting countries have gained massive oil income, they suffer from Dutch disease in different manners, such as low economic growth and lagging non-oil sectors. Heterogeneities exist among developing oil-exporting countries. Panel Autoregressive Distributed Lag (ARDL) modelling is used to achieve the objectives of the study.

The first objective of this study is to examine the impact of oil revenue on economic growth for 25 developing oil-exporting countries (major and minor), conditional to the different level of the real effective exchange rate. The results show that the long-run effect of oil revenue on economic growth is significant only for the full sample, while the effect is highly positive and significant in the short run for all groups. Also, the indirect effect of the marginal effect of oil revenue on economic growth is statistically insignificant for all groups. However, the indirect effect of the oil price on economic growth is statistically significant and confirms the same direction of the marginal effects of oil revenue for all groups. In the case of the major group, the indirect effect of oil price shows the symptom of Dutch disease and proving the existence of Dutch disease. That means that in major oil-exporting countries, the oil price is harmful for economic growth when the real effective exchange rate appreciates.

i

The second objective of the present study is to investigate the impact of oil revenue on the agriculture sector of 25 developing oil-exporting countries (major and minor), conditional to the different level of the real effective exchange rate. The regression results of the baseline model indicate that oil revenue in the long and short term has adverse and highly significant effects on the value added of agriculture in the full sample, as well as in the cases of major and minor oil-exporting countries. Despite this result, the magnitude of the impact in the major oil-exporting countries is higher than that of the minor oil-exporting countries. The results of marginal effects for the minor group show that oil revenue indirectly slows down the value added of agriculture when the real effective exchange rate appreciates. Otherwise, oil revenue benefits agriculture if the real effective exchange rate depreciates. However, in the case of major group, the marginal effect shows that oil revenue decreases the value added of agriculture, even in the presence of real effective exchange rate depreciation.

The third objective of this study is to find the relationship between oil revenue and the tourism sector of oil-exporting countries based on the different level of the real effective exchange rate. The estimations show a direct positive effect of oil revenue on tourism income for the entire sample, and for the minor group. The results show an adverse but insignificant for the major group. Additionally, the findings of the marginal effect of oil revenue on tourism income support the Dutch disease phenomenon for the entire sample and the major group. That means the marginal effects of oil revenue are negative and significant at the lower-level of the real effective exchange rate (appreciation) but positive and significant at the higher-level of the real effective exchange rate (depreciation). This result is contrary to the minor group but insignificant.

Overall the findings and results support the hypotheses of this study, which focuses on the differential behaviour of major and minor oil-exporting countries toward economic growth and non-oil sectors (the agriculture and tourism sectors). More specifically, the results of the direct and indirect effects of oil revenue show that major oil-exporting countries suffer from Dutch disease. The results of this study have policy implications, pointing to the need to eliminate this phenomenon. First, it is necessary for governments of oil-exporting countries to adopt a fiscal policy that limits the role of spending effects as a source of appreciation to the real effective exchange rate. Secondly, policymakers should adopt and improve policy instruments that support and promote the non-oil sectors—including proper macroeconomic policy, such as enhancing public investment in the agriculture and tourism sectors. Finally, economic diversification is required. Using oil revenue to build high-quality infrastructure may improve the non-oil sectors. Then, dynamic growth in the oil sector may lead to sustainable economic growth in the long run.

KESAN HASIL MINYAK TERHADAP PERTUMBUHAN EKONOMI, SEKTOR PERTANIAN DAN PELANCONGAN DI KALANGAN NEGARA-NEGARA MEMBANGUN PENGEKSPORT MINYAK

Oleh

RIZGAR ABDLKARIM ABDLAZIZ

Mac 2019

Pengerusi : Mohd Naseem Niaz Ahmad, PhD
Fakulti : Ekonomi dan Pengurusan

Kajian ini mengkaji impak hasil minyak ke atas pertumbuhan ekonomi, sektor pertanian dan pelancongan bagi negara-negara membangun pengeksport minyak, yang dibahagikan kepada negara pengeksport minyak utama dan kecil berdasarkan nisbah hasil minyak kepada KDNK Negara masing-masing. Bagaimanapun, jika negara-negara membangun pengeksport minyak memperoleh pendapatan minyak yang besar, mereka mengalami penyakit Dutch dalam pelbagai cara yang berbeza, seperti pertumbuhan ekonomi yang rendah serta ketinggalan di dalam sektor bukan minyak. Selain itu, kaedah Panel Autoregressive Distributed Lag (ARDL) digunakan untuk mencapai objektif kajian, di mana terdapat heterogen di kalangan negara-negara membangun pengeksport minyak.

Objektif pertama kajian ini adalah untuk mengkaji kesan hasil minyak ke atas pertumbuhan ekonomi bagi 25 negara-negara membangun pengeksport minyak (major dan minor). Khususnya, sama ada kesan hasil minyak terhadap pertumbuhan ekonomi bergantung kepada kadar pertukaran mata wang. Keputusan kajian menunjukkan bahawa kesan jangka panjang hasil minyak ke atas pertumbuhan ekonomi didapati tidak signifikan sementara kesannya sangat positif dan signifikan dalam jangka pendek. Selain itu, kesan tidak langsung kesan marginal hasil minyak terhadap pertumbuhan ekonomi adalah tidak signifikan bagi semua kumpulan. Bagaimanapun, kesan harga minyak secara tidak langsung terhadap pertumbuhan ekonomi adalah signifikan dan mengesahkan arah yang sama kesan marginal hasil minyak bagi semua kumpulan. Dalam kes kumpulan utama, kesan tidak langsung harga minyak menunjukkan gejala penyakit Belanda dan membuktikan kewujudan penyakit Belanda. Ini bermakna di negara-negara pengeksport minyak utama, harga minyak adalah berbahaya untuk pertumbuhan ekonomi apabila kadar pertukaran mata wang mengalami naik nilai.

Objektif kedua kajian ini adalah untuk mengkaji kesan hasil minyak ke atas sektor pertanian bagi 25 negara-negara membangun pengeksport minyak (utama dan kecil) yang mana bergantung pada kadar pertukaran matawang. Keputusan kajian menunjukkan bahawa hasil minyak dalam jangka panjang dan jangka pendek mempunyai kesan negatif dan ketara terhadap nilai tambah pertanian bagi sampel penuh dan kes-kes negara-negara membangun pengeksport minyak utama dan kecil. Disebalik keputusan ini, magnitud impak bagi negara-negara membangun pengeksport minyak utama adalah lebih tinggi daripada negara-negara membangun pengeksport minyak kecil. Keputusan kesan marginal untuk kumpulan kecil mendedahkan bahawa hasil minyak secara tidak langsung melambatkan nilai tambah sektor pertanian apabila kadar pertukaran matawang naik nilai. Jika tidak, hasil minyak memberi manfaat kepada sektor pertanian jika kadar pertukaran matawang mengalami susutnilai. Bagaimanapun, dalam kes kumpulan utama, kesan marginal menunjukkan bahawa hasil minyak mengurangkan nilai tambah sektor pertanian walaupun apabila kadar pertukaran matawang mengalami susutnilai.

Objektif ketiga kajian ini adalah untuk mengkaji hubungan antara hasil minyak dan sektor pelancongan negara-negara membangun pengeksport minyak berdasarkan kadar pertukaran matawang. Keputusan kajian menunjukkan kesan langsung positif dari hasil minyak ke atas pendapatan pelancongan untuk keseluruhan sampel dan kumpulan kecil, sementara keputusan adalah tidak signifikan bagi kumpulan utama. Di samping itu, penemuan kesan marginal hasil minyak terhadap pendapatan pelancongan menyokong fenomena penyakit Dutch untuk keseluruhan sampel dan kumpulan utama. Ini bermakna kesan marginal hasil minyak adalah negatif dan signifikan di peringkat rendah kadar pertukaran matawang (naik nilai) tetapi adalah positif dan signifikan pada tahap yang lebih tinggi dari kadar pertukaran matawang (susut nilai). Berbeza dengan kumpulan kecil, yang mana didapati tidak signifikan.

Keseluruhannya penemuan menyokong hipotesis kajian ini, yang menumpukan pada tingkah laku perbezaan negara pengeksport minyak utama dan kecil ke atas pertumbuhan ekonomi dan sektor bukan minyak (sektor pertanian dan pelancongan). Ianya mendapati, kesan langsung dan tidak langsung hasil minyak menunjukkan bahawa negara-negara membangun pengeksport minyak utama mengalami penyakit Belanda. Oleh itu, beberapa implikasi dasar perlu bagi menghapuskan fenomena ini. Pertama, adalah perlu bagi kerajaan negara pengeksport minyak untuk mengguna pakai dasar fiskal bagi membatasi peranan perbelanjaan sebagai punca kepada kadar pertukaran matawang naik nilai. Kedua, mengguna pakai dan memperbaiki jenis instrumen dasar yang menyokong dan menggalakkan sektor bukan minyak termasuk dasar makroekonomi yang betul seperti meningkatkan pelaburan awam dalam sektor pertanian dan pelancongan. Akhirnya, kepelbagaian ekonomi diperlukan, dengan menggunakan hasil minyak untuk membina infrastruktur berkualiti tinggi supaya dapat meningkatkan hasil sektor bukan minyak, maka sektor minyak dapat membawa kelestarian pertumbuhan ekonomi dalam jangka panjang.

iv

ACKNOWLEDGEMENTS

This thesis was submitted to the Senate of the Universiti Putra Malaysia and has been accepted as fulfilment of the requirement for the degree of Doctor of Philosophy. The members of the Supervisory Committee were as follows:

Mohd Naseem Niaz Ahmad, PhD
Senior Lecturer
Faculty of Economics and Management
Universiti Putra Malaysia
(Chairman)

Wan Azman Saini Wan Ngah, PhD
Associate Professor
Faculty of Economics and Management
Universiti Putra Malaysia
(Member)

Normaz Wana Ismail, PhD
Associate Professor
Faculty of Economics and Management
Universiti Putra Malaysia
(Member)

Ly Slesman, PhD
Assistant Professor
Center for Advanced Research
Universiti Brunei Darussalam
(Member)

_____
ROBIAH BINTI YUNUS, PhD
Professor and Dean
School of Graduate Studies
Universiti Putra Malaysia

Date:

Declaration by graduate student

I hereby confirm that:
- this thesis is my original work;
- quotations, illustrations and citations have been duly referenced;
- this thesis has not been submitted previously or concurrently for any other degree at any institutions;
- intellectual property from the thesis and copyright of thesis are fully-owned by Universiti Putra Malaysia, as according to the Universiti Putra Malaysia (Research) Rules 2012;
- written permission must be obtained from supervisor and the office of Deputy Vice-Chancellor (Research and innovation) before thesis is published (in the form of written, printed or in electronic form) including books, journals, modules, proceedings, popular writings, seminar papers, manuscripts, posters, reports, lecture notes, learning modules or any other materials as stated in the Universiti Putra Malaysia (Research) Rules 2012;
- there is no plagiarism or data falsification/fabrication in the thesis, and scholarly integrity is upheld as according to the Universiti Putra Malaysia (Graduate Studies) Rules 2003 (Revision 2012-2013) and the Universiti Putra Malaysia (Research) Rules 2012. The thesis has undergone plagiarism detection software

Signature: _____ Date: _____

Name and Matric No: Rizgar Abdlkarim Abdlaziz, GS40629

Declaration by Members of Supervisory Committee

This is to confirm that:
- the research conducted and the writing of this thesis was under our supervision;
- supervision responsibilities as stated in the Universiti Putra Malaysia (Graduate Studies) Rules 2003 (Revision 2012-2013) were adhered to.

Signature:
Name of Chairman
of Supervisory
Committee: Dr. Mohd Naseem Niaz Ahmad

Signature:
Name of Member
of Supervisory
Committee: Associate Professor Dr. Wan Azman Saini Wan Ngah

Signature:
Name of Member
of Supervisory
Committee: Associate Professor Dr. Normaz Wana Ismail

Signature:
Name of Member
of Supervisory
Committee: Associate Professor Dr. Ly Slesman

TABLE OF CONTENTS

LIST OF TABLES

xiv

LIST OF FIGURES

CHAPTER 1

INTRODUCTION

1.1   An Overview

The primary objective of this study is to investigate three issues concerning oil-exporting countries that are essential for their future growth and development. The first issue concentrates on the relationship between oil revenue and economic growth. Although notable studies have recently focused on this issue in oil-exporting countries, considerable debate regarding the relationship between oil revenue and economic growth remains amongst researchers. Some oil-exporting countries benefit from the abundance of oil revenue to avoid Dutch disease. These countries—which include Indonesia, Malaysia, Chile and Botswana—have attained a sustainable oil-driven growth path (Mehrara and Sarem, 2009; Venables, 2016). By contrast, other oil-exporting developing economies have failed in managing windfall revenue to enjoy sustainable economic growth (Frankel, 2010; Sachs and Warner, 1995).

The resource-curse puzzle phenomenon refers to the paradox of plenty, which states that abundant natural resources (oil in our case) will have an adverse effect on economic growth. Many African and Middle Eastern countries—such as Nigeria, Angola, Congo, Saudi Arabia and Iraq—have abundant oil and other natural resources. However, their citizens still experience a low standard of living and low income per capita. By contrast, Japan, South Korea, Singapore and Hong Kong have achieved levels of income per capita and well-being seen in developed industrial countries, despite having meagre natural resources (Sachs and Warner, 1995).

Dutch disease theory refers to the adverse impact of resource income (oil income) on economic growth through the real exchange rate. Theoretically, an increase in oil price and oil revenue during the boom period in major oil-exporting countries will result in an appreciation of the real exchange rate due to the overvaluing of the local currency. Non-oil exports (industrial, agricultural and tourism exports) will decrease, which corresponds to a rise in the prices of services or non-tradable goods (Dülger, Lopcu, Burgaç, and Ballı,2013).

Oil price changes since the 1970s have been producing extensive research that analyses the effect of oil price on economic growth in developed oil-importer and oil-exporter economies. There is an extensive literature on different channels such as supply-side shock, income transfer, real balance effect and monetary policy, which considers that high oil prices can cause low economic growth in oil-importing countries. However, after the year 2000, oil price shocks have exerted minimal effects on oil-importing countries because of their efficient energy use and improvements in monetary policy (see Brown and Yucel 2002; Blanchard and Gali ,2010) .

This condition differs for developing oil-exporting countries. Oil revenue is still considered the major driver of these countries. Thus, oil price changes affect the growth of such countries. In general, an oil price decrease is beneficial for oil importing economies because it leads to real income growth, a decrease in production costs and low inflation. By contrast, an oil price decrease is a concern for oil-exporting countries because of its adverse effect on their real income. However, the negative impact of oil price reduction on economic growth is not the same for all individual oil-exporting countries. Mehrara and Sarem (2009) and Moshiri (2015) provided strong evidence for different responses to oil price and oil revenue among oil-exporting economies. Thus, oil-exporting countries that have successfully diversified their economies through good management of oil revenue to establish effective industrial, agricultural and tourism sectors, may escape from the negative effect of oil-price shocks and the Dutch disease phenomenon.

The second issue is to investigate the effect of oil revenue on the agricultural output of developing oil-exporting countries. In their seminal work, Corden and Neary (1982) provided a Dutch disease theory to explain the effect of the oil boom price on different sectors of the economy. In the core model of the Dutch disease, the economy is divided into three sectors: the boomed sector (e.g. oil sector), the producer sector of tradable goods (e.g. industrial output) and the non-tradable sector (e.g. service sector or housing). The model predicts an increase in national income as a result of high oil prices, and thus, the boomed sector further produces two effects. First, an appreciation in the local currency reduces the export of tradable goods in the international market. Secondly, the factors of output (labour and capital) move from the industrial sector to the oil or boomed sector due to the resource-movement effect, thereby reducing industrial production relative to the oil sector.

Corden and Neary (1982) also investigated Dutch disease for developed oil-exporting economies, but focused on the industrial sector. They found a negative effect of high oil price on industrial output because of the following reasons. First, developed economies have a long-term experience in producing industrial goods. Moreover, the industrial sector considers the primary sector that produces goods for export in the global market. Secondly, the movement of capital and labour is flexible in developed countries. Consequently, an oil revenue increase appreciates local currency, which leads to diminishing industrial exports through the spending and resource-movement effects.

However, this condition may not be the case in developing oil-exporting countries. The movement of input factors (labour and capital) between the boomed (oil) sector and the remaining sectors in an economy is inflexible. In addition, the agriculture (not industrial) sector is typically considered the primary sector in nearly all developing economies. Thus, agricultural output is negatively affected by high national income that stems from high oil prices and oil revenues (Apergis, El-Montasser, Sekyere, Ajmi, and Gupta, 2014). Fardmanesh (1991) argued that an increase in the world oil price leads to the development of the industrial sector and contracts the agriculture sector in developing oil-exporting economies.

2

Another important issue that has not gained serious attention in the economic literature is the effect of oil revenue on the tourism sector amongst oil-exporting countries. Theoretically, an increase in the energy price and oil price may harm economic activities and the tourism sector in oil-importing economies through its impact on transportation costs, production costs, economic uncertainty and disposable income (Donzelli, 2010). These economies are heavily dependent on the tourism industry to generate their income (Becken, 2008; Chatziantoniou, Filis, Eeckels and Apostolakis, 2013). In the case of oil-exporting countries, the effect of oil revenue on tourism remains under investigation (Becken, 2011b). Although no specific theory identifies the direct effect of oil revenue on the tourism sector, the model developed by Corden and Neary (1982) may provide a basic theoretical framework to understand this relationship in two indirect channels. These channels are (1) through the exchange rate appreciation in oil-exporting economies that is supported by empirical studies (Fakhri, 2010; Jahan-Parvar and Mohammadi, 2011); and (2) through the service sector.

The following subsections in this chapter discuss the three issues in oil-exporting countries. Section 1.2 presents the background of these issues. Section 1.3 discusses the research problem and questions. Section 1.4 highlights the research objectives. Section 1.5 discusses the significance of the study. Section 1.6 focuses on the organization of the research.

1.2 Background to the Study

1.2.1 Oil Price and Oil Revenue Pattern

An overview of historical oil price shocks and the relationship between oil price and oil revenue is presented here. Similar to other economic goods, the crude oil price follows the law of supply and demand. Thus, a change in oil demand and supply in the global market affects the oil price. An increase in oil demand leads to high oil prices, whereas high oil supply leads to low oil prices. Several oil price shocks have occurred since the discovery of crude oil, but the first oil price shock that considerably affected developed oil-importing countries occurred in October 1973 during the Arab–Israeli war. On October 17, Arab oil-exporting countries announced an embargo on oil exports to Western economies that supported Israel. In September of the same year, a substantial decrease in oil production by 4.4 million barrels per day occurred. The decrease accounted for approximately 7.5 percent of the global supply shortage. Thus, crude oil prices jumped from 1.7 US dollars to 3.29 US dollars per barrel in 1921–1973 to 11.58 US dollars per barrel in 1974. The Iranian revolution in 1979 was the second oil price shock since World War II. The revolution caused a shortage in the global oil supply by 7 percent. Oil prices increased again and reached 31 US dollars, whereas it was steady and smooth with minimal changes between 12 and 14 US dollars in the 1974–1978 period. In addition, the Iran–Iraq war caused an oil production loss in both countries, and the shortage worsened by November 1979. The combined production of both countries was only 1 million barrels per day, which is a decrease from 6.5 million barrels per day a year before the war. Therefore, worldwide crude oil

production was 10 percent lower in 1979 with a consequential increase in the crude oil price to 36 US dollars per barrel (Hamilton, 2011a).

Furthermore, the oil price remained moderate in the 1982–1985 period. The average price was approximately 29 US dollars per barrel. However, the price collapsed to 14 US dollars in 1986 because of certain factors, such as the first Organization of the Petroleum Exporting Countries (OPEC) oil supply policy and the increase in oil production, particularly in Saudi Arabia from 2 million to 5 million barrels per day with a corresponding low global demand for crude oil. The first Persian Gulf War (1990–1991) further generated uncertainty in the world oil market. However, the price ranged between a maximum of 23 US dollars and a minimum of 12 US dollars, with an average of 18 US dollars per barrel, between 1987 and 1999 (Williams, 2011). The Asian financial crises in 1998 and the increase in OPEC's oil production resulted in oversupply in the world oil market. Oil prices reached a minimum level of 12 US dollars after 1979 because Southeast Asian countries were considered moderated oil consumer regions (300.000 barrel per day in 1990–1997). To recover the price, OPEC reduced its oil production by approximately 3 million barrels per day. This reduction corresponds to an increase in world energy consumption. In 1999, oil prices reached 25 US dollars. As a result of the Venezuelan unrest and the United States attack on Iraq in the Second Gulf war in 2003, global oil supply lost approximately 4.3 million barrels of petroleum (2.1 of Venezuela's and 2.2 of Iraq's production), thereby resulting in an oil price increase (Amin, 2011; Candemir, 2013).

The International Monetary Fund (IMF) (2008) reported that the world's real gross product grew at an average annual rate of 4.7 percent in 2004–2007. This growth corresponded to a rise in world oil consumption during this period. The powerful demand pressure was the primary factor that triggered the steady increase in oil prices over these years (Hamilton, 2009). Therefore, a substantial upward shift in the demand curve with a steady supply curve triggered an increase in the oil price from 55 US dollars in 2005 to 97 US dollars in 2008. Oil prices collapsed again in 2009 due to the world financial crisis and witnessed a recovery in 2010 with a steady rise. Oil prices reached the highest level in 2011 (Figure 1.1).
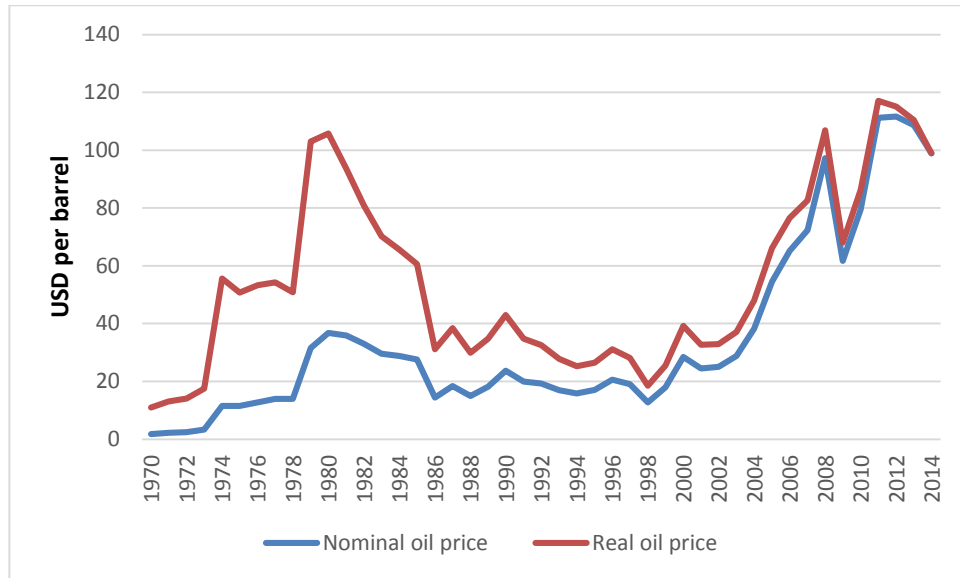
Figure 1.1 : Oil price change during 1970-2014
(Source: BP Statistical Review of World Energy 2014)

Oil prices dropped in 2014 from a relatively stable price of 105 dollars from 2011 until mid-2014. The recent oil price drop (2014) is driven by several factors, such as several years of increases in oil production, changes in OPEC supply policy, a weakening of the global demand for energy and the appreciation of the US dollar. The US dollar appreciated more than 10 percent between June 2014 and January 2015 (Baffes and Stocker, 2015). Over all, by looking at Figure 1.1, three different periods of oil price changes can be observed. First, the oil boom period in 1970–1984, when the average oil price in real terms was approximately 56 US dollars. Secondly, the collapse period in 1985–2000, when the average oil price in real terms was 30 US dollars. Lastly, the oil boom period in 2001–2014, when the average oil price in real term was 74 US dollars.

The first strands of the oil price literature focus on the oil price effect on economic activities in oil-importing countries, particularly on the U.S. economy in 1980–2000 (Darby, 1982; Hamilton, 1983; Mork and Hall, 1980; Pierce and Enzler, 1974; Rasche and Tatom, 1977). The second strands of studies focus on oil-exporting countries from the 2000s (Farzanegan, 2011; Apergis et al., 2014; Moshiri, 2015). Therefore, oil revenue has mostly been applied to demonstrate the effect of oil-price changes on economic activities for oil-exporting countries. In this study, the oil revenue share of GDP is used as a proxy of oil revenue, but first exposes the pattern and trend of oil price and oil revenue as a share of GDP. As shown in the Figure 1.2, the oil revenue share of GDP for oil-exporting countries is mostly affected by oil-price shocks and both the real oil price and oil revenue share of GDP have the same pattern during the period of the study.

5
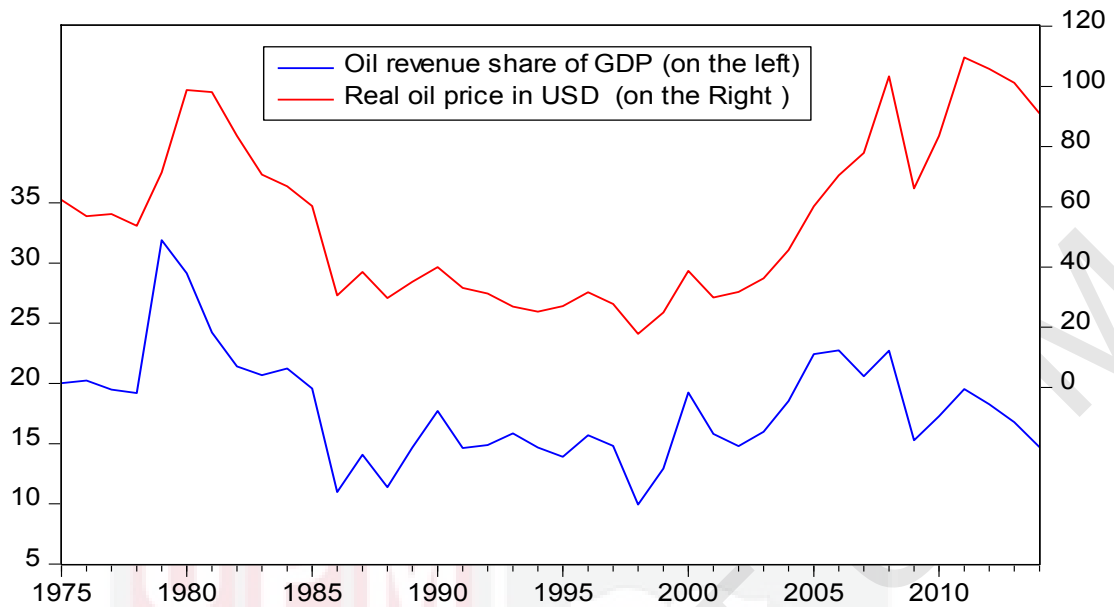
Figure 1.2 : Oil price and oil revenue share of GDP in oil exporting countries

In addition, the oil revenue share of GDP is used in this study to divide the entire sample of oil-exporting countries into major and minor oil-exporting countries. Previous research has used the ratio of natural resource exports' share of GDP to classify resource-rich and resource-poor countries (Sachs and Warner, 1995, 2001). Countries without natural resource exports' share of GDP are considered resource-poor countries. By contrast, those with natural resource exports share of GDP are considered resource-rich countries. In this study, the magnitude of the oil revenue share of GDP was used to clarify the effects of oil revenue on economic growth and the agriculture and tourism sectors. Therefore, the study sample was divided into two groups: major oil-exporting and minor oil-exporting countries. These sample countries were grouped based on the magnitude of oil revenue as a percentage of GDP for individual countries. Countries with an oil revenue share of GDP as a percentage during the study period that is below 10 percent are considered minor oil-exporting countries, whereas those with a share of above 10 percent are considered major oil-exporting countries.

Three different economic perspectives of oil-exporting countries are explained in this subsection. First, oil revenue and economic growth are presented. Secondly, the oil revenue and agriculture perspective are provided. Finally, the relationship between oil revenue and the tourism sector is discussed.

For the relationship of oil price and oil revenue share of GDP for major, minor oil-exporting countries and at the individual level for each country, see Appendix A.

1.2.2 Oil Revenue and Economic Growth in Oil-Exporting Countries

Oil and gas are crucial and tradable goods in the current global economy. Economic activities heavily depend on oil to continue production, particularly in industrially-developed economies. Oil has been crucial to the world economy since its early discovery in the 1800s. The invention of the internal combustion engine is the major impetus for the rise in the importance of oil. Such importance has increased to the extent that in a world without oil, all major distribution systems that allow economic transactions beyond a local basis can fail. The world economy can also collapse (Suleiman, 2013). The growth of renewable energy sources (wind, solar and geothermal) as alternatives to oil is still in its infancy. The share of sustainable energy is expected to rise to 4.3 percent of the total supply of energy by 2040, whereas the share of oil and gas are expected to increase supply to 53 percent of the world energy during the same period (OPEC, 2015). According to British Petroleum (2015), the total global consumption of oil is 92 million barrels per day. Energy-intensive regions, such as North America, Europe, Eurasia and the Asian Pacific, consume approximately 72.4 million barrels a day, which qualifies them as major oil consumers of the world. Consequently, rising oil consumption and demand increase the global oil price based on demand theory. In addition, high oil revenue influences the economic activities and economic growth of oil-exporting countries.

The economic growth of oil-exporting countries was not sustainable over the past 45 years. Major oil-exporting countries experienced three major periods of economic growth since the first oil boom in the 1970s. In the first episode (1970–1984), income per capita considerably grew at an average annual rate of 2.17 percent due to the increase in the global oil price. However, the dramatic collapse of the world oil price in the second period of the mid-1980s caused a substantial decline in GDP per capita, which even reached a negative value (-0.30). In the third period, the GDP per capita of major oil-exporting economies grew at an average rate of 1.37 in the 2001–2014 period after oil prices recovered during the 2000s.

Similarly, given the slow recovery in the preceding years, the GDP per capita growth rate of major oil-exporting countries remained considerably lower than the growth performance achieved in the first oil boom period (1970–1984). Moreover, the average growth was close to 2.17 percent and only behind that of non-oil-exporting countries in East Asia, which grew by more than 4 percent (Elbadawi, 2005). Unlike East Asia, which accomplished a remarkably quick recovery from the 1998 financial crisis, growth was not sustained in major oil-exporting countries. However, minor oil-exporting countries have gained positive and sustained economic growth. Moreover, the GDP per capita growth of minor oil-exporting countries in the first, second and third episode was about 2.52, 1.66 and 2.59 percent, respectively. Additionally, overall, the GDP per capita growth of minor oil-exporting countries remained stable (2.47 percent) and was approximately twice higher than that of the major oil-exporting countries (1.64 percent) in 1970–2014.

In oil-exporting countries, economic growth is affected by oil price changes based on the level of oil dependency. Notably, the magnitude of the negative impact of oil price decreases on oil-exporting countries varies from country to country. These countries heavily depend on oil as the mainstay of their economies. Table 1.1 indicates that most major oil-exporting countries experienced a negative economic growth rate during the collapsing period of oil price (1985–2000), whereas minor oil-exporting countries saw positive economic growth in the same period. Additionally, Table 1.1 shows that oil price decreases cause less severe economic growth in minor oil-exporting countries than in major oil-exporting countries. That is, minor oil-exporting economies are more successful than major oil-exporting economies in managing their oil revenue. The former also exhibits positive growth[1].

Table 1.1 : Economic growth (GDP per Capita Growth (Annual %) for oil exporting countries 1970-2014

Major oil exporting countries	1970-1984	1985-2000	2001-2014	1970-2014
Algeria	3.14	-0.57	2.06	1.47
Congo	5.25	-1.89	1.86	1.55
Ecuador	2.86	0.12	2.85	1.64
Gabon	5.39	-1.14	0.36	2.08
Iran	-0.47	0.08	2.45	1.96
Brunei	0.41	-1.29	-0.67	-0.68
Nigeria	0.82	-0.42	5.25	1.55
Trinidad and Tobago	1.07	1.32	4.08	2.32
Saudi	1.67	-0.80	2.50	1.07
Venezuela	- 0.77	-0.04	1.34	0.31
Oman	4.02	1.89	-1.10	4.75
United Arab Emirates	-1.42	-1.75	-3.18	-2.19
Average	**2.17**	**-0.30**	**1.37**	**1.64**
Minor oil exporting countries				
Argentina	0.33	0.99	1.91	1.31
Egypt	4.22	2.15	2.08	2.60
Indonesia	4.85	3.45	3.99	3.57
Malaysia	4.86	3.82	3.05	3.84
Mexico	2.59	1.03	0.70	1.79
Peru	-0.001	0.21	4.15	1.57
Tunisia	3.96	2.30	2.55	2.84
Colombia	2.31	1.59	3.10	2.25
Morocco	2.42	2.22	3.31	2.62
Bolivia	-0.09	0.95	2.61	1.12
Brazil	3.62	1.07	2.20	2.28
Cameroon	4.31	-2.05	1.06	1.03
Chile	0.19	4.62	3.21	2.70
Average	2.52	1.68	2.59	2.47

(Source: Authors 'calculation based on data from World Bank World Development Indicators 2016

---

[1] Some major oil economies, as observed in the last oil price shocks at the end of 2014, experienced an adverse effect of oil price decrease on economic activities in Libya and Iraq. This effect is more severe than that in the United Arab Emirates due to the level of oil dependency (Arezki and Blanchard, 2014; Hou, Keane, Kennan and Willem, 2015).

With regard to oil revenue and economic growth, Figure 1.3, 1.4 and 1.5 illustrate the relationship between oil revenue, the real effective exchange rate (REER), and the interaction term between oil revenue and the real effective exchange rate with GDP per capita growth in full sample, major and minor oil-exporting countries respectively. When pooled together, the full sample of 25 oil-exporting countries encompasses major and minor oil-exporting economies. Figure 1.3 shows the negative correlation between oil revenue and economic growth. Given their utmost dependence on natural resources, oil-exporting countries, particularly major oil-exporting economies, are mostly affected by the fluctuation of the world oil price and oil revenue.

In addition, figure 1.4 illustrates the negative trend between oil revenue and economic growth in major oil-exporting countries. During the oil boom years, economic growth rates were remarkably high. However, a decline in economic growth occurred after the boom years. That is, most of these countries have not yet reached sustainable economic growth due to the nature of rentier economies and oil vulnerabilities (Noland and Pack, 2007). However, the partial effect of oil revenue through REER on economic growth is positive for entire sample, as well as for major oil-exporting economies. Based on the Dutch disease theory and the real exchange rate channel, if the relationship between oil revenue and GDP per capita growth is negative, and the interaction term between oil revenue and REER is positive, that means the existence of Dutch disease for these countries. These preliminary data support the Dutch disease theory, which states that an appreciation of the exchange rate considers the primary channel in which oil revenue adversely affects economic growth in oil-exporting countries.

The situation differs for minor oil-exporting economies with low oil revenue share as a percentage of GDP, (e.g. Indonesia, Malaysia, Egypt, Tunisia, Mexico, Colombia, Argentina and Peru). Figure 1.5 shows the positive relationship between oil revenue and GDP per capita growth for these countries. However, the partial effect of REER on economic growth is negative for minor oil-exporting countries. These preliminary data do not support the Dutch disease theory for minor oil-exporting countries because the direction of the partial effect of oil revenue based on the interaction term will be downward. One possible explanation for the aforementioned phenomenon is that minor oil-exporting economies may better than major oil-exporting economies in managing their oil revenue to drive their economic growth.

The growth of the oil sector as a contributor to national income leads to a decrease in the role of non-oil sectors (such as agriculture) in most oil-exporting countries. Oil revenues can largely contribute to economic growth in oil-exporting developing countries because they provide much-needed financial resources for these countries, e.g. high income per capita of oil-wealthy countries, such as the members of the Gulf Cooperation Council (GCC). However, high oil revenues also encourage economic conditions that stifle growth, such as the appreciation of exchange rates, inflation and rent-seeking. This effect of oil windfalls is clearly reflected in the empirical literature. Some studies on single or multiple oil-exporting countries show that oil has been a 'curse' (Ayadi, 2005; Berument, Basak,and Dogan , 2010; Eltony and Al-Awadi,

2001; Sachs and Warner, 2001). By contrast, other studies, such as Esfahani, Mohaddes, and Pesaran (2013, 2014), suggest that oil has contributed positively to the long-running economic performance of oil-exporting countries.
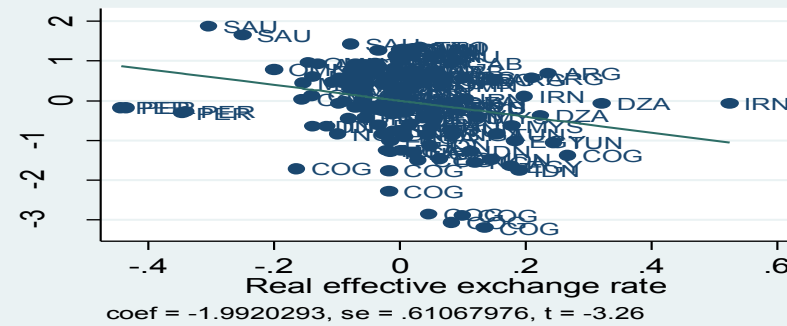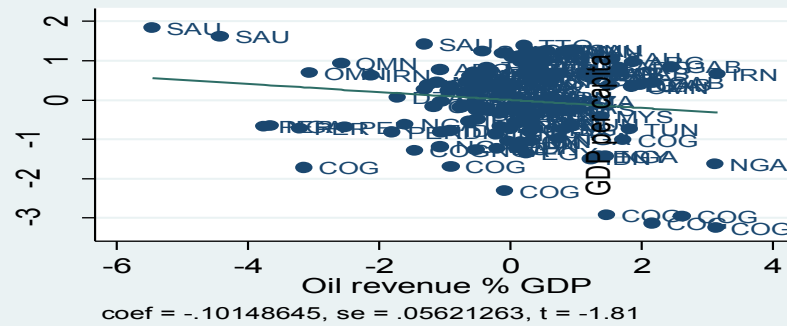
Figure 1.3 : The relationship between GDP per Capita, oil Revenue, REER, and interaction term of REER and oil rent during 970-2014 (full sample of oil exporting countries)
(Source: Authors 'calculation based on data from World Bank World Development Indicators 2016 (WDI), Penn World Table Version 9.0)
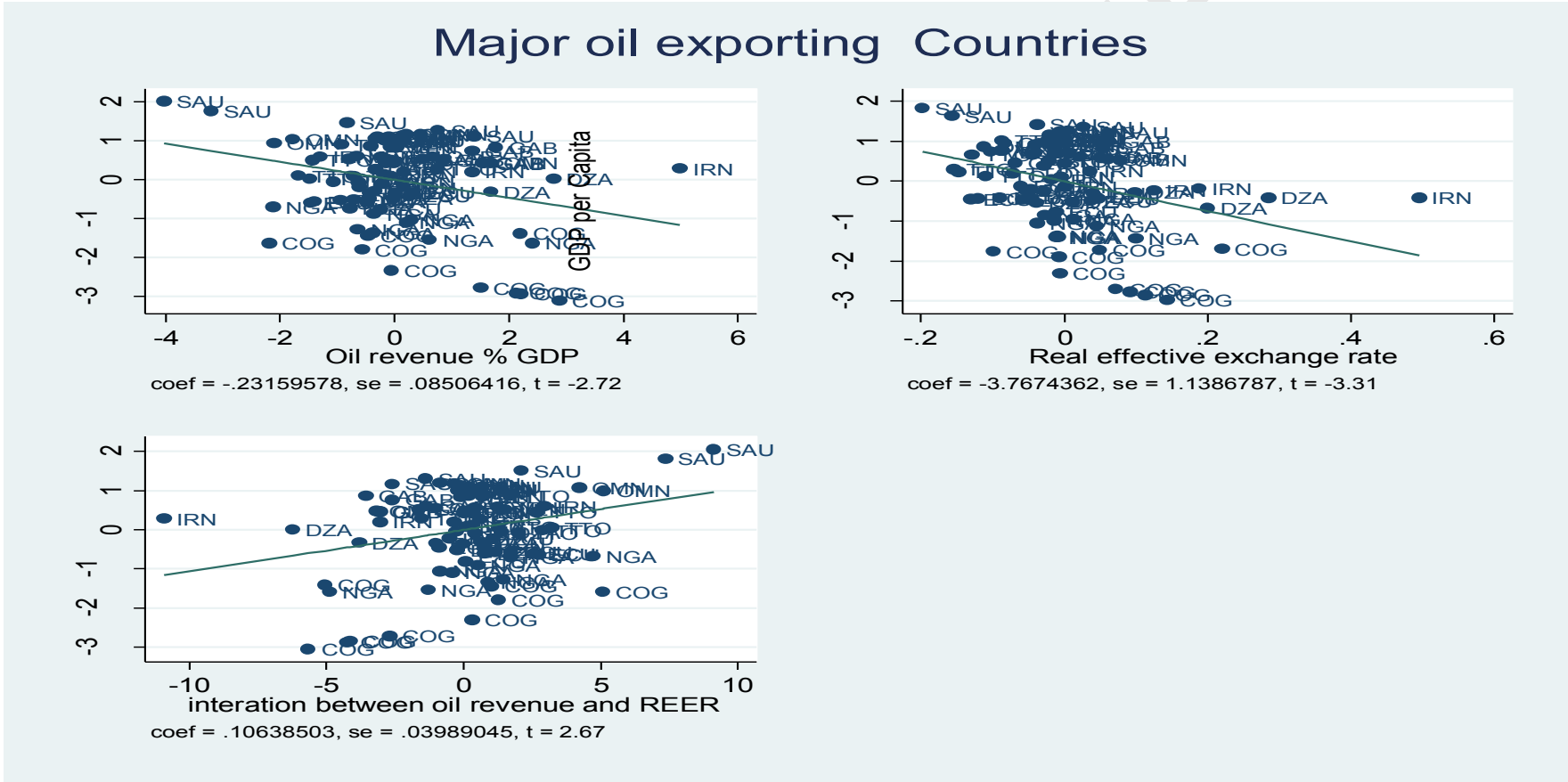
Figure 1.4 : The relationship between GDP per capita growth, oil revenue, REER, and interaction term of REER and oil revenue during 197-2014 (Major oil exporting countries)
(Source: Authors 'calculation based on data from World Bank World Development Indicators 2016 (WDI), Penn World Table Version 9.0)
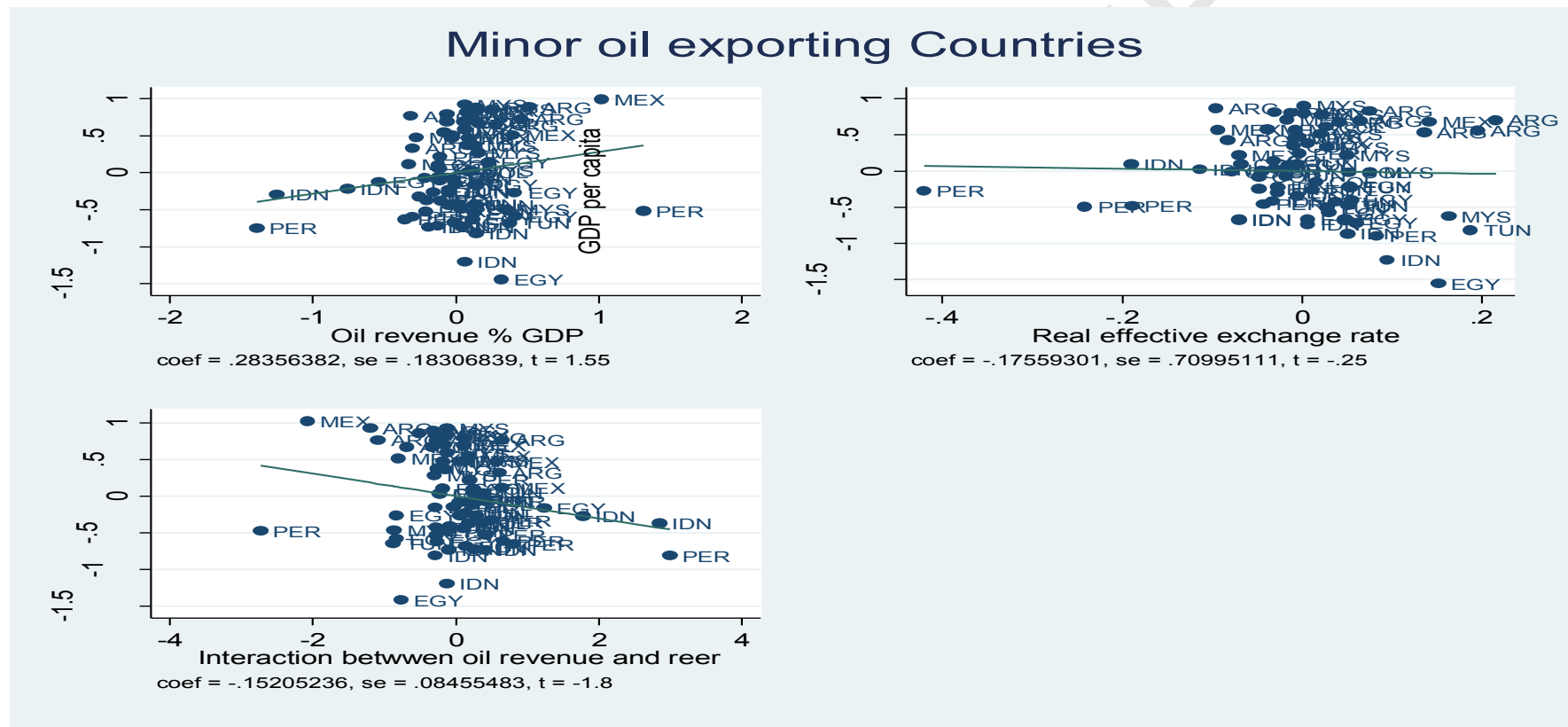
Figure 1.5 : the relationship between GDP per capita growth, oil revenue, REER, and interaction term of oil revenue and REER during 1970-2014(minor oil exporting countries)

(Source: Authors 'calculation based on data from World Bank World Development Indicators 2016 (WDI), Penn World Table Version 9.0)

Oil-exporting economies who are beneficiaries of oil windfalls suffer from major economic issues, such as unstable oil prices in the global oil market, which has an effect on government spending and fiscal policy of these countries. The beneficiaries of oil windfalls in resource-rich economies depend on several factors, such as the effective management of the economy in general and oil income in particular (Collier, Ploeg, Spence and Venables. 2010). Most developing major oil-exporting economies have failed to maintain their oil revenue to establish sustainable economic growth. However, Botswana, Malaysia and Indonesia, as developing minor oil-exporting countries, have succeeded in managing their oil revenue to achieve sustainable economic growth (Ghura, 2012; Venables, 2016).

1.2.3 Oil Revenue and Agriculture Sector in Oil-Exporting Countries

The agriculture sector is considered one of the important sectors that pushes economic growth in developing oil-exporting countries, particularly in Algeria, Tunisia, Iran, Egypt, Nigeria, Indonesia and Malaysia. With regard to the input–output linkages amongst different economic sectors, agriculture provides the primary support for various economic activities in developing oil-exporting countries, such as manufacturing, marketing, trade and service activities. This sector has also contributed to employment; more specifically, it accounted for an average of approximately 19 percent of total employment in major and minor oil-exporting countries in 2000–2014. In addition, agriculture satisfies the food consumption needs of the population, particularly in rural areas.

Specific reasons explain the significance of the agriculture sector for developing economies in general and developing oil-exporting economies in particular. First, in contrast to renewable resources, oil is a depleting resource that can eventually disappear. Thus, oil-exporting countries must set long-term strategies to diversify their economies to avoid total oil dependency. Some countries in GCC concentrate on export diversification by developing service industries, such banking and tourism (Morakabati, Beavis and Fletcher, 2014). Other oil-exporting countries, such as Algeria, Iran, Malaysia, Indonesia, Egypt, Tunisia and Nigeria, also focus on the tourism sector. In addition, they can improve the agriculture sector because they have sufficient agricultural potential, such as land, water and labour force. Gollin, Parente and Rogerson (2002) empirically confirmed that improving agricultural productivity can accelerate and push industrialization and enhance national income per capita. Diao, Hazell and Thurlow (2010) referred to the victory of Asian green revolution and concluded that agriculture is still the key sector for economic development in Africa.

Secondly, oil price instability in the world market dramatically affects oil revenue, national income, the government budget, government spending and all macroeconomic activities of oil-exporting economies. Thus, improving non-oil sectors, such as agriculture and tourism, can mitigate the severity of oil revenue fluctuation in their economies. Finally, most developing major oil-exporting countries face the challenge of high population growth and high unemployment rates. However, the oil and gas sectors (which contain and cover most economic activities in these

14

countries) only has a small contribution towards unemployment because the oil sector is a technological and capital-intensive sector. Thus, its impact on employment and other macroeconomic structures is strongly marginal (Mansfeld and Winckler, 2007). In addition, non-oil sectors, such as agriculture and tourism, will have a significant effect in reducing in the unemployment rate. Most major oil-exporting countries suffer from a high long-term unemployment rate ranging from 10 percent to 40 percent. Such a rate mostly involves the young and educated population. Table 1.2 shows the unemployment rate among educated youth for major and minor oil-exporting countries as an average during the 1990-2014 period. As observed, major oil-exporting countries witness a higher unemployment rate than minor oil-exporting countries. Youth unemployment rates as high as 40.03, 38.33 and 29 percent are witnessed in Congo, Gabon, and Saudi Arabia, respectively. Even though Tunisia is a minor oil-exporting country, it suffers from the high unemployment rate.

Therefore, one of the greatest challenges of these countries is job creation (O'Sullivan, Rey and Mendez, 2011). The agriculture sector in these countries has remained the major employer of labour. For example, the agriculture sector in oil-exporting countries absorbed nearly 20 percent of total employment from 2000 to 2014, which is equal to the worldwide level of 19 percent. Tables 1.3 and 1.4 show the sectoral distribution of employment as a percentage of total employment and the sectoral value-added share of GDP in oil-exporting countries. Even though the agriculture value-added share of GDP is small in most of major oil-exporting countries, the agriculture sector employs a sizable and moderate ratio of total employment in these countries.

15

Table 1.2 : Unemployment rate (educated youth) in the oil exporting countries

Major oil exporting countries	1990-2014	OECD	South Asia	North America	MENA
Algeria	27				
Congo	40.03				
Ecuador	11.08				
Gabon	38.33				
Iran	23.25				
Brunei	25.40				
Nigeria	10				
TTO	13.16				
Saudi	29.58				
Venezuela	17.13				
Oman	NA				
Unite Arab Emiratis	10.06				
Average	**22.27**	**14.51**	**8.92**	**12.93**	**22.59**
Minor oil exporting countries					
Argentina	23.80				
Egypt	27.47				
Indonesia	20.14				
Malaysia	NA				
Mexico	7.41				
Peru	12.75				
Tunisia	31.16				
Colombia	20.48				
Morocco	20.22				
Bolivia	2.61				
Brazil	7.16				
Cameroon	5.75				
Chile	20				
Average	**16.57**	**14.51**	**8.92**	**12.93**	**22.59**

(Source: Authors 'calculation based on data from World Bank World Development Indicators)

For example, the average of agriculture value-added share of GDP for Algeria during 1990-2000 and 2001-2014 are 9.75 and 8.74 percent, respectively. However, agriculture's contribution to employment is about 22.48 and 18.37 percent—about two times greater than its share of GDP in the same periods. The industrial sector share of GDP is about 50 and 51, while its contribution to employment is 25 and 34 percent in the same periods. The role of the agriculture sector in employment is higher in the case of Congo, Gabon, Iran, Egypt, and Indonesia. For the rest of major and minor oil-exporting countries, Tables 1.3 and 1.4 compare the role of agriculture in absorbing unemployment with other sectors.

Table 1.3 : Value added share of GDP by Sectors

	Sectors					
	Agriculture sector		**Industry sector**		**Service sector**	
Country	**1990-2000**	**2001-2014**	**1990-2000**	**2001-2014**	**1990-2000**	**2001-2014**
Major oil exporting countries						
Algeria	9.75	8.74	49.86	51.24	35.04	35.86
Congo	10.04	4.65	47.82	70.94	42.13	24.40
Ecuador	19.91	9.81	28.91	33.55	47.18	51.18
Gabon	7.60	4.65	48.94	54.75	43.45	33.30
Iran	10.98	7.38	37.7	45.2	51.74	49.31
Kuwait	0.40	0.36	NA	71.44	NA	42.17
Nigeria	24.16	25.62	34.15	25.78	40.68	47.68
Saudi	5.67	3.14	49.38	59.04	44.94	37.8
Venezuela	4.77	4.45	46.35	47.10	41.79	41.66
UAE	1.76	1.19	47.87	53.73	50.36	45.06
Brunei	1.12	0.85	57.23	68.65	41.63	30.50
Oman	2.55	1.55	49.17	61.6	46.33	36.81
Minor oil exporting countries						
Argentina	5.60	7.21	28.4	26.94	61.39	52.34
Egypt	16.13	13.40	29.93	35.65	47.78	47.25
Indonesia	18.10	14.20	41.91	45.34	39.16	40.06
Malaysia	12.73	9.35	43.06	43.02	47.07	47.13
Mexico	4.88	3.2	31.39	32.89	58.44	59.78
Peru	8.15	7.03	28.18	33.88	54.19	50.48
Tunisia	13.03	8.81	27.94	27.79	46.79	55.25
Colombia	14.09	6.93	28.85	30.69	54.22	53.74
Morocco	15.03	12.72	26.33	25.82	46.80	51.60
Bolivia	14.36	11.21	28.17	27.89	49	44.9
Cameroon	19.38	14.42	27.53	27.65	46.76	50.78
Brazil	5.83	4.71	27.66	22.75	53.38	57.71
Chile	7	3.88	34.74	34.42	50.38	53.15

(Source: World Bank World Development Indicators)

Table 1.4 : Sectorial Distribution of Employment (%total Employment)

	Sectors					
	Agriculture sector		Industry sector		Service sector	
	1990-2000	2001-2014	1990-2000	2001-2014	1990-2000	2001-2014
Major oil exporting countries						
Algeria	22.48	18.37	25.67	34.31	51.90	47.56
Congo	40	39.82	23.01	23.56	36.75	36.75
Ecuador	6.98	29.52	23.09	18.54	69.62	51.89
Gabon	43.5	24.2	9.6	11.8	46.9	64
Iran	23	21.41	30	32	44.3	46.52
Kuwait	1.6	2.13	24.19	26	73.59	72.17
Nigeria	46.9	46.55	7.5	10	43.7	42.3
Saudi	7	4.74	23.44	21.63	71.03	73.78
Venezuela	12.2	9.12	24.57	21.72	63.02	68.93
UAE	7.31	3.24	33.47	32.38	59.34	64.56
Brunei	1.75	0.90	23.93	19.60	74.34	79.52
Oman	8.19	6.10	8.41	26	83.56	67.91
Minor oil exporting countries						
Argentina	0.59	1.88	28	23.26	70.9	75.07
Egypt	34.21	29.65	22.11	22.44	43.5	47.91
Indonesia	48.63	40.61	14.51	19.15	34.85	40.2
Malaysia	23.49	14.07	29.12	29.39	47.33	56.82
Mexico	23.55	14.97	23.8	25.11	52.21	59.44
Peru	2.8	9.5	23.52	20.76	73.62	73
Tunisia	25	16.76	33.6	32.83	39.1	49.73
Colombia	1.19	17.67	29.54	20.1	69.14	60.98
Morocco	41.75	41.92	22.64	20.54	35.41	37.67
Bolivia	2	1.23	20.23	19.79	40.62	46.61
Cameroon	68.45	65.08	9.14	9.26	22.56	25.84
Brazil	25.88	17.45	20.26	21.84	54.29	60.97
Chile	16.03	12.03	25.83	23.49	58.29	64.61

(Source: World Bank World Development Indicators)

Most oil-exporting countries have high potential in agriculture for different types of agricultural products and have a long history of farming. Although most of these economies heavily depend on crude oil export as their primary source of foreign exchange, the value-added share of agriculture to GDP of minor oil-exporting economies (14.45 percent) is approximately twice more than that of major oil-exporting countries (8.3 percent), on average for the 1970–2014 period. Furthermore, oil-exporting economies lagged behind non-oil economies with regard to the agricultural share of GDP from 1970 to 2014. For major oil-exporting economies, one possible explanation for neglecting the agriculture sector is that high oil production shapes total exports along with government spending.

Heterogeneity exists amongst oil-exporting countries in terms of the value-added agricultural share of GDP. Indonesia, Malaysia, Egypt, Ecuador and Tunisia recorded their highest level of agriculture in GDP (34, 29, 28, 23 and 17 percent, respectively) from 1970 to 1980. Nigeria, Algeria and Saudi Arabia reached their highest level (26, 10 and 5 percent, respectively) in the 1990s. The agriculture contribution to GDP of other oil-exporting states in GCC, such as Kuwait, Qatar and Oman, is marginal as shown in Figure 1.6.
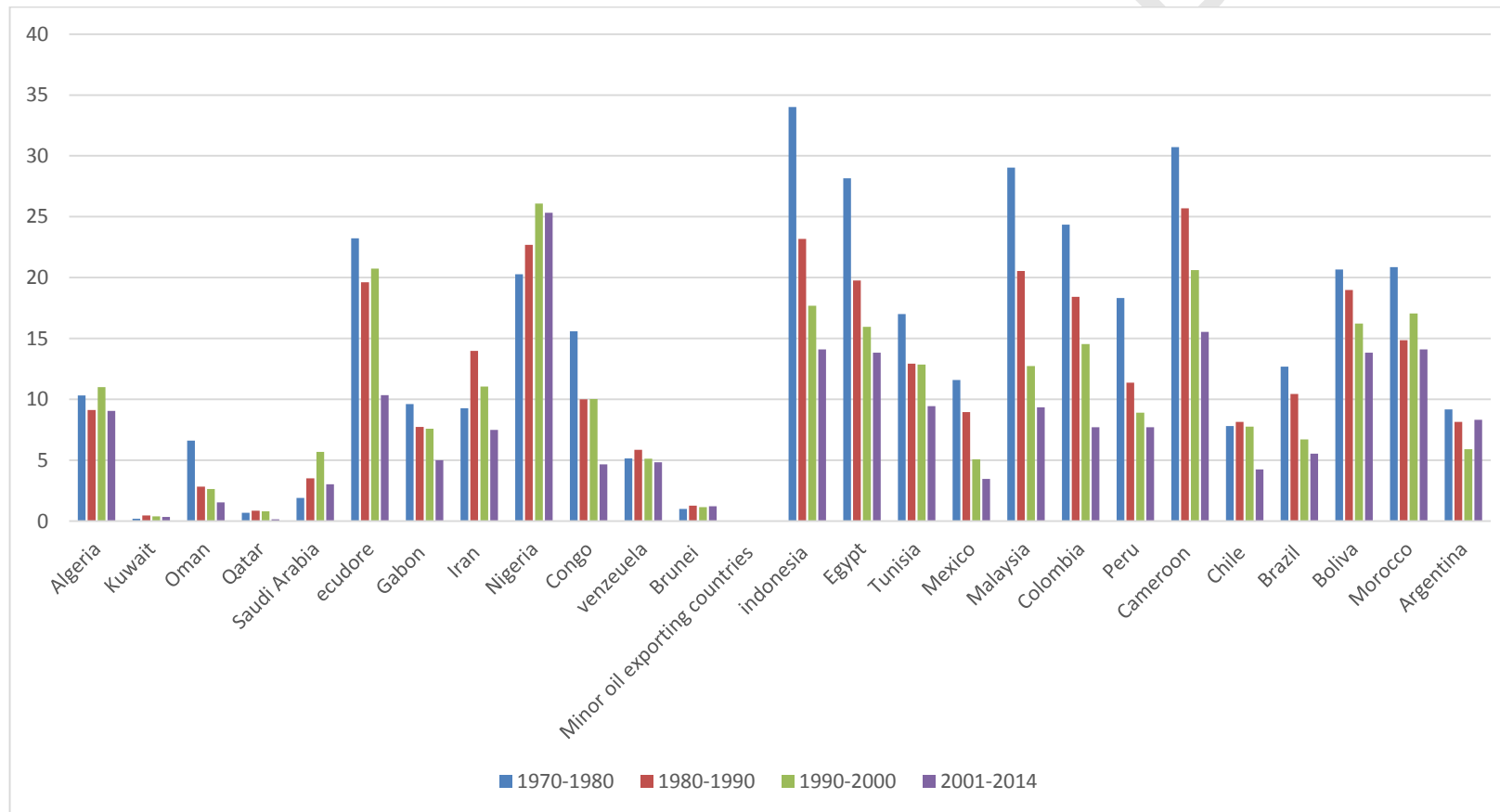
Figure 1.6 : Agriculture value-added (%GDP) in the oil exporting countries
(Source: World Bank World Development Indicators 2016.)

19

The policy tools—such as fiscal policy, exchange rates, pricing, and the trade regime—that are necessary for managing oil revenue and government spending to optimize resource allocation during and after oil boom periods differ among oil-exporting countries. Pinto (1987) provided substantial evidence of a contrast in policy and performance between Nigeria and Indonesia during and after the first oil boom. In contrast to Indonesia, Nigeria suffered a serious economic problem that included severe contraction in its agricultural output and exports for decades after the first oil boom. For example, during the oil boom in the 1970–1982 period, the annual production of Nigeria's central crops—namely, cocoa, rubber, cotton and groundnuts—decreased by 43, 29, 65 and 64 percent, respectively. By contrast, the share of agriculture imports in the total imports increased from 3 percent to 7 percent in 1960–1980. In the case of Indonesia, a good policy succeeded in avoiding severe interruption in agricultural output. Indonesia's rice production grew approximately 5 percent per annum from 1968 to 1984.

Figure 1.7, 1.8 and 1.9 illustrate a scatterplot between oil revenue and real effective exchange rate and their interaction term with value-added agriculture as a percentage of GDP in the full sample , major and minor oil exporting countries respectively. The relationship between oil revenue and agriculture is positive for the entire sample of oil-exporting countries, whereas such a relationship is negative for major and minor oil-exporting countries. Nevertheless, the relationship between the real exchange rate and agricultural share of GDP is positive for all cases. The partial effect of oil revenue through the REER on agricultural value added is only positive for minor oil-exporting countries. Based on the Dutch disease theory and the hypotheses of this study, if the relationship between oil revenue and agriculture value added is negative, and the interaction term between oil revenue and REER is positive, that means that Dutch disease exists for these countries. Otherwise, they would escape from Dutch disease. Overall, these preliminary data appear to support the Dutch disease theory for major and minor oil-exporting countries.
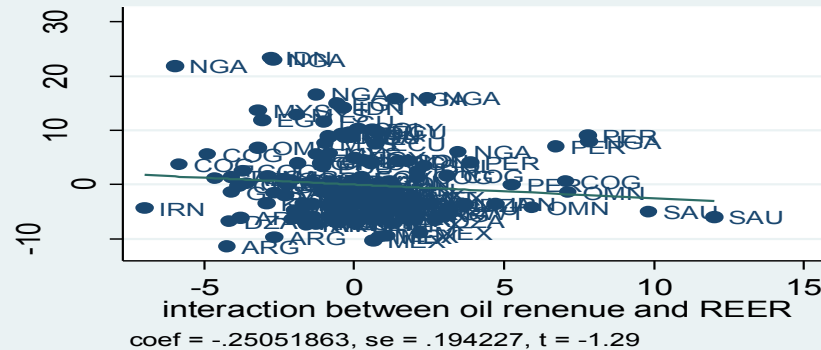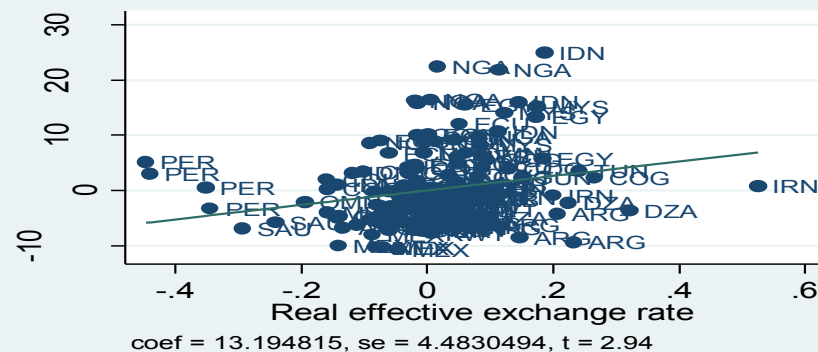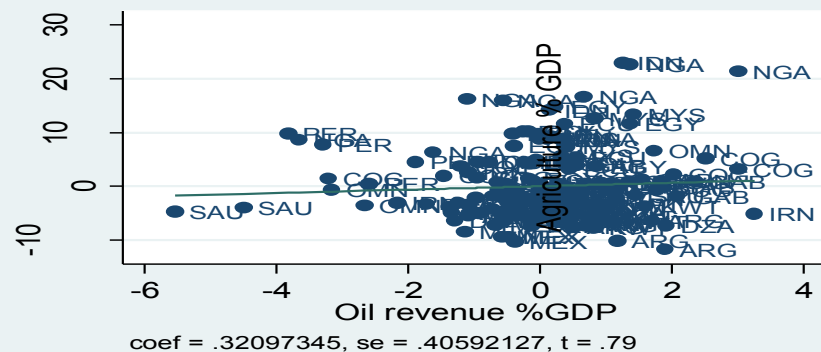
Figure 1.7 : The relationship between agriculture % GDP, oil revenue, REER and interaction term of REER and oil revenue during 1970-2014(full sample)
(Source: Authors 'calculation based on data from World Bank World Development Indicators 2016)
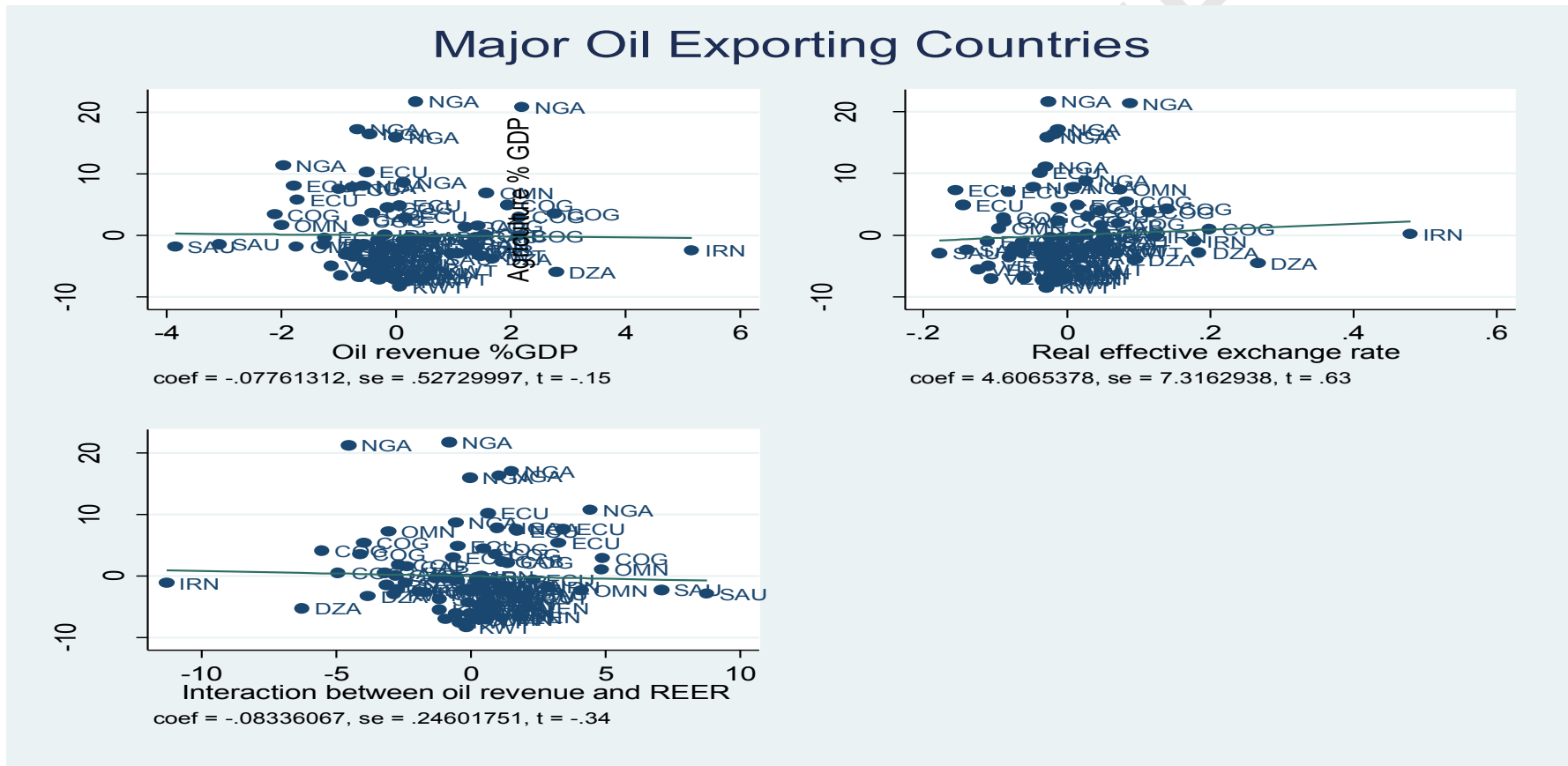
Figure 1.8 : The relationship between agriculture %GDP, oil revenue, REER, and interaction term of REER and oil revenue during 1970-2014(Major oil exporting countries)
(Source: Authors 'calculation based on data from World Bank World Development Indicators 2016)
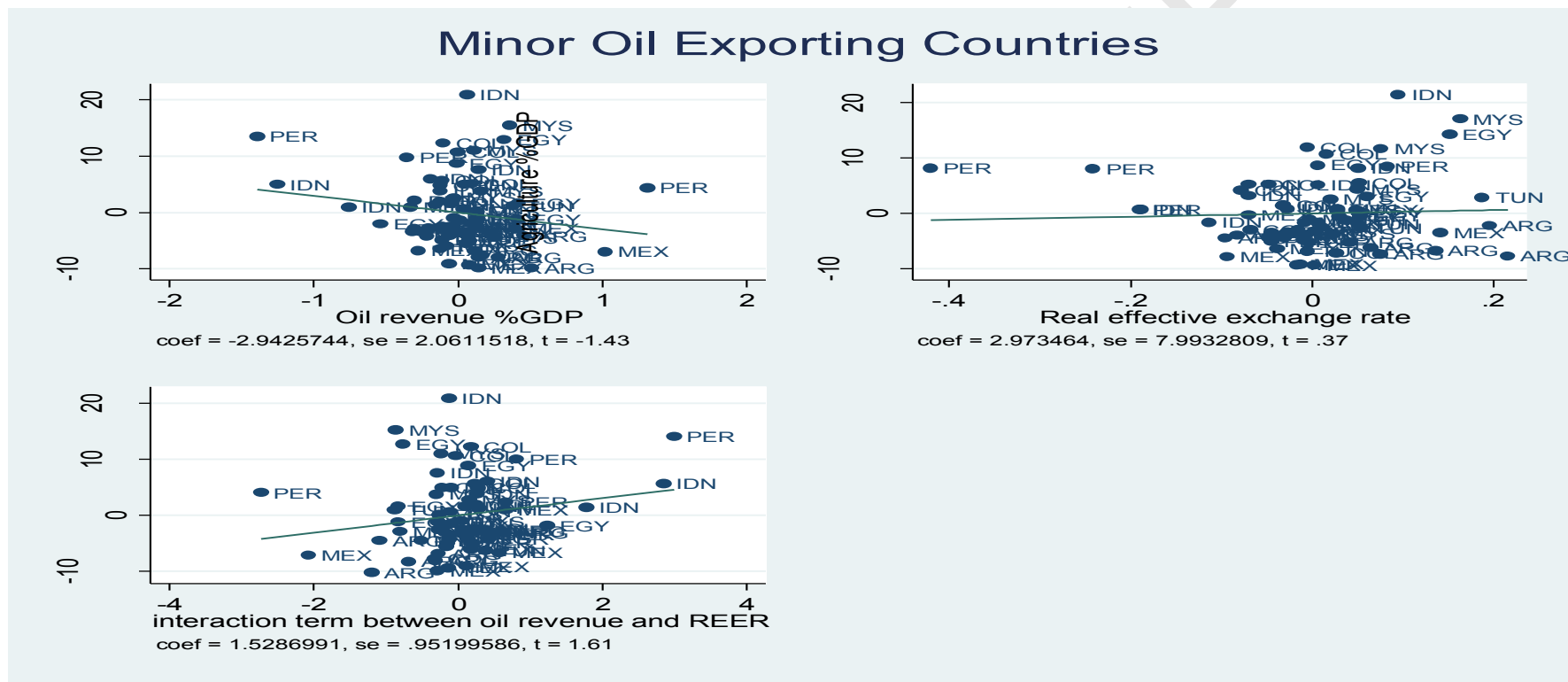
Figure 1.9 : The relationship between agriculture %GDP, oil revenue, REER, and interaction term of REER and oil revenue during 1970-2014(Minor oil exporting countries)
(Source: Authors 'calculation based on data from World Bank World Development Indicators 2016)

1.2.4 Oil Revenue and Tourism in the Oil-Exporting Countries

In the majority oil-exporting countries, the service sector has a sizable share of GDP. As shown in Table 1.3, in the major oil-exporting countries, agriculture share of GDP tends to be diminishing over time, while its share of employment is still high in these economies. However, the industrial value-added and service value-added percentage of GDP are considerable in the major and minor oil-exporting countries. As shown in Table 1.4, the service sector tends to be the largest source of employment. For example, the service sector's contribution to employment as a percentage of total employment was about 50 percent for Algeria, about 60 percent for Ecuador, and more than 70 percent for Kuwait, Oman, Saudi Arabia, Brunei and Peru. Even though the service sector has large contributions in total employment, the substantial fraction of the labour force in that sector is in government employees and government salary, which mostly is considered as hidden unemployment in most of the major oil-exporting countries. In the two-past decades, most major and minor oil-exporting countries expanded the service sector in term of banking services, financial activities and developing tourism industries. Most of these activities are in the private sector, which means their effect and contribution in real jobs is large.

International tourism has developed over the past six decades. Only 25 million tourists (overnight visitors) travelled internationally in 1950. Most of these tourists came from Europe and North America. During the 1980s, the number of tourists increased eight times more than that in 1950 and reached 278 million. The number of global arrivals exceeded 1 billion tourists (1.138) in 2014 and is expected to rise to 1.8 billion by 2030. In 2014, destinations in developing and emerging countries in Latin America, the Middle East, North Africa and the Asia Pacific accounted for approximately 50 percent of global inbound tourism. By contrast, these regions received only 29 percent in 1980 (Lanquar, 2011).

The tourism sector is one of the central channels and important sources that can contribute to the national income of a country. Considering inflation and the volatility of exchange rates, the international receipt in real terms rose from only 2 billion US dollars in 1950 and 104 billion US dollars in 1980, to 1.197 billion US dollars in 2013. The current share of the tourism industry is 9 percent of the world's GDP (United Nations World Tourism Organisation, 2015). Figure 1.10 show the share of tourism in GDP in minor oil-exporting countries as average in 1995–2014. This share is twice larger than that of major oil-exporting countries during the same period. The percentage of tourism share in GDP (average) was estimated to be 10.47 percent and 6.5 percent for minor and major oil-exporting countries, respectively. The figures clearly indicate that most major oil-exporting countries, except Bahrain, lagged behind minor oil-exporting countries, particularly in the last period.

According to WTTC, tourism (directly and indirectly) generated more than 283 million jobs in 2014, which is approximately 9 percent of the world's total employment. Therefore, the tourism sector affects the income distribution between

developed and developing countries. The latter can also earn exchanges from rich tourists from advanced economies.

In addition, tourism is considered one of the most labour-intensive economic sectors. The greatest advantage of this sector is the flexibility of its labour movement and the fast entry point to the labour market, mostly of women and young people. This advantage reduces gender inequality in developing countries. Moreover, tourism exhibits a remarkable positive linkage with other sectors in the economy such as agriculture. It generates job opportunities not only for itself but also for other sectors through its complicated value chain that involves transportation, agriculture and small businesses in destination countries.

Furthermore, tourism reduces emigration rate from rural to urban areas. The sector also serves as an important employment linkage, which is the extension of tourism-related jobs across different regions in an economy. Such linkages cause farmers and rural communities to remain on their land (Khatoon and Mehdi, 2013). According to WTTC, the tourism sector created approximately 12 million and 27 million jobs in 2014 in major and minor oil-exporting countries, respectively. The number for minor oil-exporting countries is twice that for major oil-exporting countries. Figure 1.11 shows the contribution of tourism to employment as the percentage of the total employment for major and minor oil-exporting countries. The share in employment of tourism for minor oil-exporting countries, such as Mexico, Tunisia, Egypt and Malaysia, is higher than that for most major oil-exporting countries, excluding Qatar, Saudi Arabia and Bahrain.

25
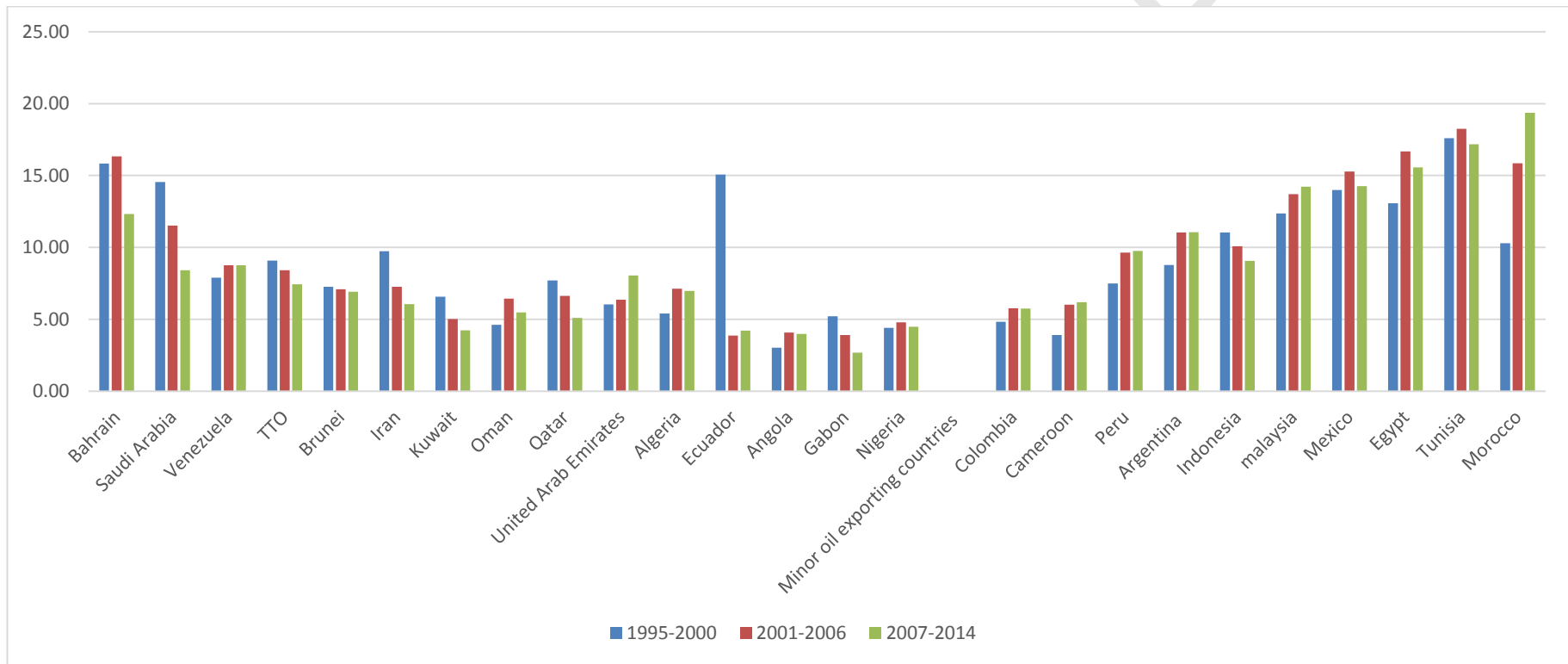
Figure 1.10 : Tourism % GDP for both major and minor oil exporting countries (average)
(Source: World Travel and Tourism Council 2016)
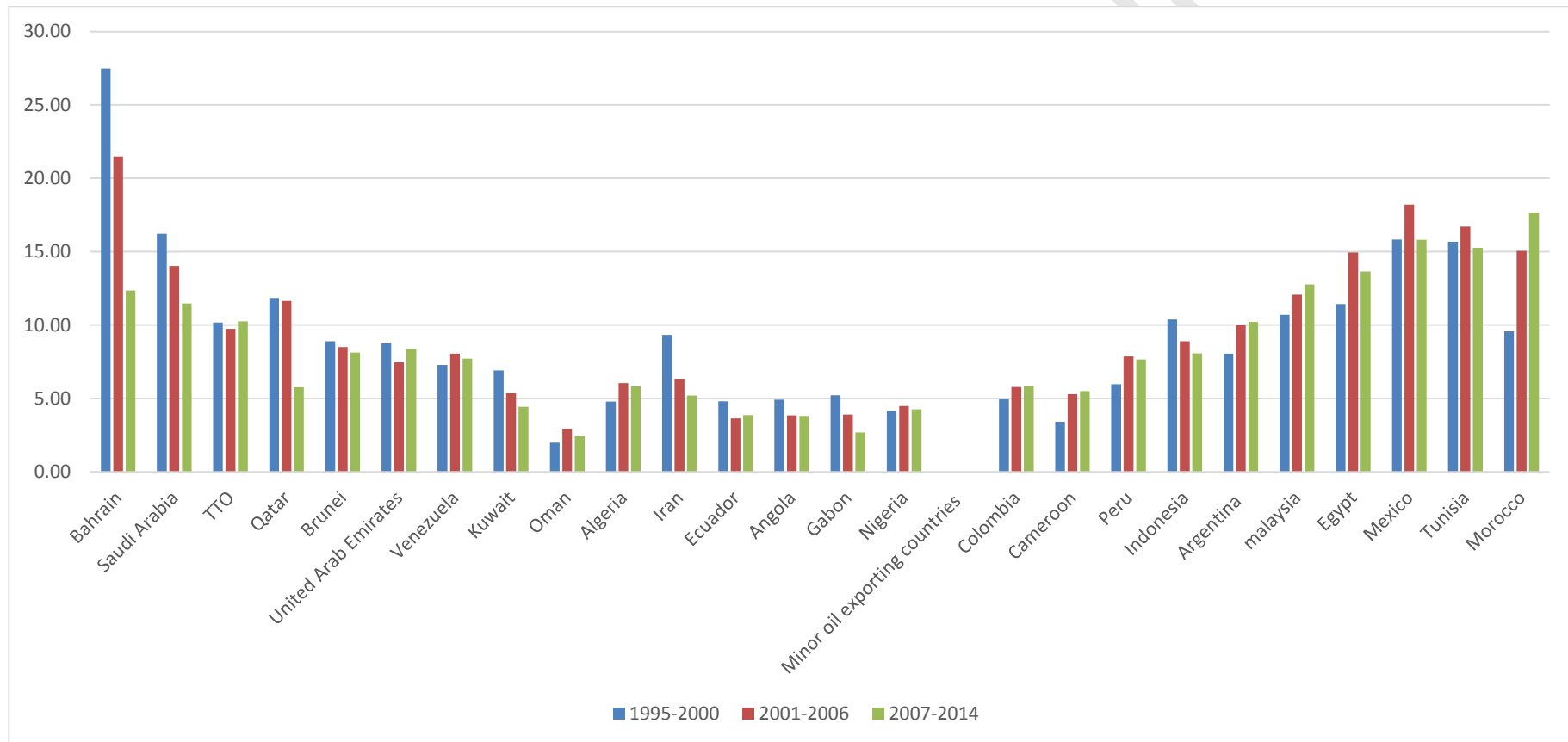
Figure 1.11 : Tourism contribution to employment as percentage of total employment for major and minor oil exporting countries (Source: World Travel and Tourism Council 2016.)

The tourism sector in most oil-exporting economies has been developing since the past two decades to create and establish economic diversity. Oil-exporting countries, such as Bahrain, Tunisia, Indonesia, Malaysia, Egypt, Colombia and the United Arab Emirates are good examples. The current tourism industry is becoming known and exhibits remarkable participation in economic growth. Developing oil-exporting countries can use the tourism sector as a comparative advantage towards the competitive market position because most oil-exporting countries have an overwhelming high tourism potential. This potential includes socio-landscapes, cultural heritage, traditional lifestyle, a mild climate and beaches, which are considered the most popular destinations worldwide. In these countries, tourism is regarded as a crucial economic activity that contributes to foreign exchange, increases employment and stimulates new economic activities, all of which lead to economic gains.

Figure 1.12 shows tourism export as percentage of total export for major and minor oil-exporting countries in the 1995–2014 period. Minor oil-exporting economies have successfully managed their tourism industries to attract more international tourists and gain more income than most major oil-exporting countries, excluding Bahrain, the United Arab Emirates, Qatar and Trinidad and Tobago.
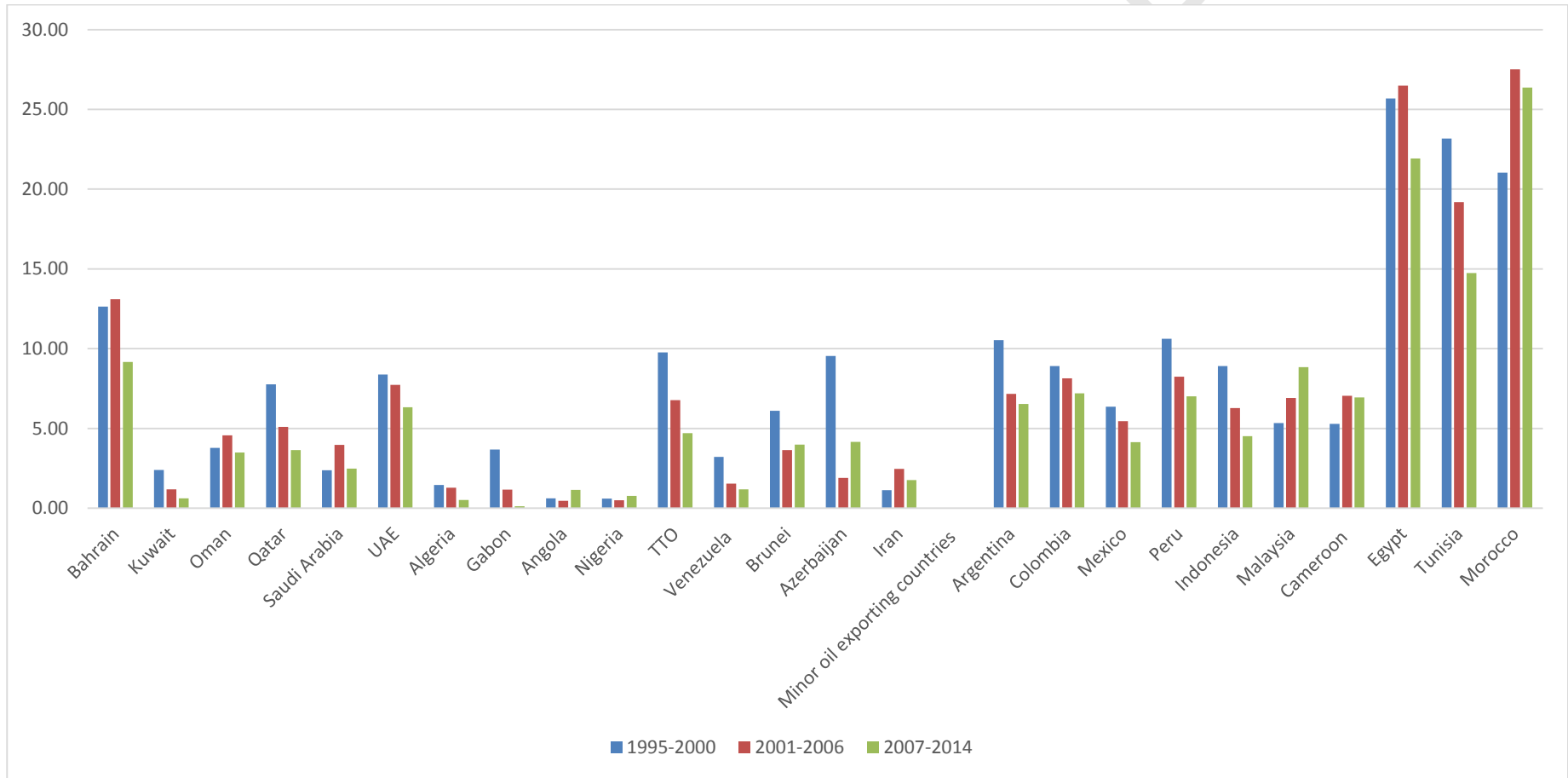
Figure 1.12 : Tourism export (% Total export) in the major and minor oil exporting countries
(Source: World Travel and Tourism Council 2016.)

In terms of political implication, most major oil-exporting countries have established a rentier relationship between political authorities and their citizens. In such a relationship, governments (which are mostly controlled by one family or one party) provide their citizens with different types of direct financial benefits (e.g. free education and health care services, high governmental allowance and public-sector employment with high salaries). Indirect benefits, such as energy, food, telecommunication, water, housing and transportation subsidies, are also provided. That is, the citizens of oil-exporting countries exchange their right to political participation for no taxation (Mansfeld and Winckler, 2007).

Under such situation, people in rentier economies receive high personal income without exerting much effort, and therefore, prefer to spend their money overseas. Consequently, outbound tourism expenditure is relatively greater than inbound tourism expenditure. Net tourism export (inbound tourism expenditure minus outbound tourism expenditure) is negative for most major oil-exporting countries (except Bahrain). By contrast, net tourism export is positive for minor oil-exporting countries (except Argentina), as shown in Figure 1.13. Amongst major oil-exporting countries, the United Arab Emirates, Bahrain and Qatar have benefited the most from tourism income, whereas amongst minor oil-exporting countries, Egypt, Tunisia, Indonesia, Malaysia and Mexico have recorded the highest tourism income. These countries have considerable potential to further develop their international tourism industry given their tourism assets and geographical proximity to European markets. High economic growth rates and rising income in emerging economies also serve as opportunities for these countries to attract visitors beyond the traditional European and Gulf markets.
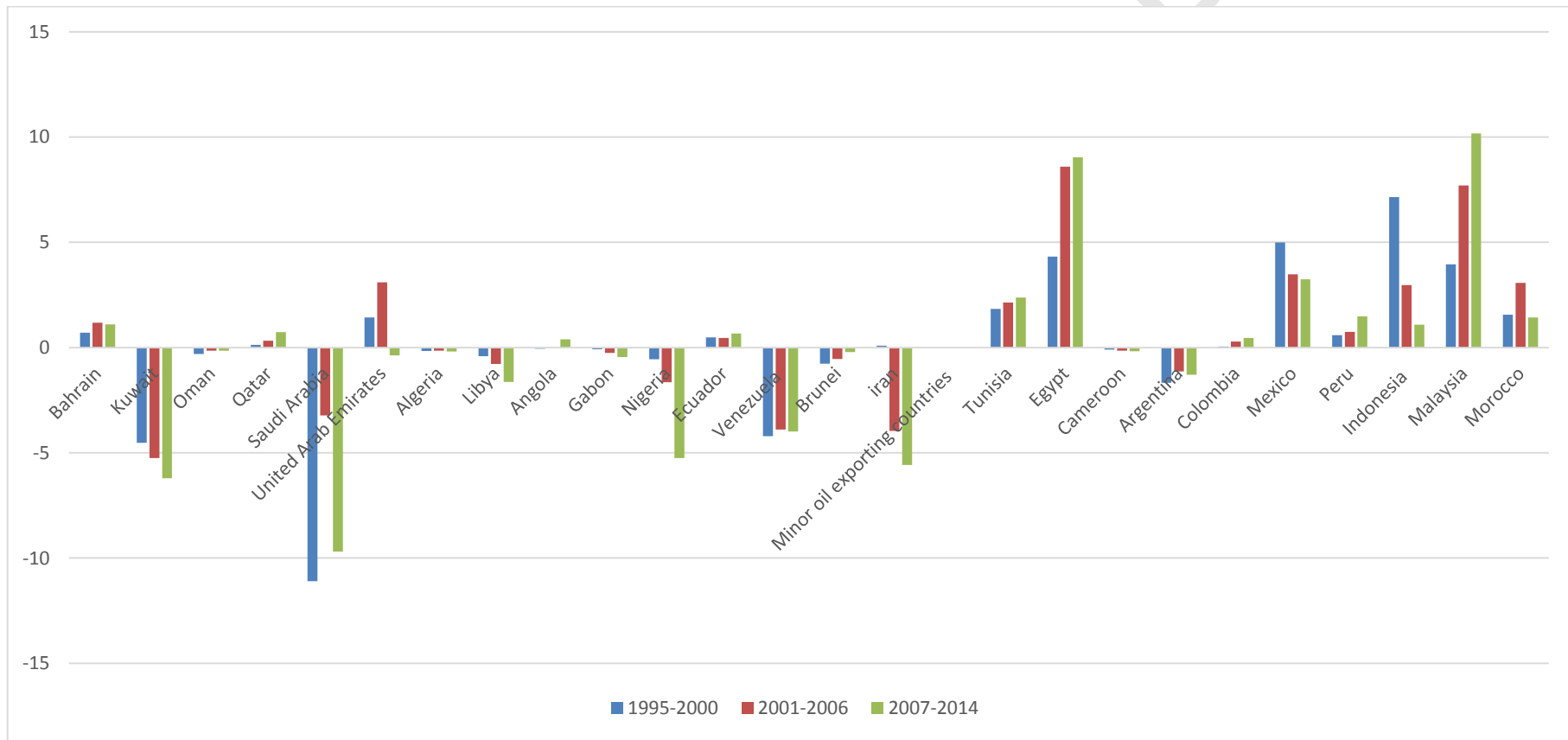
Figure 1.13 : Net tourism export for major and minor oil exporting countries.
(Source: Authors 'calculation based on data from World Travel and Tourism Council 2016.)

Moreover, no direct theory has highlighted the effect of oil price or oil revenue on the tourism sector and tourism income of oil-exporting countries. However, Dutch disease theory provides an indirect explanation that may build the theoretical framework for the investigation of this relationship. The following points explain this scenario. First, the negative effect of oil price on the tourism sector is observed through its impact on local currency. The classical Dutch disease model provides strong evidence that high oil revenue can cause the appreciation of the exchange rate of oil-exporting countries. Local currency can also be overvalued. When the exchange rate is overvalued and appreciates, the exports of oil-exporting countries become relatively expensive, whereas their imports become low-cost. Consequently, the demand for domestic goods tends to decrease, which motivates spending outside the country on foreign goods. That is, the appreciation of exchange rates diminishes the production and exports of non-oil sectors, such as the industrial, agriculture and tourism sectors, in accordance with Dutch disease theory (Corden, 1984; Morakabati, Beavis and Fletcher, 2014).

Secondly, Dutch disease theory provides an indirect channel of the effect of oil revenue on the tourism sector of oil-exporting countries. High oil revenue and national income can contract the production and export of the non-oil tradable sector and expand those of the service sector. Thus, high oil revenue may increase investment in tourism infrastructure, such as banking, transportation and investment in tourism locations. Consequently, the tourism sector in oil-exporting countries may benefit from high oil prices and revenues. However, given that tourism is only a small proportion of the service sector, the preliminary data (Figure 1.14) support the positive effect of oil revenue on the tourism sector for the entire sample of oil-exporting countries.

By contrast, the effect of oil revenue on tourism is negative for major and minor oil-exporting countries (Figure 1.15 and 1.16). However, the partial effect of oil revenue through the REER on tourism value added is positive for major and minor oil-exporting countries. Based on the Dutch disease theory and the hypotheses of this study if the relationship between oil revenue and tourism share of GDP is negative, and the interaction term between oil revenue and REER is positive, Dutch disease may exist for these countries. Therefore, based on interaction term, Dutch disease may occur for major and minor oil-exporting countries with respect to the tourism sector.
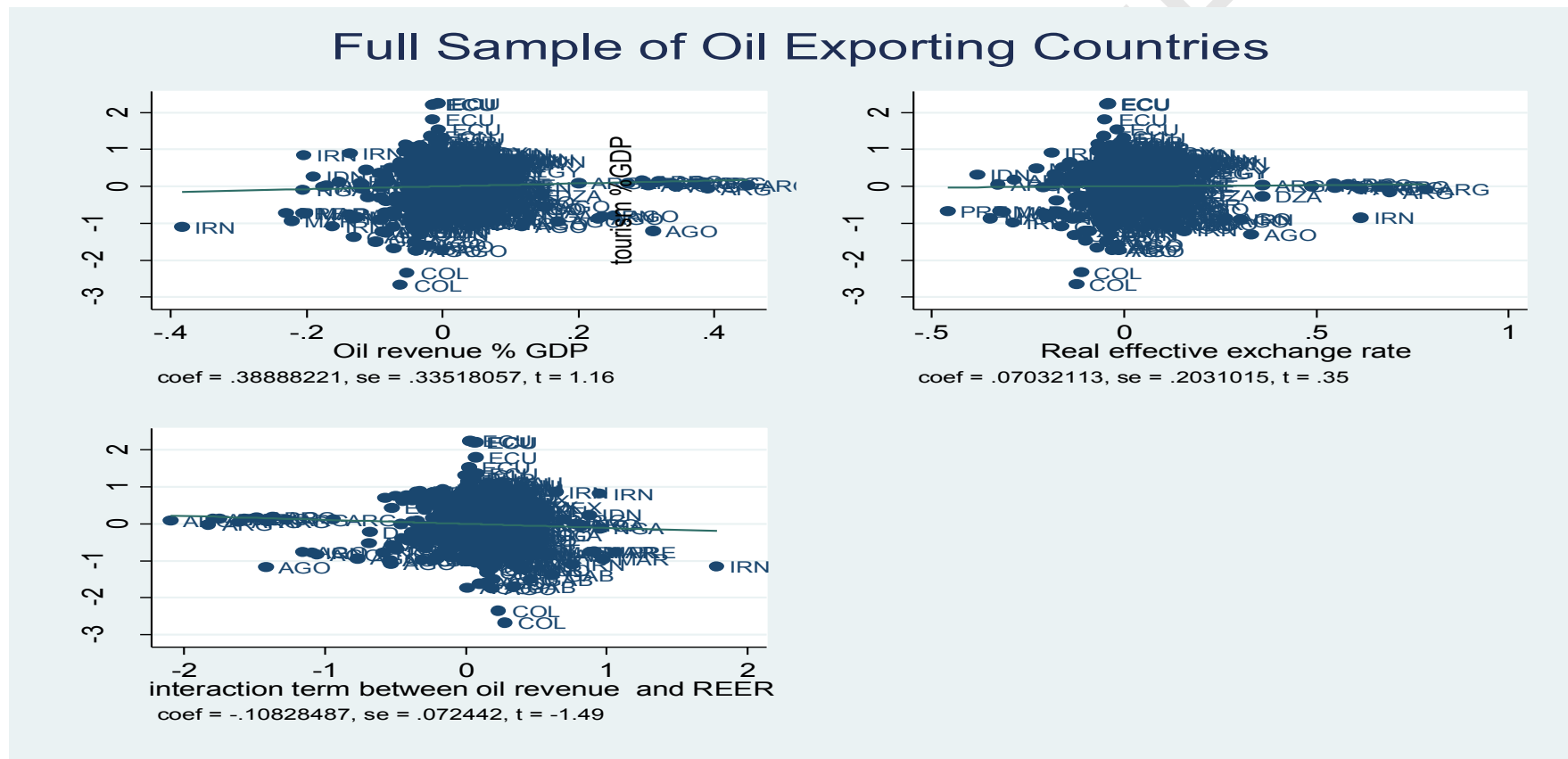
Figure 1.14 : The relationship between tourism share of GDP, oil revenue, REER, interaction term of REER and oil rent during 1990-2014.(full sample)
(Source: Authors 'calculation based on data from World Travel and Tourism Council, World Bank World Development Indicators.)
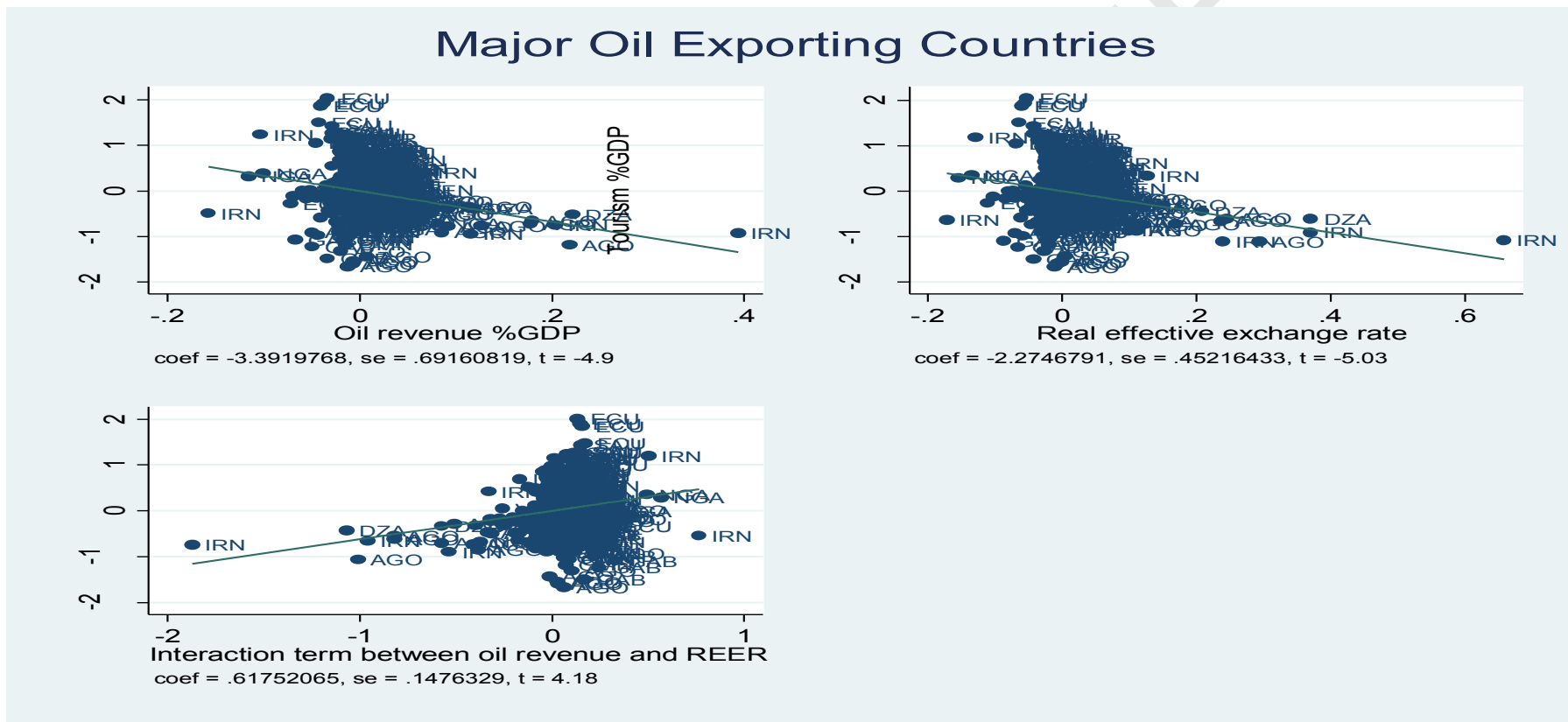
Figure 1.15 : The relationship between tourism share of GDP, oil revenue, REER, interaction term of REER and oil rent during 1990-2014.(Major oil exporting countries)
(Source: Authors 'calculation based on data from World Travel and Tourism Council, World Bank World Development Indicators.)
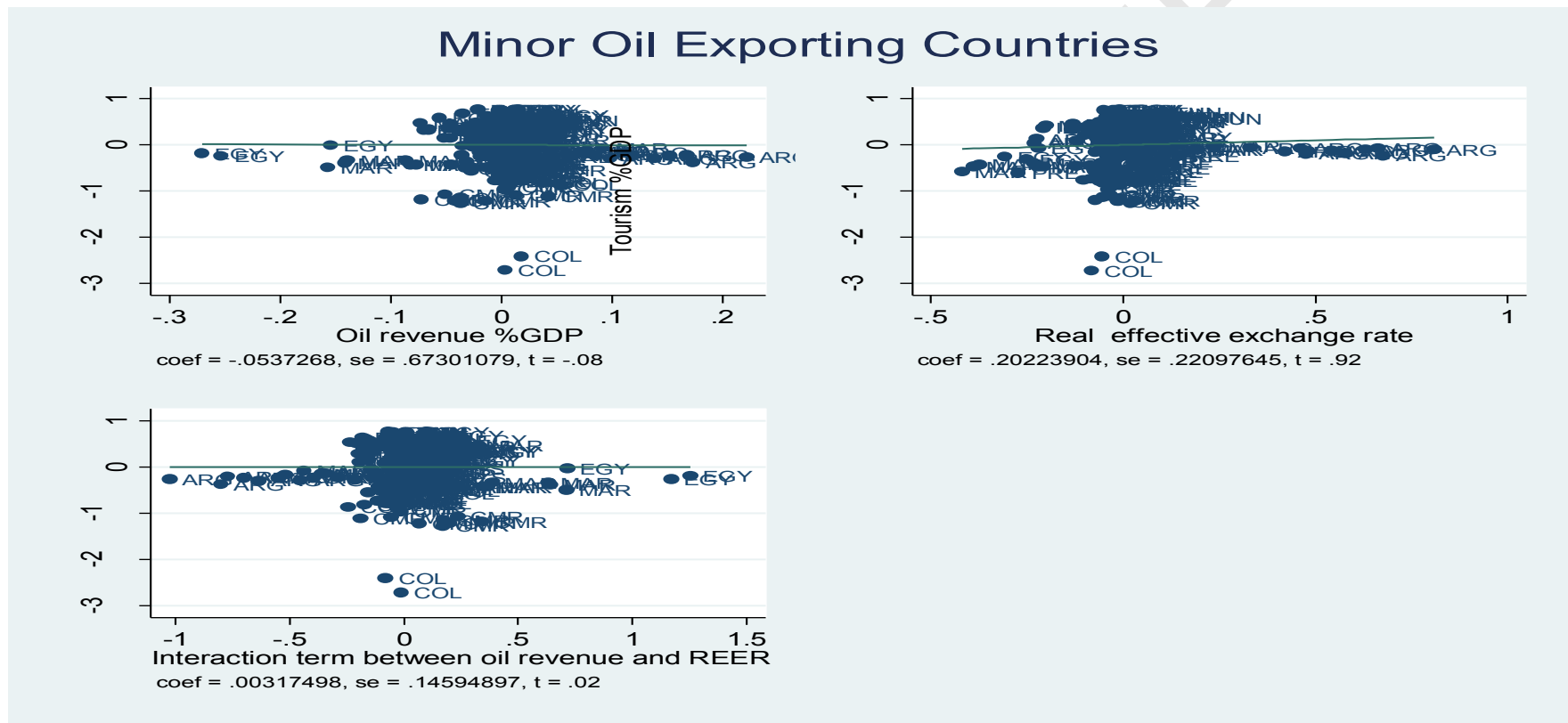
Figure 1.16 : The relationship between tourism share of GDP, oil revenue, REER, interaction term of REER and oil rent during 1990-2014.(Minor oil exporting countries)
(Source: Authors 'calculation based on data from World Travel and Tourism Council, World Bank World Development Indicators.)

1.3   Problem Statement

In the oil-exporting countries, economic activities, fiscal policy (such as revenue, taxes, and government spending), trade and export policy, a monetary policy (such as foreign exchange), different sectors such as agriculture, manufacturing, service sector and tourism sector, are directly and indirectly affected by the oil sector and oil revenue. Therefore, this study tries to address three issues in these countries, which are oil revenue's relation to economic growth, agriculture, and tourism. The first issue focuses on the relationship between oil revenue and economic growth in oil-exporting countries. Theoretically, countries with plentiful of oil revenue tend to achieve low economic growth, whereas those with little oil revenue have performed better economic growth based on the substantial literature (theoretical and empirical) that tested the resource curse hypothesis.(Frankel, 2010; Sarmidi, Law and Jafari, 2014; Williams, 2011).

Most empirical studies examined developed and developing oil-exporting countries together. However, the effect of oil revenue on economic growth may differ among developing oil-exporting countries. As observed in Table 1-1, despite the dramatic rise in the oil price and oil revenue in the past decades, particularly in 2000–2014, economic growth is still lower in major oil-exporting countries than in minor oil-exporting countries. Furthermore, most major oil-exporting countries experienced negative economic growth (on average) during the oil collapse period (1986–2000), whereas minor oil-exporting countries gained positive economic growth during the same period. Therefore, oil revenue decreases economic growth less in minor oil-exporting countries than in major oil-exporting countries.

Dutch disease theory provides an exchange rate channel to highlight the effect of oil revenue on economic growth for oil-exporting countries. This study tries to investigate an indirect channel between oil revenue and the real effective exchange rate to show the partial effect of oil revenue on economic growth through the real effective exchange rate. The preliminary data (Figure 1.3, 1.4 and 1.5) seem to be support Dutch disease for the full sample and major oil-exporting countries because the partial effect of oil revenue through REER on economic growth is positive, while it is not supported for minor oil-exporting countries. Therefore, these observations suggest the necessity to study the impact of oil revenue through the exchange rate as an indirect channel for both major and minor developing oil-exporting countries.

The second issue of this study is the relationship between oil revenue and the agriculture sector through the real effective exchange rate as an indirect channel. The importance of the agriculture sector as a non-oil sector for oil-exporting countries is seen in its contribution to employment in these countries. In some case (Congo) for example, agriculture contributes to employment four times greater than its value-added share of GDP (Tables 1.3 and 1.4). Moreover, oil revenue is recognized as the key determinant of economic activities in major oil-exporting countries. Graphically, the trend of the value-added share of agriculture in GDP exhibits a slowdown for all

oil countries (except Nigeria) over the period. However, the agriculture percentage of GDP for minor oil-exporting countries is twice that of most major oil-exporting countries (Figure 1.6).

Dutch disease theory provides the base theory for investigation of the relationship between oil revenue and agriculture. It reveals that oil revenue may harm the agriculture sector through the appreciation of real effective exchange rate. Therefore, as observed from the preliminary data, Figure 1.8 and 1.9 show a negative direction between oil revenue and agriculture value added for both major and minor oil-exporting countries while the partial effect of oil revenue through the REER on agriculture value added is only positive for minor oil-exporting countries. Then, these preliminary data appear to support Dutch disease theory for major and minor oil-exporting countries. Based on the above observations, understanding the relationship between oil revenue and agriculture sector is required for both major and minor oil-exporting countries to address the policy suggestions regards to diversify their economies and escape from monocultural economies, which depend only on the oil sector to produce value-added share or to diversify their sources of export and foreign exchange.

The third issue that this study tries to examine is the relationship between oil revenue and the tourism sector in developing oil-exporting countries (both major and minor). No direct theory explains this relation, but Dutch disease theory may provide two different indirect channels to illustrate the effect of oil revenue on the tourism sector in oil-exporting countries. First, an oil revenue increase leads to the appreciation of the real exchange rate of oil-exporting economies, which may be reduced in the tourism sector. For example, numerous studies support a strong nexus between the real oil price and real exchange rate. These studies provide clear evidence that an oil price increase leads to the appreciation of the real exchange rate in these countries (Fakhri, 2010; Jahan-Parvar and Mohammadi, 2011). Therefore, in this view, an oil revenue increase may harm the tourism sector in oil-exporting countries. The second channel through which oil revenue affects the tourism sector is the service sector. Dutch disease theory also provides evidence that an oil revenue increase can expand the service sector in these economies. Theoretically, through the first channel, oil revenue adversely effects tourism, while the second channel may have a positive effect. Empirical studies are very scanty in this regard. Therefore, the present study examines the relationship between oil revenue and tourism sector through the exchange rate for oil-exporting countries.

Preliminary data (Figure 1.15 and 1.6) show the negative direction between oil revenue and tourism for major and minor oil-exporting countries. As the moderate effect of the interaction term shows a positive direction, this may support Dutch disease in these countries. Additionally, Figure 1.10, 1.11. 1.12 and 1.13 illustrate the performance of minor oil-exporting countries over major oil-exporting countries with regards to tourism's share of GDP, tourism's contribution to employment, tourism exports, and net tourism exports respectively. Therefore, an investigation of the effect of oil revenue on tourism sector is required.

37

1.3.1   Research Questions

1. What is the effect of oil revenue on economic growth in oil-exporting economies? Is the relationship moderated or conditioned by real effective exchange rate policy?
2. What is the effect of oil revenue on value-added agriculture in oil-exporting economies? Is the relationship being contingent or conditional on the real effective exchange rate?
3. What are the effects of oil revenue on the tourism sector in oil-exporting economies? To what extent is the relationship contingent or conditional on real effective exchange rate?

1.4   Research Objectives

The impact of oil revenue on macroeconomic variables both in developed and developing countries has been debated in the literature. This study contributes to this debate by examining the impact of oil revenue on the economic growth, agriculture and tourism in oil-exporting countries from the perspective of real exchange rate policy. Specifically, this research intends to:

1. Investigate both direct and indirect effects of oil revenue on the economic growth of oil-exporting countries conditional on the real effective exchange rate.
2. Examine both direct and indirect effects of oil revenue on the agriculture sector of oil-exporting countries through the real effective exchange rate.
3. Investigate both direct and indirect effects of oil revenue on the tourism sector of oil-exporting countries conditional on the real effective exchange rate.

1.5   Significance of the Study

This study focuses on a sample of 25 countries. The sample is further divided into major and minor oil-exporting countries to further investigate the heterogeneous behaviors among these oil-exporting countries, if any. The findings of this study would not only contribute to the existing literature but also benefit in informing policymakers and stakeholders on the likely contingent effects of exchange rate policy on the nexus of oil revenue and real economic sectors in these oil-exporting economies. In terms of the objectives, empirical studies are few, which creates a considerable literature gap, particularly for oil-exporting countries. Thus, this study explores this relationship for oil-exporting countries and attempts to fill in this major research gap.

Regardless of whether oil revenue improves economic growth significantly or not, policy makers will utilize the revenue more efficiently or restructure their economies to promote a sustainable long-run economic growth and development. Policy makers

will find the outcome of this study useful for economic planning especially, the major oil-exporting countries who depend solely on oil revenue. Furthermore, the role of exchange rate in the oil revenue-growth nexus is essential for policymaking. This will guide the government in these countries as to the exchange rate regime that is most suitable to protect the value of oil rent receipts for crude oil exports. Using the marginal effects approach, the findings for average, minimum and maximum rates of real exchange will guide the financial regulators in the economy in choosing the most suitable and favourable exchange rate policy for their respective countries.

In addition, the issue of Dutch Disease is still debated in the empirical literature, especially for developing oil-exporting countries. The new and more robust findings of this study would provide a more realistic and empirically proven effect of oil revenue on the agricultural sectors of these countries. Arguably, oil revenue renders the agricultural sector less attractive and promotes a strong currency for the domestic economy. The findings of this study would be useful for policymakers to devise better means of regulating the economy against a very strong currency which affects the exports of agricultural products emanating from their countries.

Finally, the tourism sector world over is booming in recent years and generates revenue for most developing countries. Interestingly, the large proportion of oil-exporting countries are from developing countries who have huge tourism potentials. Unfortunately, the tourism sector of these countries has faced neglect from the governments of these countries. The findings of this study would provide the potentials of the tourism sector and reveal the need for a renewed focus on the sector by major stakeholders. This will go a long way to attract revenue for the government to promote long-term economic growth and development. This study can also serve as reference for future researchers to expand empirical research on the oil price–tourism nexus. In addition, it adopts a robust econometric method to point out the nature of the relationship.

1.6   Organization of the Study

The remainder of this paper is organized as follows. Chapter 2 provides the theoretical and empirical reviews of the literature on the effect of oil price on economic growth, and the agriculture and tourism sectors. Chapter 3 describes the theoretical framework and empirical methodology for the research objectives. Chapter 4 presents the estimated results and discussion. Finally, Chapter 5 draws the conclusion and offers policy recommendations, along with the limitations of the study and directions for future research.

REFERENCES

Ackah, I. (2016). Sacrificing Cereals for Crude: Has oil discovery slowed agriculture growth in Ghana? *(No. 69953) Munich Personal RePEc Archive*.

Adams, S., Kwame, E., Klobodu, M., Evans, E., & Opoku, O. (2016). Energy consumption , political regime and economic growth in sub- Saharan Africa. *Energy Policy*, *96*, 36–44.

Ahmad, A. H., & Masan, S. (2015). Dynamic relationships between oil revenue , government spending and economic growth in Oman. *International Journal of Business and Economic Development*, *3*(2), 93–116.

Al-mulali, U., Fereidouni, H. G., Lee, J. Y., & Mohammed, A. H. (2014). Estimating the tourism-led growth hypothesis : A case study of the Middle East countries. *Anatolia*, *25*(2), 290–298.

Algieri, B. (2011). The Dutch disease: Evidences from Russia. *Economic Change and Restructuring*, *44*(3), 243–277.

Alkhathlan, K. a. (2013). Contribution of oil in economic growth of Saudi Arabia. *Applied Economics Letters*, *20*(4), 343–348.

Allcott, H., & Keniston, D. (2017). Dutch disease or agglomeration ? The local economic effects of natural resource booms in modern America. *The Review of Economic Studies, 85(2), 695-731.*

Amin, M. Y. (2011). Effect of Oil Price on the Stock Market Return and Volatility in Six Major Oil Exporting Countries,Universiti Putra Malaysia. (Master dissertation, Universiti Putra Malaysia)

Ammani, A. a. (2011). Nigeria's oil boom Period (1973-1983): Was agriculture really neglected? *International Journal of Statistics and Research*, *1*(1), 6–9.

Antonakakis, N., Dragouni, M., Eeckels, B., & Filis, G. (2015). Tourism and economic growth revisited: Empirical evidence from a Panel VAR approach. *Munich Personal RePEc Archive*, (67419).

Apergis, N., El-Montasser, G., Sekyere, E., Ajmi, A. N., & Gupta, R. (2014). Dutch disease effect of oil rents on agriculture value added in Middle East and North African (MENA) countries. *Energy Economics*, *45*, 485–490.

Arezki, B. R., & Blanchard, O. (2014). Seven Questions about the Recent Oil Price Slump.*The IMF Blog,* . https://blogs.imf.org/2014/12/22/seven-questions-about-the-recent-oil-price-slump/ .

Asteriou, D., & Monastiriotis, V. (2004). What do unions do at the large scale? Macro-economic evidence from a panel of OECD countries. J*ournal of Applied Economics,* 7(1), 27-46.

Auty, R. M. (2001). The political state and the management of mineral rents in capital-surplus economies: Botswana and Saudi Arabia. *Resources Policy*, 27(2), 77-86.

Ayadi, O. F. (2005). Oil price fluctuations and the Nigerian economy. *OPEC Review*, *29*(3), 199–217.

Baffes, J., Kose, M. A., Ohnsorge, F., & Stocker, M. (2015). The great plunge in oil prices: Causes, consequences, and policy responses.*World Bank Group. Development Economics. Policy Research Note* 9–10. http://dx.doi.org/10.2139/ssrn.2624398.

Bahar, D., & Santos, M. A. (2018). One more resource curse: Dutch disease and export concentration. J*ournal of Development Economics*, 132, 102-114.

Bakhtiari, S., & Haghi, Z. (2001). The Impact of Impact of Oil Revenue Increase on Iran's Agricultural Sector : A Case of Dutch Disease In Iran. *EQTESAD-E KESHAVARZI VA TOWSE'E*, *9*(3 (35)), 109–138.

Baltagi, B. H. (2008). Econometric analysis of panel data. Chichester, John Wiley & Sons.

Barnet, E. M. (1975). The impact of inflation on the travel market. *The Tourist Review,* 30(1), 2-5.

Barro, R. J. (1991). Economic growth in a cross section of countries. *The Quarterly Journal of Economics,* 106(2), 407-443.

Barro, R. J. (2016). Economic growth and convergence, applied to China. *China & World Economy,* 24(5), 5-19.

Bashir, F. (2015). Energy consumption and agriculture aector in middle income developing countries: A panel data analysis. *Pakistan Journal of Social Sciences (PJSS)*, 35(1), 479-496.

Basnet, H. C., & Upadhyaya, K. P. (2015). Impact of oil price shocks on output, inflation and the real exchange rate: Evidence from selected ASEAN countries. *Applied Economics,* 47(29), 3078-3091.

Becken, S. (2008). Developing indicators for managing tourism in the face of peak oil. *Tourism Management*, *29*(4), 695–705.

Becken, S. (2011). Oil, the global economy and tourism. *Tourism Review*, *66*(3), 65-72.

Becken, S. (2011b). A critical review of tourism and oil. *Annals of Tourism Research*, *38*(2), 359-379.

Becken, S. (2016). Peak oil: a hidden issue? Social representations of professional tourism perspectives. *Journal of Sustainable Tourism*, *24*(1), 31-51.

145

Becken, S., & Lennox, J. (2012). Implications of a long-term increase in oil prices for tourism. *Tourism Management*, *33*(1), 133-142.

Belloumi, M. (2010). The relationship between tourism receipts, real effective exchange rate and economic growth in Tunisia. *International Journal of Tourism Research*, *12*(5), 550-560.

Benjamin, N. C., Devarajan, S., & Weiner, R. J. (1989). The 'Dutch' disease in a developing country: Oil reserves in Cameroon. *Journal of Development Economics*, *30*(1), 71-92

Berry, D. (1978). Effects of urbanization on agricultural activities. *Growth and Change;* 9(3). https://doi.org/10.1111/j.1468-2257.1978.tb01024.x

Berry, S., & Jia, P. (2010). Tracing the woes: An empirical analysis of the airline industry. *American Economic Journal: Microeconomics*, *2*(3), 1–43.

Berument, M. H., Ceylan, N. B., & Dogan, N. (2010). The impact of oil price shocks on the economic growth of selected MENA countries. *Energy Journal*, *31*(1), 149–176.

Bhatia, M. S. (1999). Rural infrastructure and growth in agriculture. *Economic and Political Weekly,* 34(13), A43-A48.

Blanchard, O.J., Gali, J., 2010. The macroeconomic effects of oil price shocks: why are the2000s so different from 1970s? In: Gali, J., Gertler, M. (Eds.), *International Dimensions of Monetary Policy. University of Chicago Press, Chicago,* IL, pp. 373–428.

Brida, J. G., Lanzilotta, B., Lionetti, S., & Risso, W. A. (2010). Research note: The tourism-led growth hypothesis for Uruguay. *Tourism Economics,* 16(3), 765-771. https://doi.org/10.5367/000000010792278356

Brida, J. G., Lanzilotta, B., Pereyra, J. S., & Pizzolon, F. (2015). A nonlinear approach to the tourism-led growth hypothesis: The case of the MERCOSUR. *Current Issues in Tourism,* 18(7), 647-666.

Brida, J. G., Cortes-Jimenez, I., & Pulina, M. (2016). Has the tourism-led growth hypothesis been validated ? A literature review. *Current Issues in Tourism*, 19(5), 394–430. https://doi.org/10.1080/13683500.2013.868414

Brambor, T., Clark, W. R., & Golder, M. (2006). Understanding interaction models: Improving empirical analyses. *Political Analysis*, *14*(1), 63–82.

Bresser-pereira, L. C. (2008). The Dutch disease and its neutralization : A Ricardian approach. *Brazilian Journal of Political Economy*, *28*(1), 47–71.

Brown, S. P. a, & Yucel, M. K. (2002). Energy prices and aggregate economic activity: An interpretative survey. *Quarterly Review of Economics and Finance*, *42*(2), 193–208.

Brown, S. P. a, Yücel, M. K., & Reserve, F. (1999). Oil prices and US aggregate economic activity : A question of neutrality. *Economic and Financial Review*, Second Quarter, Dallas, TA, Federal Reserve Bank of Dallas, pp. 16–23..

Brückner, M. (2012). Economic growth, size of the agricultural sector, and urbanization in Africa. *Journal of Urban Economics*, 71(1), 26-36. https://doi.org/10.1016/j.jue.2011.08.004

Candemir, M. (2013). Oil price movements and macroeconomic variables: Evidence from high and upper middle income countries (*Doctoral dissertation, Eastern Mediterranean University (EMU)-Doğu Akdeniz Üniversitesi (DAÜ)*)..

Chao, M. C., Huang, W. H., & Jou, R. C. (2015). The asymmetric effects of gasoline prices on public transportation use in Taiwan. *Transportation Research Part D: Transport and Environment*, *41*, 75-87.

Chatziantoniou, I., Filis, G., Eeckels, B., & Apostolakis, A. (2013). Oil prices , tourism income and economic growth : A structural VAR approach for European Mediterranean countries. *Tourism Management*, *36*, 331–341.

Chavas, J. P. (2001). Structural change in agricultural production: Economics, technology and policy. *Handbook of Agricultural Economics*, 1, 263-285.

Chen, C., & Chiou-wei, S. Z. (2009). Tourism expansion , tourism uncertainty and economic growth : New evidence from Taiwan and Korea. *Tourism Management,* 30(6), 812–818. https://doi.org/10.1016/j.tourman.2008.12.013

Chen, S. S. (2009). Oil price pass-through into inflation. *Energy Economics, 31*(1), 126–133.

Cheng, K. M., Kim, H., & Thompson, H. (2013). The real exchange rate and the balance of trade in US tourism. *International Review of Economics & Finance*, 25, 122-12

Collier, P., Van Der Ploeg, R., Spence, M., & Venables, A. J. (2010). Managing resource revenues in developing economies. *IMF Staff Papers, 57*(1), 84–118. https://doi.org/10.1057/imfsp.2009.16

Cologni, A., & Manera, M. (2008). Oil prices, inflation and interest rates in a structural cointegrated VAR model for the G-7 countries. *Energy Economics*, *30*(3), 856–888.

Copeland, B. R. (1991). Tourism, welfare and de-industrialization in a small open economy. *Economica*,58(232), 515-529.

Corden, W. M. (1981). The exchange rate , monetary policy and North Sea oil : The economic theory of the squeeze on tradeables. *Oxford Economic Papers*, *33*, 23–46.

Corden, W. M. (1984). Booming sector and Dutch disease economics: Survey and consolidation *Oxford Economic Papers*, *36*(3), 359–380.

Corden, W. M., & Neary, J. P. (1982). Booming sector and deindustrialization in a small open economy. *The Economic Journal*, *92*(368), 825–848.

Cortés-Jiménez, I., Nowak, J. J., & Sahli, M. (2011). Mass beach tourism and economic growth : Lessons from Tunisia. *Tourism Economics*, *17*(3), 531–547.

Crouch, G. I. (1992). Effect of income and price on international tourism. *Annals of Tourism Research*, *19*(4), 643-664.

Cunado, J., & Perez de Gracia, F. (2005). Oil prices, economic activity and inflation: Evidence for some Asian countries. *Quarterly Review of Economics and Finance*, *45*(1), 65–83.

Davis, G. A. (1995). Learning to love the Dutch disease: Evidence from the mineral economies. *World Development*, *23*(10), 1765–1779.

De Santis, R. a. (2003). Crude oil price fluctuations and Saudi Arabia's behaviour. *Energy Economics*, *25*(2), 155–173.

Demetriades, P., & Hook Law, S. (2006). Finance, institutions and economic development. *International Journal of Finance & Economics*, *11*(3), 245-260.

Diao, X., Hazell, P., & Thurlow, J. (2010). The role of agriculture in African development. *World Development*, *38*(10), 1375–1383.

Donzelli, M. (2010). The effect of low-cost air transportation on the local economy: Evidence from Southern Italy. *Journal of Air Transport Management*, *16*(3), 121-126.

Dritsakis, N. (2012). Tourism development and economic growth in seven Mediterranean countries : A panel data apporoch. *Tourism Economics*, *18*(4), 801–816.

Dülger, F., Lopcu, K., Burgaç, A., & Ballı, E. (2013). Is russia suffering from dutch disease? Cointegration with structural break. *Resources Policy*, *38*(4), 605–612.

Dwyer, L., Forsyth, P., & Rao, P. (2002). Destination price competitiveness: Exchange rate changes versus domestic inflation. *Journal of Travel Research*, *40*(3), 328-336.

Edwards, S., & Aoki, M. (1983). Oil export boom and Dutch-disease: A dynamic analysis. *Resource and Energy*, *5*(3), 219–242.

Egert, B. (2012). Dutch Disease in the post-soviet countries of Central and South-West Asia : How contagious is it ? *Journal of Asian Economics*, *23*(5), 571–584.

El Anshasy, A. a., & Bradley, M. D. (2012). Oil prices and the fiscal policy response in oil-exporting countries. *Journal of Policy Modeling*, *34*(5), 605–620.

Elbadawi, brahim A. (2005). Reviving Growth in the Arab World. *Economic Development and Cultural Change*, *53*(2), 293–326.

Eltony, M. N., & Al-Awadi, M. (2001). Oil price fluctuations and their impact on the macroeconomic variables of Kuwait: A case study using a VAR model. *International Journal of Energy Research*, *25*(11), 939–959.

Emami, K., & Adibpour, M. (2012). Oil income shocks and economic growth in Iran. *Economic Modelling*, *29*(5), 1774–1779.

Esfahani, H. S., Mohaddes, K., & Pesaran, M. H. (2014). An empirical growth model for major oil exporters. *Journal of Applied Econometrics*, *29*(1), 1-21.

Esfahani, H. S., Mohaddes, K., & Pesaran, M. H. (2013). Oil exports and the Iranian economy. *Quarterly Review of Economics and Finance*, *53*(3), 221–237.

Fakhri, H. (2010). The Impact of Real Oil Price on Real Effective Exchange Rate: The Case of Azerbaijan. *DIW Berlin, German Institute for Economic Research*.Discussion Paper Series 1041, Available from: http://www.diw.de/documents/publikationen/73/diw_01.c.359129.de/dp1041.pdf.

Fardmanesh, M. (1991). Dutch disease economics and oil syndrome: An empirical study. *World Development*, *19*(6), 711–717

Farzanegan, M. R. (2011). Oil revenue shocks and government spending behavior in Iran. *Energy Economics*, *33*(6), 1055–1069. https://doi.org/10.1016/j.eneco.2011.05.005

Farzanegan, M. R., & Markwardt, G. (2009). The effects of oil price shocks on the Iranian economy. *Energy Economics*, *31*(1), 134–151.

Favara, G. (2003). An Empirical Reassessment of the Relationship between Finance and Growth. International Monetary Fund, (No. 3-123). https://ssrn.com/abstract=879199

Fiess, N. & Verner, D. (2001). Intersectoral Dynamics and Economic Growth in Ecuador*, World Bank Policy Research Working Paper 2514 (Washington, DC: The World Bank).* https://doi.org/10.1596/1813-9450-2514

Filis, G., & Chatziantoniou, I. (2013). Financial and monetary policy responses to oil price shocks: Evidence from oil-importing and oil-exporting countries. *Review of Quantitative Finance and Accounting*, *42*(4), 709–729

Frankel, J. A. (2010). The natural resource curse: A survey. *NBER,* No. 15836.

Franzese, R. J., Kam, C. D., & Jamal, A. A. (2007). Modeling and interpreting interactive hypotheses in regression analysis. *Michigan, USA: The University of Michigan Press*.

Fuinhas, J. A., Marques, A. C., & Couto, A. P. (2015). Oil rents and economic growth in oil producing countries: evidence from a macro panel. *Economic Change and Restructuring,* 48(3-4), 257-279.

Gelb, A. H. (1981). *C*apital-importing oil exporter*s:* Adjustment Issues and Policy Choices *World Bank Staff Working Paper* No: 475 (August), Washington, D.C.: The World Bank. https://www.osti.gov/biblio/5233836

Gardi, C., Panagos, P., Van Liedekerke, M., Bosco, C., & De Brogniez, D. (2015). Land take and food security: assessment of land take on the agricultural production in Europe. *Journal of Environmental Planning and Management*, 58(5), 898-912.

Ghura, D., & Pattillo, C. (2012). Macroeconomic policy frameworks for resource-rich developing countries. *International Monetary Fund, Washington, DC*.

Gollin, D., Parente, S. L., & Rogerson, R. (2002). The role of agriculture in development. *American Economic Review*, *92*(2), 160–164.

Gössling, S., Peeters, P., Ceron, J. P., Dubois, G., Patterson, T., & Richardson, R. B. (2005). The eco-efficiency of tourism. *Ecological Economics*, *54*(4), 417–434.

Gylfason, T. (2001). Natural resources , education , and economic development. *European Economic Review*, *45*(4–6), 847–859.

Gylfason, T., Herbertsson, T. T., & Zoega, G. (1999). A mixed blessing: Natural resources and economic growth. *Macroeconomic Dynamics*, *3*(2), 204-225.

Hafiz, M., Hanafiah, M., Fauzi, M., & Harun, M. (2010). Tourism demand in Malaysia : A cross-sectional pool time-series analysis. *International Journal of Trade, Economics and Finance*, *1*(2), 80-83.

Hamilton, J. D. (1983). Oil and the macroeconomy since World War II. *Journal of Political Economy*, *91*(2), 228-248.

Hamilton, J. D. (1988). Are the macroeconomic effects of oil-price changes symmetric ?.*Carnegie-Rochester Conference Series on Public Policy*, *28*, 369–378. https://doi.org/10.1016/0167-2231(88)90031-0

Hamilton, J. D. (2009). Causes and Consequences of the Oil Shock of 2007-08. *NBER,(No.w1002)*

Hamilton, J. D. (2011). Historical oil shocks . *NBER*. No.16790.

Hamilton, J. D. (2011). Nonlinearities and the macroeconomic effects of oil prices. *Macroeconomic Dynamics*, *15*(S3), 364-378.

Harberger, A. C. (1983). Dutch disease—how much sickness, how much boon?. *Resources and Energy*, 5(1), 1-20..

Harding, T., & van der Ploeg, F. (2009). Is Norway's bird-in-hand stabilization fund prudent enough? Fiscal Reactions to Hydrocarbon Windfalls and Graying Populations.*CESifo Working Papers*, (2830) https://ssrn.com/abstract=1494895

Hasanov, F. (2013). Dutch disease and the Azerbaijan economy. *Communist and Post-Communist Studies*, *46*(4), 463–480.

Hausman, J. A. (1978). Specification tests in econometrics. *Econometrica: Journal of the Econometric Society*, *46*(6), 1251–1271.

Hausmann, R., & Rigobon, R. (2003). An alternative interpretation of the'resource curse': Theory and policy implications . *National Bureau of Economic Research*, ((No. w9424)). (DOI): 10.3386/w9424

Hazari, B. R., & Sgro, P. M. (1995). Tourism and growth in a dynamic model of trade. *Journal of International Trade and Economic Development,* 4(2), 243–252.

Hooker, M. A. (1996). This is what happened to the oil price-macroeconomy relationship: Reply. *Journal of Monetary Economics*, *38*(2), 295–213.

Hou, Z., Keane, J., Kennan, J., & te Velde, D. W. (2015). The oil price shock of 2014: Drivers, impacts and policy implications.Working Paper,No. 415. London: Overseas Development Institute

Idrisov, G., Kazakova, M., & Polbin, A. (2015). A theoretical interpretation of the oil prices impact on economic growth in contemporary Russia ́. *Russian Journal of Economics*, *1*(3), 257–272.

Iimi, A. (2006). Did Botswana escape from the resource curse? *IMF Working Papers*, 6(138), 1-33. https://www.imf.org/en/Publications/WP/Issues/2016/12/31/Did-Botswana-Escape-from-the-Resource-Curse-19207

Im, K. S., Pesaran, M. H., & Shin, Y. (2003). Testing for unit roots in heterogeneous panels. *Journal of Econometrics*, *115*(1), 53–74.

IMF. (2008). World Economic Outlook: Financial Stress,Downturns, and Recoveries. *International Monetary Fund.* Washington, DC. https://www.bookstore.imf.org/books/title/world-economic-outlook-october-2008

Isham, J., Woolcock, M., Pritchett, L., & Busby, G. (2005). The varieties of resource experience: natural resource export structures and the political economy of economic growth. *The World Bank Economic Review*, *19*(2), 141-174.

Ismail,K., 2010. The Structural Manifestation of the 'Dutch Disease': The case of oil exporting countries. IMF Working Paper WP/10/103, 1-36, https://www.imf.org/~/media/Websites/IMF/imported-full-text-pdf. .

Iwayemi, A., & Fowowe, B. (2011). Impact of oil price shocks on selected macroeconomic variables in Nigeria. *Energy Policy*, *39*(2), 603–612.

Ivanov, S., & Webster, C. (2007). Measuring the impact of tourism on economic growth. *Tourism Economics*, 13(3), 379-388.

Jahan-Parvar, M. R., & Mohammadi, H. (2011). Oil prices and real exchange rates in oil-exporting countries: a bounds testing approach. *The Journal of Developing Areas*, *45*, 309–318.

Jbir, R., & Zouari-Ghorbel, S. (2011). Oil price and dutch disease: The Case of Algeria. *Energy Sources, Part B: Economics, Planning, and Policy*, *6*(3), 280–293.

Jiménez-Rodríguez, R., & Sanchez, M. (2005). Oil price shocks and real GDP growth: empirical evidence for some OECD countries. *Applied Economics*, *37*(2), 201–228.

Johansen, S. (1995). Likelihood-based inference in cointegrated vector autoregressive models. (Oxford: *Oxford University Press*. https://www.oxfordscholarship.com/view/10.1093/0198774508.001.0001/acprof-9780198774501

Katircioglu, S. T. (2009). Revisiting the tourism-led-growth hypothesis for Turkey using the bounds test and Johansen approach for cointegration. *Tourism Management,* 30(1), 17–20. https://doi.org/10.1016/j.tourman.2008.04.004

Kao, C. (1999). Spurious regression and residual-based tests for cointegration in panel data. *Journal of Econometrics*, *90*(1), 1–44.

Khatoon, S., & Mehdi, S. A. (2013). Rural indian economics–supplementing agriculture with tourism for development. *Journal of Indian Research*, *1*(4), 43–52.

Koranchelian, T. (2005). The equilibrium real exchange rate in a commodity exporting country: Algeria's Experience. *International Monetary Fund, IMF* Working Paper, 05/135.https://www.imf.org/~/media/Websites/IMF/imported-full-text-pdf.

Korhonen, I., & Juurikkala, T. (2009). Equilibrium exchange rates in oil-exporting countries. *journal of Economics and Finance, 33*(1), 71–79

Korstanje, M. E., Tzanelli, R., & Clayton, A. (2014). Brazilian World cup 2014: Terrorism, tourism, and social conflict. *Event Management*, *18*, 487–491.

152

Krugman, P. (1987). The narrow moving band, the Dutch disease, and the competitive consequences of Mrs. Thatcher: Notes on trade in the presence of dynamic scale economies. *Journal of Development Economics*, *27(1-2)*, 41–55.

Lama, R., & Medina, J. P. (2012). Is exchange rate stabilization an appropriate cure for the Dutch disease. *International Journal of Central Banking*, *8*(1), 5-46.

Lane, B. W. (2012). A time-series analysis of gasoline prices and public transportation in US metropolitan areas. *Journal of Transport Geography*, *22*, 221–235.

Lanquar, R. (2011). *Tourism in the Mediterranean : Scenarios up to 2030. MEDPRO Report* No. 1.http://dx.doi.org/10.2139/ssrn.2000717.

Lanza A., Pigliaru F. (2000) Why are Tourism Countries Small and Fast-Growing? *In: Fossati A., Panella G. (eds) Tourism and Sustainable Economic Development. Springer, Boston, MA*. https://doi.org/10.1007/978-1-4615-4321-3_3

Larsen, E. R. (2006). Escaping the resource curse and the dutch disease? *American Journal of Economics and Sociology*, *65*(3), 605–640.

Leite, C. A., & Weidmann, J. (1999). Does mother nature corrupt? Natural resources ,corruption, and economic growth I*MF Working Paper* WP/99/85. http://www.imf.org/external/pubs/ft/wp/1 999/wp9985.pdf).

Levin, A., Lin, C. F., & Chu, C. S. J. (2002). Unit root tests in panel data: asymptotic and finite-sample properties. *Journal of Econometrics*, *108*(1), 1-24.

Liew, V. K. S. (2004). Which lag length selection criteria should we employ ? *Economics Bulletin*, 3(33), 1–9

Loayza, N. V, & Rancière, R. (2006). Financial development , financial fragility, and growth. *journal of Money, Credit and Banking*, *38*(4), 1051–1076..

Maddala, G. S., & Wu, S. (1999). A comparative study of unit root tests with panel data and a new simple test. *Oxford Bulletin of Economics and Statistics*, *61*(S1), 631-652.

Mansfeld, Y., & Winckler, O. (2007). The tourism industry as an alternative for the GCC oil-based rentier economies. *Tourism Economics*, *13*(3), 333–360.

Masson, S., & Petiot, R. (2009). Can the high speed rail reinforce tourism attractiveness? The case of the high speed rail between Perpignan (France) and Barcelona (Spain). *Technovation*, *29*(9), 611–617.

Meade, J. E., & Russell, E. A. (1957). Wage rates, the cost of living, and the balance of Payments. *Economic Record*, *33*(64), 23–28.

Mehdi, S., & Reza, M. (2011). A study examining the effect of oil exports on agricultural value added in Iran., 2(1), 10-17. *Journal of Education and Vocational Research*, *2*(1), 10–17.

Mehrara, M., & Mohaghegh, M. (2011). Macroeconomic dynamics in the oil exporting countries: a panel VAR study. *International Journal of Business and Social Science*, 2(21).

Mehrara, M., & Sarem, M. (2009). Effects of oil price shocks on industrial production: evidence from some oil-exporting countries. *OPEC Energy Review*, *33*(3–4), 170–183.

Mohammadi, H., & Jahan-Parvar, M. R. (2012). Oil prices and exchange rates in oil-exporting countries: Evidence from TAR and M-TAR models. *Journal of Economics and Finance*, *36*(3), 766–779.

Moradi, M., Salehi, M., & Keivanfar, M. (2010). A study of the effect of oil price fluctuation on industrial and agricultural products in Iran. *Asian Journal on Quality*, *11*(3), 303–316.

Morakabati, Y., Beavis, J., & Fletcher, J. (2014). Planning for a Qatar without oil : Tourism and Economic Diversification , a Battle of Perceptions. *Tourism Planing and Development*, 11(4), 415–43.

Mork, K. A. (1989). Oil and the macroeconomy when prices go up and down: An extension of Hamilton's results. *Journal of Political Economy*, 97(3), 740-744.

Moshiri, S. (2015). Asymmetric effects of oil price shocks in oil-exporting countries: the role of institutions. *OPEC Energy Review*, *39*(2), 222–246.

Mundlak, Y. (2001). Production and supply. H*andbook of Agricultural Economics*, 1, 3-85.

Nazlioglu, S. (2011). World oil and agricultural commodity prices: Evidence from nonlinear causality. *Energy Policy*, *39*(5), 2935–2943.

Nazlioglu, S., & Soytas, U. (2012). Oil price, agricultural commodity prices, and the dollar: A panel cointegration and causality analysis. *Energy Economics*, *34*(4), 1098–1104.

Nelson, L. A., Dickey, D. A., & Smith, J. M. (2015). Estimating time series and cross section tourism demand models : Mainland United States to Hawaii data. *Tourism Management*, *32*(1), 28–38.

Noland, M., & Pack, H. (2007). *The Arab economies in a changing world*. Peterson Institute.

Nusair, S. A. (2016). The effects of oil price shocks on the economies of the Gulf Co-operation Council countries: Nonlinear analysis. *Energy Policy*, *91*, 256–267.

Ogunlesi, A. O., & Bokana, K. G. (2018). Dynamics of agricultural productivity in Sub-Saharan Africa: A panel-ARDL model approach. Acta Universitatis Danubius.*,* 14(3), 148-172.

O'Sullivan, A., Rey, M. E., & Mendez, J. G. (2011). Opportunities and challenges in the MENA Region. *Arab World Competitiveness Report*, 42-67. www.oecd.org/mena/49036903.pdf

Oh, C. (2005). The contribution of tourism development to economic growth in the Korean economy. *Tourism Management*, *26*(1), 39–44.

Oludiran, S., Akinleye, S. O., & Ekpo, S. (2013). Oil price shocks and macroeconomic performance in Nigeria. *Economia Mexicana*, 2, 565–624.

Olusi, J. O., & Olagunju, M. A. (2005). The Primary Sectors of the economy and the Dutch disease in Nigeria. *The Pakistan Development Review*, 44 (2),159-175

Omgba, L. D. (2011). Oil wealth and non-oil sector performance in a developing country: Evidence from Cameroon. *Oxford Development Studies*, *39*(4), 487–503.

Oomes, N., & Kalcheva, K. (2007). Diagnosing Dutch disease: does Russia have the symptoms? *International Monetary* Fund. Working Paper No. 07/102. https://www.imf.org/~/media/Websites/IMF/imported-full-text-pdf.

OPEC. (2015). *World Oil Outlook*. *Organization of the Petroleum Exporting Countries.* www.opec.org.

Ouerfelli, C. (2008). Co-integration analysis of quarterly European tourism demand in Tunisia. *Tourism Management*, *29*(1), 127–137.

Oyejide, T. A. (1986). The effects of trade and exchange rate policies on agriculture in Nigeria. *Intl Food Policy Res Inst*, No 55. http://www.ifpri.org/publication/effects-trade-and-exchange-rate-policies-agriculture-nigeria.

Papalia, R. B., & Bertarelli, S. (2013). Nonlinearities in economic growth and club convergence. *Empirical Economics,* 44(3), 1171-1202.

Payne, J. E., & Mervar, A. (2010). Research note : The tourism – growth nexus in Croatia. *Tourism Economics*, *16*(4), 1089–1094.

Pedroni, P. (1999). Critical values for cointegration tests in heterogeneous panels with multiple regressors. *Oxford Bulletin of Economics and statistics*, *61*(S1), 653-670.

Pedroni, P. (2004). Panel cointegration: asymptotic and finite sample properties of pooled time series tests with an application to the PPP hypothesis. *Econometric Theory*, *20*(3), 597-625.

Pei, T. L., Shaari, Shahidan, M., & Abdul Rahim, H. (2013). Effects of oil price shocks on the economic sectors in Malaysia. *International Journal of Energy Economics and Policy*, *3*(4), 360–366.

155

Pesaran, M. H., & Smith, R. (1995). Estimating long-run relationships from dynamic heterogeneous panels. *Journal of Econometrics*, *68*(1), 79–113.

Pesaran, M. H., Shin, Y., & Smith, R. J. (2001). Bounds testing approaches to the analysis. *Journal of Applied Econometrics*, *16*(3), 289–326

Pesaran, M. H., Shin, Y., & Smith, R. P. (1999). Heterogeneous panels Pooled Mean Group estimation of dynamic heterogeneous panels. *Journal of the American Statistical Association*, *94*(446), 621–634.

Pesaran, M. H., & Shin, Y. (1998). An autoregressive distributed lag modelling approach to cointegration analysis. *Econometrics and Economic Theory in 20th Century : the Ragnar Frisch Centennial Symposium. Cambridge University Press, Cambridge,371-413.* https://doi.org/10.1017/CCOL521633230.011

Pesaran, M. H. (1997). The role of economic theory modelling the long run. *The Economic Journal*, *107*(440), 178–191.

Phillips, P. C., & Hansen, B. E. (1990). Statistical inference in instrumental variables regression with I (1) processes. *The Review of Economic Studies*, *57*(1), 99–125.

Pinto, B. (1987). Nigeria during and after the oil boom: A policy comparison with Indonesia. *World Bank Economic Review*, *1*(3), 419–445.

Quadri, D. L., & Zheng, T. (2010). A revisit to the impact of exchange rates on tourism demand : The case of Italy. *The Journal of Hospitality Financial Management*, *18*(2), 47–60.

Ramey, G., & Ramey, V. A. (1995). Cross-country evidence on the link between volatility and growth. *American Economic Association*, *85*(5), 1138–1151.

Richards, G. (2011). Tourism development trajectories- from culture to creativity ? *Tourism & Management Studies*, *6*, 9–15.

Robert M . Solow. (1956). A contribution to the theory of economic growth source : *The Quarterly Journal of Economics*, *70*(1), 65–94.

Rodrik, D. (2008). The real exchange rate and economic growth. *Brookings Papers on Economic Activity,* (2), 365-412. 10.1353/eca.0.0020.

Rosegrant, M. W., Kasryno, F., & Perez, N. D. (1998). Output response to prices and public investment in agriculture: Indonesian food crops. *Journal of Development Economics*, *55*(2), 333–352.

Rudd, C. D. (1996). An empirical analysis of Dutch disease *: Developing and developed countries. John Wesley Powell Student Research, 7th Annual JWP Conference.* http://digitalcommons.iwu.edu/jwprc/1996/posters/16

Sachs, J. D., & Warner, A. M. (1995). Natural resource abundance and economic growth. *National Bureau of Economic NBER Working Paper* No. w5398. https://ssrn.com/abstract=225459.

Sachs, J. D., & Warner, A. M. (2001). The curse of natural resources. *European Economic Review*, *45*(4), 827–838.

Sakai, M. (2006), Public sector investment in tourism infrastructure, *International Handbook on the Economics of Tourism*, Edward Elgar Publishing Ltd, Cheltenham, pp 266–279.

Samargandi, N., Fidrmuc, J., & Ghosh, S. (2015). Is the relationship between financial development and economic growth monotonic? Evidence from a sample of middle-income countries. *World Development*, 68, 66-81.

Santana-Gallego, M., Ledesma-Rodríguez, F. J., & Pérez-Rodríguez, J. V. (2010). Exchange rate regimes and tourism. *Tourism Economics*, *16*(1), 25–43.

Sarmidi, T., Law, S. H., & Jafari, Y. (2014). Resource curse : New evidence on the role of institutions. *International Economic Journal*, *28*(1), 191–206.

Seghir, G. M., Mostéfa, B., Abbes, S. M., & Zakarya, G. Y. (2015). Tourism spending-economic growth causality in 49 countries: A dynamic panel data approach. *Procedia Economics and Finance*, 23, 1613-1623. https://doi.org/10.1016/S2212-5671(15)00402-5

Sekumade, a B. (2009). The effects of petroleum dependency on agricultural trade in Nigeria: An error correlation modeling (ECM) approach. *Scientific Research and Essay*, *4*(11), 1385–1391.

Seo, J. H., Park, S. Y., & Yu, L. (2009). The analysis of the relationships of Korean outbound tourism demand: Jeju Island and three international destinations.*Tourism Management*, 30(4): 530-543

Shin, Y. (2014). Dynamic Panel Data Workshop, University of Melbourne.

Spatafora, N., & Stavrev, E. (2003). The equilibrium real exchange rate in a commodity exporting country: The case of Russia. *IMF Working Paper No. 03/93, 1-22.* https://www.imf.org/~/media/Websites/IMF/imported-full-text-pdf.

Steinnes, D. N. (1988). A statistical analysis of the impact of oil price shocks on tourism. *Journal of Travel Research*, *27*(2), 39–42.

Suleiman M. (2013). Oil demand , oil prices , economic growth and the resource curse : An empirical analysis. *Thesis submitted to Surrey Energy Economics Centre (SEEC),University of Surrey.* www.seec.surrey.ac.uk

Tang, C. F., & Abosedra, S. (2014). The impacts of tourism , energy consumption and political instability on economic growth in the MENA countries. *Energy Policy*, *68*(1), 458–464.

Tang, C. H., & Shawn Jang, S. (2009). The tourism – economy causality in the United States : A sub-industry level examination. *Tourism Management,* 30(4), 553–558. https://doi.org/10.1016/j.tourman.2008.09.009

Tang, J., Sriboonchitta, S., Ramos, V., & Wong, W. K. (2016). Modelling dependence between tourism demand and exchange rate using the copula-based GARCH model. *Current Issues in Tourism*, *19*(9), 876–894.

Tazhibayeva, K., & Ter-Martirosyan, A. (2008). Fiscal policy and economic cycles in oil-exporting countries. *IMF Working Paper No. 08/253.* https://www.imf.org/~/media/Websites/IMF/imported-full-text-pdf.

Van Wijnbergen, S. (1984). Inflation , employment , and the dutch disease in oil-exporting countries : A Short-Run Disequilibrium Analysis. *The Quarterly Journal of Economics, 99*(2), 233–250.

Venables, A. J. (2016). Using natural resources for development : Why Has It Proven So Difficult ? *Journal of Economic Perspectives*, *30*(1), 161–184.

Vita, G. De. (2014). The long-run impact of exchange rate regimes on international tourism fl ows. *Tourism Management*, *45*, 226–233.

Vita, G. De, & Kyaw, K. S. (2013). Role of the exchange rate in tourism demand. *Annals of Tourism Research*, *43*, 624–627.

Watts, M. (1984). State , oil , and accumulation ; from boom to crisis. *Environment and Planning D: Society and Space*, *2*(4), 403–428.

Webber, A. G. (2001). Exchange rate volatility and cointegration in tourism demand. *Journal of Travel Research*, *39*(4), 398–405.

Wijnbergen, S. van. (1984). The ` Dutch Disease ': A Disease After All ? *The Economic Journal*, *94*(373), 41–55.

Williams, A. (2011). Shining a light on the resource curse : An empirical analysis of the relationship between natural resources , transparency , and economic growth. *World Development*, *39*(4), 490–505.

Williams, J. L. (2011). Oil price history and analysis. *WTRG Economics*. http://www.wtrg.com/prices.htm

Yeoman, I., Lennon, J. J., Blake, A., Galt, M., Greenwood, C., & Mcmahon-beattie, U. (2007). Oil depletion : What does this mean for Scottish tourism ? *Tourism Management*, *28*(5), 1354–1365.

Younis, A. Ahmed. (2014). Role of the tourism sector in the Iraqi. (Unpublished doctoral dissertation). Univirsti Putra Malaysia, Selangor Malaysia.