



# **DETERMINANTS OF FOREIGN DIRECT INVESTMENT IN COMMERCIAL REAL ESTATE AND HOTEL SECTORS FOR SELECTED MENA COUNTRIES**

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## **ABSTRACT**

Developed, maturing, and emerging market countries are making considerable progress in the legal and institutional reforms necessary to allow and facilitate real estate and tourism (specifically hotel) foreign direct investment (FDI). From a political perspective, countries used to view real estate as one of the “crown jewels” of an economy (Lynn, 2007). No longer does this view hold consistently across countries as countries have recently recognised that real estate and hotel FDI is a way to encourage fixed capital investment, create jobs, and to introduce best practices from multinational corporations.

The purpose of this research is to identify the main determinants of foreign direct investment (FDI) in the commercial real estate (CRE) as well as hotel sectors, in selected Middle Eastern countries.

Utilising existing theories of FDI, a set of determinants (drivers and barriers) were selected to be empirically tested, utilising Dunning’s (Ownership-Location-Internalisation-OLI) eclectic paradigm. As Dunning consider FDI for all industries with a special focus on the manufacturing industry, this research enlarges the scope by commercial real estate and hotels specific considerations. This research utilises the Location dimension of Dunning framework as a basis to explain the determinants of FDI in the CRE and hotel sectors.

The literature on both real estate and hotel FDI relies heavily on collecting primary data through surveys; recently however, very few studies (including He & Zhu (2010); He, Wang, & Cheng (2009); Anop (2010) and Rodríguez & Bustillo (2008)) have utilised the availability of data in real estate and started constructing econometric models with the aim of testing set hypotheses. This research fills a gap in the literature by utilising secondary data to develop and test different econometric models, using data from various sources.



The empirical work of this research therefore consists of two parts: the first is an econometric analysis of FDI in commercial real estate for eight Middle Eastern and North African (MENA) markets namely, Algeria, Egypt, Morocco, Qatar, Saudi Arabia, Turkey, Tunisia and the UAE during 2003-2009; the second part is an econometric analysis of FDI in hotels for the same countries for the same time period. The econometric analysis is carried out using the pooled Tobit model technique, for panel data, which uses both time-series and cross-sectional data.

The findings for the econometric analysis of FDI in commercial real estate shows that country specific factors (i.e. economic health, standards of living and levels human development as well as political stability and absence of violence) as well as real estate sector-specific variables (size of institutional real estate market), are significant variables and consistently support their hypotheses as explanations for commercial real estate related FDI for the selected MENA countries.

The second part of the econometric analysis related to determinants of FDI in hotel greenfield projects, reveals that country specific factors (i.e. taxation environment, human development level and real growth of economy and political stability and absence of violence and terrorism) as well as hotel sector-specific variables (i.e. real visitor expenditure and level of investment freedom); are significant and consistently support their hypotheses as explanations for hotel FDI. These indicators are found to provide a good explanation of location decision-making in both commercial real estate and hotel sectors.

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**LIST OF ABBREVIATIONS**

Abbreviation	Definition
<b>CBD</b>	Central Business District
<b>CPI</b>	International Corruption Perception Index
<b>CRE</b>	Commercial real estate
<b>EIU</b>	Economist Intelligence Unit
<b>FDI</b>	Foreign direct investment
<b>FE</b>	Fixed effects regression
<b>FPI</b>	Foreign portfolio investment
<b>GAV</b>	Gross Asset Value
<b>GCC</b>	Cooperation Council for the Arab States of the Gulf
<b>GDP</b>	Gross Domestic Product
<b>GRET index</b>	Global Real Estate Transparency Index
<b>HDR</b>	Human Development Report
<b>ICRG</b>	The international country risk guide
<b>IMF</b>	The International Monetary Fund
<b>IPD</b>	Investment Property Databank
<b>JLL</b>	Jones Lang LaSalle
<b>JV</b>	Joint venture
<b>LIM</b>	LaSalle Investment Managers
<b>MENA</b>	Middle East and North Africa
<b>MNC's/ MNEs</b>	Multi-national Companies/ Enterprises
<b>MPT</b>	Modern Portfolio Theory
<b>M&amp;A's</b>	Mergers and Acquisitions
<b>OLI framework</b>	Dunning's (Ownership-Location-Internalisation) Electric Paradigm
<b>OLS</b>	Ordinary least square
<b>OPLI framework</b>	Ownership-Portfolio-Location-Internalisation framework



<b>POLS</b>	Pooled ordinary least square
<b>PR index</b>	Property Rights index
<b>PRS Group</b>	Political Risk Services Group
<b>RE</b>	Random effects regression
<b>REITs</b>	Real Estate Investment Trusts
<b>REP index</b>	Real Estate Potential index
<b>SSS</b>	Sand, sun and sky.
<b>UAE</b>	United Arab Emirates
<b>UNCTAD</b>	The United Nations Conference on Trade and Development
<b>UNDP</b>	United Nations Development Programme
<b>VAT</b>	Value At Tax
<b>WEF</b>	World Economic Forum
<b>WGI</b>	The Worldwide Governance Indicators
<b>WO</b>	Wholly-owned company
<b>WTO</b>	World Trade Organisation
<b>WTTC</b>	The World Travel and Tourism Council

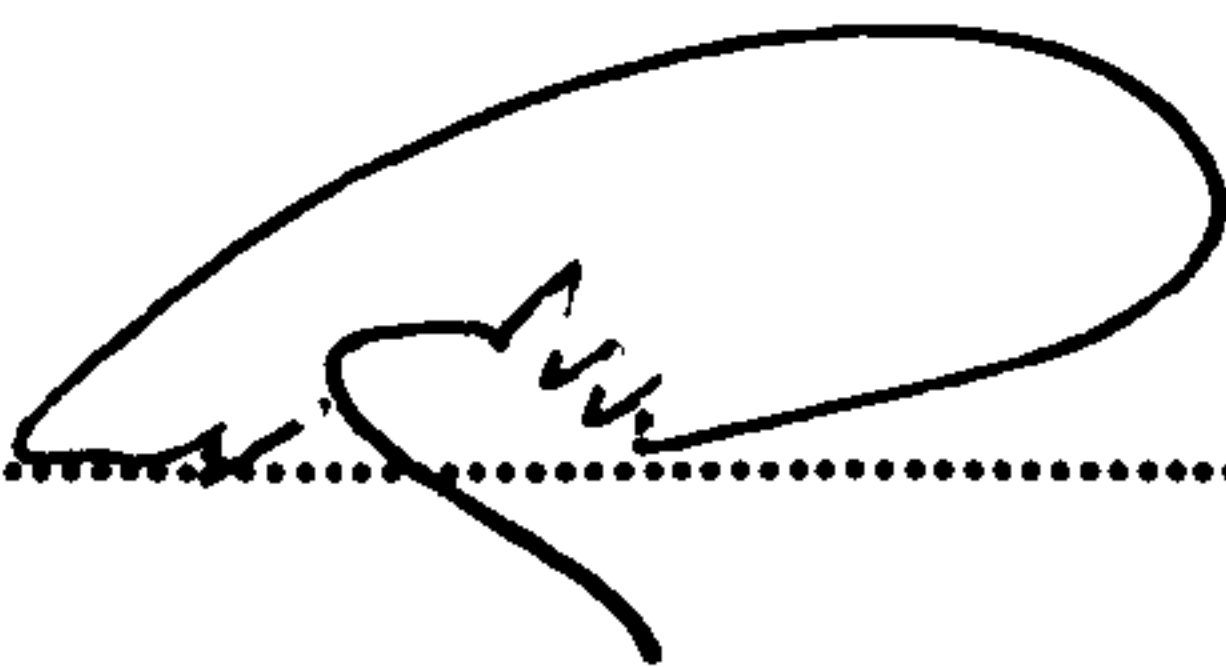


**DECLARATION**

This is to certify that;

- 1. This thesis embodies the author's research.
- 2. The originality (and contribution to knowledge) rests solely with the author.

Signature of candidate:.....



Date:.....

12<sup>th</sup> June, 2011

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*To my son Bader*

# **I. CHAPTER ONE: INTRODUCTION**

## **I.1 INTRODUCTION TO THE RESEARCH**

Developed, maturing, and emerging market countries are making tremendous progress in the legal and institutional reforms necessary to allow and facilitate real estate and tourism (specifically hotel) foreign direct investment (FDI). From a political perspective, countries used to view real estate as one of the “crown jewels” of an economy (Lynn, 2007). No longer does this view hold consistently across countries as countries have recently recognised that real estate and hotel FDI is a way to encourage fixed capital investment, create jobs, and introduce best practices from multinational corporations.

Thus far, mainstream theories of FDI in relation to ‘real estate’ are inadequate and fail to explain whether foreign real estate investments are considered as FDI. Until recently, Dunning & Lundan (2008, p.76) believe that there is not much that the academic scholars can do about it, as they point out that although the investment is ‘classified’ as direct, the motives of the purchases have the attributes of portfolio investment.

They clarify this by describing direct real estate investments as ‘passive’ investments and that they are primarily financially motivated, through expectations of future land and property values, and they argue that the ‘foreignness’ impact on the use of these assets are limited. However, it must be noted that investing in ‘greenfield’ developments entails fixed capital investment, create jobs, and introduces best practices from multinational corporations (D’Arcy, 2009). And therefore, this research will mainly focus on greenfield projects for both commercial real estate (hereafter, CRE) and hotel developments, as they can be considered as FDI and hence mainstream theories can explain their attributes and determinants.

Using existing theories of FDI, a set of determinants were selected to be empirically tested, utilising Dunning's Eclectic Paradigm. As Dunning consider FDI for all industries with a special focus on the manufacturing industry, this research enlarges the scope by CRE and hotels specific considerations.

Many research methods can be employed to achieve the main aim of the research, including interviews, questionnaires as well as utilising secondary data to build econometric models, with the aim of testing set of hypotheses.

The literature on both real estate and hotel FDI relies heavily on collecting primary data through surveys; recently however, very few studies (including He & Zhu (2010); Anop (2010) and Rodríguez & Bustillo (2008)) have utilised the availability of data in real estate and started building econometric models with the aim of testing set hypotheses. This research fills a gap in the literature by utilising secondary data to develop and test different econometric models, using data from various sources. As this research intends to investigate both CRE and hotels FDI's made for specific (and longest) period of time (i.e. from 2003-2009). The research employs different dependant and independent variables for both CRE and hotel investments.

The following section presents the key definitions for terms used in this research.

## **1.2 KEY DEFINITIONS**

There are several definitional issues related to key terms referenced and used within the research. For instance, what is property, what types are included in the research? What is foreign direct investment (hereafter FDI) in the context of real estate and hotel sectors? What defines a foreign capital flow, why focus on Middle Eastern economies, are several matters that require further clarification.

The main motive for choosing the MENA real estate and hotel sectors was the scarcity of empirical work in this region. Very limited academic literature in the body of knowledge, and they are mainly related to aggregate FDI determinants. Further,



responses to the exploratory study have shown enthusiasm about investing in certain MENA countries. Another influential factor was essentially the availability of data in the selected countries.

The study separates CRE (only office and retail) from hotel sectors. Primarily, the real estate sector is divided into four asset classes - office, retail, residential and industrial. Hotels however, have not been regarded as commercial real estate asset class for a variety of reasons (Newell & Seabrook, 2006): the lack of understanding of the industry by investors; very volatile when compared to other property asset classes, resulting from unstable cash-flows; and difficulty in having a quick exit strategy.

Another reason for this separation is the fact that CRE and hotel investors have different motives and barriers when venturing into these sectors (see Chapter two for details of the many determinants of investing in both sectors). For instance, hotel investors are more concerned with tourism demand and the development of the tourism industry, while CRE investors could be more concerned with population growth and levels of employment. The separation therefore is crucial to understanding the behaviour of both types of investors.

The study however, does not examine the other two sectors (i.e. residential and industrial), as the main source of data (fDi Intelligence only covers office and retail related projects). There is only one exception where 'residential' properties may be included, and this where they are under the 'mixed-used' project category.

Within this research, 'property' or 'real estate' is defined and limited to non-residential and non-industrial fixed assets of office, retail and mixed-used buildings. This definition generically applies throughout the thesis. As all the discussion throughout the thesis as well as for the primary database is restricted to CRE and hotel buildings to be constructed and/or to be renovated and owned (partially or in full) by foreign entities, in the period (Q1-2003 to Q4-2009), for all Algeria, Egypt, Morocco, Qatar, Tunisia, Turkey, Saudi Arabia and United Arab Emirates.

In this research property investment is used in the real sense of a physical structure being constructed. It is not 'investment' in the sense used in property finance (Ball, Lizieri, & MacGregor, 1998). A property market is also defined here as the economic agents involved in the creation and operation of commercial real estate, which includes developers, contractors, brokers, property managers, and also environmental, legal, regulatory and financial factors that have a direct and indirect relationship with the evolution and maturity of the property market (Ball, Lizieri, & MacGregor, 1998) .

There are many definitions of FDI in the current body of knowledge. However, because this study is more concerned with 'sectoral FDI', a tailored definition has to be considered, and therefore, this research defines FDI as 'the direct investment announced and committed by foreign commercial real estate and hotel investors in a host country, which will result in creating a new asset or expanding of an existing asset which will entail capital investment and create jobs.'

In this research, only greenfield (new assets) and expansions of existing projects are considered where additional investment and jobs are created. Joint ventures are also included in the research where they lead to a new physical (greenfield) operation. Mergers & acquisitions (M&A) and other equity investments are not included as part of this research. Appendix 8.1 summarises the key definitions that will be used throughout the research.

### **1.3 AREA AND AIM OF THE STUDY**

This work is being driven because of the lack of understanding in theoretical and practical terms about determinants (drivers and barriers) of FDI in sectors such as real estate and hotels (D'Arcy, 2009) and (Baum & Murray, 2010). This research tries to fill this gap by identifying and explaining the factors that influence FDI in CRE and hotel sectors in selected Middle Eastern and North African (MENA) countries.

Among the many factors, market openness, maturity and transparency which are believed to be some of the obstructing issues. In this vein, the international real estate investment and hotel FDI literature have revealed several arguments claiming that foreign investors are more attracted to mature markets and avoid less developed and opaque markets (Lee, 2005) and (Baum, 2008). If we accept this argument, the question that led to this research is easily answered. We could then hold market immaturity and/ or opacity responsible to explain the inflow of FDI into CRE and hotels into MENA countries (see Chapter 5.3 for details about FDI inflows). However, it was believed that the existing determinants must be empirically investigated, tested and justified. Therefore, econometric models are developed to explain the determinants of FDI in the MENA countries in both CRE and hotels sectors.

This study therefore aims at examining the determinants (drivers and barriers) that explain foreign capital flows into eight selected MENA markets in both sectors (i.e. commercial real estate sector and the hotel sector).

In order to achieve the research aim, the following broad objectives are devised:

**Objective#1.** To develop theoretical frameworks considering the key determinants (drivers and barriers) to FDI in commercial real estate as well as FDI in hotels.

- a. To critically assess the theoretical underpinnings to international real estate and hotel investments.
- b. To thoroughly review the literature on determinants of foreign direct investments in both the CRE and hotel sectors.

**Objective#2.** To provide an overview on the selected MENA countries

- a. To position the MENA region in relation to other continents in the globe.
- b. To assess the overall investment environment for the selected countries, covering political, economical, demographical structures as well as taxation and foreign investment regimes.

**Objective#3.** To use the theoretical frameworks as a basis for constructing the research models (i.e. the econometric models).

- a. To construct the econometric models based on the available literature and by referring to other similar studies in the existing body of knowledge.

**Objective#4.** To estimate the models and test hypotheses.

- a. To use the best available tools and techniques when estimating the econometric models.
- b. To develop the research hypotheses based on the reviewed literature and intuition.

**Objective#5.** To validate the models.

- a. To use the most cited validity and robustness tests for testing the estimated models.

## **1.4 RESEARCH JUSTIFICATION AND CONTRIBUTION TO THE BODY OF KNOWLEDGE**

This study contributes to the body of knowledge in many ways. Firstly, the research aims at developing econometric models (using both conventional and unique set of variables), to be generalised and applied to any developed or emerging market. The models are comprehensive and utilised the key themes emerged from the literature, covering economic, political, socio cultural as well as sectors specific variables. These variables can be examined in future studies within different regions.

Secondly, the research studies eight selected MENA real estate and hotel markets from (2003-2009), a timeframe and geography not studied by previous empirical work on hotel and commercial real estate investments. The study applies the most appropriate techniques in estimating the models, including the pooled Tobit model.

Thirdly, the research provides a multi-dimensional discussion on the influence of key variables on FDI in CRE and hotel sectors in theory and practice. The research also applies the Location (L) dimension of Dunning's OLI paradigm as a theoretical



explanation to CRE and hotel foreign investors' behaviour towards the selected MENA markets.

Because government are always planning for growing their economies, and one channel to achieve certain levels of growth is to attract FDI, governments are always seeking attracting capital so they design policies that will improve the overall investment environment and encourage FDI. This study tries to assist governments of understanding the main barriers to sectoral related FDI in these markets and help governments reconsider their policies towards these sectoral FDIs, by providing certain recommendations to foreign investment policy-makers in the selected MENA markets, as the main findings are more relevant to policy related variables such as regulatory environment, taxation, political and economic factors.

## **1.5 RESEARCH DESIGN**

In order to achieve the research aim set above in the previous sections, this research is designed as follows.

### **1.5.1 THEORETICAL FRAMEWORK**

The research will include an extensive literature review to construct a basis for the research by providing a conceptual framework for the study of the determinants of foreign direct investment in both CRE and hotel sectors.

The theoretical framework of the determinants of FDI is based on Dunning eclectic framework. The framework considers many possible motives to FDI, including economic, institutional and other motives. These determinants will be discussed separately for both sectors (i.e. CRE and hotels) and will be econometrically estimated.

The econometric models were informed and inspired by the recent researches in this arena. For instance, He, Wang, & Cheng (2009), who constructed econometric

models to explain the flow of FDI into Chinese real estate developments. They used macro-level variables as well as real estate market specific variables to explain the determinants of FDI in this region. They also used the pooled Tobit model technique to estimate their regression models, as the dependant variables had zero observations. Other studies also have influenced the development of our econometric models (will be discussed in details in Chapters two and three).

## **1.5.2 EMPIRICAL FRAMEWORK**

### ***1.5.2.1 EXPLORATORY DISCUSSIONS***

In order to develop a better understanding of the determinants of FDI in real estate, an exploratory study was carried out with real estate investment professionals (four in total), in order to help scope a richer picture of international property investments as well as main determinants of investing in the MENA real estate market.

The data was collected and analysed using NVivo version 2. The analysis reveals that global investors' decision to invest in the Middle Eastern region is affected by various factors such as lack of transparency, difficulties associated with finding appropriate local partners and lack of knowledge about the potential of Middle Eastern markets. However, respondents believe that the MENA region has the potential to appeal investors, and that they are determined to invest in different attractive parts of the region particularly, Turkey, Saudi Arabia and Egypt.

As they point out that MENA markets have excellent demographics, high population growth, good GDP growth and huge need for residential, retail & office real estate that are good reasons for institutional investors to invest and diversify their portfolios into the region. However, they think that the immaturity of MENA property markets are the most ineffectual hurdle to further attract global funds into the region, and suggest that further research may assist to develop a better understanding of those interesting Middle Eastern property markets.



### **1.5.2.2 INFERRING SECONDARY DATA**

As the results of the interviews were not enough to achieve the research aim and objectives, secondary data were consulted. The most important source of data was from a private organisation (fDi Intelligence part of Financial Times Ltd.), as they provide (at a cost) details of greenfield real estate related projects undertaken by foreign investors globally. The data collected was for Algeria, Egypt, Morocco, Qatar, Tunisia, Turkey, The Kingdom of Saudi Arabia and United Arab Emirates. The choice of host countries was determined by the availability of data as well as responses to the interviews from the exploratory study, as potential good location of investments within the MENA region (will be discussed in details in Chapter five).

And as the intention of this research is to investigate both FDI in CRE as well as FDI in the hotel industry, data were collected for both sectors for the eight MENA countries.

This work therefore, consists of two part: the first is an econometric analysis of FDI in CRE for the eight MENA markets namely, Algeria, Egypt, Morocco, Qatar, Saudi Arabia, Turkey, Tunisia and the UAE during 2003-2009; the second part is an econometric analysis of FDI in hotels for the same countries for the same time period.

The econometric analysis is carried out using the pooled Tobit model technique, for panel data, which uses both time-series and cross-sectional data.

The Tobit model is a censored regression model, censoring zero observations in the dependant variables, so to avoid any inconsistency and biasness can arise from using the ordinary least square (OLS) (Gujarati, 2004). This technique is characterised by the use of all available information in estimating the coefficients model, and this is a method of estimating the full information in comparison to other models that rely only on the time series or cross-sectional data.

Pooling eight countries increases the number of observations significantly, thus giving more information and more degrees of freedom, making the regressions more efficient. Panel data analysis is also better at detecting issues that are undetectable if the time-series or cross-sectional data alone is used. Furthermore, panel data is capable in controlling for country heterogeneity (Baltagi, 2005). Another reason for the practical use of this technique is that it addresses the problem of non-availability of long time-series on foreign direct investment in the MENA region. Therefore, panel data is used to address the problem of data through a combination of time-series and cross-sectional data to increase the number of observations and thus achieving a higher degree of efficiency in the analysis.

## **1.6 STRUCTURE OF THE THESIS**

This thesis is made up of three parts, comprising six chapters in total (Figure 1):

### ***Part One***

Chapter one gives a brief background to the study and the reasons for carrying out this research. It also introduces the research aim, research questions, and describes the structure of the thesis.

Chapters Two reviews the determinants of FDI in real estate and hotels sectors as well as maturity issue, empirical modelling, and institutional assessment issues to investing in those sectors. In doing so, these chapters identified a clear gap in existing research on MENA markets, which provides direction for the research design and methodology for the thesis. Chapter Three is concerned with MENA economies and its fit in the global context.

### ***Part Two***

Chapter Four explains the research methodology and provide justifications to choices made in selecting best approaches and techniques.

Chapter Five is divided into three sections, starting with the exploratory study and its impact on the research, followed by the quantitative empirical analysis of the determinants of FDI in CRE in the eight MENA markets based on the results of econometric modelling. This section tests a series of macroeconomic, political, as well as social factors, based on Dunning's Locational dimension, in order to find out the drivers and barriers to FDI in the CRE sector in the selected MENA economies. The third section presents the empirical results from assessments of determinants of FDI in hotels in the selected MENA economies, based on the OLI framework.

### ***Part Three***

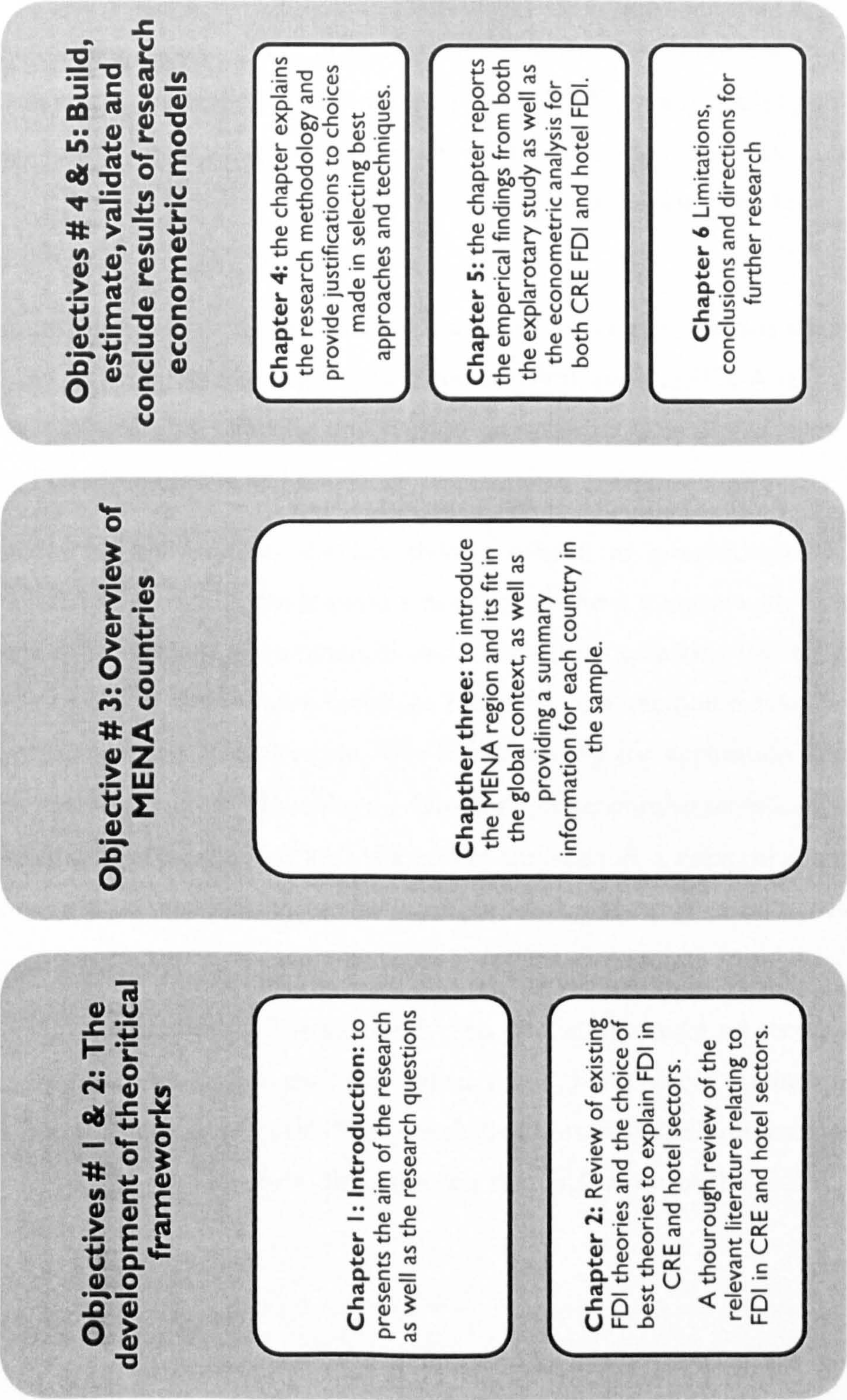
Chapter Six summarises the findings and conclusions and sheds some light on the main limitations and provides directions for further research.

## **1.7 SUMMARY**

This chapter introduced the research in terms of aims and objectives and as well as the design of this research. The next two chapters are concerned with the literature review, where the next chapter explains FDI in the context of real estate, as well as providing a comprehensive review to the literature in terms of the determinants of FDI in real estate.



Figure 1 : Structure of the Thesis in relation to research key objectives





## **2. CHAPTER TWO: LITERATURE REVIEW ON FDI IN CRE AND HOTEL SECTORS**

### **2.1 INTRODUCTION**

In understanding foreign direct investment (FDI) flows, it is important to recognise the fundamental motivation for an investor or a MNC when investing in another country, rather than using other source of internalisation such as licensing or franchising their services to the foreign country's firms to perform the business on its behalf.

The first section of this chapter presents a summary of the relevant theories that contribute to the understanding and fundamental motivation of FDI. A study of these theories will assist in selecting appropriate paradigm which applies most to our sectoral FDI of real estate and hotels.

The second section reviews the key themes related to international real estate investment. The section is divided into subsections, where it starts with an overview on forms of investment in commercial real estate (four quadrant model), and then present a review of the relevant literature related to the decision-making process of investing in international real estate. This is followed by the application of the most suitable paradigm (i.e. Dunning's Ownership-Location-Internalisation (OLI) framework to real estate. Towards the end of the section, a comprehensive review of the many factors influencing international real estate investments is discussed.

The third section of this chapter also reviews the main themes related to foreign direct investment in hotels. The section is also divided into main subsections, where it starts by linking tourism to the hotel industry, and then present the most common market entry strategies of hotel MNC's including both FDI and non-equity forms of exposure. This is followed by a discussion on the application of the OLI framework

to the hotel industry. Towards the end of this section, a review of the main factors influencing internationalisation of hotel MNC's is discussed.

## **2.2 FOREIGN DIRECT INVESTMENT (FDI): A THEORETICAL BACKGROUND**

Dunning & Lundan (2008) trace FDI theories and hypotheses as back as 1930's, and they argue that until 1960's, there was no established theory of FDI, as most hypotheses focussed only on explaining particular types of FDI in a positivistic manner (rather than using integrated approaches). Prior the 1960's, attempts to explain the activities of firms outside their national boundaries represented a blend of (Dunning & Lundan, 2008):

1. A fairly well-formalised theory of (portfolio) capital movements;
2. A number of empirical and largely country-specific studies on the factors influencing the location of FDI;
3. A recognition by some economists that the internationalisation of some industries required a modification to neoclassical theories of trade;
4. An appreciation that the common ownership of the cross-border activities of firms could not only be considered as a substitute for the international cartels and combines, but could also be explained, in part at least, by the perceived gains of vertical or horizontal integration; and.
5. An extension of the extant theory of international capital movements to embrace the role of entrepreneurship and business competence.

The 1960's however saw the introduction of more holistic theories or paradigms of FDI, but partial explanations continued to develop. In the latter part of the 1980s and 1990s more attention was given by trade economists to incorporating variables of foreign-owned production into their models. During this period, renewed interest in



FDI as a financial phenomenon and its relationship with foreign portfolio investment developed (Dunning & Lundan, 2008).

Razin (2003) divided FDI theories into two categories, namely micro (or industrial) and macro theories (finance or cost of capital theories). He describes microeconomic theories as the ones that principally focus on market imperfections and on the desire of MNC's to expand their market power.

Dunning & Lundan (2008) state that Hymer (1960) was the first to systematically analyse issues related to the advantages of MNCs, market imperfections and control in foreign markets with the successful competition between domestic producers and foreign firms. The theory states that firms constantly seek market opportunities and their decision to invest overseas is explained as a strategy to capitalise on certain capabilities not shared by competitors in foreign countries (Morgan & Katsikeas, 1997). Nonetheless, market imperfections theory did not explain why foreign production is considered the most desirable means of harnessing the firm's advantage. Dunning (1980) and Fayerweather (1982) (cited in Dunning & Lundan (2008)) have addressed this issue and developed a macroeconomic theory which can be described as international production theory.

According to Morgan & Katsikeas (1997), international production theory suggests that the propensity of a firm to initiate foreign production will depend on the specific attractions of its home country compared with resource implications and advantages of locating in another country. A related aspect of this foreign investment theory is the concept of internalisation which has been investigated by Buckley (1982, 1988) and Buckley and Casson (1976, 1985) (cited in (Dunning & Lundan, 2008)).

Internalisation theory suggests that firms aim to develop their own internal markets whenever transactions can be made at lower cost within that firm. Accordingly, internalisation involves bringing new operations and activities, formerly carried out by intermediate markets, under the ownership and governance of the firm (Dunning & Lundan, 2008). Dunning & Lundan (2008) state that macroeconomic theories on FDI concentrate on comparative advantages as well as environmental dimensions,

and how the latter may affect comparative advantages. These theories mainly deal with the question of where MNCs will locate their operations.

A more recent blended FDI theory (i.e. micro as well as macro aspects), which essentially aimed at answering the locational questions related to FDI, is the eclectic theory of Dunning (Dunning & Lundan, 2008). According to Moon & Roehl, (1993), none of the general theories of FDI, except Dunning's eclectic theory, which is based on the OLI (ownership, location and internationalisation advantages) paradigm, succeeded in satisfactorily explaining the international activities of firms.

Indeed, for more than two decades, the eclectic paradigm has remained the dominant analytical tool for accommodating a variety of operationally testable economic theories of the determinants of foreign direct investment (FDI) and the foreign activities of multinational enterprises (MNEs) (Dunning & Lundan, 2008).

The paradigm states that the extent, geography, and industrial composition of foreign production undertaken by MNEs are determined by the interaction of three sets of interdependent variables: ownership, location, and internalisation advantages, hereafter referred to as OLI. The OLI framework was an attempt to explain why companies decide to go for FDI instead of other possible forms of foreign investment, such as licensing, strategic alliances, joint ventures or exporting (Dunning & Lundan, 2008).

Dunning (1993) summarises the debate between pure services and pure production, as most of the above discussed theories were product-oriented explaining MNC's activities in the manufacturing industry. He argues that the eclectic paradigm can also be applied to service-oriented FDI. Indeed, this is also been conformed and supported by (Holsapple, Ozawa, & Olienyk, 2006) and (Laposa, 2006). As a result, Dunning OLI paradigm is sought to best explain our sectoral, service-oriented FDI (i.e. real estate and hotels FDI), and will be discussed in more details in the following sections, in relation to both real estate FDI as well as hotel FDI.

The following section covers the key themes related international real estate investing as well as the main theories explaining international investments (including the OLI paradigm).

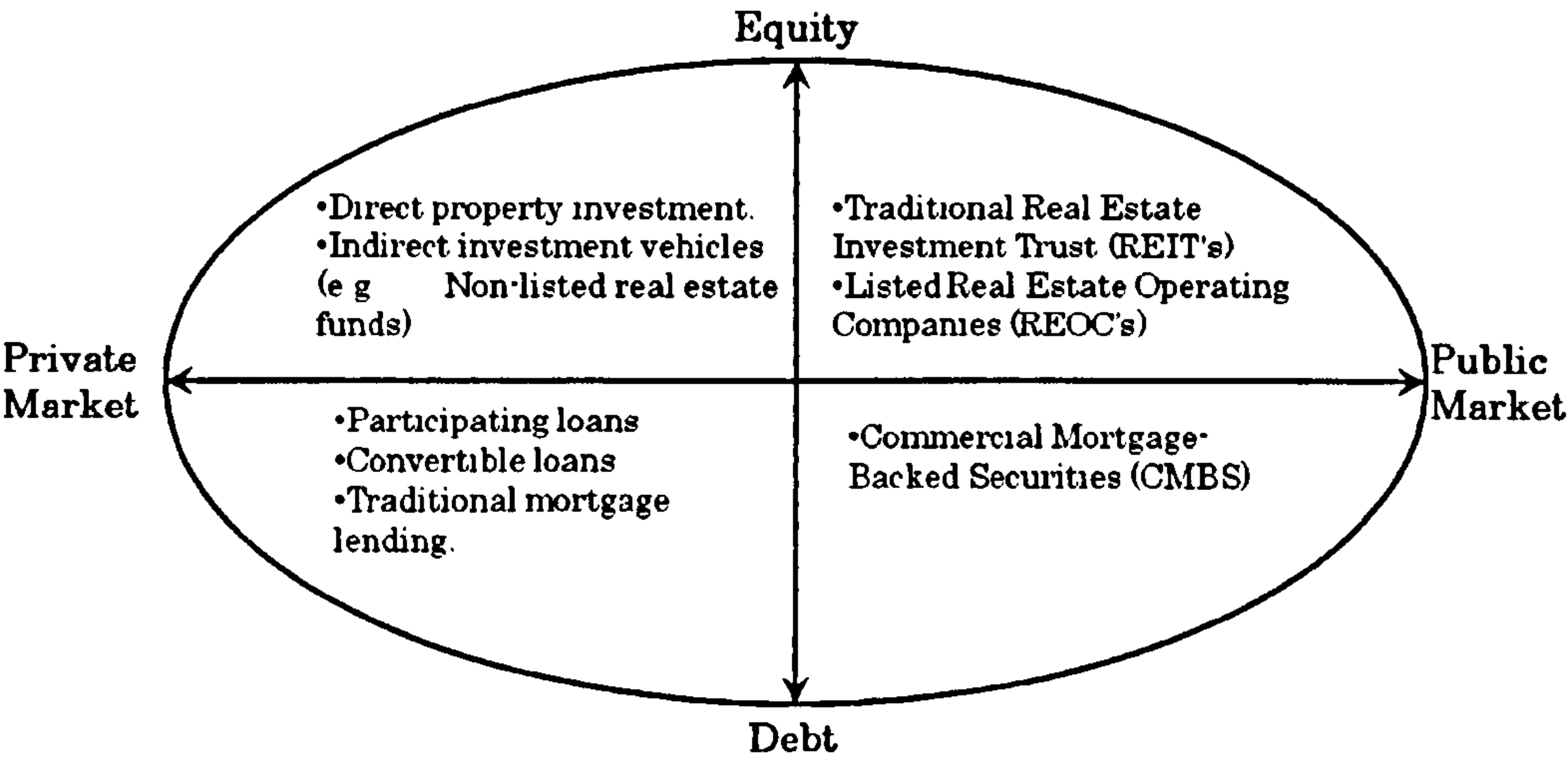
**2.3 FDI IN COMMERCIAL REAL ESTATE GREENFIELD PROJECTS**

**2.3.1 FORMS OF EXPOSURE TO INTERNATIONAL COMMERCIAL REAL ESTATE CLUSTERS**

In general, the structure of all property investment products can fit into four property investment quadrants - private equity, public equity, private debt and public debt (Hudson-Wilson, et al, 2005). Figure 2 below shows these forms as they are almost available in every developed property market.

In the context of international investments, direct investment refers to direct partial or complete ownership of the property. Indirect investment, on the other hand, refers to the ownership of securities that represent real property or mortgage ownership such as shares in a real estate investment trust or mortgage-backed securities (Hines, 2001).

*Figure 2: Real estate four quadrant model*



To initiate direct investment as an entry into international property market, investors have several options as suggested by Hines (2001): (1) purchase income producing existing properties that need no or minor renovation; (2) purchase of existing properties that need some or major renovation and redevelopment; (3) purchase of existing properties that will be demolished and replaced by new land development; and (4) development of the land and construction of buildings. The least amount of risk and possibly the lowest investment return are usually associated with the first option. The highest amount of risk and the possibility of the highest investment returns are usually associated with all other options (Hines, 2001).

Often investors who seek to own international real estate wish to invest with local partners who may be more knowledgeable about their domestic market, the economy and its trends, the political system and trends, the laws affecting the real estate investment, taxation, and any other important information. When the investment requires a large sum, investors may wish to spread their monies to more than one real property in the same and other countries, and selects partners to share in the financial obligation (Hines, 2001).

According to Hoesli & Lekander (2008), there are many forms of business organisational that prospective investors may choose from, for instance, sole and joint legal ownership forms. The joint ownership forms include a variety of partnership forms and a variety of corporate legal forms. Investment in a joint venture (JV) makes it possible to align the interests of a local partner with those of an international investor. JV structures, however, are not easy to access and are not harmonised, leading to difficulties in initiating and managing these exposures (Hoesli & Lekander, 2008). Another possibility to exposure is the private fund market, i.e. dedicated investment vehicles set up for the sole purpose of placing investor capital in the property market (Hoesli & Lekander, 2008).



The selection of a business organisational form usually depends on the investor's need for limited legal liability, limited financial liability, fund-raising capability, time span of the investment, active management of the property, the risk associated with the investment, the investment restraints imposed by the foreign government, the cost of the proposed acquisitions, tax situation, and current need for funds (Hines, 2001).

As mentioned earlier, the intention of this research is to focus on commercial real estate and hotel FDI developments in the selected MENA markets, and therefore, it is rational to identify the main forms of exposure international developers have in both clusters, and observe how investors approach each type of investment.

### **2.3.2 INTERNATIONAL REAL ESTATE INVESTMENT DECISION-MAKING PROCESS**

According to Roberts and Henneberry (2007), researchers approach the property investment decision making process as a normative model, as they deal with it as an exercise of rational analysis which also depends on the use of tools such as Modern Portfolio Theory (MPT) to inform decision making. They as well as Parker (2009) argue that the current treatment of property investment decision-making is inadequate as it does not present a real-world view of the process of decision-making, and that a better appreciation of the nature and character of the decision-making process is required. Indeed, there is not much known about investors' decision-making process when deciding to invest internationally, as what factors they look at? And how do political, economical, socio-cultural factors impact their decision to invest internationally?

It is therefore, worthwhile to consider how investors invest internationally, and the main stages they encounter when deciding on an investment in property.



Roberts and Henneberry (2007) propose a ten stage composite model of the property investment decision making process, based on their analysis of combination of various normative models proposed in the literature (see Figure 3). They have mapped those ten stage normative model against the decision-making processes of investors in three market contexts, France, Germany and the UK. They found that there is a simplification of the ten-stage normative model produced from the literature. The ten-stage normative model was reduced to five stages in the context of French and German investment decision-making and six stages in the context of UK investment decision-making (see Figure 3).

It must be noted though that their study are concerned with domestic property investment decision making process, however, in the context of international property investment, the decision making process gets more multifaceted.

According to Tschabold (2003), the approaches to international real estate investment decisions can be defined as the logical process that can be followed in a bottom-up or top-down approaches or both, which depend on the investment style of the decision maker. Where, a bottom-up approach consider investment opportunities that brought to the investor or fund manager and then only after the investment meets the initial objectives (e.g. risk and return characteristics) and criteria of the fund, the investment could be considered (Tschabold, 2003).

In contrast, a decision is considered as top-down, when an investment is strategically made to add international property to a portfolio and then solicited to conform to target allocations between countries and sectors. This entails the analysis of a set of economic indicators and a number of factors reflecting the relative maturity of real estate markets (Tschabold, 2003) & (Mueller & Ball, 2006) & (Doorn, 2003).

Fuchs & Scharmanski (2009), in their recent study also assert that the international property investment 'rational' decision-making process consists of a multilevel process of filtering starting with 'screening' ending with 'acquisition', where the particular investment represents the last link in a long decision chain which mainly runs top-down (see Figure 4).

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*Figure 3: Comparison of stylised national investment decision-making heuristics with normative model*

*Source: Roberts and Henneberry (2007)*

*Figure 4: Decision-making process of international property investors*

*Source: Fuchs & Scharmanski (2009)*

Their findings demonstrate that global investors introduce a procedure of rational decision making. Although they try to overcome path dependencies (the authors identified three path dependencies i.e. increasing returns; organisational proximity and community opinion), which most investors stick to them when deciding on an international market. The result therefore, is a combination of rational and path-dependent decision making.

In Figure 4, the first stage in the top-down approach is the 'screening' stage, whereby investors start 'screening' worldwide countries using specific criteria and scoring models. Indeed, an interviewee (in the exploratory study), assured that this stage is vital and that they usually use scoring models to make comparisons between countries (See Appendix 6 part 4).

Lee (2005) also consider this stage an important one, and having a robust methodology to determine the potential of each country's real estate in general is key to understanding the similarities and differences between the countries, further he develops a systematic methodology (i.e. the Real Estate Potential REP index) that consists of four key dimensions that determines the investment potential of international markets; the index is constructed using four key variables (1) country's expected growth, (2) country risk, (3) transparency, and (4) real estate market specific risk. Each of which looks at the countries from the macro level, as he argues that investing internationally require undertaking the following analysis stages:

1. Nationwide analysis, (screening stage) where the REP index can be employed
2. Sector wide analysis (e.g. retail, office, etc)
3. The investment process itself. (E.g. joint venture, direct, etc.)

It is noticeable that countries like Egypt for instance, rarely pass the first 'screening' test, and this could be due to specific factors such as lack of transparency or other influential factors that did not meet investors' risk-return objectives.

This research therefore has to focus at the first 'screening-macro-stage' and identify those factors that influence international investors at the national level, as it is

hypothesised that major national level factors do affect international investors' attractiveness to the MENA region.

### **2.3.3 THEORIES OF FOREIGN DIRECT INVESTMENT (FDI) IN REAL ESTATE**

As mentioned earlier, the literature available on the subject of FDI is many. However, most of the empirical and theoretical work has been investigating the manufacturing and production of FDI. Research on FDI in the real estate sector is very much lacking. This view is supported by Laposa (2006) and Holsapple, et al (2006). Even the theories on FDI and Multi-national Companies MNC's were developed to explain FDI in manufacturing sector and only lately the application is being extended into the real estate sector by researches undertaken by He, Wang, & Cheng (2009), Rodríguez & Bustillo (2008), Laposa (2006) and Holsapple, et al, (2006). As such it is imperative that more emphasis is given to FDI research in real estate sector since the scarcity of the empirical works in this area.

As the theory of foreign investment involving international real estate investment is underdeveloped (Holsapple, et al, 2006) & (Dunning & Lundan, 2008). Dunning & Lundan (2008, p. 76) believe though that there is not much that the academic scholars can do about it, as they point out that although the investment is classified as direct, the motives of the purchases have the attributes of portfolio investment.

Dunning & Lundan (2008) clarify this by describing direct real estate investments as 'passive' investments and that they are primarily financially motivated, through expectations of future land and property values, and they argue that the 'foreignness' impact on the use of these assets are limited. However, it must be noted that investing in greenfield developments entails fixed capital investment, create jobs, and introduces best practices from multinational corporations.



As mentioned earlier, understanding FDI in real estate might entail utilising the comprehensive framework which was developed and used in the manufacturing industry, which is Dunning's Eclectic Paradigm (Dunning, 1980). He integrated three key dimensions; the (O) ownership, (I) internalisation and (L) location advantages or factors to form a single theoretical framework known as the OLI (Ownership, Location and Internalisation advantage) paradigm.

The following sections therefore, starts by explaining the risk diversification theory in the context of real estate, as it is also practically related to international real estate investing, and its role in motivating global investors to invest outside their domestic markets. This is followed by a synthesis to Dunning's OLI framework and its application to real estate.

### **2.3.3.1 RISK DIVERSIFICATION THEORY**

Markowitz (1952) mean-variance (MV) efficiency is the classic paradigm of modern finance for efficiently allocating capital among risky assets (Richard & Robert, 2009). The theory provided an answer to the fundamental question: How should an investor allocate funds among the possible investment choices? Markowitz suggested that investors should consider risk and return together and determine the allocation of funds among investment alternatives on the basis of the trade-off between them (Fabozzi, et al, 2007). Bodie, Kane, & Marcus (2002) state that, according to Markowitz, the variance of the rate of return (on an asset), is a significant measure of portfolio risk under a reasonable set of assumptions.

So why do investors invest and diversify their portfolios internationally? Two main factors explain their attractiveness to diversifying internationally. First, the correlation between the returns of the assets or securities that makes up a portfolio which is crucial in determining the associated level of risk. In general, the lower the correlation between assets, the lower the portfolio risk, and risk-averse investors

tend to choose assets with low correlation (Markowitz, 1952). Second, the correlation between domestic and foreign returns is expected to be lower than between purely domestic assets or securities. This is due to the monetary, fiscal and industrial policies varying from country to country, which add up to differing industrial composition (Haus, 2004).

According to Keng (2004), when economies are not completely integrated, so property returns in different countries will not move together, and therefore risk reduction can be achieved through international diversification.

Studies by ((Webb et al (1988), Stevenson (1999), Steinert and Crowe (2001), and Conover et al (2002), cited in (Keng, 2004)), confirmed the significance of international property in efficient mixed-asset portfolios. Even though investing in overseas property would assume additional risks, additional portfolio diversification was also achieved (Newell & Webb, 1996). However, Cheng, et al (1999) found that international property was unlikely to produce significant diversification benefits and suggested that investors should not allocate more than 10% in international property, and 5% or less for investors with a low risk tolerance.

Gordon, et al (1998) and Maurer & Reiner (2002) also observed significant diversification benefits for including international property securities in the mixed-asset portfolio and the diversification benefit was even more significant for low to medium risk portfolios. The source of diversification gains was mainly in risk reduction. Liu & Mei (1998) also found that international property-related securities provided incremental diversification benefits over and above that associated with international stocks. These benefits were relatively more obvious at lower risk-return levels of the optimal portfolios and were present regardless of whether currency risks were hedged.

### **2.3.3.2 THE APPLICATION OF DUNNING'S ECLECTIC OLI PARADIGM TO REAL ESTATE**

As the objective of this section is to realise the behaviour of international real estate developers in developing countries, the OLI paradigm needs to be discussed in a real estate context. It must be noted though that there are very few studies that consider the application of the paradigm to the real estate industry. Therefore, the following sections will discuss the OLI dimensions and their theoretical foundation, and their relevance to property markets and especially FDI in greenfield real estate projects.

#### **2.3.3.2.1 Ownership-specific advantage**

In the manufacturing industry, many books, journal papers, and other sources explain clearly how the OLI can be applied to MNE's when deciding on undertaking manufacturing related FDI. In contrast, there are very few studies which try to illustrate the OLI paradigm in a real estate context.

In real estate, D'Arcy (2009) describes the OLI framework as the process of transferring both tangible and intangible assets by market actors across countries. Whereby, Ownership advantages (Oa) include property rights or intangible assets.

Depending on the nature of national and regional property right laws and legislations, domestic firms generally possess Oa advantages over foreign firms, or at least a comparative advantage over foreign firms on issues such as government approval processes for development (Laposa, 2006) and (D'Arcy, 2009). Accordingly, it is reasonable to expect that foreign property firms interested in acquiring or developing property in the MENA region engaged domestic firms that possessed domestic property rights (Oa) or who understood the local political environment to secure property development rights.

Moreover, other competitive advantages might include Intangible assets (see Figure 5), which could comprise project management and delivery skills, marketing,

knowledge and know-how of delivering world class developments, knowledge of international markets, negotiation strengths, learning ability as well as human capital experiences (D'Arcy, 2009). Indeed, D'Arcy (2009) asserts that these ownership advantages can have an impact on the overall competitive edge of international market actors over local actors.

D'Arcy (2009) also explains how the (Oa) can impact the level of internationalisation; he illustrates this by an example of both investment and development activities, as the investment activities has always high levels of internalisation than the development activities which can be described by the ownership advantages of each approach. Indeed, this observation is confirmed in this research, as the number of greenfield real estate (development) projects is considered very low (e.g. 51 projects in Egypt), which might be considered low when compared to the level of investment in standing properties, for instance.

Holsapple, Ozawa, & Olienyk (2006), extended Dunning's OLI framework into the context of international real estate investments. They argue that in international real estate investments, there are hybrids of direct (FDI) and portfolio investments (FPI). And subsequently they have extended Dunning's OLI framework to include the portfolio 'P' sub-paradigm in the framework (i.e. OPLI instead of OLI), in order to allow the disadvantage of being foreign in a foreign environment to be explicitly incorporated in this sub-paradigm.

It is required here to illustrate the dynamics of this framework (hereafter OPLI), and the main thrusts underling it.

The framework divides Dunning's 'O' advantages dimension (in the OLI paradigm) into two sub-paradigms, thus 'O' (in the OLI) is equivalent to (O & P) in the OPLI framework, where P is the portfolio advantages. Holsapple, et al (2006) asserts that investors must evaluate both O and P advantages when deciding on an investment in a foreign country.



They explain the O advantages as the advantages that held by firms operating in their home countries and are transferable into foreign countries including both tangible and intangible assets. They divide the O advantages into two specific advantages (Oa) and (Ot); where, (Oa) is about intra-firm specific advantages, (e.g. asset specific advantages and firm specific advantages such as marketing and specific technologies). The (Ot) is inter-firm asset specific advantages, that stem from coordinating the Oa, (e.g. management skills, multinational network, and access to financing). Also, they assert that (O\*) must be taken into account, whereby, (O\*) is the advantages held by local firms operating in the host country.

Also they argue that in order to operate profitably in a foreign market, global investors need to take into consideration the fixed costs (f) of operating in a foreign environment, and these are Location specific costs that needs to be taken into consideration. And as they argue that for a necessary condition for FDI, deducting the fixed costs (f) from the O advantages must be greater than the (O\*) (i.e. the advantages held by local firms in their domestic markets).

Embedded in the 'O' dimension is the 'P' sub-paradigm, whereby, investors are advised to realise any portfolio specific advantages. Holsapple, et al (2006) divides this sub-paradigm into (Pe) and (Pd) advantages. They describe (Pe) as the process of evaluating foreign exchange risk, portfolio arbitrage opportunities, existence of capital market imperfections and debt denomination consideration, from the home country perspective. They also describe the (Pd) as the advantages directly related to portfolio diversification when measured by the covariance of predicted returns with other multinational activities. Here, they argue that as a necessary condition for FPI decision,  $Pe + Pd$  must be greater than zero, so the firm can improve the overall portfolio return and/ or diversification through undertaking the FPI.

They also argue that when the O and/ or P advantages exist, investors can then look at the Location (L) and Internationalisation (I) advantages, and that the sequence of deciding on FDI, FPI or another form foreign engagement (e.g. franchise, contract for



fee, etc.), follows a logical sequence of questions (i.e. What?, Where?, and How?), whereby, the 'What' question tries to answer whether any O or P advantages exist, and the Where question tries to evaluate the Location advantages exist in a foreign market. The How question is the last and tries to answer what investment mode and structure is best to internalise.

It must be noted though, and as discussed earlier, global investors follow a combination of rational and path-dependent decision making, when deciding on an international real estate investment. For instance, and as discussed earlier, investors go through a process as they start by 'screening' countries worldwide (i.e. employing the L dimension), looking at national and macro level factors, only then and after filtering and deciding on specific countries, they focus on the sectoral level analysis (i.e. office, retail etc.), and only when they find the appropriate opportunity in a specific sector (either a development or acquisition opportunity), they can evaluate the O, P and I advantages, so in fact the paradigm should have the ordering of 'LOPI', instead of OPLI. This is a key point in understanding and employing the paradigm, as L specific factors (Where question), will influence the (O<sub>a</sub>), (O<sub>t</sub>), (O\*), (f), (P<sub>e</sub>), (P<sub>d</sub>) and (I) variables, and must be followed by the 'What' and 'How' questions.

#### *2.3.3.2.2 Location-specific advantage*

Location considerations are important for FDI in real estate, since they have the capacity to foster or hinder its flow. FDI in real estate developments may be attributable to market size, market need or to financial gains, as well as other competitive advantages, which may include a unique source of demand, geographical location, a large domestic market, high liquidity, high purchasing power, tax policies, or lower levels of political risk in the host country.

D'Arcy (2009) explains how real estate actors get attracted to certain countries and how the Location advantages depend to a large degree on the type of barriers both

direct and indirect which market actors encounter in host countries. He asserts that the institutional environment, regulatory barriers and business culture are important influences when formulating strategies for internationalisation (see Figure 5).

As an example, Saudi Arabia's location is potentially very attractive for the hydrocarbons industries, oil refineries, petrochemicals and plastics. Entry into the property sector may also be very attractive because of the good growth in population, persistent at over 3 per cent per annum, of whom 65 per cent are under 25 years old, and a sound infrastructure are also among the location-specific advantages of Saudi Arabia (Cityscape, 2009). However, there might be other location specific factors that hinder FDI into the property market including culture proximity and other factors that will be explained in the following sections.

In Holsapple, et al (2006) OPLI extended framework, location advantages require investors to ask the 'Where' question, which look at factors such as host country political risk, regulations and laws, and fiscal and monetary policies.

Holsapple, et al (2006) state that location advantages must be measured against recurring costs of being foreign (other than exchange risk), such as operating a long distance from the investment or differential treatment in the host country.

They argue that if firms relying only on Portfolio advantages, they can simply acquire passive interest in existing real estate assets in the host country, and the Location factor is not so effective.

For the purpose of this research, it is hypothesised that only greenfield development real estate FDI will be considered and therefore those key 'Location' factors are considered vital in understanding drivers and barriers to investing in Middle Eastern property markets.

#### **2.3.3.2.3 Internalisation-specific advantage**

The internalisation advantage can be considered as the view of exploiting the ownership advantage (Oa) discussed earlier, by not contracting out of the associated activity, but by purposely pursuing it and retaining control over it.

By means of internalisation in the manufacturing industry, a firm might carry out transactions within its wholly- or partially-owned facilities in the host country rather than relying on external markets (Dunning & Lundan, 2008). By doing so, a foreign firm will be able to overcome some of the difficulties and risks and might improve its performance. Internalisation gains arise from avoiding market imperfections (uncertainty, economies of scale, problems of control, the undesirability of providing full information to a prospective purchaser, limited business support services 'secondary markets' and so on) (Dunning, 1980). The existence of internalisation advantages obviously depends to some extent on the existence of ownership advantages.

Internalisation of real estate activities however, as explained by D'Arcy (2009), is the process which determines the organisational mode by which actors choose to transfer intangible assets and/ or capital across boundaries. Those intangible assets might include management and human expertise, knowledge, and the reputation of the internationalising firm (D'Arcy, 2009). The transfer of capital could be originated and provided either from debt or equity positions, along with the financial structure associated with its proposed transfer (D'Arcy, 2009).

In regards to the 'How' question, which is related to Internationalisation 'I', Holsapple, et al (2006) suggest that when L advantages exist, it will be more beneficial for firms having O advantages to own the investment itself rather than sell, lease, or franchise the advantage to foreign firms located in the host country (see Figure 5).

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*Figure 5: the OLI Paradigm with relation to FDI in commercial real estate developments*

*Source: Various including Holsapple, et al (2006), D'Arcy (2009), Baum & Murray (2010)*



#### **2.3.4 DETERMINANTS (DRIVERS AND BARRIERS) OF FDI IN REAL ESTATE**

Given the scarcity of theoretical frameworks for real estate FDI, particularly macroeconomic ones, the empirical analysis is also very limited and has mostly adopted a non structural approach. The lack of macroeconomic theories on real estate FDI explains the scarcity of the empirical analysis in this area.

To bridge this gap, the following sections present the main themes emerged from the empirical literature on the determinants of general FDI, together with the few specific studies on real estate FDI.

If one takes the theoretical literature on general FDI, there are a number of macroeconomic drivers, which may explain a decision to invest abroad. This is hardly the case for real estate FDI, where exiting theories mainly focus on microeconomic aspects of supply and demand.

It is the intention of this research to focus on the national (or macro) level factors that impact international real estate developers' decisions in emerging and developing markets.

For the purpose of this research, a thorough review of the literature has been carried out on the theoretical and empirical studies that examined factors and/ or variables related to international real estate investment.

The factors/ variables considered here are related to the OLI framework and more specifically the Location 'L' factors, this is because those factors are mainly concerned with the 'country level' variables that investors look at in the 'screening/ initial' stage which covered earlier in the literature. Some of the key variables covered either theoretically or empirically tested, are listed in Appendices 2 & 4.

From the researcher's point of view, among the many variables covered and tested, few themes emerged from the literature covering many variables related to international real estate investment. The themes can be grouped into both drivers

and barriers. Therefore, the first section provides an overview on the drivers to international real estate investment, followed by the barriers to such investments.

#### **2.3.4.1 LOCATION DRIVERS TO FDI IN REAL ESTATE**

There has been much discussion in the literature about the drivers to investing in international and emerging markets. Gordon (2003) identifies the key drivers for international investments. The drivers are ranked based on importance to various sources of institutional capital from all over the world:

- *Higher Return*: acquiring higher returns as the most cited driver.
- *Diversification*: this can be achieved through portfolio risk reduction.
- *Cross-border service*: having higher standard of cross-border service through investment managers operating in many regions around the globe.
- *Rising Transparency*: the cross-border investors' analysis of new markets raises the level of transparency as well as raising the level of financial/market reporting.

The next sections present the main factors that are believed to be of importance on deciding on an international potential market for investment (for a summary of the drivers see Figure 7).

##### **2.3.4.1.1 The Importance of market size and economic health**

Market attractiveness or market size can be measured by examining country's GDP, population, growth of GDP and GDP per capita (see Appendices 2 & 4 for other variables examined in the literature). Empirical evidence investigating market size in potential investable countries as variables influencing international real estate investments has shown same results as most findings support the theoretical view that large real estate markets attract international investors.

Baum (2008) in his recent work on number of unlisted property funds targeting particular countries; he finds a strong relationship between population and GDP per capita (as independent variables) with the number of funds targeting particular countries (dependant variable).

One recent study by Rodríguez & Bustillo (2008) on FDI in Spanish housing acquisitions, finds GDP per capita to be a significant determinant of Spanish housing acquisitions by foreigners mainly tourists. In contrary, He, Wang, & Cheng (2009), finds GDP per capita insignificant as a determinant to FDI in real estate in China.

Anop (2010) uses other proxies to market size, including real GDP growth, and GDP. She finds real GDP growth to be insignificant, while GDP is a significant determinant to FDI in real estate in selected European countries.

Lim, McGreal, & Webb (2006) found from their survey on the perception of US and European investors on real estate investment opportunities in Central South America and Africa, that sound economic policies and market orientated reforms in foreign countries, are important reasons for holding foreign property. They also find that the healthier the economic state and the better track record of macroeconomic policies, the more attractive is the location.

Chin, Dent and Roberts (2006) also found similar results from their survey on South East Asia cities, as they conclude that a sound economic structure coupled with a strong and stable macroeconomic environment are the most significant factors in the ability of the region to attract foreign real estate investments.

Chen and Hobbs (2003) constructed the Global Real Estate Risk index, which is based on three components: country, structural and cyclical real estate risks. They found that the size of a country's economy positively affects investment activity, and argue that larger economies are usually more capable of surviving external economic shocks and are therefore more stable than smaller economies. They also argue that inflation, the unemployment rate, and change in the unemployment rate are important proxies for measuring the economic situation in their index.

It is evident that host countries with larger market size, faster economic growth and higher degree of economic development will provide more and better opportunities for investors to exploit their ownership advantages and, therefore, will attract more real estate FDI. The intuition is that these factors can be significant for FDI in real estate sector.

#### *2.3.4.1.2 The importance of the institutional framework*

According to Ali, Fiess, & MacDonald (2010), the institutional framework of a country “consists of all kinds of humanly devised constraints that shape the human interactions, including economic exchange”.

This research adopts a well known definition of institutions on the work of North (1990) who has been able to explain institutions at the macro level. North (1990) defines institutions as formal rules (for instance, constitutions, laws and regulations) and informal constraints (norms of behaviour, conventions and self-imposed codes of conduct). Institutions (and their enforcement mechanisms) set the ‘rules of the game’, which organisations, in pursuit of their own learning and resource allocative goals, must follow.

As the empirical evidence review shows, there is strong evidence that good institutions play an important role in attracting FDI. The institutional determinants of aggregate FDI are related to the characteristics of the host country’s investment environment that are designed and regulated by government’s policies and other political and social factors as well as the level of economic, political and social risks, political stability, democratic accountability, the degree of openness of the economy and trade regime, functioning bureaucracy, reliable and transparent regulatory framework covering FDI policies and tax system, effective property rights protection, the rule of law, enforcement of contracts, efficiency of justice and the lack of



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corruption and the type of privatisation process (Dumludag, Saridogan, & Kurt, 2007).

In the context of institutions that are directly related to property markets, Keogh & Darcy (1999) illustrate a three-level hierarchy for institutions involved within property markets (see Figure 6). At the top level, the institutional environment is constrained by the political, social, economic and legal rules and conventions by which the market is organised. As mentioned above, at this level, institutions play a crucial role in attracting or deterring FDI into property markets.

At the next level, the property market is considered as an institution in itself with a range of characteristics which determine its structure, scope and function. At the bottom level, the main organisations which operate in the property market can be considered in terms of the way they are structured and the way they change (Keogh & D'Arcy, 1999).

*Figure 6: The institutional hierarchy of property markets*

*Source: Keogh & D'Arcy (1999)*

#### *2.3.4.1.3 The importance of infrastructure*

The infrastructure of a particular country is also an important factor for FDI in real estate. A recent study by Anop (2010), finds 'road infrastructure' to be a significant determinant to FDI in real estate in European countries. Lieser & Groh (2010) after analysis of a composite index of real estate markets attractiveness for 66 countries concluded that infrastructure should become an integral part of the strategy to attract international real estate investments.

At the aggregate FDI, Loree & Guisinger (1995) found that a developed transportation infrastructure has a positive influence on inward FDI flows. Wheeler & Mody (1992) also concluded that, for developing countries, infrastructure is one of the dominating determinants for FDI decisions.

#### *2.3.4.1.4 The importance of market liquidity*

Real estate is a relatively small investment market and the limited number of 'liquid' investment markets further exacerbates impacts resulting in a concentration of investment in the larger more liquid markets.

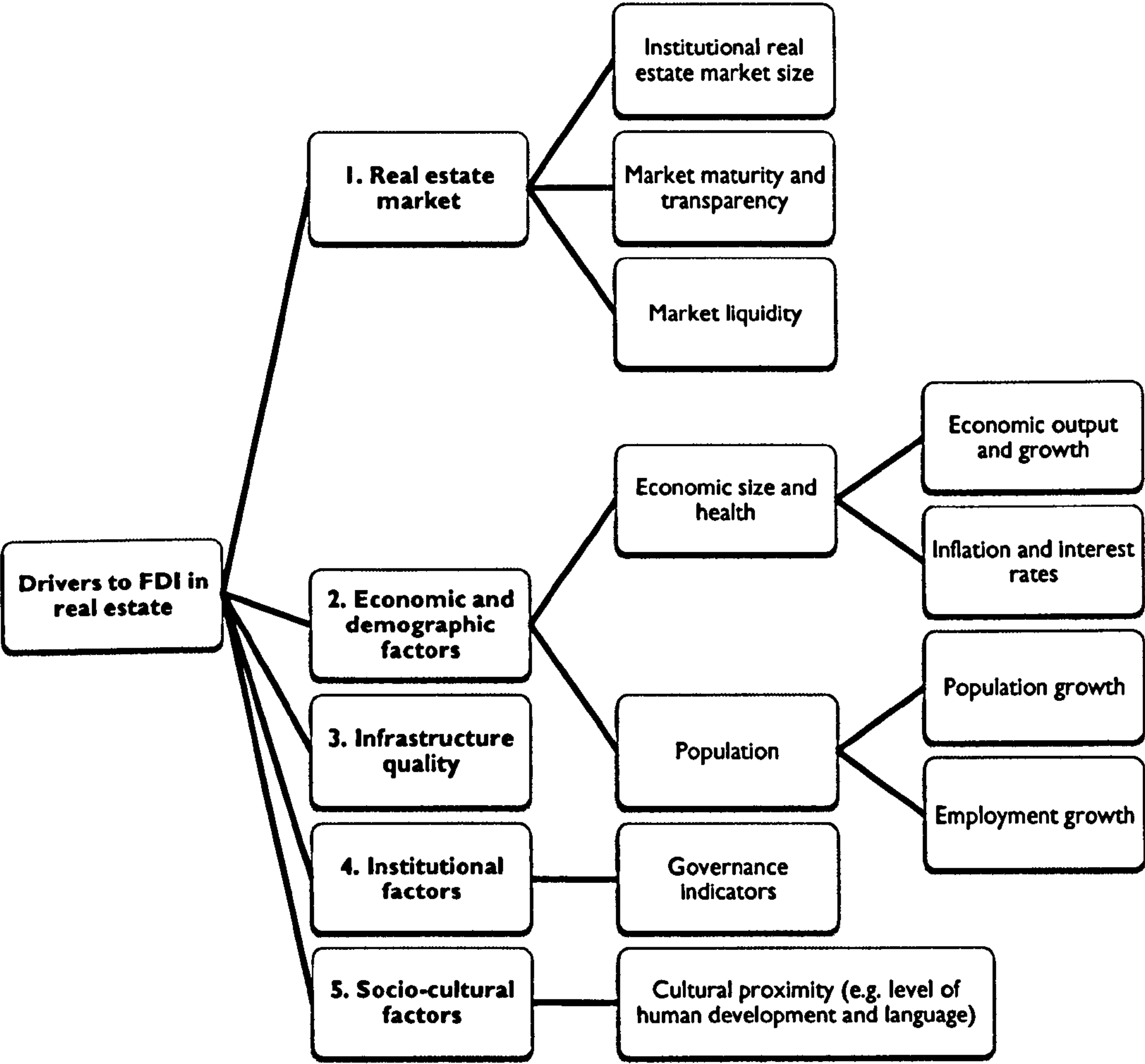
Connor and Liang (2000) argue that public sources of equity capital, primarily as REITs (Real Estate Investment Trusts), are particularly important for a vivid real estate investment activity due to the potential to securitise financial claims and to raise capital in the public market at relatively low cost. D'Argensio & Laurin (2009) also argue that the existence of REIT operators should enhance the liquidity of the real estate market, as they have used this variable in their study on cap rates movements.

On the other hand, Baum & Murray (2010) argue that the lack of liquidity is considered as a key risk facing global investors. They found that the majority of investors responded to their survey found lack of liquidity as a high barrier to entering into an emerging market, especially during the recent economic crisis

(2008), and found that institutional investors are keen to withdraw from less liquid emerging markets.

Another point raised by Baum & Murray (2010) is that for opportunity funds, who find liquidity is key for them to acquire and sell in short period of time, to maximise return and performance fees, which is not the case in most emerging markets, and especially the MENA markets, where only few countries like Turkey, Saudi Arabia and the UAE, have the liquidity and operating REIT's in their property markets.

Figure 7: Drivers to FDI in real estate



Source: developed for this study

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#### 2.3.4.2 LOCATION BARRIERS TO FDI IN REAL ESTATE

International investors face markets composed of many different factors for example, different economies, different cultures and different regulations, from their common domestic markets. In order to cope with these significant factors and to make profitable investment decision on global market level, investors assess the risks of the investment taking into consideration all these key factors while deciding on an investment opportunity (Hines, 2001).

Table I below shows the key constraints to direct property investment in an international context (Morell, 2003).

*Table I: Constraints to direct international property investment*

According to Tschabold (2003), other common problems often used to justify avoiding international real estate in an investment portfolio include:

- Management and operation once investment is made;
- Lack of local expertise; and
- Potential for misunderstands due to cultural or language difficulties.

Moreover, Lee (2001) categorises the key constraints for international real estate investment that hinder cross-border investment under four key headings (in view of the Asian market): investment risk; political risk; currency risk and institutional risk.

As can be seen, there is no universally accepted taxonomy of FDI barriers in the real estate sector. However, a recent study by Baum & Murray (2010) categorised the barriers to formal (direct) and informal (indirect) barriers.

The direct barriers are those that affect the ability of foreign investors to invest in emerging markets, for example in the form of taxes and foreign ownership; indirect barriers are those that affect investor's willingness to invest, mainly due to reservations regarding language, cultural or political issues, which may entail more transaction costs (D'Arcy, 2009) & (Baum & Murray, 2010). Some countries try to lessen or even eliminate the impact of those barriers that are most likely to segment the local market from the global capital market (Baum, 2009).

#### *2.3.4.2.1.1 Direct barriers*

Direct barriers may include formal legal barriers related to taxation and ownership, as well as restrictions to capital accounts (Baum & Murray, 2010) and (D'Arcy, 2009). From the researcher's point of view, among the variables covered and tested, the following factors are considered as the chief variables related to direct barriers to FDI in real estate for the region under investigation (see Figure 8).

#### *2.3.4.2.1.2 Investment freedom*

A distinctive characteristic of FDI is that once an investment has been made, a foreign investor cannot prevent the government in the host country from changing the environment in which the investment decision was made. The investment climate therefore, is an important determinant to international real estate investors. Two

forms of restrictions can be faced by international investors: a) ownership restrictions and 2) expropriation of investments.

Restrictions on foreign ownership in general, can limit the possibility of acquiring a bundle of rights in a particular country if investors are not citizens of that country. Guert & Jaffe (1996) have examined restrictions on foreign ownership which indicates the managerial control that investors can exercise over companies in the host country, and found it to be a significant risk to international real estate investment.

On the other hand, expropriation which takes different forms (direct and indirect), where, a direct act of expropriation involves nationalisation of foreign-owned corporations, in which the government simply takes control of the capital stock. There are also indirect forms of expropriation that multinational corporations face. Examples include excessive taxation, capital controls, manipulation of exchange rates, and bribes and permits demanded by government officials.

In real estate, capital controls affect the ability of investors to repatriate their investment. If domestic savings are scarce in the host country, it is likely that capital account transactions will be restricted. A common direct restriction could be the imposition of a minimum period of investment (Bekaert, 1995). It follows from this that restrictions on international financial flows are less prevalent in high-income countries with large domestic savings (Eichengreen, 2001). Baum & Murray (2010) find that real estate investors are likely to consider restriction to capital accounts a high barrier to investing in emerging markets.

Therefore, the intuition is that the more open a country is, the more it may attract real estate related FDI.

#### **2.3.4.2.1.3 Taxation**

Taxes affect the incentives of agents and firms in all areas of economic activity, and FDI is no different. Unfortunately, there is a scarcity in the empirical work in regard to taxation and its impact on FDI in real estate. This can be attributed to the complexity nature of taxation in real estate (see chapter 3, for a summary on tax instruments used in the selected MENA countries).

Baum (2009) explains the different forms of taxation that can be faced by international investors. One example is the case of a real estate fund that is domiciled outside the fund's country of origin; taxes to that investor in the fund can include withholding tax, and taxes on capital gains (Baum, 2009). Taxes also may be applied to the investor in the funds that home domicile (for instance, income tax, taxes on capital gains) (Baum, 2009).

At the property level, taxes may be applied to the investor in the domicile of the property (Baum, 2009); he gives an example of such tax, which is applied in France and is 3%. Taxes may also be applied to the holding entity in the domicile of the property (local taxes); or the domicile of the fund (corporate taxes, withholding tax). Taxes may be applied to the entity in the domicile of the entity (corporate taxes). Taxes can be applied to the property in the domicile of the property (VAT, stamp duty and other transfer taxes) (Baum, 2009).

Therefore, and as a proxy of tax effects, this research examines the total tax rate of the target country. All else being equal, it is expected that a country with a lower total tax rate would attract investment. However, this measure does not address tax credits, multinational-specific taxes, or the issue of double taxation. Therefore, results using this tax rate measure must not be treated as definitive.

A second line of argument, one subject to less ambiguity in measurement problems, is to examine the effect of tax treaties between two countries. Unfortunately, it is difficult to find internationally comparable measures of after tax returns to capital.



#### 2.3.4.2.2 *Indirect barriers*

Indirect barriers relate to country specific risks which might include governance risk, market/ liquidity risk, economic policy risk and, macroeconomic instability, and real estate market transparency (Baum & Murray, 2010) and (D'Arcy, 2009).

Among the many factors and variables covered in the literature, the following indirect barriers are believed to be of importance to the region under investigation.

##### 2.3.4.2.2.1 *Governance (country) risk*

Actions by government affect real estate investment decisions almost everywhere (Lee, 2005). Governance is defined as the traditions and institutions by which authority in a country is exercised (WGI, 2010). This includes the process by which governments are selected, monitored and replaced; the capacity of the government to effectively formulate and implement sound policies; and the respect of citizens and the state for the institutions that govern economic and social interactions among them (Kaufmann, Kraay, & Mastruzzi, 2009).

According to Lee (2005) very little has been done to examine the effects of governance and country risks on international portfolio investment. He states that country risk is a broad concept that is not simply political risk and this is why little or no work has been done to examine country risk in developed countries. He argues that country risk is a combination economic conditions; discriminatory tax regulations; limitations on foreign ownership; lack of information; capital controls; and transactions costs. In his recent work developing the Real Estate Potential (REP) index, he assigns country risk as one key dimension in his index, which consists of four dimensions.

He uses the Euromoney Country Risk index which is a combination of subjective and objective assessment. However, this study breaks down country (governance) risks

into six key dimensions that measure voice and accountability; political stability and absence of violence; government effectiveness; regulatory quality; rule of law; and control of corruption. It is believed that these dimensions cover key indirect barriers faced by foreign investors.

#### *2.3.4.2.2.1.1 Political stability and absence of violence*

As discussed in section 2.5.1.2, political stability is a key institutional determinant and it is very important to investors to be operating in a politically stable environment. This view is supported by Azzimonti & Sarte (2007), as they draw attention to the importance of political instability. They focus on the propensity of some governments to expropriate assets (nationalisation) or indirectly (through changes to tax codes and exchange rates, capital controls, bribery, and licensing). The authors claim that poor institutional quality, expropriation in its many forms, and a lack of policy commitment are negatively related to FDI.

In a real estate context, Keogh and D'Arcy (1999) argue that countries' national property markets are defined by their socio-cultural and political environment. The socio-political risk comprises social risk and government policy risk and is an indicator of institutional problems in a country's public sector.

Lim, McGreal and Webb (2006) as well as Chin, Dent and Roberts (2006) found political stability to be the most important factor underpinning international investors' country choices when entering emerging or transition economies.

Lee (2001) notes that the level of perceived corruption faced by business within a country can prove a major impediment to the successful implementation of an investment strategy. Geurts and Jaffe (1996) also argue that a country's socio-cultural framework is closely related to its political environment influencing the overall investment climate.

#### *2.3.4.2.2.1.2 Government effectiveness*

Government effectiveness can be defined as the quality level of public services, civil service and the degree of its independence from political pressures, the policy formulation and implementation, and the credibility of the government's commitment to such policies (Kaufmann, Kraay, & Mastruzzi, 2009).

Unfortunately, no previous empirical work for this specific dimension however the intuition is that the better the government effectiveness the more FDI the country will attract.

#### *2.3.4.2.2.1.3 Voice and accountability*

Voice and accountability can be defined as the extent to which a country's citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media (Kaufmann, Kraay, & Mastruzzi, 2009).

Again no previous empirical work in regard to FDI in real estate can be reported here, so the intuition is that countries with better voice and accountability environment will be able to attract more FDI in real estate.

#### *2.3.4.2.2.1.4 Rule of law*

The rule of law can be defined as the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence.

It is well known that the more respect for the rule of law naturally leads to less corruption, less risk of government expropriation and strong coercion of contract. That what is found by Liao & Mei (1999), when trying to relate the rule of law to real

estate returns, they found rule of law variable to be positively correlated with other risk variables, and concluded that rule of law and economic freedom may reduce property variance risk so enhancing property returns.

#### *2.3.4.2.2.1.5 Regulatory quality*

Regulatory quality is defined as the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development (Kaufmann, Kraay, & Mastruzzi, 2009).

D'Arcy and Keogh (1998) argue that each country's real estate market is conditioned, amongst other things, by landlord and tenant law, planning law, and urban policy. The burden of doing real estate business and taxation are considered to directly affect the operational efficiencies of any kind of business.

Worzala (1994) and Adair et al. (1999) note that this affects foreign investors at a large extent at three times: when investing, operating or exiting a market.

Keivani, Parsa, McGreal (2001) argue that regulatory limitations, exchange controls and the repatriation of capital restrain international capital flows and hence, provoke a major source of concern for investors. Chin, Dent, & Roberts, (2006) found that the more restrictions & regulations imposed on foreign investors, the less attracted investors are to that country.

#### *2.3.4.2.2.1.6 Corruption (control of corruption)*

Control of corruption can be defined as the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests (Kaufmann, Kraay, & Mastruzzi, 2009).



Lee (2004) (cited in Lee, (2005)) finds a significant correlation of 0.91 between the level of corruption in a country, as measured by the 2004 Transparency International Corruption Perception (CPI) Index and the level of real estate transparency, as measured by the 2004 Global Real Estate Transparency (GRET) Index produced by Jones Lang LaSalle (JLL), and concludes that corruption prospers on a lack of transparency, and suggests that corruption is likely to be a problem in implementing any international diversification strategy, in both developed or developing countries.

Geurts & Jaffe (1996) also used the corruption variable in their study, as they used it as a signal for weak legal framework. They hypothesised that countries that have weak private property rights protection and corruption, are likely to be higher than in those countries with stronger legal protection. And they conclude that corruption is likely to hinder economic activity by raising transaction costs for investors.

As well as the six dimensions of governance indicators discussed above, there are other indirect barriers that could be influencing foreign investors in the region under investigation. These can be summarised as follows.

#### *2.3.4.2.2 Security of property rights*

Guert and Jaffe (1996) state that security captures the level of confidence amongst investors and that their persons and property will be protected. They categorised this variable under property rights as they believe that the higher the level of confidence that investors' property will be protected, the lower the required return should be on their investments.

Chin, Dent, & Roberts, (2006) and Lim, McGreal, & Webb (2006) found that standardisation of property rights and market practice is important determinant to attract foreign investors. Lee (2005) also have used this variable in his Real Estate Potential (REP) index, as he wanted to measure the security of property rights and

the effectiveness of contracts and leasers, and therefore, he used Property Rights (PR) index to achieve this purpose.

#### *2.3.4.2.2.3 Real estate market maturity and transparency*

Understanding specific property market requires considering the nature of that market and its evolution, as well as economic conditions. Property market analysts usually look at national and regional levels and urban economics when analysing economic conditions (Chen & Dent, 2005). However, they tend to ignore the cultural and institutional framework dimensions and concentrate on the demand and supply conditions in the three sub-markets: user, investment and development (Keogh, 1991).

Keogh (1991) suggests that the determination of capital values and yields may be only partly explained in terms of the decision-making rules of investing institutions or the social symbolism of property as an asset. Opportunities in both the user and investor markets will be constrained by the legal system of property rights and the quality of professional advice available to those transacting property interests, with obvious implications for property rights (Chin, 2002) and (Laposa, 2007).

Keogh and D'Arcy (1994) proposed a paradigm of property market performance, which rests not only on economic fundamentals but also on an explicit consideration of market maturity. They define market maturity as a function of the degree of diversification of user and investor opportunities, flexibility of adjustment of property interests, market openness, the existence of information and research systems, professionalization, and standardisation of property rights and market practices.

Within this context, the market maturity paradigm has been forwarded as a basis for examining property market processes particularly for international comparisons and as a measure of competitiveness of cities in attracting investment (Keogh and D'Arcy,

1994; Armitage and Keogh, 1995; D'Arcy and Keogh, 1998; cited in McGreal, et al, 2002).

Keogh & D'Arcy (1994) in their study of London, Barcelona & Milan property markets, where they developed the market maturity paradigm, they have used the following comparison criteria as a basis for their analysis: user and investor opportunity; market flexibility; availability of professional bodies; adequate property market information and research; market openness; market standardisation; value stability; development stability and economic development.

They concluded that the concept of market maturity is too complex to provide a simple route to define the market activity. They also assert that market maturity does not necessarily follow the same route for all of the markets.

Market maturity framework was further utilised by several authors to analyse the level of development of real estate markets, including Armitage (1996), Lee (2001) and McGreal, et al (2002) (see Appendix 3 for a summary of the studies).

One recent study utilising the concept of market maturity is carried out by Chin, Dent, & Roberts, (2006) in their recent research on Southeast Asia cities. They have extended Keogh & D'Arcy's framework and added some key factors to the definition of market maturity, these are; the quality of property product, market information standardisation and availability, and presence of property intermediaries, which were utilised by Lee (2001).

Laposa (2006) argues that the concept of market maturity is by some means incomplete, as it excludes other important factors related to FDI decisions, such as foreign property demand and supply, foreign property capital flows and foreign property service providers. These factors are important when comparing cities, and also are part of investors' decision making processes.

One measure of market maturity and transparency is the JLL Global Real Estate Transparency index, which is according to Lee (2005), based on a structured survey

conducted within LaSalle Investment Managers (LIM) of their global network of researchers and covers the following five key attributes of real estate transparency: (1) Legal factors; (2) Regulatory burden; (3) Availability of information on market fundamentals; (4) Listed vehicle financial disclosure and governance; and (5) Availability of investment performance indexes (see Appendix 5 for information on major real estate data providers in the MENA region).

A country with a perfect 1.00 would be the country with the highest level of transparency. A country with a total of 5.00 would be a country with total opacity. From this data countries are assigned a composite GRET index and grouped into five broad tiers of transparency:

Tier 1: Highly Transparent

Tier 2: Transparent

Tier 3: Semi-Transparent

Tier 4: Low Transparency

Tier 5: Opaque

He uses the JLL GRET Index (2004) to measure the transparency of the 51 countries in his REP index. Baum (2008) also uses the JLL Transparency Index scores across 41 countries, applying a score. He finds that TI score was correlated negatively and significantly with both the number of unlisted funds and target Gross Asset Value (GAV) (dependant variables). He concludes that countries receiving significantly less investment than that predicted by his equation have average TI indicators of 4.07 (opaque). This assures that transparency is a key variable in this study.

#### **2.3.4.2.3 Other barriers**

There are other barriers that have been covered in the literature, for instance currency convertibility and risk of fluctuations. Among the few studies that have examined this issue, e.g. Sirmans & Worzala (2003) conclude that currency fluctuations change the diversification benefits associated with international real

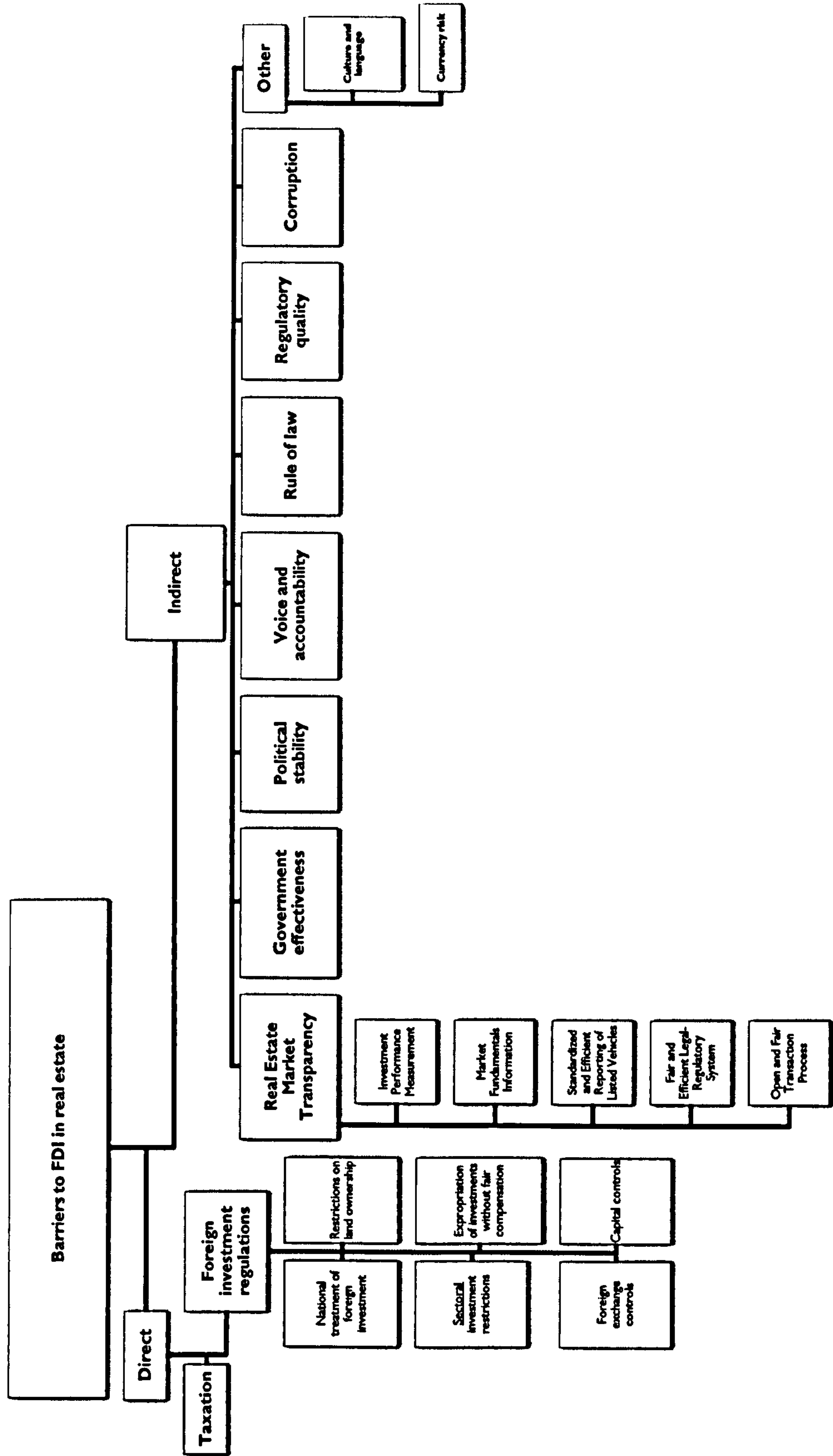


estate investments. This is not surprising as the adjustment of local markets return for exchange rate fluctuations leads to changes in all the parameters of the portfolio problem and so the risks and returns of the efficient frontier produced using local market returns will inevitably be different from that using exchange rate adjusted data. This would even be the case if the asset holdings and weights of the two efficient frontiers are identical. In other words, the risks and returns of the efficient frontiers using unadjusted or adjusted data are different is not enough to indicate whether currency risk really matter to investors. Since if the portfolio compositions of the efficient frontiers using exchange rate adjusted and local market returns are essentially the same, portfolios based on local market real estate will perform equally as well as those based on data adjusted for currency risk. In contrast, if the portfolio compositions are radically different using unadjusted or exchange rate adjusted data, currency risk needs to be explicitly accounted for when analysing international real estate investment (Thomas & Lee, 2006).

Spremann & Gantenbein (2003) and Baum (2009) argue that currency issue is a major risk factor in international real estate investment and it is common that most institutional investors to have a formal currency policy to deal with exchange rate fluctuations.

Spremann & Gantenbein (2003) suggest that the main techniques used to mitigate currency risk are; to use domestic loans to fund overseas investments, back-to-back loans (foreign), forward purchasing of currency for known cash flows/ consideration of hedging techniques, financing by local banks, hedging under extreme circumstances, currency is left un hedged, use of various financial tools – options and futures and to leave it to corporate currency/ Treasury people. Ziobrowski, Ziobrowski and Rosenberg (1997) also suggest that a currency swap may well reduce the risk of currency fluctuations on the income return of foreign property.

Figure 8: Barriers to FDI in real estate



Sources: author and others including Jones Lang LaSalle and Economist Intelligent Unit

## 2.4 FDI IN HOTEL GREENFIELD PROJECTS

### 2.4.1 HOTELS, TOURISM AND THEIR FDI RELATED ACTIVITIES

The hotel industry is an important sub-sector of the tourism industry and provides accommodation and related services to tourists.

Hotels are defined by the World Tourism Organisation (WTO) as “*collective tourist establishments*”, comprising: *hotels, apartment-hotels, motels, roadside inns, beach hotels, residential clubs and similar establishments providing hotel services including more than bed-making and cleaning of rooms*”.

So is there a link between the hotel sub-sector and real estate sector? Primarily, the real estate sector is divided into four asset classes - office, retail, residential and industrial. Hotels however, have not been regarded as an asset class for a variety of reasons (Newell & Seabrook, 2006): the lack of understanding of the industry by investors, as it is very specialised industry with specific features; very volatile when compared to other property asset classes, resulting from unstable cash-flows (from lack of long-term leases, out-dated management agreements and seasonal influences); and difficulty in having a quick exit strategy. However, in recent years hotels have become more mainstream in the eyes of the investors and one recent study by Larkin (2007) concluded that hotels can now be regarded the 'fifth asset class' in the real estate sector and that hotels will possibly be a familiar asset class for real estate fund managers for many years to come.

Investment in hotels is only one FDI activity in what is called “international tourism economy” (UNCTAD, 2007). Ryan (1991) defines tourism ‘from the economic viewpoint’ as “*a study of the demand for supply of accommodation and supportive services for those staying away from home, and the resultant patterns of expenditure, income creation and employment*”. Clearly this definition identifies tourism as an industry, where hotel accommodation is key sub-sector of this industry. Indeed FDI in tourism was mainly in hotels, as Table 2 below shows how the intensity of FDI activities, and

that the main FDI activities are concentrated in hotels and restaurants, with little FDI in airline, for instance.

According to the UNCTAD comprehensive report and survey on FDI in tourism UNCTAD (2007), tourism accounts for no more than 1 or 2% of total outward FDI stocks from the largest source countries; and an even smaller proportion of total inward FDI stocks for the largest host countries. Reflecting this, tourism does not have as many global mega corporations as in other sectors (for example, manufacturing). The UNCTAD (2007) report also states that tourism-related FDI is also largely concentrated in developed countries. Although it has been growing fast, it is estimated to be as little as 10% in developing countries.

Table 2: FDI is concentrated in a subset of tourism activities

TSA components	Frequency with which FDI appears to occur		
	Most frequent	Occasional	Rare
Hotels and similar	√		
Restaurants and similar	√		
Second homes	√		
Passenger transport rental equipment	√		
Railway passenger transport services		√	
Air passenger transport services		√	
Road passenger transport services			√
Water passenger transport services			√
Passenger transport supporting services			√
Travel agencies and similar			√
Cultural services			√
Sports and other recreational services			√

Source: UNCTAD (2007)

2.4.2 MARKET ENTRY MODES IN THE HOTEL INDUSTRY

In the context of hotel investments, determining the path to ownership is an important element to consider by foreign investors. There are various ways to ownership ranging from developing a new hotel to acquiring existing hotels of various profiles or converting existing buildings into hotels (Larkin, 2007).



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According to Quer, Claver, & Andreu (2007), entry modes of hotel firms can be divided into three large groups: (1) supplying foreign markets through commercial transactions (exportation); (2) transferring knowledge to the destination country through a contractual agreement; (3) or moving productive or commercial capabilities, providing capital through foreign direct investment (FDI), either jointly (joint venture) or on its own (wholly owned subsidiary).

These modes of entry fall into two broad categories: non-equity entry modes (including exports and contractual agreements) and equity entry modes (including FDI modes) (Quer, Claver, & Andreu, 2007).

The main considerations in determining the entry-mode selected is the level of equity investment demanded and the degree of control required over the operations (see Figure 9). The figure shows that there are non-equity strategies of management contracts and franchising (with lower levels of control and equity commitment) on one side, and acquisition of local operators and foreign direct investment on the other. Strategic alliances and joint ventures may be seen to occupy the “middle ground,” depending largely on the level of investment and other resources committed by the respective companies.

The following section discusses each of the entry modes in more details:

*Figure 9: Relationship between control and ownership in the hotel industry*

*Source: Contractor & Kundu (1998)*

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### 2.4.2.1 FDI (EQUITY) MODES

Figure 9 above shows equity based strategy can be a wholly-owned equity, where the MNC owns the entire hotel, or partial equity, where the MNC owns a share in conjunction with a local partner. According to UNCTAD (2007), the local partner may be in some cases a government, reflecting the historical trend in many developing countries where many hotels were State-owned.

The concept of control (see Figure 10 below), is somewhat important in the hotel industry, as it may occur at different levels, for instance: (1) daily operational and quality control in each hotel property (2) control over the physical assets or the real estate (3) control over tacit expertise embedded in the routines of the firm (4) control over the codified assets such as the global reservation system and the firm's internationally recognised brand name (Contractor and Kundu, 1998).

*Figure 10: level of control in hotel operations in relation to entry modes*

(MODE)

*Source: Contractor & Kundu (1998)*



As can be seen from the above figure, the control over operations and assets is directly related to the mode of ownership so the control increases when the equity involvement increases.

According to Johnson (2002), the principal equity-involved entry or expansion modes (ranked according to level of control over the entrant) can be divided into the following:

#### *2.4.2.1.1 Foreign Direct Investment (FDI) and Mergers & Acquisitions (M&A's)*

FDI in either a new property or a series of properties is a potentially profitable option for hotel companies, but with a correspondingly high degree of risk. According to Johnson (2002), the major concern is the political and economic stability in the country, in the light of the potential market in terms of demand and growth.

According to UNCTAD (2007) privatisation was a significant driver of FDI in many developing countries in the 1990s, and there continue today to be investments that occur through privatisation. UNCTAD (2007) asserts that greenfield investment is expected to be particularly important, unlike in other areas of an economy where entry through mergers and acquisitions (M&A) is more prevalent.

However, Endo (2006) argues that M&A's has been an important part of the hotel industry for many years. According to his recent study for the period (1987-2002), covering 2591 cross-border M&A deals from 33 sectors, with 34% took place in hotels and motels, 13% in eating places, 11% in travel agencies and 8% in scheduled air transportation; with an aggregate transaction values of for \$160 billion, representing 3% of the cross-border M&A deals in all the industries in the same period, he finds that M&A's are an important part of investment in tourism, and that most of big deals are concentrated in developed countries; as well as that hotels and motels represent the major part of "tourism" related deals.

His study also reveals other interesting findings for instance, he finds that developing country investors are active in acquiring assets in developed countries; he also finds that few Asian economies were the major targets as well as, in many cases, the major acquirers of hotel assets.

#### *2.4.2.1.2 Long-term leasing*

This mode of market entry is comparable to the full-equity mode, as it commits the MNC's to dedicate financial resources and assume control for a long period (Johnson, 2002). Requiring as it does significant investment over time, long-term leases are given careful consideration by development directors, especially the corresponding risk and market desirability of the host country (Johnson, 2002).

#### *2.4.2.1.3 Strategic alliance*

A strategic alliance is a low-cost, limited-risk form of linkage or partnership between two or more companies. It allows multinationals to gain domestic market awareness and increase their network coverage (Johnson, 2002). Forms of alliance range from relatively low risk and low-visibility information sharing and referral of business to more overt joint branding (Johnson, 2002).

Strategic alliances are especially attractive to hotel companies operating in fragmented markets with small market share. Specifically, members from the alliance benefit from (Olsen & Zhao, 2008):

- Risk reduction
- Achieving economies of scale
- Technological exchanges
- Creating barriers to entry/blocking competition
- Overcoming government-mandated trade or investment Barriers
- Facilitating international expansion of inexperienced firms

- Vertical quasi-integration of linking the complementary contributions of partners in a value chain.

According to Olsen & Zhao (2008), there are two types of strategic alliances that include formal and informal arrangements of cooperation. The two modes include equity participation and non-equity based cooperation, which define the nature of the relationship between partnering firms. Formal relationships are seen in joint ventures wherein two firms come together to create a new entity, in which equity participation from both parties take place (Olsen & Zhao, 2008). Non-equity mode of alliance formation leads to cooperative arrangements which result in collaboration entailing informal relationships rather than the use of formal governance methods (Olsen & Zhao, 2008).

#### **2.4.2.1.4 Joint venture**

Joint ventures often take the form of partial equity investment and may involve the establishment of joint business projects with host countries or with regional partners (Johnson, 2002). They may be comprised of companies with substantial financial resources, which in time lead to wholly owned subsidiaries with full ownership and control. By its nature the joint venture assumes a certain period of financial obligations and control, and has been used to good effect by multinationals in securing properties in key locations (Johnson, 2002).

According to Olsen & Zhao (2008), multinational hotel firms have been increasingly forming joint ventures recently with strategic partners to employ their location-bound assets and mature service and production resources, especially in the emerging markets, such as China, India, and Russia (Olsen & Zhao, 2008).

#### **2.4.2.2 NON-EQUITY MODES**

Figure 10 above shows the most common types of non-equity modes (i.e. management contract and franchising) (Contractor & Kundu, 1998), (Endo, 2006) & (UNCTAD, 2007).

#### **2.4.2.2.1 Management contract**

Contractor & Kundu (1998) define a management service contract as a “*long term agreement, of up to ten years or even longer, whereby the legal owners of the property and real estate enter into a contract with the hotel firm to run and operate the hotel on a day to day basis, usually under the latter's internationally recognized name.*” According to Johnson (2002), there is a wide range in the duration of management contracts (from 20-25 years), but in recent years, the trend was towards shorter terms.

This mode is considered the closest type of mode to an equity arrangement in the sense that the foreign enterprise has control over the management of the enterprise (see Figure 10). Contracts vary, as most include providing an internationally recognised brand name and booking system, in addition to day-to-day managerial operations. The management team usually comprises a small group of senior managers who employ and train local employees.

#### **2.4.2.2.2 Franchising**

In a franchise contract, by contrast, a local owner buys the right to use the brand name, marketing systems and reach, but does not expect the franchising company to provide day-to-day managerial or operational control. The MNC control is minimised in this mode (see Figure 10 above).

Advantages for the franchiser include reduced capital investment, fast growth expansion, additional revenues/profits, and a potential for larger market share (Johnson, 2002). In the hotel industry, franchising was mainly used in the budget and mid-market sectors, but more recently has been effective even in the five-star



bracket, e.g. through the franchise of the Four Seasons' Regent name to Carlson (Johnson, 2002).

Generally, MNCs combine the above modes of operations (i.e. more than one type of association within the same hotel) that fit best to their interests depending on the conditions of host countries, e.g., owning a small equity interest in a hotel and operating it under a management contract or a franchise agreement) (Endo, 2006) & (UNCTAD, 2007).

#### *Factors influencing choosing non-equity mode of operation*

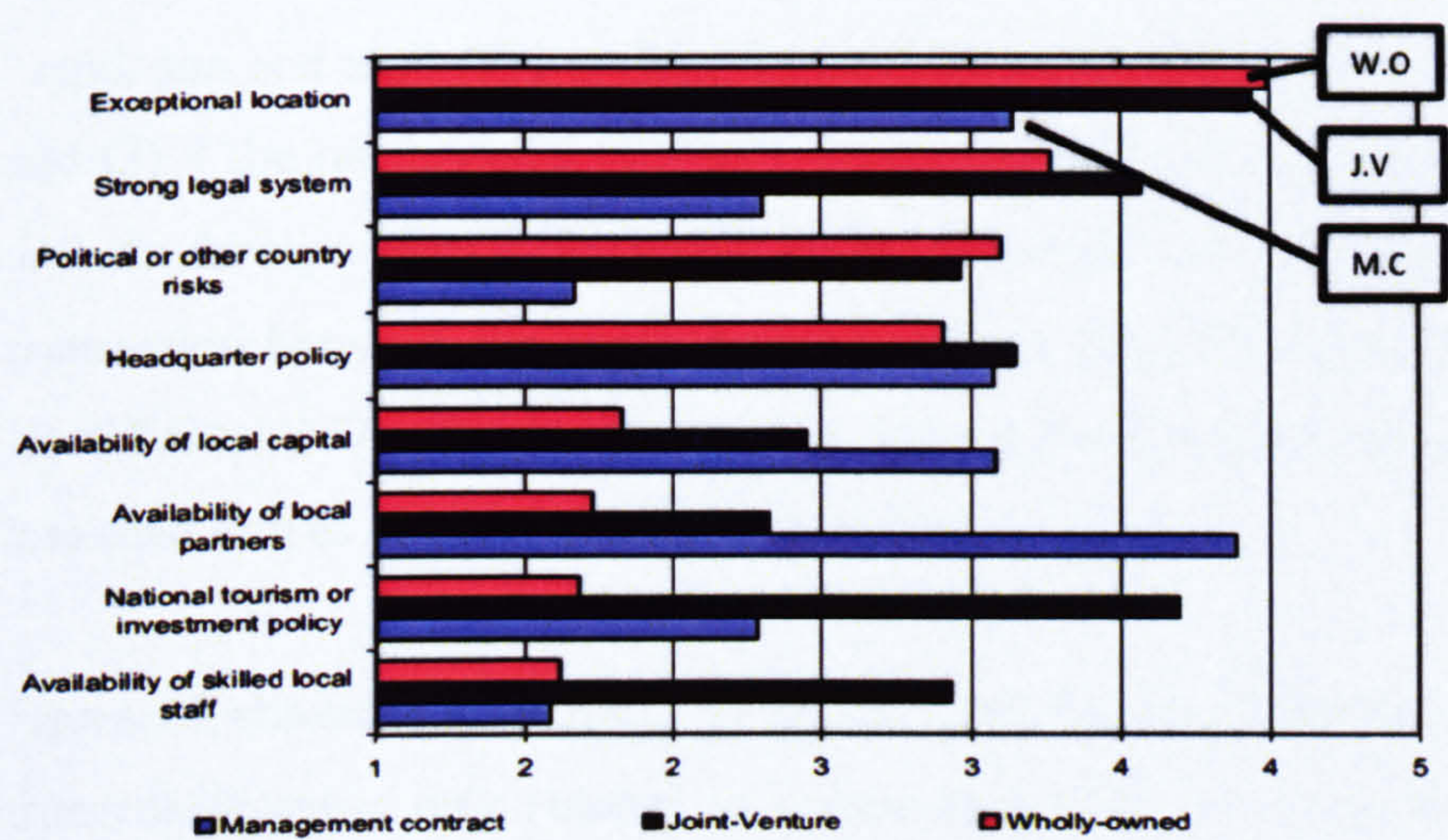
There are many factors that influence hotels MNC's in choosing between the different entry modes (see Figure 11 below). However, and according to UNCTAD (2007) survey, there are mainly five factors to be contributing to preferring non-equity involvement in global tourism investment, in developed as well as developing countries (UNCTAD, 2007):

1. Hotel MNC's have the competitive advantage of intangible assets such as managerial and organisational expertise permitting, for example, a consistent range and quality of services across locations in many different host countries. Associated assets might include globally recognised brand names, access to, and use of, global reservation systems, and scale advantages in purchasing hotel equipment and other goods and services for customers (UNCTAD, 2007).
2. These intangible assets are separable from tangible and capital-intensive ones (such as real estate), and can be protected (through contracts and other means), thereby facilitating the possibility for non-equity based agreements (UNCTAD, 2007).
3. Non-equity agreements enable the separation of management risk from investment risk. According to the UNCTAD (2007) survey interviews, this appeals to many MNCs not least because of the relatively high equity-to debt



- ratio typical in the hotel industry (as high as 50:50 for some developing countries).
- Contracts can be sufficiently detailed to cover the design, style and layout of a hotel, the size of and equipment in rooms, as well as additional facilities such as swimming pools or car parks – features that can influence the quality and potential profitability of the hotel (and ensure that the value and reputation of a MNC brand is not threatened as in situations where foreign investors do not directly own the operations) (UNCTAD, 2007).
  - A final factor is a host country's policy. In the past, many developing countries had a strong preference for control of physical assets, including hotels, on their territory. They therefore preferred local ownership, sometimes in joint ventures with foreign investors, leading to the establishment of non-equity forms. Currently, however, with the liberalisation of FDI policies and intense competition for FDI, many countries seek not only the presence of international hotel chains, but also capital investment by them. As a result, in a more liberal investment climate, companies have a greater choice of the modes of entry (UNCTAD, 2007).

Figure 11: reasons for choosing modes of operation (average ranking in order of importance)



Source: UNCTAD (2006) survey cited in UNCTAD (2007)



### 2.4.3 THE APPLICATION OF THE OLI PARADIGM TO HOTEL FDI

The ownership aspect deals with the internal strengths of the corporation which encompass investment and operational resources, competitive advantages, skills and equity. The aspect of locations condition, involves more of the external factors such as considering the financial and political risks in various locations and choosing the most feasible location or international market to invest in. The internalisation advantage considerations determine if direct or indirect foreign investment approaches to a particular location is more appropriate. It entails an analysis of the cost and benefit factors that are associated with utilising the corporation's resources in foreign investments. Low cost and above marginal benefits induces fully equity ownership, while high cost and marginal benefits induce indirect investment (joint venture, licensing, or contractual agreement) (Dunning & Lundan, 2008).

The theoretical approach requires a hotel firm to establish an affiliate in a host country if three factors come together simultaneously (Dunning & Lundan, 2008): (1) if it possesses ownership-specific technological or other advantages which allow it to compete effectively with local companies; (2) if there is some benefit to locating in the host country (location advantages such as cheap labour, or local assets such as "sand, sun and sky" (SSS or 3Ss, for some tourism destinations) (UNCTAD, 2007); and (3) if the net benefits of intra-company transactions (i.e. between the company and its foreign affiliate (internalisation) outweigh those of an equivalent market transaction between the company and a firm in the host country; and according to UNCTAD (2007), the third factor (i.e. internationalisation in tourism), occurs much less than it does in other economic activities.

Figure 12 shows FDI decisions in hotels using the OLI framework. It can be noted that the figure is only related to undertaking 'FDI' not management contract nor licensing/ franchising.

According to UNCTAD (2007), when firms only meet the first condition (i.e. Ownership); they can rely on exports or licensing/franchising, rather than on FDI, to

service a foreign market. And when only first and second conditions are met (i.e. Ownership and Location), firms can use management contract or licensing/franchising to service the market - again, not FDI (UNCTAD, 2007).

When the first and third (firm-specific) conditions are met (i.e. ownership of competitive advantage(s) and benefits of internalisation), then equity investment becomes the preferred mode of servicing foreign markets, but only in the presence of (host country –specific advantage) (Location-specific advantages) (UNCTAD, 2007). In this vein, for FDI to occur the only ones that host governments can influence directly are those relating to location (UNCTAD, 2007).

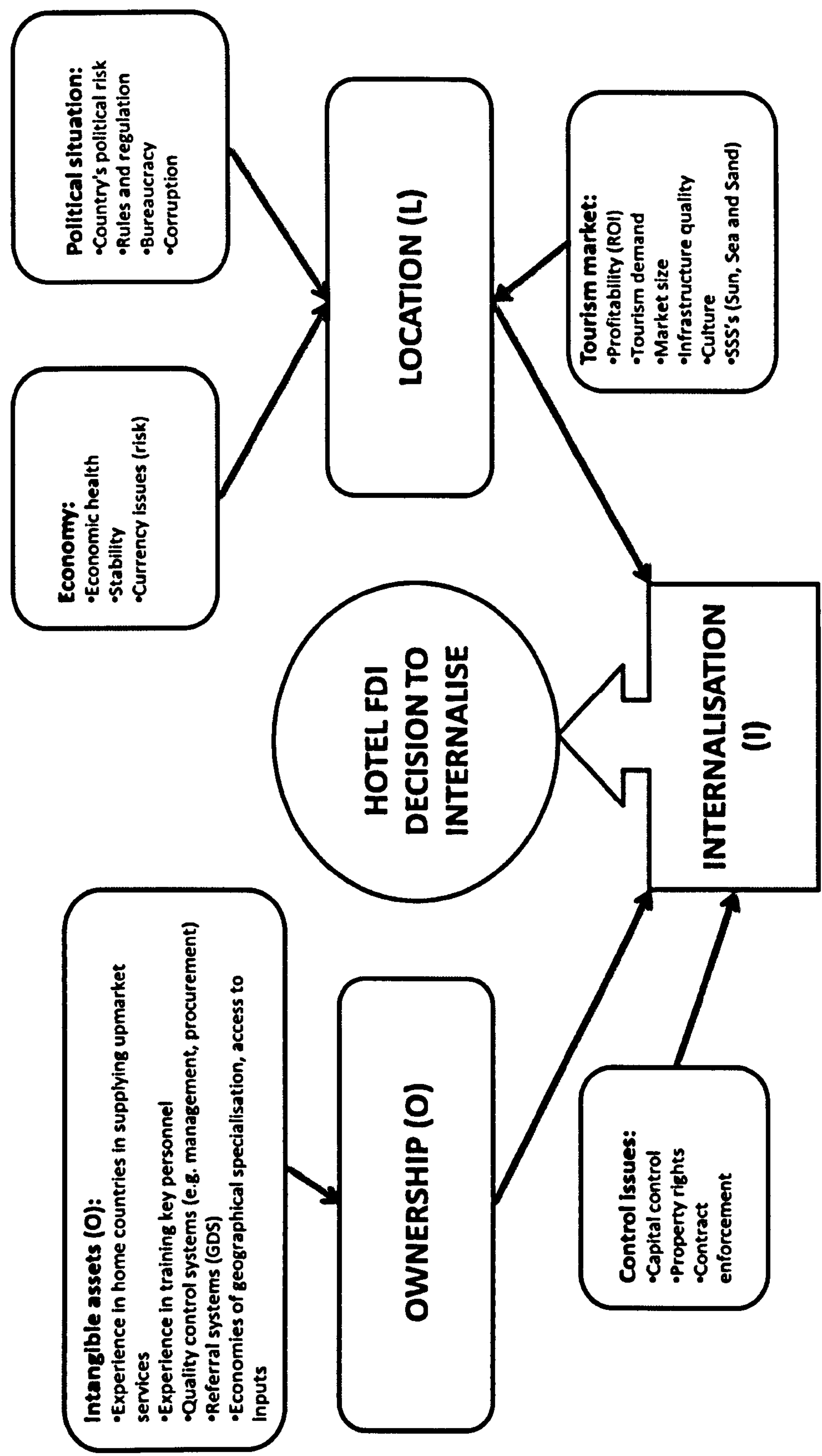
According to UNCTAD (2007), the location-specific factors have a crucial influence on which countries will appear on the hotel firms' radar screen.

Figure 12 applies the OLI approach to the hotel industry in which FDI has been found most likely to occur. It shows how the three OLI conditions must occur simultaneously.

As mentioned earlier, the greater incidence of non-equity forms of MNC activities in hotel industry is a factor that should be borne in mind when analysing FDI in hotels.



Figure 12: the application of OLI paradigm to the hotel sector



Source: developed for this study

## **2.4.4 DETERMINANTS OF FDI IN HOTELS**

Determinants of FDI in hotels are no different from other industries (Endo, 2006). Such determinants include cultural/ historical/geographical distance, political and/or economic risks, level of economic development, socioeconomic environments, privatisation of the industry, liberalisation of FDI regime (including restrictions on land ownership by foreign investors), taxation, investment incentives, availability and quality of hard and soft infrastructures (e.g., electricity and water supply, roads, airport facilities, labour costs, local knowledge and capabilities, availability of local suppliers), and cooperate strategies or company-specific factors(Endo, 2006). The following section sheds some light on the main drivers and barriers to FDI in hotels. Figure 13 & Figure 14 below present the key drivers and barriers to undertaking FDI in the hotel industry, which have been covered in the literature.

### **2.4.4.1 DRIVERS TO FDI IN HOTELS**

A recent survey conducted by UNCTAD (2007), reveals interesting factors that influence MNC hotels' choice of location in developing countries. The survey reveals that demand (from both developed and developing countries) is key to attracting the MNC to a location. This is followed by size and economic growth. Interestingly, the survey shows that FDI related regulations and incentives are not important as a location determinant. Further, cultural and geographical proximity is moderately important to MNC hotels choice of the location in a developing country.

The following sections briefly cover the main factors that are believed to be of importance to MNC hotels when venturing into developing or emerging markets:

#### ***2.4.4.1.1 The Importance of market size and economic activity***

The UNCTAD (2007) survey reveals that economic size and growth rates are important reasons for hotel firm choice of location, and this could be indirectly affected by government policies and incentives for FDI.

Dunning & McQueen (1981) in their seminal work on internationalisation of hotels also found in that the size and rate of growth of the tourism sector in a host country an important determinant of FDI in the travel business.

A recent study in locational strategies of hotel investors by Johnson & Vanetti (2005) reveals that investors consider size & growth of the economy as well as the size of the target city are important determinants of their strategy. An earlier study by Dunning & Kundu (1995) also finds that size and growth rate of host economy as well as size and nature of the city in host country are of important locational determinants for host countries.

Another study by Newell & Seabrook (2006) on factors influencing hotel investment decision-making in Australia, reveals that economies of scale as well as sound macroeconomic are considered important in the decision making process.

In an econometric framework, Kundu & Contractor (1999) have used the size of the economy as a determinant to country choice of location in their study on hotel internationalisation. They found that the size of the economy is significant and positively associate with the hotel MNC choice of location.

#### *2.4.4.1.2 The Importance of tourism demand*

According to UNCTAD (2007) report, the localisation decisions of hotels depend on the extent of tourism demand for a specific destination, as well as its specific tourism-related assets (e.g. nature, culture). Responses to the UNCTAD (2007) survey indicates that demand from developed-country tourists is the single most important factor, although demand from developing countries is also increasingly important.

The concept of tourism demand originated from the classical definition of demand in economics, namely the desire to possess a commodity or to make use of a service, combined with the ability to purchase it (Song, et al, 2010).

Song & Witt (2000) define international tourism demand as *“the amount of a set of foreign tourist products that consumers are willing to acquire during a specific period of time, and under certain conditions which are controlled by the explanatory factors used in demand theory”*.

Tourism demand can be measured in a variety of ways. Kim (1988) as cited in Song, et al (2010) categorised the measurement criteria for all types of travel and tourism demand into four groups: (1) a door criterion: including the number of tourist arrivals, the number of tourist visits and the visit rate; (2) a pecuniary criterion: for instance the level of tourist expenditure (receipts) and share of expenditure (receipts) in income; (3) a time-consumed criterion: such as tourist-days, tourist-nights; and (4) a distance-travelled criterion: for instance, the distance travelled in miles or kilometres. However, the door criterion and pecuniary criterion dominate international tourism demand studies (Song, et al, 2010). Considering statistical availability and consistency between data sources, tourist arrivals and tourist expenditure (receipts) are the most commonly used tourism demand measures in empirical studies (Song, et al, 2010). They also argue that hotel investors rely greatly on forecasts of tourist arrivals and that investors are more interested in tourist volume that have direct impact on supply capacity of tourism product/ service suppliers.

Recent studies by He & Zhu (2010), He, et al (2009) and Rodríguez & Bustillo, (2008) have used the number of international tourists as a proxy for tourism demand. They found it to be positively and significantly influencing FDI in real estate. He & Zhu (2010) and He, et al (2009), investigate FDI in real estate in China, and they believe that the number of international tourists can be a driver to international hotel investors to be attracted to a market. Similarly, Rodríguez & Bustillo, (2008) found it positively and significantly influencing FDI in housing, which is mainly acquired by tourists.



Kundu & Contractor (1999) study has used tourism receipts as a proxy for tourism demand and they found it to be positively and significantly influencing hotel MNC location choice.

It is the intuition that this research employs both variables (i.e. tourism arrivals and tourism expenditure).

#### **2.4.4.1.3 Other drivers**

There are other factors that have been examined in the literature and were considered important to hotel operators and investors when considering internalisation strategies especially in developing and emerging markets.

In terms of factors that have been covered in the literature, a recent survey by the UNCTAD (2007) reveals a number of interesting factors that are considered important for a host country to attract hotel related FDI's, these include, FDI-related regulation and incentives, geographic and cultural proximity, tourist assets, as well as national stability.

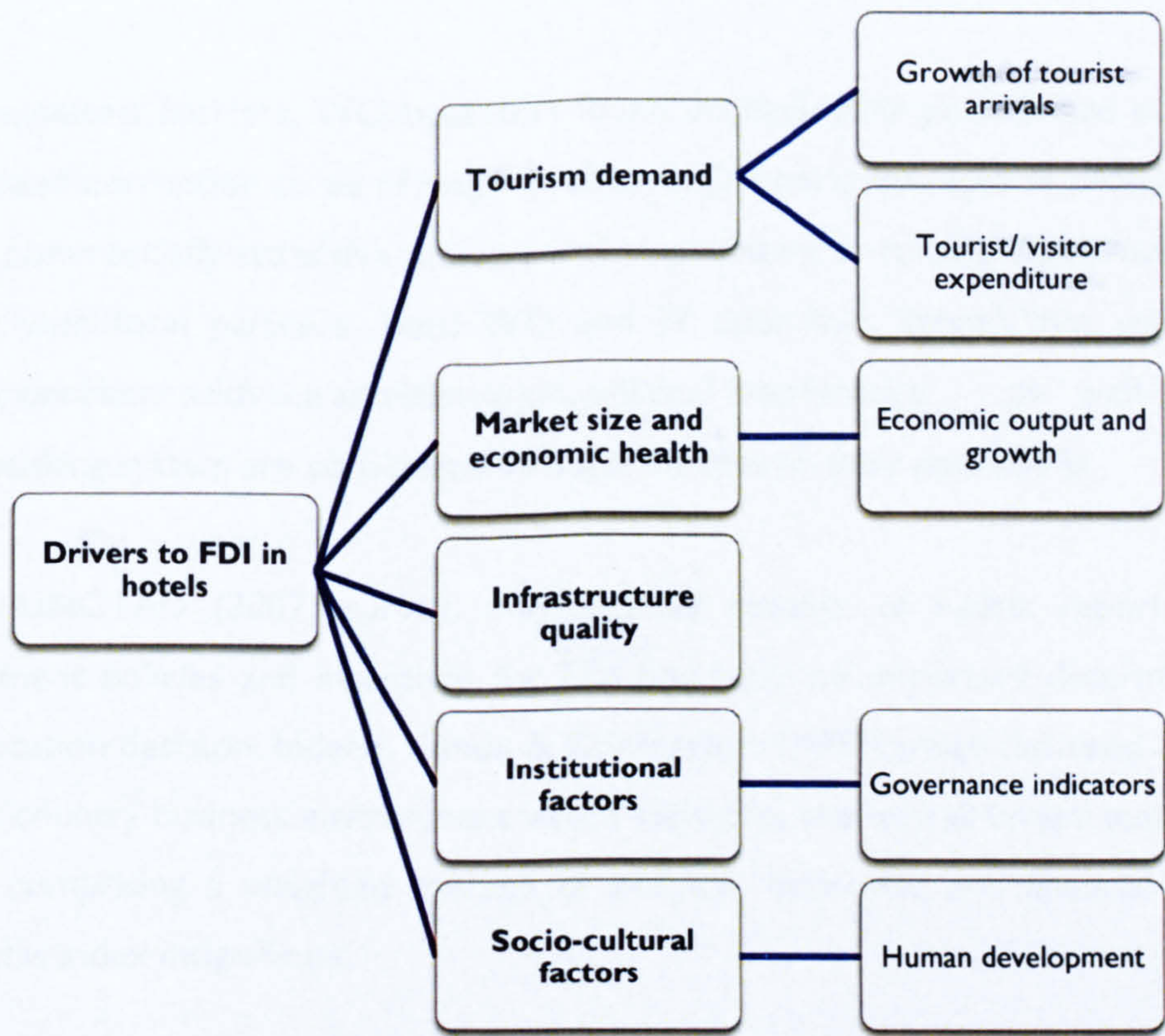
Another recent study, Johnson & Vanetti (2005) finds that government policy towards FDI, tourist attractions, infrastructure as well as culture proximity are regarded as key locational factors for hotel investors. An earlier similar study by Dunning & Kundu (1995) also finds the general infrastructure, the psychic and physical proximity of host country, host government policy towards foreign investment as well as political, social and economic stability of host country, are considered important factors for a host country to attract hotel related FDI's.

Other factors have been discovered by Newell & Seabrook (2006), in their study on factors influencing hotel investment decision making process, and they found that current hotel supply, interest rates, tourist spending patterns, extent market is mature or emerging, historical rates of return, economies of scale advantages,



geographic diversification, segment diversification as well as regulatory influence to be of importance to Australian hotel investors.

Figure 13: drivers to FDI in hotels



Source: developed for this study

2.4.4.2 BARRIERS TO FDI IN HOTELS

Barriers to FDI in hotels can also be divided into both direct and indirect barriers. Although there are no previous studies that econometrically examined barriers to FDI in hotels, few studies have surveyed hotel investors and operators in this regard. For instance, the UNCTAD (2006) cited in UNCTAD (2007) report reveals few direct and indirect barriers cited by respondents, for different modes of operation including ‘whole-owned’ and ‘joint venture’ modes.



As part of the direct barriers, wholly-owned (WO) hotels found problems in acquiring land for hotel development. Another problem was reported by a joint venture (JV) hotel operators was repatriation of profit. Both WO's and JV's found weak infrastructure to be a key direct barrier and a problem to their operations.

On the indirect barriers, WO operators found unpredictable political and economic change and corruption to be of major problems. JV operators reported difficulties in raising commercially attractive rates as well as problems in cultural differences when dealing with local partners. Both WO and JV operators agreed that weak legal system; problems with the administration, political interference as well as the weak banking system are considered as major threats to their operations.

In the UNCTAD (2007) survey, only a small number of hotels reported that government policies and incentives for FDI had been an important determinant in their location decision. Indeed, Kundu & Contractor, (1999) which has used an index of host country business environment which considers the overall investment climate rating, comprising a weighted average of political, economic and financial factors, found this index insignificant.

Sequeira & Nunes (2008) tests country risk influence international tourism using a dynamic panel data analysis, they proxy country risk by using two variables (i.e. the International Country Risk Guide indicator (ICRG) composite index and the ICRG Political Risk Index). They found political risk to be a major threat to countries of Central and South America, the Middle East and Southern and Eastern Europe, and that this risk is the greatest obstacle to their tourism development.

This also comparable with what has been found by Eilat & Einav (2004) that political risk has a significant impact on tourism demand in both development and developing countries.

## 2.5 SUMMARY

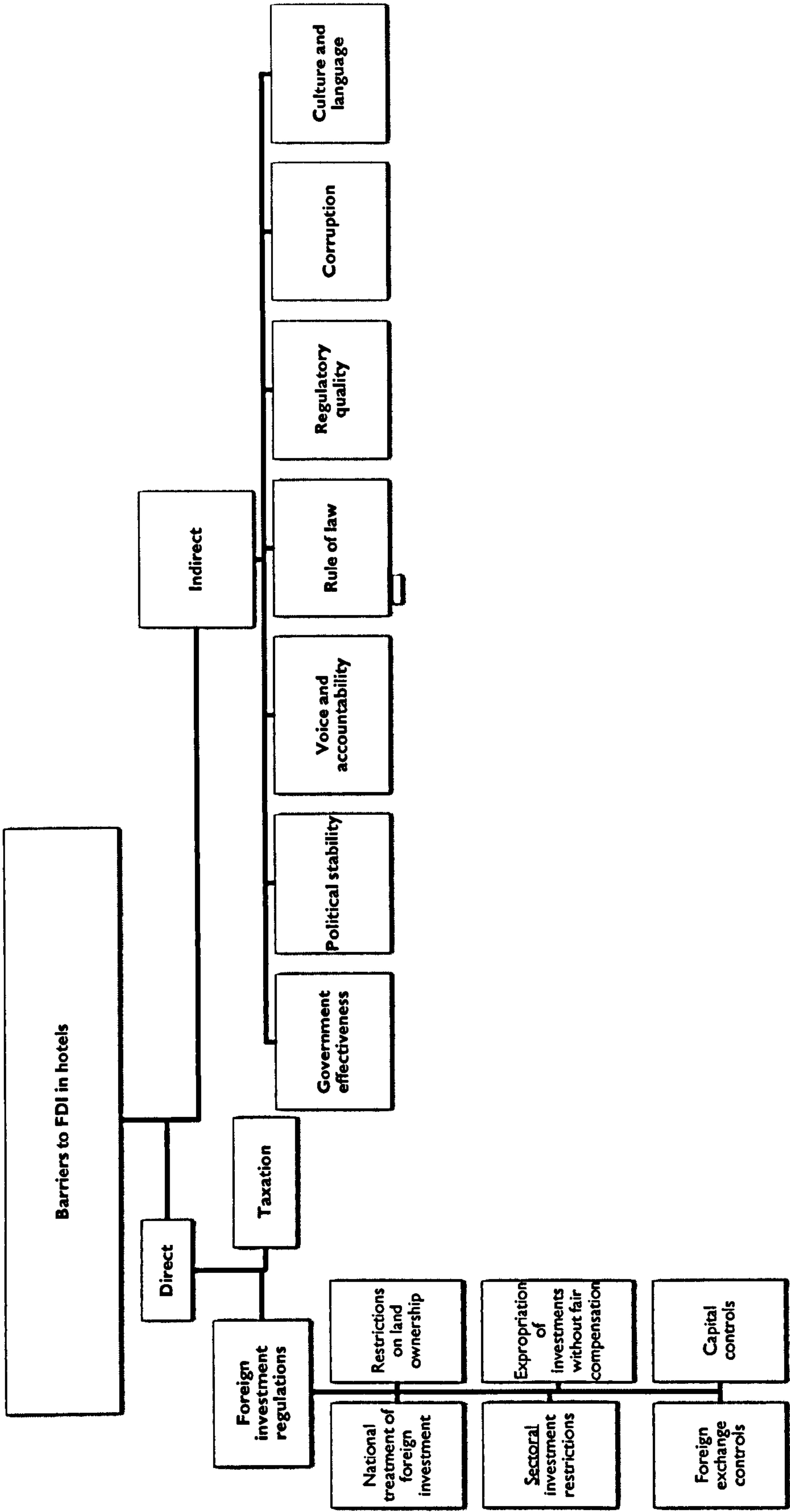
This chapter was mainly concerned with international real estate investment and investments in hotels. It presented the many forms of investment in commercial real estate, and covered the decision-making process of investing in international real estate. The chapter also critically reviewed theories related to real estate including Modern Portfolio Theory and Dunning's Ownership-Location-Internalisation (OLI) framework, and specifically applied the OLI framework to the real estate sector by employing the L dimension as explanation to FDI decisions. The chapter also provided a comprehensive review of the different factors influencing international real estate investments (including economic, political, institutional as well as real estate specific factors), to formulate a conceptual framework of the determinants of FDI in real estate.

This chapter also presented foreign direct investment in hotels. The chapter linked tourism to the hotel industry, and then presented the most common market entry strategies of hotel MNC's including both FDI and non-equity forms of exposure. Then, suggested the application of the OLI framework to the hotel industry, by employing the L dimension to explain the FDI decisions. The chapter ended by a comprehensive review of the different factors influencing internationalisation of hotel MNC's, which formulated a framework of the determinants of FDI in the hotel sector.

It was found that not all developing countries receive as much real estate and hotel related FDI as they might expect, despite liberalisation efforts and economic reforms. Nonetheless, the rising significance of global real estate and hotel related FDI as two attractive sectors have encouraged very few researchers to produce literature about determinants of these sectoral FDI. However, there are many gaps in the literature which led to this research. The major gap is that there are no empirical studies on the determinants of commercial real estate and hotel FDI on emerging and transitional countries that specifically focus on the MENA region.



Figure 14: barriers to FDI in hotels



Source: developed for this study

### **3. CHAPTER THREE: THE MENA REGION: AN OVERVIEW WITH SPECIAL FOCUS ON THE EIGHT SELECTED MENA ECONOMIES**

This chapter provides an overview on the MENA regional economies, with special focus on the eight selected economies. The chapter starts by defining the MENA region and its fit into the global context. It also provide a review for each selected country in the research sample, covering issues like political and economic structure, taxation regimes, main foreign investment laws and regulations as well as the key investment risks as seen by leading global advisory firms.

#### **3.1 THE MENA AND ITS FIT INTO THE GLOBAL CONTEXT**

There are many classifications of worldwide countries, for instance, The World Bank uses the Gross National Income (GNI) per capita as the main criterion of classifying countries. And then fits the outcomes into three broad categories, the first is by Income group, where economies are divided according to GNI per capita, The groups are: low income, \$995 or less; lower middle income, \$996 - \$3,945; upper middle income, \$3,946 - \$12,195; and high income, \$12,196 or more. At this group, Egypt, Morocco and Tunisia fall in the 'lower-middle-income economies' category, while Algeria and Turkey fall in the 'upper middle income' group, and UAE, Saudi Arabia and Qatar fall in the 'high-income economies' group.

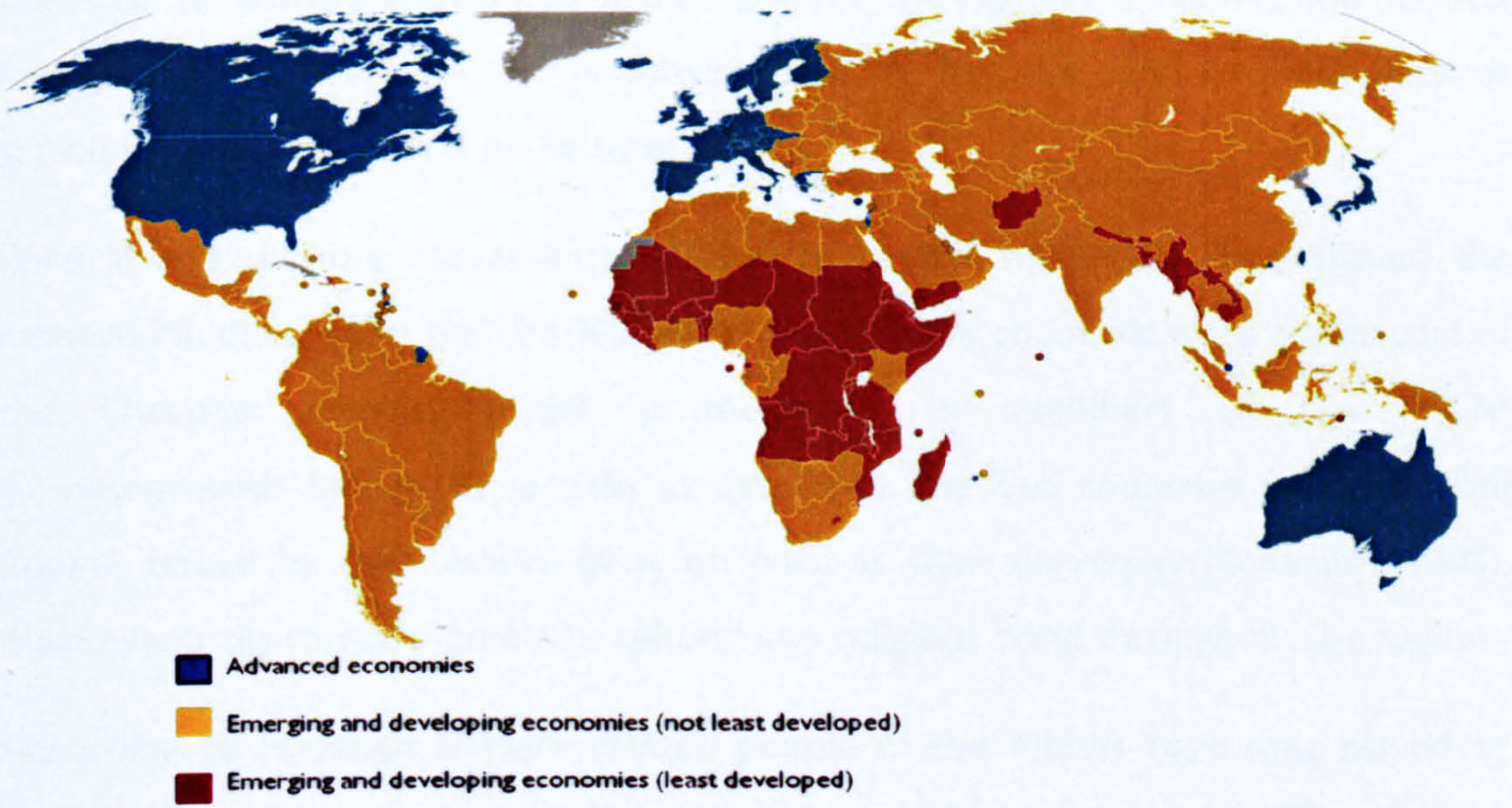
The second category is the by Geography, (i.e. East Asia and Pacific, Europe and Central Asia, Latin America and the Caribbean, Middle East and North Africa, South Asia and Sub-Saharan Africa. The World Bank only report those countries with 'low-income' and 'middle-income economies' only. And they refer to them as developing economies. Under the MENA group, Algeria, Egypt, Morocco and Tunisia are found to be developing in our sample countries.



The third category in the World Bank classification is the Lending category, where only countries that had a per capita income in 2009 of less than \$1,165 are reported. None of our sample countries fall in this category.

Another classification of worldwide countries was introduced by the International Monetary Fund (IMF), which classifies the world countries into two major groups: advanced economies and emerging and developing economies, with the latter divided into both Not Least Developed (NLD), and Least Developed (LD) countries (See Figure 15 below). The classification is not based on strict criteria, economic or otherwise, but instead has evolved over time. The advanced economies include 38 countries from the Euro Area, the Major Advanced Economies (G7), the Newly Industrialised Asian Economies as well as other Advanced Economies (Advanced Economies excluding G7 and Euro Area) (IMF, 2010). All other countries fall into the second group (i.e. emerging and developing countries), with the MENA region in the Not Least Developed subgroup (see Figure 15).

Figure 15: Classification of world countries



Source: International Monetary Fund



There is no standard definition of the Middle East. The term was used by the British in the late 19th century to refer to the Persian Gulf region. By 1950, the Middle East included not only Iran, Israel, and the Arab states of Western Asia, but also Cyprus, Egypt, and Turkey. The boundaries are sometimes stretched eastward to take in Afghanistan and westward as far as Morocco (Farzaneh & Mary, 2007). According to (Kamal, 2009), the Middle East is a western concept portraying a region vaguely covering a territory with variable geographical parameters. It is flexible and extendible territory covers and overlaps into three different continents as it is located between the Near East and the Far East. Where the latter is associated with countries of Eastern Asia, particularly China, Japan, Mongolia, North and South Korea and the former with countries of the Levant (Lebanon, Jordan, Syria, Israel, and Palestine), Turkey, and in some cases North Africa.

According to the World Bank, the MENA is an economically diverse region that includes both the oil-rich economies in the Gulf and countries that are resource-scarce in relation to population, such as Egypt, Morocco, and Yemen. With two-thirds of the world's known petroleum reserves, the region's economic and political importance far outweighs its population size. It has the world's second-fastest growing population, after sub-Saharan Africa.

Political and religious movements, as well as natural resources, have shaped the modern Middle East. In the last 400 years most MENA countries were either part of the Ottoman Empire, British protectorates or members of the British Commonwealth. Indeed, as recently as the 1960s, the Gulf countries used the 'Gulf Rupee', issued by the Reserve Bank of India, as their currency (McKinsey, 2008). Islam eventually forged a common cultural and religious bond throughout the region.

According to Farzaneh & Mary (2007), people of the MENA have long played an integral, if sometimes volatile, role in the history of human civilisation. Three of the world's major religions originated in the region Judaism, Christianity, and Islam. According to Kamal (2009), Judaism was established first in the MENA region, then Christianity, and then Islam. These three religions share the same God, and share



most of the prophets, except that Judaism does not believe in Jesus and Mohammad, and Christianity does not believe in Mohammad. Islam, on the other hand, believes that all the prophets, including Moses, Jesus and Mohammad, are his messengers. In recent years, the population is overwhelmingly Islamic, yet includes substantial Jewish and Christian minorities. And, while Arabic is the predominant language, two of the region's largest countries Iran and Turkey and Israel, are not Arabic-speaking (Farzaneh & Mary, 2007).

The economic and political linkages between the MENA countries date back thousands of years, as they have been trading partners throughout history and have been governed by the Persian, Ottoman and British Empires and the Caliphate. This common history has created shared customs, traditions, languages and religions that have stood the test of time and have become a catalyst for expanded economic opportunity and growth (McKinsey, 2008).

In recent years, and as never before has the inflow of financial liquidity into the MENA region from hydrocarbons and the availability of skilled labour been so large, and never before has economic development in the region been accompanied by comprehensive government reforms. According to McKinsey (2008), leaders across the MENA region are initiating and implementing reforms that will liberalise the economies of their countries. Governments are promoting the role of the private sector and foreign investments, while they move towards more regulatory and monitoring roles.

The growing level of financial liquidity is increasingly being invested back into the region as both governments and entrepreneurs witness the need for regional investments. According to Global Insight (2009), around \$2 trillion has been invested in the development of the MENA economies in the last ten years.

The resources of the MENA countries are complementary and diversified, as some countries have hydrocarbon wealth, while other countries have large numbers of talented labours. The Gulf Cooperation Council (GCC) countries, as well as Algeria and to a lesser extent Egypt, account for 99 percent of MENA's total oil and natural

gas reserves, while Egypt and Turkey account for 90 percent of the region's population (Global Insight, 2009).

Recently however, MENA countries were diversifying their economies away from their natural resources by utilising the concept of 'economic free zones' to attracting foreign capital and resources. Essentially economic free zones are geographical areas, subject to special rules and regulations, which seek to attract companies by easing establishment and by offering various tax and business incentives. There are three main elements that make free zones attractive for companies (McKinsey, 2008):

- *Financial incentives:* Free zones offer exemptions from corporate and personal income tax, as well as from customs and commercial levies that might exist elsewhere in the country.
- *Reduced business barriers:* Free zones can offer up to 100 percent foreign ownership, as well as minimum red tape and quick, hassle-free approval procedures.
- *Supportive infrastructure:* Successful free zones offer modern, state-of the- art infrastructure in an attractive working environment.

The GCC alone is home to more than 60 functioning free zones, of which around 20 are in UAE. The Jebel Ali Free zone Area (JAFZA), established in 1985 in UAE, is one of the largest economic free zones in the world. Starting from a base of 19 companies, it now accommodates approximately 6,000 companies from over 110 countries throughout the world. The Dubai International Financial Centre (DIFC) and the Qatar Financial Centre (QFC) are examples of financial free zones, hubs for commercial and investment banks and other financial institutions providing services including underwriting, private equity and foreign exchange trading. Typically, these financial free zones offer licensing services for wholesale and offshore operations and services such as information provision and visa application assistance (Zawya, 2009) and (Cityscape Intelligence, 2009).

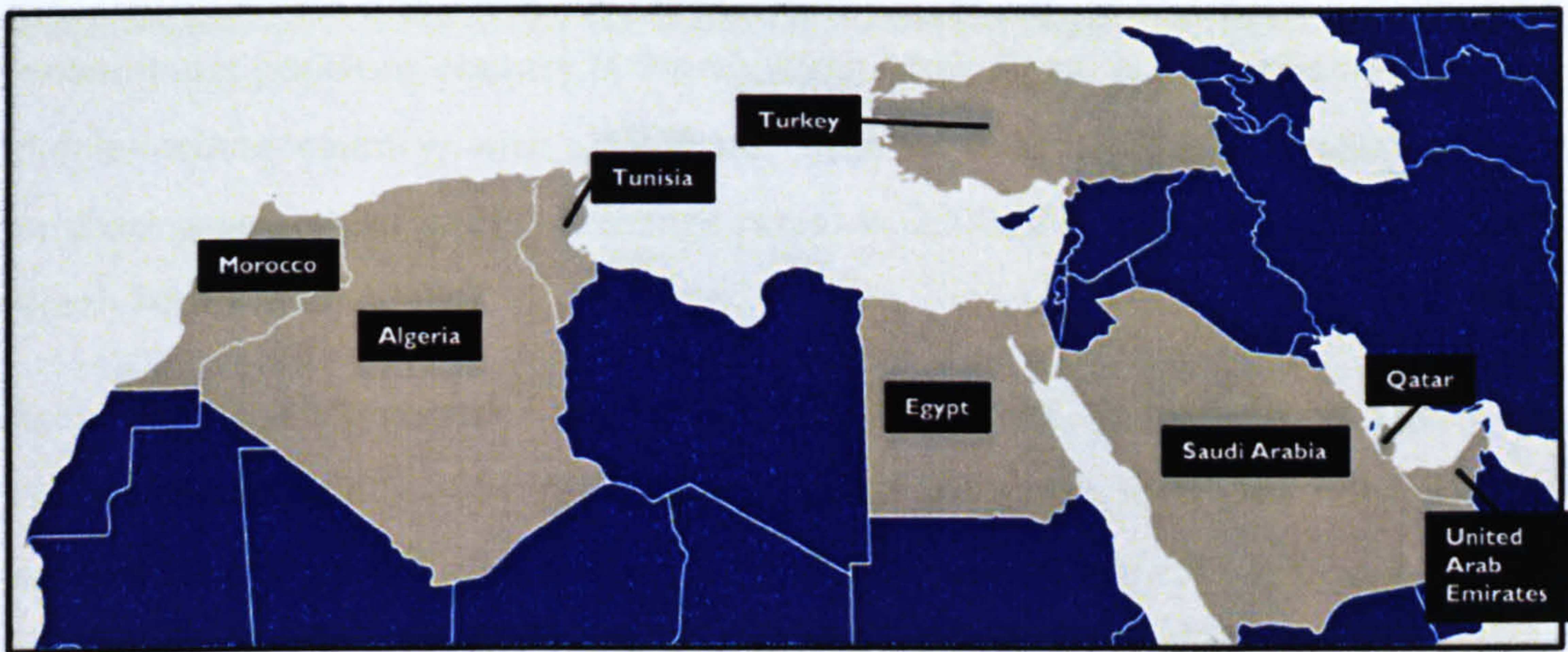


The next section provides an overview of each of the selected MENA countries, in terms of their political systems, economic structure, investment regulations as well as the overall taxation regimes.

### 3.2 AN OVERVIEW OF THE SELECTED MENA ECONOMIES

As mentioned earlier, this research focuses on eight MENA countries (see Figure 16). The eight countries analysed are fairly representative of this region. They include states in the Mashreq and the Maghreb, oil and non-oil as well as low-oil economies. Among them are those with low and others with higher income per capita, monarchies and republics.

Figure 16: The eight MENA selected markets



Source: developed for this study

The following sections provide an overview for each selected MENA countries, covering their political and economic systems as well as the main rules and regulation in relation to foreign investments (if obtainable), taxation and key incentives as well as the main investment risks as seen by major international research and advisory companies such as EIU and others.



## **3.2.1 ALGERIA**

### **3.2.1.1 POLITICAL AND ECONOMICAL STRUCTURE IN ALGERIA**

In general, the political systems vary across the sample countries and Algeria is a presidential republic. The President of Algeria is the Head of State. Abdelaziz Bouteflika has been in office since 1999, currently serving his second 5-year term. The Prime Minister, Ahmed Ouyahia, is the Head of Government. The parliament is bicameral, consisting of a lower house with 389 members and an upper house with 144 members (EIU, 2010a).

In terms of economic structure, Algeria is highly dependent on oil and natural gas, which account for more than 95% of all export earnings, and over 38% of GDP (Euromonitor International, 2008). Its population is around 34m, making it the second-most populous country in North Africa after Egypt. It is classified as a lower-middle-income country, with a GDP per head of over US\$8,000 (measured using purchasing power parity-PPP-exchange rates) in 2008, slightly above the average for North Africa (EIU, 2010a).

According to Euromonitor International (2008) report, growth stood still in the 1990s but was solid in 2001-2007, spurred by oil and gas exports. The non-oil sector also performed well during this period and the country's fiscal position was much improved. The pace of growth fell in 2009 however. Faced with mounting social demands, the government has increased its spending in order to boost employment. Booming hydrocarbon exports made it easier to adopt this aggressive approach. The non-oil sector accounts for about 98% of all employment. Household consumption has seen a long-term rise as a result of increases in salaries and a gradual drop in unemployment. While the overall pace of structural reform remains slow, some progress has been achieved in trade liberalisation.

Algeria is opening up to foreign investors and new investment codes are being implemented to motivate these investments. For instance, foreign investors are given

a 3-year exemption from the value-added tax on goods and services acquired locally or imported, as well as an exemption on property taxes. The incentives are more attractive for companies whose production is export-oriented. The share of production that is exported is exempt from taxes. Furthermore, foreign investors settled in the free-trade zones are exempt from taxes and customs duties (McKinsey, 2008). In 2007, total FDI rose to USD 4 billion, growing from USD 2 billion in 2002. Also, partial and total privatisation deals were carried out in Algeria during the same period, with several companies in the pipeline for privatisation. These companies span a number of industries, including banking, telecommunications, ports and Air Algeria (McKinsey, 2008).

#### **3.2.1.2 TAX INSTRUMENTS IN ALGERIA:**

According to Deloitte International Tax and Business Guides (2010) website, the following is the main tax instruments used in Algeria:

The corporate income tax rate is 25% for companies in the services sector, except in the tourism sector where the rate is 19%. The 19% rate also applies to companies in the production sector.

Property tax is charged on developed land; tax holidays may be granted for new buildings and those located in specified development areas. A transfer tax is applicable to land and buildings at a rate of 5% of the value, plus 1% for registration.

Value-added tax is 17%, with a reduced rate of 7% applying to various basic items or where no input tax is recoverable (e.g. construction and internet services). Exports are zero-rated.

As for the withholding taxes for non-residents, the Dividends are taxed 15%, interest at 10% and royalties at 24%.

The Algerian government provides some tax incentives through its Investment Code, which intended to encourage and stimulate productive investments in Algeria, and provides certain general guarantees and incentives. Significant incentives include a 10-year corporate tax and property tax exemption.

### **3.2.1.3 MAIN INVESTMENT RISK IN ALGERIA**

The following key risks are considered by the Economist Intelligence Unit comprehensive country report on Algeria EIU (2010a):

#### **Political stability risk**

According to the report, political risk is high due to sporadic unrest which persists in various areas of the country, stemming from inadequate affordable housing, high unemployment and corruption. Opacity of the political system and pervasive clientelism also create problems (EIU, 2010a). The moderately reformist president, Mr Bouteflika has replaced conservatives in the military and elsewhere with his own supporters, but has failed to achieve tangible reform (EIU, 2010a). In November 2008 he passed constitutional amendments that redefined the role of the prime minister, created deputy prime ministers, and allowed the president to stand for and win election for a third term in April 2009.

#### **Government effectiveness risk**

Most of the military elite have probably been convinced of the value of foreign investment (as long as it does not impinge on their own retail operations or import concessions) (EIU, 2010a). In sectors such as power, water, road-building and housing, foreign firms are involved in Build-Own-Operate (BOO)-style projects and the process is reasonably transparent (EIU, 2010a). However, more broadly, the quality of the bureaucracy is extremely poor and red tape and a reluctance to make decisions are major problems (EIU, 2010a). Cronyism is also a plague in government departments, certainly in respect of hiring; less so in the award of contracts. The fact



that unemployment remains high means that the bureaucracy is unlikely to be streamlined in the short term.

### **Legal & regulatory risk**

Algeria signed an Association Accord with the EU in December 2001 and has officially stated its commitment to join the World Trade Organisation (though necessary legislation—on intellectual property rights for example—has not as yet been passed, but progress has been made) (EIU, 2010a). Membership would help bring transparency to the legal process (EIU, 2010a). However, for the moment the proper enforcement of business regulations is subject to political pressure, as well as bureaucratic inertia (EIU, 2010a).

### **Infrastructure risk**

Algeria's infrastructure risk is high (EIU, 2010a); reflecting an interruption of investment during the civil war ravaged 1990s, though the government is investing in improvements (EIU, 2010a). The road network is sparse and in disrepair in many areas. Until recently, construction and repairs were hampered by the threat of Islamist attacks but the government has recently started a vast programme of road-upgrading (EIU, 2010a). A \$2.1bn rail contract was awarded to a Chinese company in July 2009. Water supply is being upgraded, but from a very low base. A severe earthquake in May 2003 further debilitated the housing stock (EIU, 2010a).

## **3.2.2 EGYPT**

### ***3.2.2.1 POLITICAL AND ECONOMICAL STRUCTURE IN EGYPT***

Egypt is a republic with limited democratic features. Direct presidential elections were introduced in 2005. The president has full control over policy. The People's Assembly (the lower house of parliament) approves policy. Opposition parties have

been permitted since 1977, but their formation is tightly controlled and they often boycott elections. The largest opposition force is the Muslim Brotherhood, a banned Islamist movement.

Egypt has the largest population in the Arab world, but only the fourth-largest economy after Saudi Arabia, the UAE and Algeria. About half of GDP is accounted for by services, including public administration, tourism and the Suez Canal. Although tourism is vulnerable to political events, it has become increasingly resilient (EIU, 2008a).

Manufacturing industries (including oil refining), which are heavily concentrated in the capital, Cairo, and the Nile Delta, are also a mainstay of the economy, making up around 19% of GDP in 2006/07 (EIU, 2008a). Mining (especially oil and gas extraction) is also significant, accounting for 8.6% of GDP in 2006/07. There is a large informal sector, which the Ministry of Finance estimates represents some 30% of total economic activity (EIU, 2008a).

Liberalisation of the centrally planned, state-dominated economy has resulted in a two-tier economy. First, private firms, many of them using foreign technology and business practices, staffed by employees with western-level incomes and consumption patterns. Most of the rest of the population is employed by the government in state-owned enterprises. And a smaller proportion is employed by the private sector in small and medium-sized enterprises (EIU, 2009).

According to the EIU (2009) report, there is significant scope for a rapid acceleration of growth through an improvement in skill levels, an increase in efficiency and the continued push for a business-friendly environment, which has already begun. Egypt's geographical location has facilitated its competitive advantage, as it links Africa and Asia and is close to Europe. Further, the Suez Canal is a key conduit for trade between Europe and the Mediterranean basin and southern Asia.

### **3.2.2.2 OVERVIEW ON INVESTMENT REGULATIONS**

According to PRS Group (2008) report, the Investment Incentives Law 8 of 1997 was designed to encourage domestic and foreign investment in targeted economic sectors and to promote decentralisation of industry from the crowded Nile Valley area.

The law and its executive regulations and amendments provide over 20 investment incentives. The law allows 100 percent foreign ownership of investment projects and guarantees the right to remit income earned in Egypt and to repatriate capital. Other key provisions include: guarantees against confiscation, sequestration, and nationalisation; the right to own land; the right to maintain foreign-currency bank accounts; freedom from administrative attachment; the right to repatriate capital and profits; and equal treatment regardless of nationality. The Income Tax Law enacted in June 2005 eliminated some of the incentives in the Investment Incentive Law, namely all corporate tax exemptions and tax holidays that the latter law had authorised for newly established companies (PRS, 2008).

Under the Investment Incentives Law, qualifying investments in various fields are assured approval, effectively creating a “positive list.” These fields include land reclamation; fish, poultry, and animal production; industry and mining; tourism (covering hotels, motels, tourist villages, and transportation); maritime transportation; refrigerated transportation for agricultural products and processed food; air transportation and related services; housing; real estate development; oil production and related services; hospitals and medical centres that offer 10 percent of their services free of charge; water pumping stations; venture capital; computer software production; projects financed by the Social Fund for Development; and leasing. Projects in certain fields, however, still require special approval (generally security clearance) from relevant ministries. Such projects include: any investments in the Sinai and any investments related to military production and related industries (PRS, 2008).



Procedures for obtaining approval to establish new companies are becoming simpler and waiting times shorter than in the past (PRS, 2008). General Authority for Investment (GAFI's) "One-stop-shop" interfaces with other government ministries on behalf of new investors and provides after-care services for existing companies. The One-stop-shop reportedly processes approvals for new investments on average within 72 hours (PRS, 2008).

#### *Land/Real Estate Law 15 of 1963:*

This law explicitly prohibits foreign individual or corporate ownership of agricultural land (defined as traditional agricultural land in the Nile Valley, Delta and Oases). Prime Ministerial Decree No. 548 for 2005 removed restrictions on foreign property ownership in a number of tourist and new urban areas, namely the Red Sea, Hurghada, Sidi Abdel-Rahman and Ras Al-Hekma in Matrouh Governorate. Foreign individuals are still, however, limited to ownership of a maximum of two residences in Egypt. Companies/citizens of other Arab countries have customarily received national treatment in this area.

In April 2005, Egypt revamped the property ownership law to extend identical ownership rights and privileges to foreigners as those enjoyed by native Egyptians. Ownership follows a freehold model with the only exception being in Sinai, where the ownership is based on a 99-year long lease system, usufruct system<sup>1</sup> (CI Capital, 2008).

For foreign investors, the ownership is limited to two residential properties per family with a maximum area of 4,000 square-meters. Foreign investors can resale their properties but after five years of ownership, but exceptions could take place in certain cases. Registering the property can be done after inspection and payments of taxes. And as most markets, holding deposit is payable (Cityscape Intelligence, 2009b).

The Egyptian legal system provides protection for real and personal property, where real estate ownership laws are complicated and it is difficult to establish and trace

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<sup>1</sup> \*Usufruct system: It is the right to use and exploit property belonging to another person.

titles to real property. As a priority for 2007, the Ahmed Nazif government (the prime minister of Egypt) has modernised the laws on real estate ownership and tenancy (PRS, 2008).

Law No. 83 for 2006, issued in June 2006, amended certain provisions pertaining to notarisation fees, which remain high, and the Land Register Law. In June 2006, a new Real Estate Tax Law was also passed, decreasing real estate taxes from 40 to 10 percent of the rental fee and exempting from taxes leases below LE 600 per annum (PRS, 2008). But the tax rate will still be controlled and dependant on the division of geographical areas into zones based on the quality of real estate and the infrastructure and services available (Cityscape Intelligence, 2009b).

These reforms helped streamlining the process of property purchase in Egypt, facilitating the purchases for overseas buyers, and focusing investors' attention on Egypt as a prime location for real-estate buyers as well as developers (CI Capital, 2008).

**Tourism related laws in Egypt**

The tourism subsector is ruled by number of legal instruments as shown in Table 3 below. The first step for any company or individual wishing to participate in the tourism subsector is to register with the ministry of tourism (WTO, 2005).

*Table 3: Legislation applied to the tourism subsector*

Legislation	Application
Law 1/1973	Hotels and tourist constructions, amended as per Law 102/1992
Law 2/1973	Supervision by the Ministry of Tourism of tourist zones and their exploitation
Decree 181/1973	Conditions and procedures of licensing hotel and tourist establishments
Ministerial Decree 343/1974	Implementation of certain provisions of Law 1/1973 on hotel and tourist establishment
Law 38/1977	Reorganisation of tourist companies
Decree 222/1983	Executive statues of Law 38/1977
Ministerial Decree 96/1996	Conditions and controls on time-sharing system in hotel establishments
Ministerial Decree 194/1997	Definition of tourism activities
Ministerial Decree 99/1999	Regulation and conditions and rules granting authorisation to companies

			engaging in marine activities and diving
Ministerial Decree 318/2000			Conditions and rules of licensing scuba-diving centres at hotel and tourist establishments
Prime Minister's Decree 1034/2002			Controls on investment guarantees and incentives enjoyment by the integral tourist development activity

Source: WTO (2005)

Table 4 below shows incentives provided to private investments in the tourism sector. The benefits provided by the Investment Guarantees and Incentives Law are eligible on both national and foreign investors in addition to special customs privileges and incentives for land development(WTO, 2005).

Table 4: Investment incentives in the tourism industry

Scheme	Exemptions or concessions
Taxes	<p>All tourist establishments except restaurants are exempt from paying taxes for 5 years in Cairo; 10 years in remote areas; and 20 years in El Wady El Gedeed and Toshka areas, under the Investment Guarantees and Incentives Law (8/1997).</p> <p>Rebuilding and expansion activities of tourist-related premises are exempt from taxes on 50% of income.</p> <p>Law 93/1996 allows a reduction up to 75% of fees for tourist and passenger ships entering Egyptian ports.</p>
Customs duties	<p>Under Decree 11/1996, all imported equipment, except for restaurants, benefits from a reduced customs duty of 5%.</p> <p>Limousines with no more than seven seats that are imported by tourism transportation companies are subject to a unified custom duty of 5%.</p> <p>Alcoholic beverages may be imported by hotels at a rate of 300% duty, instead of the usual rates ranging from 1,200% (beer) to 3,000% (spirits).</p>
Land acquisition/development	<p>Law 5/1996 allows ownership or lease of state-owned lands in desert areas.</p> <p>Low interest loans are provided to developers for infrastructure services, by the Tourism Development Authority.</p> <p>Law 72/1996 allows the expansion of tourist facilities and exemptions for tourist projects.</p> <p>The Tourism Development Authority offers land to private developers for a nominal rate of US\$1 per square metre in designated tourist areas.</p>

Source: WTO (2005).



### **3.2.2.3 TAX INSTRUMENTS IN EGYPT**

According to Deloitte International Tax and Business Guides (2010) website, the following is the main tax instruments used in Egypt:

Corporate income tax 20% for manufacturing, trading and services companies and 40.55% for companies engaged in the exploration and production of oil and gas.

All real property in Egypt is subject to the real estate tax. The tax rate is 10% on the annual rental value after allowing a 30% deduction from the rental value to cover related costs for residential property and a 32% deduction for non-residential property.

As for transfer taxes, Egypt does not impose any, however Egypt impose a value-added tax of 10%.

As for the withholding taxes for non-residents, the dividends are not taxed, the interest is taxed at 20% and royalties are taxed at 20%.

Concerning tax incentives offered by Egypt, projects established under the Free Zone System of the 1997 Investment Law No. 8 enjoy a corporate income tax exemption for the term of the specified project.

### **3.2.2.4 MAIN INVESTMENT RISKS IN EGYPT**

The following key risks are considered by the Economist Intelligence Unit comprehensive country report on Egypt, EIU (2010):

#### **Risk of political instability**

The president, Hosni Mubarak, has been in power for over three decades and the country is officially in a permanent state of emergency, introduced after the assassination of Mr Mubarak's predecessor, that gives the executive and the security

services extensive powers (EIU, 2010). A limited political liberalisation in 2005 has largely been reversed and the authorities are likely to be even more intolerant of dissent in the run-up to the presidential election in 2011 (EIU, 2010).

In January 2011, Egypt erupted in mass protests to bring the regime of President Hosni Mubarak to a precipice. The revolution in Tunisia earlier in December 2010 seemed to set fire to decades worth of smoldering grievances against Mr. Mubarak's heavyhanded rule.

According to NYT (2011), the protests began on a Tuesday, Jan. 25. The government quickly banned all demonstrations, but on Wednesday the protesters returned and clashed with the police in cities across the country. By that Friday Mr. Mubarak had called the army into the streets. He ordered his government to resign, but did not offer to step down himself. Mr. Mubarak named the head of military intelligence, Omar Suleiman, as his new vice president, and the air force chief, Ahmed Shafik, as prime minister, in an attempt to shore up support among the military.

### **Government effectiveness risk**

Under Prime Minister Ahmed Nazif, the government has been improving its effectiveness in managing the economy, but bureaucracy remains a serious constraint on growth and a major problem for investors, especially at the local government level (EIU, 2010). Significant advances have been made with taxation, tariffs and policies towards foreign investors. In the run-up to the controversial 2011 election, there is a particular risk that new economic policies that prove unpopular could be stalled or reversed (EIU, 2010).

### **Legal & regulatory risk**

The legal system is slow and inefficient (EIU, 2010). A significant backlog means that cases still require an average of six years to resolve, although the government is working hard to improve the legal system. New economic courts, which specialise in business matters, started to operate in 2009 and should gradually help speed up procedures. The means of punishment at a court's disposal are, in many cases,

insufficient and enforcement is weak. The legal system is prone to political influence, although less so than other public institutions. There is no evidence that Egyptian courts favour local companies over foreign ones in civil disputes. Egypt is signatory to most international agreements on arbitration. Businesses are advised to make sure that a clause on international arbitration is inserted in all contracts for joint ventures or co-operation agreements (EIU, 2010).

### **Macroeconomic risk**

Real economic growth in fiscal 2009 (year ending June 30th 2009) was 4.7%, well below the 7% average growth in 2006-08, as a result of the global recession. Growth is forecast to pick up slightly in fiscal year 2010 to 5.4% as world trade recovers. Inflation will remain high, at 10.5% in 2010, although well below its peaking of 23.5% in September 2008 (EIU, 2010). The government's fiscal policy is to remain strongly expansionary in 2010, despite falling tax receipts, which will lead to a widening of the budget deficit to 9.3% of GDP (EIU, 2010).

### **Infrastructure risk**

Many aspects of Egypt's infrastructure have improved markedly in recent years (EIU, 2010). Most of the country is now connected by fairly adequate main roads although local routes are often in a poor state of repair (EIU, 2010). Power generation has improved considerably with brown-outs less frequent than before. In addition, the telecommunications system is increasingly reliable. After years of neglect, the port system is being modernised and installations upgraded to allow for faster transactions and higher volumes (EIU, 2010). The rail network is in dire need of investment. If the government is to improve the railways and roads as well as meet ambitious targets for expanding Egypt's infrastructure, it must exploit private financing methods such as build-operate-transfer (BOT) (EIU, 2010). The government is also increasingly looking into public-private partnerships as a means to bringing in private finance, and this will open the door for private sector opportunities in areas as diverse as housing, road-building and waste-water management (EIU, 2010).



### **3.2.3 MOROCCO**

#### **3.2.3.1 POLITICAL AND ECONOMICAL STRUCTURE IN MOROCCO**

Morocco gained its independence from France in 1956, with the restoration of the Alawi monarchy under King Mohammed V. He was succeeded by King Hassan II in 1961, the ruler most responsible for building modern Morocco. His reign was characterised by a combination of skilful foreign policy and ruthless suppression of domestic dissent. The current king, Mohammed VI, came to the throne in July 1999, at the age of 36, on the death of his father, King Hassan II.

In terms of political structure, Morocco is a constitutional monarchy with a parliament of two chambers. The Assembly of Representatives has 325 members elected for five-year terms, comprising 295 members elected in multi-seat constituencies and 30 in national lists consisting only of women. The Assembly of Councillors has 270 members, elected for nine-year terms by local councils (162 seats), professional chambers (91 seats) and wage-earners (27 seats). The prime minister is appointed by the monarch.

Economically, and according to Euromonitor International (2009a) report, agriculture provides employment for a substantial portion of the Morocco's workforce (about 43%). Morocco's vulnerability to erratic rainfall patterns has forced the government to search for ways to diversify, particularly towards manufacturing and services (including tourism). Policy makers hope to make the agricultural sector more resilient to the effects of drought over the medium term.

Morocco has a strong manufacturing base which is dominated by the textile industry. Policies to encourage the development of industries such as communications and vehicle manufacture are underway. Morocco's proximity to the EU makes it an appealing location for foreign investors from both Europe and the USA (Euromonitor International, 2009a).

Tourism is the country's second largest earner of foreign exchange and the industry employs one out of every ten workers. The opportunities for tourism are substantial although the industry is relatively underdeveloped. Investors from the Arabian Gulf plan to spend US\$14 billion over the next ten years in major tourist destinations such as Marrakech. The government has also set aside US\$95 million in 2009 for development of the tourist industry. Moroccan officials have set a target of 10 million visitors by 2010 but that goal may not be met owing to the global recession. The number of visitors fell by more than 3% in the first half of 2009 (Euromonitor International, 2009a).

The mineral sector is a mainstay of the economy, producing phosphates, fluorite, manganese, cobalt, lead, zinc, copper and antimony. The country is estimated to hold three quarters of the world's phosphate reserves (Euromonitor International, 2009a).

#### **3.2.3.2 TAX INSTRUMENTS IN MOROCCO**

According to Deloitte International Tax and Business Guides (2010) website, the following is the main tax instruments used in Morocco:

Corporate income tax is 30%, with a 37% rate applying to leasing companies and credit institutions.

As for real property tax, there is no specific rate, however, there are other taxes such as business tax on legal entities carrying on business activities in Morocco which is based on the rental value of buildings, premises, etc., used for the business, and levied at rates ranging from 10% to 30% of the rental value.

Transfer tax is 6% registration duty and a 1% real estate tax are levied at the time real property is acquired.

Value-added tax in Morocco is 20% with reduced rates of 7%, 10% and 14% applying to certain transactions.

As for the withholding taxes for non-residents, the dividends are taxed at 10%, the Interest is at 10% and Royalties are taxed at 10%.

In terms of tax incentives offered by Morocco, incentives include an exemption from the business tax for the first 5 years of operations; and an exemption from corporate income tax for companies exporting goods and services for the first 5 years of operation, with a 50% reduction thereafter on export sales.

### **3.2.3.3 MAIN INVESTMENT RISKS IN MOROCCO**

The following key risks are considered by the Economist Intelligence Unit comprehensive country report on Morocco, EIU (2010c):

#### **Security risk**

There is some risk that Moroccan militants could link up with similar groups elsewhere in the Maghreb, notably Algeria (EIU, 2010c). There is prospect of an end to the long running territorial dispute over the Western Sahara region. The Polisario is militarily weaker than Morocco and has only one major international backer, Algeria. Organised crime, mainly involving drug smuggling and illegal migration, is common, although this does not often impinge on the activities of foreign businesses (EIU, 2010c).

#### **Political stability risk**

The real source of political power is the king, Mohammed VI, who has a firm grip on the government. Parliamentary elections in September 2007 passed without major incident, although there were widespread allegations of vote rigging. The resulting ruling coalition remains fairly weak in terms of initiating policy. The king will dominate key decision making even as he encourages modernisation elsewhere. Bureaucracy remains heavy, and efforts to cut red tape will be limited by the desire to provide jobs. Strikes and social discontent will persist - the result, in part, of the



weak economy - but will remain mostly non-violent. With power concentrated in the hands of the king, the government is not highly accountable. Restrictions on the press have been eased in recent years but some topics (notably the king and the status of Western Sahara) remain off-limits, or in the case of the role of Islam in the state, remain sensitive with public violations of these boundaries dealt fairly harshly (EIU, 2010c).

### **Government effectiveness risk**

According to EIU (2010c) report, government effectiveness risk in Morocco is high. Policy execution is not strong: pressures from disparate interest groups have led to lengthy delays in the implementation of much-needed economic reforms. The government has tried, but has been unable, to address adequately rising poverty, high unemployment and high tariffs. The quality of the bureaucracy is not good, although the king has pushed forward more dynamic figures to lead several senior government departments. Corruption is widespread in most sectors of government and bureaucracy. Businesses will see evidence of this in the regulatory and legal systems (though the situation is improving), as well as in the trade and customs arenas. The judiciary is particularly weak, although the king is keen to address this problem. In general, public officials have not been held accountable for their actions, but this is beginning to change with several high-profile corruption investigations in recent years. Red tape is pervasive (EIU, 2010c).

### **Legal & regulatory risk**

The EIU (2010c) report views the legal and regulatory risk as moderate. The judiciary is slow-moving and unreliable and plans for reform are likely to be slow moving. Foreign companies in Morocco seldom use the local courts, and are more likely to resolve disputes through arbitration. The creation of new commercial courts has, however, begun to improve the environment for foreign firms. Contracts are generally enforced, and there have been no recent instances of the expropriation of foreign property. However, competition policy is not well developed, and there

are few safeguards against anti-competitive practices. Tax regulations are opaque and time consuming. The customs system has been notoriously slow and inefficient, although improvements are being made. Intellectual property rights are not well enforced although some improvements are being made as a result of the free trade accord with the US (implementation began in January 2006). Price controls exist for a number of goods, such as fuel products (EIU, 2010c).

### **Infrastructure risk**

According to EIU (2010c), infrastructure in Morocco is poor and a major cost to business. Although roads are generally adequate, congestion is becoming a concern and new roads are not being built as fast as needed. Ports, especially at Casablanca, are busy, but upgrading is under way, led by work on the Tangiers-Med deep-water port at Oued R'Mel on the Mediterranean coast near the Strait of Gibraltar, which will become the second-largest in Morocco after Casablanca. Airport service is barely adequate for commercial purposes, and the railways are well below western standards. Telecommunications infrastructure has been improving, and is generally adequate in major cities. Overall, however, telephone penetration rates are low and Internet and computer take-up is lagging. The government has taken some steps to improve the supply of housing, arguing that urban deprivation contributes to support for radical Islamic political groups. However, bureaucratic inertia has limited progress in providing new housing (EIU, 2010c).

## **3.2.4 QATAR**

### **3.2.4.1 POLITICAL AND ECONOMICAL STRUCTURE IN QATAR**

Qatar is an absolute monarchy with Emir of Qatar, Hamad bin Khalifa Al Thani, being the Head of State and the Head of Government. The Cabinet includes appointed ministers and is headed by the Prime Minister, Hamad bin Jassem bin Jabr al-Thani.

Under the 2003 constitution, two-thirds elected, 45- member parliament will be formed, which will have the power to draw up laws and question ministers.

In terms of economic structure, Qatar's policy of economic diversification has led to a surge in investment in projects for the export of liquefied natural gas (LNG) and petrochemicals. Qatar has the world's third largest reserves of natural gas and borrowed heavily to fund export facilities that would chill the gas into liquids which allow the country to export to previously unreachable markets in Asia, Europe and the USA (Euromonitor International, 2009b).

Gas exports will reach 77 million tonnes in 2010, up from 31 million tonnes in 2005. At present, the country's oil and gas industries employ the greater part of the active workforce and provide well over 90% of export revenues (Euromonitor International, 2009b).

Qatar also has a limited industrial sector, concentrating on basic materials such as cement, steel, ammonia, fertiliser and petrochemicals. Farming is severely restricted by a shortage of suitable land. To deal with this issue, the government has created a state-backed food security company with US\$1 billion in funding. The company has already made investments in Sudan and has a presence in Mozambique. The international community has growing doubts about the strategy however (Euromonitor International, 2009b).

In the future, Qatar's vast wealth of natural gas will provide a huge boost to wealth generation. Inevitably, this development will make the country a major player in global financial markets. The state-owned Qatar Investment Authority (QIA) continues to grow but in 2008 it was forced to take stakes in local banks to shore up liquidity (Euromonitor International, 2009b).

The government's desire to develop an up-market tourist sector appears to be making progress. In addition to luxury hotels, Qatar is spending freely to create attractions that will appeal to rich tourists. The government plans to build a new waterfront city for 200,000, known as Lusail, and to develop a reclaimed island for



luxury living. An international airport will be opened in 2011 at a cost of US\$14 billion. New port and roads are being built along with a rail system linking Doha to Lusaid. Altogether, more than US\$80 billion will be spend on infrastructure development and real estate projects over the next five years (Euromonitor International, 2009b).

#### **3.2.4.2 OVERVIEW ON INVESTMENT REGULATIONS**

According to GMB (2008) the Foreign Capital Investment Law (No. 13), 2000 (the Foreign Investment Law) is the main legislative act affecting foreign investment protection in Qatar, which offers investors protection from expropriation of their investments and the ability to repatriate the profits made from such investments.

Apart from this law, there are no other acts, decrees or decisions relevant to foreign investment protection in the country (GMB, 2008).

The Foreign Investment Law is generally regulated by the ministry of business and trade; however, depending on the nature of the investment, approvals from other government authorities may also be required. For instance, if the investment is in the form of a manufacturing project, then an industrial licence would be required from the ministry of energy and industry. Alternatively, if a tax exemption is being requested, approval from the ministry of finance would be required. Usually, such applications are by way of a letter rather than a particular form, and approval can take up to a few weeks to be granted (GMB, 2008). And according to GMB (2008) report, there is no specific agency responsible for facilitating and promoting foreign investments.

Foreign investors obtains all the rights of a juridical person once they have obtained the approval to establish a presence in Qatar, including the right to open a bank account, to lease property, to engage in trade and business, to borrow money, to enter into contracts, etc. The only restraints on them are the restrictions that

generally apply to foreigners in the country, such as the inability to purchase land outside specified zones (see below).

Article 8 of the Foreign Investment Law specifically provides that foreign investments are not subject to expropriation, whether directly or indirectly, unless the same is required for “public utility” (a term that is not defined in the law).

Article 9 provides for the repatriation of funds, granting full liberty to foreign investors to make transfers relating to their investments to and from abroad without delay. These transfers include (GMB, 2008):

- Revenue from their investment(s);
- Proceeds from the sale or liquidation of an investment;
- Payments arising from the settlement of disputes relating to an investment; and/or
- Compensation paid in the event of any expropriation.

Article 10 of the Foreign Investment Law grants foreign investors the freedom to transfer investment property to another foreigner or Qatari national (GMB, 2008).

The Foreign Investment Law, in most circumstances, precludes foreign capital investment of more than 49 per cent of the total value of the assets involved, including shares and land. Certain sectors can be exempt from the 49 per cent rule by way of an application to the ministry of business and trade. These include the following sectors (GMB, 2008):

- Agriculture;
- Industry;
- Health;
- Education;
- Tourism;
- Development and utilisation of natural resources;
- Energy and mining, with preference given to projects that would achieve optimum utilisation of locally available raw materials; and

- Industries/projects involved in:
  - The export of products;
  - Introducing new products;
  - Employing modern technologies;
  - Localising world-famous industries; and
  - Projects that train and qualify Qatari nationals.

Nationals of Gulf Cooperation Council countries are also granted a further exemption by having the 49 per cent rule increased to a 50 per cent rule (GMB, 2008).

### ***Real Estate Law***

Generally, foreign investors are not able to own land in Qatar, but certain zones as mentioned above, where the zones grant leasehold rights are: Mushaireb, New Doha, Al Ghanem Al Atiq, Al Rifaa, Al Salta, New Al Murqab, Al Dafna, and more (GMB, 2008) and (Cityscape Intelligence, 2010a).

There is a privilege for GCC individuals among other nationality in having the permission to own up to three properties in residential areas but ownership must be for the purpose of accommodation for the owner and his family only (Cityscape Intelligence, 2010a).

Other GCC natural persons (individuals) and entities who are licensed to carry on economic activities in Qatar may own land for the purposes of pursuing their licensed economic activity subject to obtaining Council of Ministers approval. This allows ownership of an office or workshop etc; it does not permit buying and selling property where this is the business itself. When the business ceases the land must be sold. Carrying on economic activities is itself subject to separate foreign investment restrictions. And they can fully own land in three areas, namely Lusail, Kharayegh and Jabal Thouaileb. Ownership in these three areas does not count towards the three areas set out in 3 above - this is separate and there is no restriction in the law on



how many properties can be owned in these three areas (Cityscape Intelligence, 2010a).

For all other nationalities including GCC nationals, full ownership on lands in certain places is given; areas include Pearl, Lusail and Al-Khor resorts. Where in these areas no restrictions have been made on the number of properties to be owned. In addition to the full ownership, non-GCC nationals can own shares in Qatari companies. Moreover, Non-Qatari nationals may have the right of usufruct for a term of 99-years, renewable, in respect of real estate of any description in the above-mentioned Investment Areas (Cityscape Intelligence, 2010a).

#### **3.2.4.3 TAX INSTRUMENTS IN QATAR**

According to Deloitte International Tax and Business Guides (2010) website, the following is the main tax instruments used in Qatar:

Concerning corporate income tax in Qatar, the first QAR100,000 is exempt, with subsequent amounts taxed up to 35% (with the top rate levied on income exceeding QAR 5 million). Tax is not levied on wholly owned Qatari business.

Qatar however, does not impose taxations on real property, transfer, value added or any withholding taxes for non-residents.

In terms of tax incentives, Qatar offers few incentives and mainly includes tax holidays, foreign capital investment incentives, and incentives related to the Qatar Financial Centre and the investment free zone. Companies registered under the Financial Centre regime are subject to a flat rate tax of 10%.

#### **3.2.4.4 MAIN INVESTMENT RISKS IN QATAR**

The overall business operating risk in Qatar is low (EIU, 2010d). Power remains concentrated in the hands of the emir, and plans for the inauguration of a two-thirds elected legislature has seemingly been postponed indefinitely. The legal, regulatory and tax regimes favour domestic interests but are slowly becoming more even-handed. An open trading and payments regime exists. Macroeconomic conditions are heavily influenced by oil prices, although the exploitation of Qatar's vast natural gas reserves has helped it to lessen this dependence (as gas prices lag fluctuations in oil). The currency is pegged to the US dollar at a rate that is unlikely to change until the process for convergence towards a gulf single currency is decided. Infrastructure risk is low as Qatar has modern road, port and air networks, but the expansion programme for all three is struggling to keep pace with demand (EIU, 2010d).

The following key risks are considered by the Economist Intelligence Unit comprehensive country report on Qatar, EIU (2010d):

### **Political stability risk**

Political power remains concentrated in the hands of the emir, Sheikh Hamad bin Khalifa al-Thani. Constitutional reforms in the pipeline would devolve some power, but even the most radical element, the formation of a partly-elected legislature, is limited by various safeguards that ensure that the emir retains overall control over the policymaking process (EIU, 2010d).

Qatar also lacks a tradition of smooth government transition. The last two emirs have come to power through palace coups, which, although causing little political or social disruption, have raised questions about the succession. However, the Qatari population has gained considerably from the emir's economic programme, and social unrest is unlikely (EIU, 2010d).

### **Government effectiveness risk**

The emir, Sheikh Hamad bin Khalifa al-Thani, rules by decree, although in practice his authority is somewhat limited by the need to pacify competing factions within the ruling family and the interests of the major trading families. The eventual inauguration

of a new partly elected Shura Council would ensure greater participation, although, even if it is established, all bills will still need emiri ratification. There is a fairly strong culture of bureaucracy, with lower-level officials often unwilling to make decisions. Red tape is more of a problem than outright bribery and corruption, which has declined in recent years (EIU, 2010d).

### **Legal & regulatory risk**

Since 2000 a range of changes to foreign investment regulations has been introduced, easing the legal barriers to foreign entry into the market (EIU, 2010d). The government has promised further liberalisation, but change is likely to be slow (EIU, 2010d). As covered earlier in the previous sections, local laws fully recognise private property and contractual rights, and the risk of expropriation is very low, but the court system is slow and bureaucratic avenues for dispute resolution are limited. There is no effective competition law and, despite some recent improvements, intellectual property rights are still not well protected in law or in practice. Utility and petrol prices are set by the government, although plans are in place to end the government's involvement in utility price-setting (EIU, 2010d).

### **Infrastructure risk**

According to EIU (2010d) report, infrastructure risk in Qatar is relatively low. Transport infrastructure roads, ports and airports is adequate and well maintained, but capacity is struggling to keep up with demand. Telecommunications are also of a high standard, and prices may begin to fall now that Qatar Telecom's monopoly in the mobile sector has ended. Internet access is high for the region, but its development might be hampered because of political concerns. Power shortages have been largely addressed by capacity expansion at one of the country's existing power plants and the building of new independent water and power projects (IWPPs), but the demands of the industrialisation programme and population growth mean that occasional power outages can still occur during the summer months. A fourth IWPP is planned for 2011 (EIU, 2010d).



### **3.2.5 SAUDI ARABIA**

#### **3.2.5.1 POLITICAL AND ECONOMICAL STRUCTURE IN KSA**

Saudi Arabia is an absolute monarchy. King Abdullah bin Abdel-Aziz Al Saud ascended to the throne in August 2005. The Council of Ministers holds both legislative and executive powers and is headed by the King. A Consultative Council was appointed in August 1993.

In terms of economic structure, oil exports making up around 90-95% of total export earnings, 70-80% of state revenues, and around 40% of GDP, Saudi Arabia's economy is heavily dependent on its energy sector. Investments in petrochemicals have also increased the relative importance of the downstream petroleum sector (Euromonitor International, 2010).

In an effort to diversify, the government has embarked on the biggest industrialisation programme ever attempted. The programme includes a series of industrial city developments, and the development of investment zones. Despite all this government spending, the construction industry is experiencing a dramatic contraction as private investors cut back and regional projects are deferred (Euromonitor International, 2010).

The agricultural sector is infinitesimal. The government has tried to buy large amounts of fertile land overseas to supply the home market but has run into political objections. Opposition to this strategy is growing (Euromonitor International, 2010).

Saudi Arabia's banking industry, with more than US\$290 billion in assets, is one of the region's most profitable. One reason is that banks pay no taxes at all. Profitability has been hurt by the credit crunch however and falling real estate prices in the region (Euromonitor International, 2010).

### **3.2.5.2 OVERVIEW ON INVESTMENT REGULATIONS**

In the past ten years, Saudi Arabia has moved from a relatively closed economy dominated by hydrocarbons and a bureaucracy antagonistic to foreign investment, to an open economy friendly to foreign direct investment (FDI).

The Supreme Economic Council enacted the Foreign Investment Act (FIA) in April 2000, which replaced the much-decried 30-year-old Foreign Capital Investment Act. The FIA established a broad framework within which non-Saudis may invest in the kingdom in ventures that are minority, majority or 100% foreign owned (EIU, 2009a).

The FIA aimed to provide equal treatment for non-Saudi firms, stating that a foreign venture “shall enjoy all the benefits, incentives and guarantees enjoyed by a national project”. The FIA includes guarantees on the free repatriation of profits and capital, and it provides a clause that foreign-owned assets can be expropriated only in exceptional circumstances, in return for full compensation. It offers the right to buy property and allows ventures to sponsor their own employees (previously denied to 100%-foreign-owned ventures). The FIA promised to streamline the investment process, committing the state to providing a response to an investment application within 30 days from receipt. If no response is forthcoming, then the application is approved by default (EIU, 2009a).

Significantly, the FIA also established the Saudi Arabian General Investment Authority (SAGIA), a body with the sole responsibility for approving foreign-investment projects. This includes a mandate to regulate the investments made by foreign entities to ensure consistency with national interests. The SAGIA also has responsibility for developing more-detailed legislation to flesh out the framework established by the FIA (EIU, 2009a).

The SAGIA's Investors Service Centres are one-stop shops that facilitate the investment process for foreign companies, minimising the number of bureaucratic steps required before investment can take place. According to SAGIA, these single-

point entities offer 128 government services in all major cities. Nine ministries are represented at the Investors Service Centres (EIU, 2009a).

On February 11th 2001 Saudi Arabia's Supreme Economic Council approved a "negative list" of economic sectors barred to majority-foreign-owned firms, thus clarifying the issue of where in the economy foreigners may invest. The list was published as secondary legislation to the FIA and earmarked for annual revision. It is also, in the words of the government, to be interpreted "flexibly". Those sectors not included on the list should be regarded as legally open to majority-foreign-owned companies. However, few foreign companies are in these sectors because of the poor business environment, which includes regulatory and labour problems (EIU, 2009a).

In April 2009, the list contained 16 sectors (three industrial and 13 service sectors). Several of the service sectors still closed to FDI—including defence, health and broadcasting—are subject to FDI restrictions in most other countries, even in those WTO member nations most vocally in favour of opening service sectors to foreign investment. The list was first shortened in February 2003, with the removal of insurance, power transmission and distribution, education, and pipeline services (EIU, 2009a).

Upon Saudi Arabia rules for real estate; ownership for foreigners is not permitted but there are some exceptions (Cityscape Intelligence, 2009).

Full ownership on lands and properties is granted for Saudi nationals like in any other country. Where for GCC nationals there seem to be the same rules of ownership granted to Saudi nationals but at present the relevant law has not yet been fully implemented. GCC companies on the other hand can have freehold ownership if required to carry out their licensed activities with the approval of the Saudi Arabian General Investment Authority. Residents in the Kingdom of Saudi Arabia (Non-Saudis and Non-GCC nationals) could get permission from the ministry of interior to have freehold ownership, where foreign business investors can get licence to own in certain circumstances (generally to further their business objectives). The King has the right to approve ownership of real estate (Cityscape Intelligence, 2009).



In the areas of Makkah and Medina and due to its religious value there are special rules of ownership. Non-Saudi nationals are not permitted to hold freehold, easements or usufruct rights over any real estate between the boundaries of those clients, unless the estate is endowed to a particular Saudi institution in accordance with the Regulations of Sharia (Islamic Law). However, non-Saudis may lease property in Mecca and Medinah for a two-year renewable period (Cityscape Intelligence, 2009).

Non-Saudi investors could own real estate for their licensed business after getting the approval of the Licensing Authority. This includes property for personal residences and workmen's housing (Cityscape Intelligence, 2009). The property may also be leased to other entities. If the concerned License allows for the purchase of Real Estate or land for construction, investment, and sale or leasing, the total cost of the project, both land and construction, will not be less than SR 30 million. The Investment will have to be carried out within the first five years of ownership (Cityscape Intelligence, 2009).

### **3.2.5.3 TAX INSTRUMENTS IN KSA**

According to Deloitte International Tax and Business Guides (2010) website, the following is the main tax instruments used in Saudi Arabia:

Corporate income tax is 20% on a non-Saudi's share in a resident corporation and on income derived by a non-resident from a permanent establishment in Saudi Arabia. 30% rate for companies engaged in the exploitation of natural gas sector, and 85% on taxpayers engaged in the production of oil and hydrocarbons. Zakat is assessed at 2.5% on the Zakat base on a Saudi shareholder.

Saudi Arabia however, does not impose taxations on real property, transfer or value added.

It however, imposes withholding taxes for non-residents, where dividends are taxed at 5%, interest at 5% and royalties at 15%.

Saudi Arabia does not offer any tax incentives

#### **3.2.5.4 MAIN INVESTMENT RISKS IN KSA**

The following key risks are considered by the Economist Intelligence Unit comprehensive country report on Saudi Arabia (EIU, 2010e)

##### **Political stability risk**

As in many other Middle Eastern countries, one of the main factors keeping the ruling family in place is the absence of any clear alternatives (EIU, 2010e). There is no elected parliament. Opposition movements are tightly restricted and it is unlikely that any could overthrow the government. The Al Saud family will also rely on extensive public spending, patronage networks and backing from influential clerics. Power is heavily centralised in the hands of a few senior princes, and policymaking is constrained by the king's need to accommodate the interests of these princes and of senior clerics. Uncertainty over the succession remains an issue, with the king, Abdullah bin Abdel-Aziz al-Saud, and the crown prince both in their eighties, and given concerns about the crown prince's health (EIU, 2010e).

##### **Government effectiveness risk**

The global recession and tight financing environment has made the economy yet more dependent on the state (EIU, 2010e). There is a long-term process of liberalisation and opening to foreign investment underway, but the state will continue to play a leading role in the economy and is likely to retain control of the upstream oil sector. The government will sometimes favour domestic interests over foreign ones (EIU, 2010e). The bureaucracy is large and slow, with regulations often unclear.

Plans to overhaul the legal system and introduce a new system of specialised courts will make slow progress (EIU, 2010e).

### **Legal & regulatory risk**

The EIU (2010e) report states that the legal system provides inadequate protection for foreign firms and proceedings tend to be insufficiently transparent. Enforcing contracts can be difficult, particularly if the local firm in a dispute is linked to the royal family. However in 2007 the king announced that specialised commercial courts would be set up as part of an overhaul of the judicial system. The appointment of a new justice minister and several other senior judicial figures in 2009 should boost these efforts but the process is a long-term one. Intellectual property rights and private property rights receive some protection (EIU, 2010e).

Saudi Arabia is a signatory of the New York Convention on International Arbitration on Business Disputes on Legal Arbitration. However, this does not guarantee protection. The government acknowledges that Saudi courts will not usually recognise contractual provisions providing for foreign jurisdiction. Local accounting practices are improving (EIU, 2010e).

### **Infrastructure risk**

According to EIU (2010e), Saudi Arabia has very good ports, airports and roads, but maintenance has been a problem. Infrastructure quality varies considerably between regions, although there are some efforts to even this out. The rail network will undergo expansion over the medium term, with a role for some foreign investment. The retail and distribution network functions effectively, but is largely controlled by interests opposed to foreign competition. Telecommunications need considerable investment given the limited number of land lines and mobile phone access per capita, but it is improving rapidly as a result of greater competition and new investment by recent market entrants, and broadband internet access is rising strongly from a low base. The report states that there is insufficient investment in information technology and the government monitors use of the internet. The power



and water networks need significant new investment, some of which is already underway. However, for the time being, there will be sporadic water shortages in some areas (EIU, 2010e).

### **3.2.6 TUNISIA**

#### **3.2.6.1 POLITICAL AND ECONOMICAL STRUCTURE IN TUNISIA**

Tunisia is a republic with a severely limited democratic system. Zine el-Abidine Ben Ali, who became president in 1987, run the country on similarly autocratic lines to his predecessor. The 2010–2011 Tunisian protests have forced the president to step down from the presidency and fled Tunisia on 14 January 2011 after 23 years in power. In the 15<sup>th</sup> January, 2011, Fouad Mebazaa (parliamentary speaker) is given 60 days to organise new election.

In terms of economic structure, Tunisia was once primarily based on agriculture, oil and phosphates; recently however, the Tunisian economy has become more diverse, with important manufacturing and tourism sectors (EIU, 2008c). Diversification has made the economy more resilient to internal and external shocks, such as downturns in agriculture caused by drought. Private consumption is a major and rising component of GDP, accounting for 63-64% of GDP in recent years. Government consumption has remained relatively high at some 15% of GDP, but is trending slowly downward. Gross fixed investment rose to 25% of GDP in 2001, but has averaged just over 23% in 2003-07, some way below the government's ambitions. Exports as a proportion of GDP have risen steadily over the past few years, jumping to 54% in 2007 (EIU, 2008c).

#### **3.2.6.2 TAX INSTRUMENTS IN TUNISIA**

According to Deloitte International Tax and Business Guides (2010) website, the following is the main tax instruments used in Tunisia:

Corporate income tax is 30%; a 35% rate applies to certain banking and financial institutions; investment companies; insurance and reinsurance companies; companies operating in the hydrocarbons sector; and factoring companies. A lower rate of 10% applies to agricultural and handicraft companies.

The transfer of real propriety located in Tunisia is subject to various registration fees, such as a 5% transfer tax and a 1% tax for unregistered buildings.

As for transfer taxes, the transfer of immovable property generally is subject to a 5% registration duty and a 1% duty on registered or unregistered real estate.

The value-added tax in Tunisia is 18%, with reduced rates of 6% and 12%. Exports are zero-rated.

As for the withholding taxes for non-residents, the dividends are not taxed, and interest is taxed at 20% and royalties are taxed at 15%.

Certain tax incentives are available in Tunisia for new investments mainly in the agricultural, industrial, service and tourism sectors.

### **3.2.6.3 MAIN INVESTMENT RISKS IN TUNISIA**

The following key risks are considered by the Economist Intelligence Unit comprehensive country report on Tunisia (EIU, 2011):

#### **Political risk**

As mentioned earlier, the 2010–2011 Tunisian protests have forced the president to step down from the presidency and fled Tunisia on 14 January 2011 after 23 years in power. The departure of the former president, Zine el-Abidine Ben Ali, has created a power vacuum. Members of the opposition parties have already resigned from the

new transitional government. There is a high risk of further protests owing to anger over members of the former ruling party retaining key positions.

### **Currency risk**

EU (2011) sees currency risk in Tunisia as negative. This is due to the political uncertainty which will have a negative impact on foreign direct investment. In addition, a widening current-account deficit will put pressure on the Tunisian dinar.

### **Banking sector risk**

EU (2011) report also thinks that banking sector risk is negative. This is due to weak economic growth, as a result of the protests, is likely to make it more difficult for banks to recover non-performing loans. It is also unclear what will happen with ownership in banks by members of the former president's family.

## **3.2.7 TURKEY**

### ***3.2.7.1 POLITICAL AND ECONOMICAL STRUCTURE IN TURKEY***

Turkey is a secular Republic. The Head of the State is the president. Legislative power is vested in the unicameral parliament (Grand National Assembly) with 550 members, elected by popular vote.

Turkey has been a candidate for EU membership since 1999 and negotiations for membership opened in 2005 although they stalled in 2006 as a result of Turkey's refusal to recognise the Cypriot government and open its ports to Greek Cypriot ships; formally they are still continuing (Euromonitor International, 2007). EU membership would help maintain political stability and increase prosperity and give easier access to EU markets. An optimistic scenario by Euromonitor International (2007) sees Turkey as being ready to join in 10 years. However, many current members (France's president has been quoted as saying "Turkey has no place in Europe") are against Turkish membership, and within Turkey itself enthusiasm



amongst the general population has been waning and the reform process has slowed. According to Euromonitor International (2007), if Turkey were to become the first country to rescind its application then business confidence would clearly suffer.

In terms of Turkey's economic structure and according to Euromonitor International (2010a) report, agriculture accounts for 9.5% of GDP and employs more than a quarter of the work force. Major crops include grapes, fruit, barley and cotton. There are roughly 3 million farms in Turkey, most of them small family concerns. New investments and more favourable weather conditions should result in a better performance in 2010.

Manufacturing makes up 20.1% of GDP. However, output began to contract in the first months of 2009 and the slowdown continued beyond the end of the year. Textiles are the country's largest industry, accounting for one-third of manufacturing employment. Clothing and textiles make up nearly 40% of total exports (most of it to the EU). Turkey has become a production hub for the automobile industry with investments by Renault, Fiat, Hyundai and Toyota. Production of automobiles and parts fell by 22% in 2009 as both domestic and foreign demand weakened. Turkish manufacturers face a threat from cheaper competitors based in India and China (Euromonitor International, 2010a).

The tourist industry thrived in recent years but the number of visitors stagnated in 2008 and began to decline in 2009. Tourism accounts for about 9.1% of GDP but its share is expected to fall over the course of the next decade. Reforms to the banking system, introduced after the financial crisis in 2001, have strengthened the banking system. Ankara continues to push its privatisation programme. The growth of credit has slowed but still remains high (Euromonitor International, 2010a).

Turkey is building a seabed tunnel which will eventually be a key part of a railway link from the Middle East to Europe. The tunnel, which will cost US\$3.5 billion, is expected to open in 2013 (Euromonitor International, 2010a).

The Turkish economy has experienced a very sharp recession in 2009 but a recovery is forecast for 2010. With investment lagging behind, the country faces serious power shortages just as the recovery begins. As many as half of all employed workers hold jobs in the informal sector. The result is massive, unquantifiable losses in tax revenue. With public debt rising, there is some uncertainty about the country's medium-term prospects (Euromonitor International, 2010a).

### **3.2.7.2 OVERVIEW ON INVESTMENT REGULATIONS**

According to the PSR Group (2009) report, the Turkish government is considered as one of the most liberal legal regimes for foreign direct investments, it views FDI as an important economical factor to the development and prosperity of the country. Generally sectors open for Turkish investors are also open for foreign investors but with some exceptions in certain sectors. However, excessive bureaucracy, a slow judicial system, high taxes, weaknesses in corporate governance, sometimes unpredictable decisions made at the local government level, and frequent changes in the legal and regulatory environment are all challenges facing all investors (nationals and foreigners) wanting to invest in Turkey (PSR Group, 2009).

Since 2001, the Turkish government has been implementing a comprehensive investment climate reform program. This program aims to streamline all investment-related procedures and to attract more FDI to the country. A national platform jointly formed by the public and private sectors, the Coordination Council for the Improvement of Investment Environment (YOIKK), provides technical guidance for issues relating to the investment environment (PSR Group, 2009).

In 2004 the Investment Advisory Council of Turkey (IAC) was created to provide an international perspective for the reform agenda of Turkey. IAC members include executives from multinational companies, representatives of international institutions such as the IMF, World Bank and EIB, and the heads of Turkish NGOs representing

the private sector. The Council, chaired by the Prime Minister, convenes yearly to advise the government on the direction of its reform program. The Council's recommendations works as a guideline for the YOIKK Platform, and developments regarding the Council recommendations are published in the Turkish Treasury's annual IAC Progress Reports (PSR Group, 2009).

In addition to structural reforms, the Investment Promotion Agency (IPA), whose main objective is to support new investors throughout the establishment process and solve problems that arise after establishment, became much more active in 2007. The agency serves as an advocate within the government for reforms that promote investment and will work to raise public awareness of the benefits of investment (PSR Group, 2009).

The Turkish law guarantees the free transfer of profits, fees, and royalties, and repatriation of capital. This guarantee is reflected in Turkey's 1990 Bilateral Investment Treaty (BIT) with the United States, which mandates unrestricted and prompt transfer in a freely- usable currency at a legal market-clearing rate for all funds related to an investment. There is no difficulty in obtaining foreign exchange, and there are no foreign exchange restrictions. As the result of a 1997 court decision, however, the Turkish Government has blocked full repatriation of investments by oil companies under Article 116 of the 1954 Petroleum Law, which protected foreign investors from the impact of lira depreciation. Affected companies have challenged the 1997 decision, but lost the case in 2002. Companies expect the new Petroleum Law, which the government claims will go before Parliament in 2008, to address this problem and to improve the investment environment for oil and gas exploration (PSR Group, 2009).

Under the BIT, expropriation can only occur in accordance with due process of law. Expropriations must be for public purpose and non-discriminatory. Compensation must be reasonably prompt, adequate, and effective. The BIT ensures that U.S. investors have full access to the local court system and the ability to take the host government directly to third-party international binding arbitration to settle



investment disputes. There is also a provision for state-to-state dispute settlement. As a practical matter, the government occasionally expropriates private real property for public works or for State Enterprise industrial projects. The government agency expropriating the property negotiates and proposes a purchase price. If the owners of the property do not agree with the proposed price, they can go to court to challenge the expropriation or ask for more compensation. There are no outstanding expropriation or nationalisation cases (PSR Group, 2009).

Private entities may freely establish, acquire, and dispose of interests in business enterprises, and foreign participation is permitted up to 100 percent.

The right of ownership and establishment is fully obtained, as private entities may freely establish, acquire, and dispose of interests in business enterprises, and foreign participation is permitted up to 100 percent(PSR Group, 2009).

Secured interests in property, both movable and real, are recognised and enforced. There is a reliable system of recording such security interests. For example, there is a land registry office where real estate is registered. Turkey's legal system protects and facilitates acquisition and disposal of property rights, including land, buildings, and mortgages, although some parties have complained that the courts are slow to render decisions and that they are susceptible to external influence (PSR Group, 2009).

### **3.2.7.3 TAX INSTRUMENTS IN TURKEY**

According to Deloitte International Tax and Business Guides (2010) website, the following is the main tax instruments used in Turkey:

Corporate income tax is at 20% (30% if a corporate taxpayer chooses to use the investment allowance exemption accumulated from prior years).

Concerning real property taxes, these are levied based on the value of land or buildings. Rates are as follows: 0.2% for buildings in general, 0.1% for dwellings, 0.1% for land in general; and 0.3% for building sites. The rates are increased by 100% for buildings and land located within larger cities.

Value-added tax is at 18%, with reduced rates of 8% applicable to basic foodstuffs, pharmaceutical products and other items, and 1% for journals, newspapers and certain farm products.

As for the withholding taxes for non-residents, the dividends are taxed at 15%, the interest at a 10% rate applies to interest paid on loans from non-resident entities that do not qualify as “financial entities”, and royalties at 20%.

Turkey also offers various tax incentives, for example, a reduction of up to 90% of the corporate income tax rate may be granted on earnings derived from investments in specified regions/ cities and sectors.

#### **3.2.7.4 MAIN INVESTMENT RISKS IN TURKEY**

According to Euromonitor International (2010a), Turkey is undergoing an upheaval both politically and economically. The report predicts that much could still go wrong, especially with regard to relations with the EU concerning Cyprus, and Turkey's aspirations to join the EU. Among Turkish Kurds unemployment is several times higher than the national average. Clashes between Kurds and Turks have worsened after the constitutional court voted in December 2009 to ban the largest Kurdish party, the Democratic Society Party (Euromonitor International, 2010a).

#### **3.2.8 UNITED ARAB EMIRATIS**

### **3.2.8.1 POLITICAL AND ECONOMICAL STRUCTURE IN UAE**

The United Arab Emirates is a federal presidential elected monarchy and was established in 1971 as a federation of seven emirates, Abu Dhabi, Dubai, Sharjah, Ras al-Khaimah, Ajman, Umm al-Qaiwain and Fujairah. The rulers comprise the Federal Supreme Council, FSC, which elects the country's President and Vice President at five-yearly intervals from amongst its members. Sheikh Zayed bin Sultan Al Nahyan, Ruler of Abu Dhabi, has been President since 1971, and Sheikh Maktoum bin Rashid Al Maktoum, Ruler of Dubai, has been Vice President (also concurrently Prime Minister) since 1990. The Council of Ministers is chosen by the Prime Minister in consultation with the President, and is the executive arm of Government. The national legislature consists of a unicameral Federal National Council of 20 appointed and 20 elected members representing the separate emirates.

Economically, the UAE has been one of the great success stories of the past decade (Cityscape Intelligence, 2010b). From 2003 to 2008 real GDP grew at a compound annual growth rate (CAGR) of 8.5%. Sustained economic growth has granted the country the position of the second largest economy in the Arab world. As contributors of close to 90% of GDP, Dubai and Abu Dhabi lead national growth in the non-oil and oil sectors, respectively. Per capita income has climbed past \$55,000 (\$39,000 at PPP), double that of neighbouring Oman and Saudi Arabia. Over the past few years development in the UAE has flourished under high oil prices and the resulting private equity boom. Between 2005 and 2008 the country maintained an average annual fiscal surplus of 24% of GDP, and gross total reserves stood at \$38bn at the end of 2008, leaving it well-positioned to fend off the effects of the global financial crisis that have now taken hold (EIU, 2009a).

The UAE holds about 97.8bn barrels in proven oil reserves – the sixth largest in the world – as well as 3.5% of global gas reserves. The majority of the nation's hydrocarbon wealth is located in Abu Dhabi, and the Abu Dhabi National Oil Company (ADNOC) aims to up production capacity to 3.5m barrels a day over the



next few years. For now, mandated production cuts from OPEC have thwarted the emirate's expansion plans and the country was producing 2.232m bpd as of April, just above its official OPEC quota of 2.22m bpd. The International Energy Agency (IEA) reports that as of June, oil production had fallen 400,000 bpd since September, beyond OPEC's recommended cut of 379,000. The EIU expects budget revenues this year to decline by 35% from last year's estimated \$78.7bn on the back of lower oil prices (Cityscape Intelligence, 2010b).

The federal and Emirati governments are embarking on an aggressive stimulus programme to counteract the global economic downturn. Recovery measures include two liquidity-boosting support packages worth AED120bn (\$32.7bn) and a guarantee on bank deposits from the Central Bank, and AED16bn (\$4.36bn) from the Abu Dhabi government. Altogether, the UAE's fiscal stimulus package amounts to about 16% of 2008 GDP (at current prices), the highest proportion amongst emerging markets, according to Deutsche Bank (EIU, 2009a).

In the long-term hydrocarbon wealth will continue to provide much needed liquidity to the UAE's economy. At current rates of production – around 900m barrels of oil and 50bn cubic metres of natural gas per annum – reserves should last over 100 years (EIU, 2009a).

The UAE along with the other GCC states has instituted programs to liberalise and privatise the economy, and its development strategy is one of the most outward-looking in the region. It has thus far been successful in creating an open, business-friendly environment. This has encouraged significant foreign investment particularly in service sector activities such as banking and finance, tourism and technology (Cityscape Intelligence, 2010b).

As a collective whole, the UAE has a well-rounded economy, with non-oil growth consistently strong as tourism, real estate and financial services gain international prominence. The country is also blessed with huge oil and gas reserves and hydrocarbons production has been steadily expanding. But taken individually, the economy of each emirate shows less diversification. Accordingly, the impact of the

global financial crisis has been felt differently in Abu Dhabi, Dubai and the Northern Emirates (Cityscape Intelligence, 2010b).

Deep integration with the global economy is, as illustrated by the events of 2008 and 2009, a double-edged sword. International connections have greatly contributed to the astounding growth of the UAE – and particularly Dubai – over the past few years. Such connections also carry risks and, while direct exposure to financial turmoil originated in the US was minimal, the country has seen a tightening in credit since last September and has suffered the effects of weakening global demand. However it is becoming increasingly clear that the UAE and other major players in the GCC are far better placed to face global shocks now than they were in the past, and the region could in fact have a stabilising role to play in the international recovery process. The sovereign wealth funds of Abu Dhabi, for example, were the most active players in the SWF field during the first quarter of 2009, investing a total of nearly \$5bn in various international projects (EIU, 2009a).

#### **3.2.8.2 OVERVIEW ON INVESTMENT REGULATIONS**

For UAE, this section will only deal with rules related to real estate, as real estate is dealt with on an Emirate-by-Emirate basis rather than at a federal level. In another words, looking at ownership rules and regulations should be done for each emirate individually depending on its rules and not applicable to the whole country. Important terminologies to be known before moving forward are the "musataha" and "usufruct" which are types of lease referred to in the UAE Civil Code (the Civil Code). The Civil Code is a federal law. In the UAE, as is generally the case throughout the GCC, a lease is not an "in rem" or land right but is instead an "in personam" or contractual right (although musataha and usufruct are generally treated as rights in land) (Cityscape Intelligence, 2010b).

Musataha permits the tenant to use and build on the land for a maximum of 50 years, according to the Civil Code. Usufruct permits the tenant to use the land for a maximum of 99 years (Cityscape Intelligence, 2010b).

## **Dubai.**

In 2006 Dubai Law 7 of 2006 was passed stating that foreigners are permitted to own freehold land in certain areas throughout Dubai. For UAE and GCC nationals, they have the right to wholly own properties throughout the Emirate of Dubai. Where for Non-GCC nationals, they are only permitted to own properties in specific freehold areas, examples of projects in these areas are; the Palm Jumeirah, The World Islands, Downtown Dubai, the Marina and the Lagoons. Moreover, Lease rights can be granted to non-UAE nationals throughout the Emirate of Dubai although if they are not in the designated freehold areas there is a risk this will be seen as an attempt to circumvent the law (Cityscape Intelligence, 2010b).

Purchaser protection measures that exist in Dubai include the "escrow law", which requires developers to place moneys received for off-plan sales in an escrow account that can only be spent for specific purposes in relation to the development. It is possible to register off plan sales on an interim real estate register. The Real Estate Regulatory Agency (RERA) in Dubai is also a key player that regulates the industry and influences both developers and purchasers. The recent downturn in property prices has led to RERA becoming increasingly involved and passing new regulations to try and regulate the market (Cityscape Intelligence, 2010b).

## **Abu Dhabi**

In Abu Dhabi the law on foreign ownership was passed in 2005. For UAE nationals only have the right to wholly own properties throughout the Emirate of Abu Dhabi. Where GCC nationals are permitted to own properties inside designated investment zones. And non-UAE nationals are permitted to own apartments or floors in



buildings in investment zones for up to 99 years on a leasehold basis but without any rights to the underlying land and are also permitted to own musataha (building or development leases) for a renewable 50-year term in investment zones but without any rights to the underlying land, investment zones. At present investment zones include Al Raha Beach, Al Reem Island and Saadiyat Island (Cityscape Intelligence, 2010b).

Several new laws to protect purchasers are expected in the near future including an escrow law and a law setting up a new real estate regulatory body.

### **Ajman**

In Ajman two laws were passed in 2008 that relate to registration of property in the Emirate. For UAE and GCC nationals, they have the right to wholly own properties throughout the Emirate of Ajman. Where for non-GCC nationals (and companies owned by them) are permitted to own property with the consent of the Ruler. This often applies in certain designated areas only and they are also permitted to own long leases with the consent of the Ruler. These leases can be for 50 years, renewable with the Ruler's consent (Cityscape Intelligence, 2010b).

Purchaser protection measures include a requirement on developers to register the projects with the authorities and accept certain responsibilities in relation to commencing and completing the project. The new law requires developers to open an escrow account to put in moneys from off-plan sales. The Ajman Real Estate Regulatory Establishment regulates the real estate market in Ajman (Cityscape Intelligence, 2010b).

### **Ras Al Khaimah**

Ras Al Khaimah is another Emirate that was quick to pass laws allowing foreigners to own. For UAE and GCC nationals, they are permitted to wholly own properties

throughout the Emirate of Ras Al Khaimah. In 2005 Ras Al Khaimah decreed that foreign ownership is permitted in certain areas provided the property is owned through a Ras Al Khaimah free zone company. The areas that foreigners may own are known as investment areas (Cityscape Intelligence, 2010b).

### **Umm Al Quwain**

A 2006 law set out rights that may be registered on the title. UAE and GCC nationals are entitled for wholly ownership on properties throughout the emirate of Umm Al Quwain. Umm Al Quwain follows the Abu Dhabi model so foreigners can be granted floors and musataha or usufruct in investment zones they are also permitted to hold musataha or usufruct for 50 or 99 years respectively in investment zones (Cityscape Intelligence, 2010b).

### **Sharjah**

At present there are no laws permitting foreign ownership in the Emirate of Sharjah. Decisions Nos. 32 and 38 of 2004 provide that UAE and GCC nationals are permitted to own property in Sharjah. Other nationalities are not permitted to own property without the Ruler's approval. Foreigners can however obtain and register a leasehold right in property for a term of up to 25 years (Cityscape Intelligence, 2010b).

### **Fujairah**

At present there are no laws permitting foreign ownership in the Emirate of Fujairah. We understand there are plans to implement new laws on this in the future. UAE and other GCC nationals are permitted to own property throughout the Emirate of Fujairah. Where some exceptions in certain free zones may apply for non-GCC nationals ownership permission (Cityscape Intelligence, 2010b).

### **3.2.8.3 TAX INSTRUMENTS IN UAE**

According to Deloitte International Tax and Business Guides (2010) website, the following is the main tax instruments used in UAE:

There are no corporate income taxes imposed on the income of companies, except for oil and gas companies (50%/55%) and branches of foreign banks (20%).

Real property taxations mainly about a transfer charge of 2% which is levied on the transfer of real property, with the seller paying 0.5% and the buyer 1.5% on the sales value.

UAE (and as the case for Qatar), does not impose taxations on value added or withholding taxes for non-residents.

As for tax incentives, the UAE offers several free trade zones with renewable 50-year tax holidays.

### **3.2.8.4 MAIN INVESTMENT RISKS IN UAE**

According to EIU (2010b), the UAE is generally a low-risk investment location. Specific threats to physical security are very low, but the UAE's strategic location along the Gulf poses some security risk. Risks related to political stability are moderate given possible tensions associated with succession within the royal families and the lack of clarity and transparency associated with the hereditary system of rule. With power ultimately concentrated in the hands of the ruling family, the legal and regulatory system is vulnerable to insider influence. The long-standing commitment to an open trading regime, free flow of capital and a very low tax environment reduce operating threats to business in these areas. The UAE's reliance on hydrocarbon-export revenue is a key vulnerability given the inherent volatility of international prices. In recent years, the diversification of the economic base and the



integration of the local population into the labour force have been policy priorities (EIU, 2010b).

### **3.3 SUMMARY**

This chapter has reviewed the key themes related to the MENA region and its fit in the global context. It was found that there is no specific definition for the MENA and it is a region full of controversies in terms of political and religious dimensions. The chapter also reviewed the selected MENA sample countries, and found how they differ politically, economically and the way each country views foreign investment via their rules, regulations and taxation regimes.

## **4. CHAPTER FOUR: RESEARCH METHODOLOGY**

### **4.1 INTRODUCTION**

This chapter explains and evaluates the research methodology adopted, and discusses how the research aims have influenced the choice of methods used.

### **4.2. RESEARCH METHODS**

Once the theoretical framework of the research has been established, the overall research methodology and paradigm must be considered. The choice of research paradigm depends on the nature of the problem to be investigated.

There are two traditional methods available to the researcher when developing research strategies, namely qualitative research and quantitative research (Creswell 2009). The decision to adopt a qualitative or quantitative approach is based on which approach is the most appropriate to the research question. Berg (2001) differentiates between qualitative and quantitative research by identifying qualitative research as referring to meanings, concepts, definitions, characteristics, metaphors, symbols and descriptions of things, whereas quantitative research refers to counts and measures of things. Many researchers identify quantitative research with numbers and relationships between variables, whereas qualitative research is associated more with the exploration of ideas, concepts and meanings (Levy & Henry, 2003).

Because there are many research methods can be employed to achieve the main aim of the research, including interviews, questionnaires as well as constructing and estimating econometric models. It was found the econometric modelling best fit the research aim and objectives. Although interviews was considered at the early stage of this research, as to gauge the attractiveness of the investigated countries to selective

foreign investors, however, due to time and cost limitations, it was not possible to interview every foreign investor in the globe.

Questionnaire surveys was another alternative; however, again, it was not so viable in terms of answering the research question, as it will need to be distributed on global scale targeting foreign investors interested in the MENA region. This process is costly and might not get the required reliability out of the data, due to the subjectivity nature of responding to questionnaire surveys. For those reasons, econometric modelling is sought to best fit this research, and the most suitable technique to answer the research questions.

The next chapter expand on this discussion and will provide critical review on the background of econometrics, its tools and techniques, and this research best utilised the available tools to achieve the aims of the research.

### **4.3 RESEARCH STRATEGY ADOPTED - QUANTITATIVE RESEARCH-ECONOMETRIC MODELLING**

As this research focuses on the relationship between commercial real estate FDI and hotel FDI with other factors such as political, economical, and social and sector specific factors. This requires adopting the quantitative (econometric) strategy to establish which factors determine real estate and hotel FDI across the eight selected countries. Lee (1998) as cited in (Chin, 2004) defines quantitative research as "an empirical research that aims to quantify relationships in the property market, which can be employed into the aggregate level (national or regional) or desegregate level (particular markets)". In this research, econometric analysis can help to estimate the magnitude of the impact between variables (dependent: real estate and hotel FDI; independent variables: macroeconomic, political, social and sector specific factors).

Econometrics is defined as 'measurement of economics' (Ruddock, 2008). Hoover (2005) explains the term econometrics by referring it mainly to the statistical apex of the economic theory-mathematics-statistics triangle, and that statistics is centrally



conditioned by economic theory. According to Ruddock (2008) econometrics in practice includes all the statistical and mathematical techniques used in the analysis of economic data.

The main target of using these statistical and mathematical tools with economic data is to attempt to prove or disprove certain economic propositions or to test or develop models (Ruddock, 2008). The objectives of econometrics have been classically described by Christ (1966, p. 4) as cited in Ruddock (2008) as: 'the production of quantitative economic statements that either explain the approaches to economic modelling and analysis behaviour of variables we have already seen, or forecast (i.e. predict) behaviour that we have not yet seen, or both'.

According to Hoover (2005), there are at least four roles for econometrics, these are:

- First, econometrics is used to test an implication of a theory.
- Second, econometrics may be used to measure unknown values of theoretically defined parameters or unobservable variables.
- Third, econometrics may be used to predict the value of a variable.
- Fourth, econometrics may be used to characterise a relationship or phenomenon.

This research tries to characterise the relationships between the FDI and other explanatory factors for the selected MENA economies. And approaching and testing any of the above roles requires following a process which is illustrated by Gujarati (2004) in Figure 17 below.

*Figure 17: anatomy of econometric modelling*

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*Source: Gujarati (2004) with reference to this research at every stage*

According to Gujarati (2004), these traditional econometric methodology proceeds along the following lines:

#### **I. Statement of theory or hypothesis.**

According to Brooks (2008), this stage usually involves the formulation of the theoretical framework, or intuition from economic or financial theory that two or more variables should be related to one another in a certain way. He notes that the theoretical framework or model is unlikely to be able to completely capture every relevant real-world phenomenon; however it should present a sufficiently good approximation that it is useful for the purpose at hand (Brooks, 2008).

For instance, the intuition from the literature is that the larger the market size of a country, the more chance it will attract more inflow of FDI.

Figure 17 above shows this stage of the study and how the consulted literature has helped in moving forward. For instance, it was found that the OLI paradigm developed by Dunning can be employed to best explain the determinants of the sectoral FDI.



## 2. Specification of the mathematical model of the theory

Although the literature postulated a positive relationship between market size and inflow of FDI, the literature might not specify the precise form of the functional relationship between the two. So the researcher here might assume that the relation can take the following form:

$$\text{Inflow FDI} = \beta_1 + \beta_2 \text{MSIZE} \quad \text{Equation 1}^2$$

Where,  $\beta_1$  &  $\beta_2$  known as the parameters of the model, are, respectively, the intercept and slope coefficients. The slope coefficient  $\beta_2$  measures the marginal market size to inflow FDI.

According to Gujarati (2004) a model is simply a set of mathematical equations. If the model has only one equation, as in the preceding example, it is called a single-equation model, whereas if it has more than one equation, it is known as a multiple-equation model (Gujarati, 2004).

## 3. Specification of the econometric model

Because the mathematical model (Equation 1) of FDI inflow function assumes that there is an exact or deterministic relationship between FDI inflow and market size. But relationships between economic variables are generally inexact (Gujarati, 2004). To allow for the inexact relationships between economic variables, the deterministic function (Equation 1) would be modified as follows (Gujarati, 2004):

$$\text{Inflow FDI} = B_1 + B_2 \text{MSIZE} + u \quad \text{Equation 2}$$

Where,  $u$ , known as the disturbance, or error, term, is a random (stochastic) variable that has well-defined probabilistic properties. The disturbance term  $u$  may well represent all those factors that affect FDI inflow but are not taken into account explicitly (Gujarati, 2004).

Details of specifying the research models are provided in the next chapter.

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<sup>2</sup> In Equation 1 the variable appearing on the left side of the equality sign is called the dependent variable and the variable(s) on the right side are called the independent, or explanatory, variable(s).

#### **4. Obtaining the data**

Data is of the crucial importance for economic analysis (Gujarati, 2004). According to Brooks (2008) the data required may be available electronically through a financial information provider or from published government figures. Alternatively, the required data may be available only via a survey after distributing a set of questionnaires (i.e. primary data). As for this study, see section 4.7 for more on the main sources of data utilised.

#### **5. Estimation of the parameters of the econometric model**

Once data are collected, the models can be estimated. According to Gujarati (2004) the main tool used to obtain estimates is the statistical technique of regression analysis (see section 4.3.1 below).

#### **6. Hypothesis testing**

Once the model is estimated and assuming that the fitted model is a reasonably good approximation of reality, Gujarati (2004) points out that it is important to develop suitable criteria to observe whether the estimates obtained are in accord with the expectations of the theory that is being tested. Such confirmation or refutation of economic theories on the basis of sample evidence is based on statistical inference (hypothesis testing) (Gujarati, 2004).

#### **7: Using the model for control or policy purposes.**

Based on the calculations of the model, and as these calculations suggest, an estimated model may be used for control, or policy, purposes. By appropriate fiscal

and monetary policy mix, the government can manipulate the control variable  $X$  to produce the desired level of the target variable  $Y$  (Gujarati, 2004).

The econometric modelling process and specification of the models are illustrated in more details in the following chapter which discusses in details proxies of the relevant explanatory variables based on the literature reviewed and covered in chapters two and three.

The next section discusses the main statistical tool used for estimating the econometric models (i.e. regression analysis).

#### **4.3.1 MULTIPLE REGRESSION ANALYSIS**

Regression analysis is concerned with the study of the dependence of one variable, the dependent variable, on one or more other variables, the explanatory variables, with a view to estimating and/or predicting the (population) mean or average value of the former in terms of the known or fixed (in repeated sampling) values of the latter (Gujarati, 2004).

Although regression analysis deals with the dependence of one variable on other variables, it does not necessarily imply causation (Gujarati, 2004). Closely related to but conceptually very much different from regression analysis is correlation analysis, where the primary objective is to measure the strength or degree of linear association between two variables (Gujarati, 2004).

According to Gujarati (2004), regression and correlation have some fundamental differences, in regression analysis there is an asymmetry in the way the dependent and explanatory variables are treated. The dependent variable is assumed to be statistical, random, or stochastic, that is, to have a probability distribution. The explanatory variables, on the other hand, are assumed to have fixed values (in repeated sampling). In correlation analysis, on the other hand, any two variables are



treated symmetrically; (i.e. there is no distinction between the dependent and explanatory variables) (Gujarati, 2004). According to Wooldridge (2002a), simply finding that two variables are correlated is rarely enough to conclude that a change in one variable causes a change in another.

According to Greene (2003), the generic form of the linear regression model is:

$$y = x_1 \beta_1 + x_2 \beta_2 + \dots + x_K \beta_K + \varepsilon$$

Where  $y$  is the dependent or explained variable and  $x_1, \dots, x_K$  are the independent or explanatory variables. Mainly the theoretical framework will specify  $f(x_1, x_2, \dots, x_K)$ . This function is commonly called the population regression equation of  $y$  on  $x_1, x_2, \dots, x_K$ . The underlying theories will specify the dependent and independent variables in the model.

The term  $\varepsilon$  is a random disturbance, and according to Greene (2003) it has this name because it “disturbs” an otherwise stable relationship. Greene (2003) relates the disturbance primarily to the inability to capture every influence on an economic variable in a model, no matter how elaborate. Thus, the net effect, which can be positive or negative, of these omitted factors is captured in the disturbance.

#### **4.3.2 RESEARCH OBJECTIVES AND THE USE OF MULTIPLE REGRESSION**

According to Kelley & Maxwell (2010), multiple regressions can be used for prediction, explanation or both. They assert that although that the models are the same (i.e. the equation and results will be the same), the distinction is however important because different statistical considerations arise for the two purposes. They define the explanatory research as the one that aims to identify the causes of the outcome variable  $Y$ , which can be identified under ideal conditions, by having non-zero regression coefficients (Kelley & Maxwell, 2010).

And as this research aims at examining the determinants for both commercial real estate FDI and hotel FDI, which will be used for policy recommendations, this study thus is explanatory in nature.

#### **4.3.3 APPROACHES TO THE SELECTION OF EXPLANATORY VARIABLES**

According to Kelley & Maxwell (2010), multiple regression can be applied along two continuums of research approaches namely confirmatory and exploratory research. They relate the confirmatory anchor to the situation of a well-defined research question with a few theoretically justified variables, whereas relate the exploratory anchor to a diffuse research question with many variables included in one or more different analyses without explicit theoretical justification.

In this research, the process of selecting the variables is based on both a theoretical as well as pragmatic views. Granger (2009) states that while performing an econometric analysis it is usual to reach a point where there is a choice between the 'correct' but lengthy, and often expensive, procedure or a quick but sub-optimal 'pragmatic' method. He also asserts if time or costs are of major importance the pragmatic method will be chosen but otherwise the lengthy, correct method will be used. Granger (2009) also thinks the two methods could produce similar results. He illustrates these situations as follows:

- If the purpose of the model is to test the correctness of some theory, then a pragmatic model may only be appropriate when discussing alternatives.
- If the purpose of the model is to directly help a decision maker to make a decision, then a pragmatic approach is likely to be helpful.
- The purpose of the model may be for forecasting. Pragmatic models will be appropriate for inclusion in the set of models as they may use incomplete and/or very recent data.

This research therefore, follows the pragmatic approach, since there is no unanimous accepted theory of commercial real estate FDI or hotel FDI, thus this research uses a pragmatic approach in selecting the explanatory variables to be included in the models, as well as utilising the OLI framework as a guide to selecting the explanatory variables.

#### **4.4 TYPES OF DATA**

According to Brooks (2008), there are broadly three types of data that can be employed in quantitative analysis of economic problems: time series data, cross-sectional data, and panel data.

##### **4.4.1 TIME SERIES DATA**

According to Wooldridge (2002a), a time series data set consists of observations on a variable or several variables over time. Brooks (2008) defines time series data as data that have been collected over a period of time on one or more variables and that time series data have associated with them a particular frequency of observation or collection of data points. The frequency is simply a measure of the interval over, or the regularity with which, the data are collected or recorded (Brooks, 2008).

Wooldridge (2002a) indicates that past events can influence future events and lags in behaviour are prevalent in the social sciences and that time is an important dimension in a time series data set, which unlike the cross-sectional data, the chronological ordering of observations in a time series conveys potentially important information.

According to Wooldridge (2002a), a key feature of time series data that makes it more difficult to analyse than cross-sectional data is the fact that economic observations can rarely, if ever, be assumed to be independent across time.



#### **4.4.2 CROSS-SECTIONAL DATA**

Cross-sectional data are data on one or more variables collected at a single point in time (Brooks, 2008). According to Wooldridge (2002a), sometimes the data on all units do not correspond to precisely the same time period.

Wooldridge (2002a) also points out an important feature of cross-sectional data, which is it can be assumed that they have been obtained by random sampling from the underlying population.

#### **4.4.3 PANEL DATA**

According to Brooks (2008), panel data (or longitudinal data) have the dimensions of both time series and cross-sections.

For time series data, it is usual to denote the individual observation numbers using the index  $t$ , and the total number of observations available for analysis by  $T$ . For cross-sectional data, the individual observation numbers are indicated using the index  $i$ , and the total number of observations available for analysis by  $N$ . Note that there is, in contrast to the time series case, no natural ordering of the observations in a cross-sectional sample (Brooks, 2008).

According to Wooldridge (2002a), the key feature of panel data that distinguishes it from a pooled cross section is that the same cross-sectional units (individuals, firms, or counties) are followed over a given time period. A second feature of panel data is that it allows studying the importance of lags in behaviour or the result of decision making. This information can be significant since many economic policies can be expected to have an impact only after some time has passed (Wooldridge, 2002a).

### **4.5 FORMS OF PANEL DATA ECONOMETRICS**

According to Baltagi, (2005), the functional form of panel data econometrics is as follows;

$$Y_{it} = \alpha + \beta_{1it}X_{1it} + \dots + \beta_{Kit}X_{Kit} + e$$

$$i = 1, 2, \dots, N$$

$$t = 1, 2, \dots, T$$

As it can be seen in the functional form of panel data econometrics,  $t$  denotes for the time and  $i$  denotes for the cross-sections. In this equation, an individual effect exists. This effect cannot be observed by independent variables and does not change depending on time, but includes characteristics peculiar to sections (Baltagi, 2005).

In panel data econometrics, the next step after converting cross-sectional data and time series data to the panel system is to determine if the cross-section and period effects can be explained by the fixed effects model or the random-effects model (Gujarati, 2004).

The fixed effects model creates a different fixed value for each cross-sectional unit (Baltagi, 2005). In the fixed effects model, it is assumed that the slope coefficients do not change, but fixed coefficients show differences among only cross-sectional data or time data or among both types of data (Baltagi, 2005). If the differentiation occurs only depending on time, these types of models are named as one-way time dependent fixed effect models. If a differentiation occurs in panel data depending on both time and section, these models are named as two-way fixed effects model (Baltagi, 2005).

According to Baltagi (2005), most of the panel data applications utilise a one-way error component model for the disturbances, with

$$u_{it} = \mu_i + v_{it}$$

Where  $\mu_i$  denotes the unobservable individual-specific effect and  $v_{it}$  denotes the remainder disturbance.

#### 4.5.1 CENSORED PANEL DATA MODEL

A limited dependent variable is a variable whose range is restricted in some important way. According to Wooldridge (2002), most variables encountered in economics are limited in range, but not all require special treatment.

Censored regression models generally apply when the variable to be explained is partly continuous but has positive probability mass at one or more points (Wooldridge, 2002 p.517). In a panel data context, the censored regression model may be described by Honore & Kyriazidou (2000):

$$y_{it}^* = x_{it} \beta + \alpha_i + \varepsilon_{it}$$
$$y_{it} = \max\{0, y_{it}^*\}$$

These equations constitute what is known as the standard censored Tobit model (after Tobin, 1956) or type I Tobit model. Where,  $x_{it}$  is a  $k$ -dimensional vector of explanatory variables,  $\beta$  is the parameter vector of interest,  $\alpha_i$  is the individual specific (fixed) effect, and  $\varepsilon_{it}$  is the error term. In this model, the dependent variable is observed only if it is above a certain - known - fixed threshold, i.e. '0'.

The next chapter discusses in details the employment of the Tobit model when analysing the determinants of FDI in CRE and hotel sectors.

#### 4.6 STATISTICAL PACKAGE

The number of available packages is large, and over time, all packages have improved in breadth of available techniques, and have also converged in terms of what is available in each package (Brooks, 2008).

The main criteria for choosing the software were about its ability to conduct the sophisticated pooled Tobit regressions as well as essentially its availability at LJMU.



The EViews version '6' therefore, is employed in this research for two reasons; (1) because it is available at LJMU; (2) it provides sophisticated data analysis as well as regression tools and techniques required to undertake the current econometric study (e.g. it estimates the pooled Tobit censored model).

EViews provides support to read from or write to various file types, including 'ASCII' (text) files, Microsoft Excel '.XLS' files (reading from any named sheet in the Excel workbook), and Lotus '.WKSI' and '.WKS3' files. And because it is usually easiest to work directly with Excel files, this is the case throughout this research.

#### **4.7 THE SOURCES OF DATA**

One of biggest hurdle in empirical research is data availability. The current study has also not escaped from this problem. Moreover, in the social sciences, the data are non-experimental in nature, that is, not subject to the control of the researcher. For example, the data on GDP, unemployment, FDI flows, etc., are not directly under the control of the researcher, and thus may be subject to certain biases and cannot be avoided in econometrics studies. However, in this research, and following the literature, the most reliable and well known sources are used.

This research employs several data sources in constructing the panel covering eight MENA countries over the years 2003-2009, a timeframe not studied by previous empirical work on hotel and commercial real estate investments in this region.

Data on the dependent variable were acquired (at a cost) from a private organisation (fDi Intelligence) part of Financial Times Ltd.

fDi Intelligence database tracks an estimated 95% of all major global FDI greenfield projects as well as 80% of smaller projects and is considered the most comprehensive independent source for FDI information. The information is based on press reports thus the data can be taken as investment commitments. They refer to individual investment projects by source and destination country which are then added up to countries and regions.



In particular, fDi Intelligence database provide the following quarterly information for approximately 95% deals in the eight Middle Eastern countries in commercial real estate and hotel related projects between January, 2003 and May, 2010 (Table 5):

Table 5: Information embedded in fDi Intelligence database

Project Year	Source Region	Jobs Created
<b>Project Quarter</b>	<b>Source Country</b>	<b>Jobs Generated</b>
Parent	Source State	Investment
<b>Investor</b>	<b>Source Admin Region</b>	<b>Investment Generated</b>
Parent Turnover	Source City	Cluster
<b>Investor Turnover</b>	<b>Destination Region</b>	<b>Sector</b>
Website	Destination Country	Technology
<b>Parent Profile</b>	<b>Destination State</b>	<b>Function</b>
Investor Profile	Destination City	Activity Description
		<b>Project Type</b>
		Site Area

It must be noted that fDi Intelligence greenfield projects data differ principally and significantly from the FDI data reported in the balance of payments (Hunya & Stöllinger, 2009). While balance of payments data are published with one or two years delay and are backward looking, the fDi database is continuously updated and it is forward looking. It is also important to note that greenfield data tracks the total capital amount companies are committing to invest overseas, and thus it this initial commitment do not necessarily reflect final investment and/ or the actual capital flown (Loewendahl, 2009).

Furthermore, one significant deficiency with this data set is that, since investors do not have to announce the value of the investment, not all projects have actual values attached to them. Specifically, only 15% of the investments for the sample period have an actual ‘announced’ value attached to them. The remaining 85% have estimated values, and as claimed by fDi Intelligence, these values are derived using econometric modelling.



In another vein, for some countries a value of zero is assigned if no projects are announced in a given year.

The data for the rest of the variables in the study have been drawn from two principal types of sources (see :

1. **International Agency Databases:** the major sources of data for the empirical work are the World Development Indicators (World Bank), Doing Business Database (World Bank), the World Travel and Tourism Council (WTTC), World Economic Forum and United Nations Development Programme.
2. **Independent providers of business intelligence:** other data were collected from sources such as Economist Intelligence Unit, Datamonitor, Euromonitor International, the Heritage Foundation and Jones Lang LaSalle.

*Table 6: main sources of data for variables selected in this study*

FDI in CRE related variables	Source	FDI in Hotels related Variables	Sources
<b>CRE FDI</b>	fDi Intelligence (Financial Times Ltd)	<b>Hotel FDI</b>	fDi Intelligence (Financial Times Ltd)
<b>Size of institutional real estate market</b>	Euromonitor International	<b>Real visitor export</b>	World Travel and Tourism Council WTTC
<b>Gross Domestic Product (GDP)</b>	Euromonitor International	<b>Tourist Arrival</b>	World Travel & Tourism Council (WTTC)
<b>Unemployment growth levels</b>	Euromonitor International	<b>Gross Domestic Product (GDP)</b>	Euromonitor International
<b>Overall quality of infrastructure</b>	World Economic Forum Global Competiveness Report	<b>Overall quality of infrastructure</b>	World Economic Forum Global Competiveness Report
<b>Real Estate Investment Trusts (REIT)</b>	various media sources	<b>Total tax rates</b>	The World Bank (Doing Business Database)



<b>Real estate market transparency levels</b>	Jones Lang LaSalle Global Real Estate Transparency Index	<b>Corruption (control of corruption)</b>	Economist Intelligence Unit
<b>Corruption (control of corruption)</b>	Economist Intelligence Unit	<b>Government effectiveness (bureaucratic quality)</b>	Economist Intelligence Unit
<b>Government effectiveness (bureaucratic quality)</b>	Economist Intelligence Unit	<b>Regulatory quality (investment profile)</b>	Economist Intelligence Unit
<b>Regulatory quality (investment profile)</b>	Economist Intelligence Unit	<b>Rule of law (law and order)</b>	Economist Intelligence Unit
<b>Rule of law (law and order)</b>	Economist Intelligence Unit	<b>Voice and accountability</b>	Economist Intelligence Unit
<b>Voice and accountability</b>	Economist Intelligence Unit	<b>Political stability and absence of violence</b>	Economist Intelligence Unit
<b>Political stability and absence of violence</b>	Economist Intelligence Unit	<b>Levels of investors protection</b>	The World Bank (Doing Business Database)
<b>Levels of investors protection</b>	The World Bank (Doing Business Database)	<b>Levels of human development</b>	Human Development Index: <a href="http://hdr.undp.org/en/statistics/data">http://hdr.undp.org/en/statistics/data</a>
<b>Total tax rates</b>	The World Bank (Doing Business Database)		
<b>Levels of human development</b>	Human Development Index:		
<b>Property rights</b>	Heritage Foundation (Index of Economic Freedom)		
<b>Investment freedom</b>	Heritage Foundation (Index of Economic Freedom)		



## **4.8 SUMMARY**

The chapter explained and evaluated 'econometric modelling' as the research methodology adopted, and discussed how the research aims have influenced the choice of this method. The econometric analysis was carried out by different panel data procedures to test the hypotheses of the study. As the dependant variables in both the CRE and hotel FDI, contained zero observations, the econometric analysis has to be done using a corner solution called the Tobit model, which censors these zero observations to avoid the biasness and inconsistency that may arise from using OLS regressions.

The chapter also presented the sources of data consulted in formulating the models. A specific focus has been given to the main source for the dependant variables (i.e. fDi Intelligence), and its strength and weaknesses.

## **5. CHAPTER FIVE: DATA PRESENTATION, ANALYSIS AND DISCUSSION**

### **5.1 INTRODUCTION**

This chapter is divided into four main sections. The first is concerned with the exploratory study and its influence on the research. The second section characterises the FDI in both sectors by refereeing to the fDi Intelligence database and reviewing the most interesting patterns observed in the data. The third section details the quantitative empirical analysis of the determinants of FDI in commercial real estate in the eight MENA markets based on the results of econometric modelling. The last section presents the empirical results from assessments of determinants of FDI in hotels in the selected MENA economies.

### **5.2 EXPLORATORY DISCUSSIONS**

The scope of the exploratory stage was to capture the parameters (motivations and barriers) to international property investments (hotels were not part of the exploratory study). It also aimed to examine the attractiveness of global property investors to the MENA region. The target group was real estate investment managers that are already managing diversified portfolios and funds in emerging markets. Investment management firms are an important stakeholder group in the investment decision-making process, providing information and research directly to investors. They were considered the stakeholder group most qualified to provide us with the best factors of most importance to global investors when venturing into emerging markets as well as their vision upon the MENA region.

In order to facilitate reflection upon and analysis of the data, all interviews were, with the agreement of the respondents, recorded and subsequently transcribed.



The interview analysis started with over twenty pages of transcribed data. The researcher started getting familiar with the data by reading through the data several times and making notes and memos. Through these notes, and the notes have been made during the conversation sessions, the researcher was able to find the most interesting issues from the data.

In order to create the physical structure for the data, the researcher computerised it. The researcher used computer-assisted qualitative data analysis software, NVivo version 2, which helped to manage the available set of data.

The researcher started the open coding after the interviews had been conducted. The researcher transcribed all the interviews material and re-read the transcriptions several times in order to identify the passages that fitted any probable conceptual elements. The researcher used open coding to break down the extracts into distinct units of meaning. In much the same way as Strauss and Corbin (1990) suggested. The researcher was therefore able to identify more general and unspecified categories.

A formal open-coding procedure was conducted on each selected interview extract, involving the search for key words and line by line coding (Table 7) with a view to connect them to conceptual themes. Surely, the broad literature review proved useful here.

Table 7: Example of coding of an interview statement

Interview statement	Line-by-line coding
[...] in Saudi Arabia 50% of the population are below 25, and 5 children per capita, there is big big need. Here comes the need for real estate, first residential, [...] they will look for decent jobs, then they will need office space, [...] the people will spend more, for residential property as they will also spend it for shopping, so you need retail.	14 9 Demographics 14 1 Need for real estate 14 1 Need for real estate

As for the second level analysis, open coding yielded concepts that were later grouped and turned into categories. The researcher identified, named, categorised and described phenomena found in the data. In fact, three large groups of themes seemed to emerge (see below).



This led to the third level of abstraction. The data reduction and open coding were iteratively connected. The goal of this iteration procedure was to include all probable conceptual elements in a single analysis in order to deepen the interpretation.

This resulted in 12 provisional categories (i.e. conceptual themes) from the whole data (see Table 8 below).

The three emerged themes were investment strategies employed at emerging markets, the cross border barriers to investing in the MENA and the potential of the MENA real estate markets as investable markets. At this point, these theoretical elements seemed sufficient.

Those themes were clear as the respondents gave enough factual and consistent information (see Table 8) that shows a first effort of categorising the concepts, taking into account the literature discussed earlier.

The findings of the analysis are presented in the next section. The presentation of findings is organised into three broad sections, covering investment strategies, the cross border barriers to MENA real estate markets and the potential of MENA markets as investable markets. The next section gives an essential insight into the qualitative analysis undertaken. The detail in this format is presented in Appendix 6.

### **5.2.1 INVESTMENT STRATEGIES IN EMERGING MARKETS**

Appendix 6.1 summarises the key transcripts in relation to investment strategies adopted by global investors in emerging markets. Obviously, and as mentioned earlier in the literature, economic, political and demographic analysis must be undertaken to decide on the potential of a specific emerging market.

Appendix 6.3 also shows the 'asset allocation system' adopted by one of the companies, it shows that investors start with a neutral basis allocation and each investment location is then assessed with the help of the 'scoring model' and weighted accordingly.

Table 8: Defining broad categories

NVivo revision 2.0.161  
Project: MSPRO01    User: Administrator    Date: 08/07/2009 - 08:14:56  
NODE LISTING

Nodes in Set:		All Nodes
Number of Nodes:		16
Number of Nodes:		16
1	Investment Strategy in emerging markets	
2	(13) /Cross border barriers to MENA	
3	(13 1) /Cross border barriers to MENA /Lack of sophistication	
4	(13 3) /Cross border barriers to MENA /Transparency,	
5	(13 3 2) /Cross border barriers to MENA /Transparency/Finding appropriate local partners	
6	(13 3 4) /Cross border barriers to MENA /Transparency/Property Data	
7	(13 5) /Cross border barriers to MENA /Market size	
8	(13 6) /Cross border barriers to MENA /Sharia Structuring	
9	(13 7) /Cross border barriers to MENA /Language	
10	(13 8) /Cross border barriers to MENA /Standing investments	
11	(13 12) /Cross border barriers to MENA /Investment Return	
12	(14) / MENA Potential as investable markets	
13	(14 1) / MENA Potential as investable markets/Need for real estate	
14	(14 9) / MENA Potential as investable markets/Demographics	
15	(14 10) / MENA Potential as investable markets/Economy	
16	(14 11) / MENA Potential as investable markets/Construction	

The scoring model is also provided by the company (see Appendix 6.4), the company uses the scoring model for any prospective target allocation, and this must take into account economic, political, and demographic as well as real estate market specific risks and opportunities, which reflects what have been covered in the literature.

The inputs to the scoring model are provided by worldwide operating research-team (top-down) as well as by real estate professionals on site (bottom-up) (See Appendix 6.4 for details). The decision making process is found comparable to what has been found in Fuchs & Scharmanski (2009).

5.2.2 CROSS-BORDER BARRIERS TO MENA REAL ESTATE MARKETS

In this section, the focus was on the MENA market, and the key reasons of avoiding this region. The researcher approach this topic from several directions trying to start



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with other emerging markets, and the risks investors find there, supported by examples, and then to focus on the MENA by analysing possible triggers for avoiding this region.

As mentioned earlier this category had seven children (Table 9), (also see Appendix 6.2 for detail transcripts):

**Table 9: Cross-border barriers to MENA real estate markets (Tree and Children)**

In response to a question that bordered on key cross-border barriers in most emerging markets including MENA real estate markets, all the respondents identified transparency to be one of the most important factors that affect their decisions to invest in emerging real estate markets. One respondent had this to say: *'The keyword here is market transparency'*. Indeed, Table 10 below confirms the view of the respondent as it shows the transparency position of MENA real estate markets compared to other peer markets based on the Jones Lang LaSalle real estate transparency index (2008). One respondent observed: *'I think the Jones Lang survey is a good model for transparency, you simply look at the JL transparency data'*.

By examining JLL transparency data, noticeably, there is no any MENA market that is ranked highly transparent (tier 1) or even transparent (tier 2). However, some of MENA markets are now more transparent than those of China tiers 1 & 2 as well as India tiers 1, 2 & 3, which are recently considered as favourite destinations of global funds. Table 11 below also shows that some of MENA countries are in the process of improving their transparency by providing strong measures at all levels to attract foreign investors.

Respondents also relate market transparency to two other issues, availability of historical property data and finding the appropriate local partner to venture and invest with. Here, respondents were discussing how they deal with lack of property data. One respondent states *“obviously you would like to see what this market already does, ... you would love to see data on the historical markets which we do not get, ...hence derive real estate data out of these data, and that’s obviously has an error. I don’t know plus or minus 20% or so, huge error margin”*. Indeed, JLL (2008) report states that the limited availability of reliable property market indices is a major constraint on the transparency of the Middle Eastern real estate markets and remains a threat to global investors (also see Appendix 5 for information on major real estate data providers in the MENA region).

In addition, respondents were discussing other key cross border barriers to the MENA region, one respondent stated *“also a key issue is introducing European banks to Sharia structuring for the financing, a lot of them aren’t used to them, a lot of the law firms that we’re using in Turkey haven’t been really involved in that, so there were quite a big education process for everybody, every European bank we got have to have a lesson in Sharia structuring”*.

Another respondent observed *“a big issue we’re facing in emerging markets is essentially the lack of sophistication, when you talk about gross yield, let yield, cap rate, they simply don’t know what it is, and they simply say the property how much it pay, we saw it even in Dubai, that is supposed to be at the frontline of the Middle East, we’ve been trying to do institutional lease contract, people didn’t understand, they say why do you need a 20 page lease contract, here is the space, here is the rent, period. And that’s obviously something that threatening institutional investors and they then saying why do we go to such a market”*



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**Table 10: Transparency of MENA markets**

**Table 11: World's most improved markets**

**Source: JLL (2008)**

One respondent added “Also when you look at these markets, you need to consider the market size, that’s perhaps for very small countries is difficult, because each and every country has different local legislation issues, and it’s hard for big companies to drive their forces and say, now we need to understand all issues in so small countries of whatever one, two or four million population, and they speak two or three different languages, I would say forget about it we never go there”.

Another issue emerged from the discussions for instance, is that global investors prefer the local partners to be familiar of western ways of doing business. And when the respondent has been requested to clarify this issue, he responded ‘maybe education, maybe language, countries where a healthy proportion of the professional classes have been educated in western countries, I mean that helps you know’.

Respondents interested in investing in the MENA markets linked the lack of transparency with the problem of finding the appropriate local partner to invest with.

On the other hand, a recent interview conducted by Washington Post (2008) with Dr. Al Habib, CEO of Jiwari - a real estate developer in Saudi Arabia, who showed similar enthusiasm for an international partnership. ‘What the kingdom needs now, he says, is more foreign expertise’. ‘We need companies with the sort of experience that leading American companies have,’ he says. ‘Our plan for Jiwari is to get our name out into the public arena and attract some partners’. He continues ‘this is the time when we need the American companies and businessmen to come and help us with their knowledge and expertise,” he says. ‘We have the cash, but we need help to cope with the change, the booming population, the heavy liquidity and the mega-projects.’ ‘Investors in real estate can expect returns of not less than 30 percent, he says, with no taxes and an open environment’.



### 5.2.3 POTENTIAL OF MENA REAL ESTATE MARKETS AS AN INVESTABLE MARKETS

Generally, respondents were positive about the potential benefits of investing in region and especially in the Saudi Arabian market. One of the respondents state *“In Saudi Arabia I think 50% of the population are below 25, and 5 children per capita, there is big big need. Here comes the need for real estate.....the tenancy here is clear”*.

In addition, one respondent says *“...And what I am expecting excellent demographic, good GDP growth, high quality of construction”* He continues *“I’m very interested in Saudi Arabia”*. Another respondent added, *“Saudi Arabia would be my favourite, it is a big market, market with a lot of potential, it will be a market where all institutional investors sooner or later will look at”*.

This also confirms the views of leading real estate companies operating in the MENA region. For instance, NCBC (2008), JLL (2009) and Colliers (2009) confirmed that the current market conditions in the MENA region create significant opportunities for all types of investors.

To sum up, respondents point out that the region has excellent demographics (particularly in Turkey, Egypt and Saudi Arabia), high population growth, good GDP growth and huge need for residential, retail & office real estate, which are good reasons for institutional investors to invest and diversify their portfolios into the region. However, they believe that lack of transparency is the most ineffectual hurdle to further attract global funds into the region, and suggest that further research may assist to develop a better understanding of the MENA local property markets.

Table 12 below summarises the key barriers and motivations of global investors towards the MENA region. The findings confirm what have been covered in the literature and add to them other MENA markets specific barriers and motivations, which are being uncovered for the first time.

Table 12: Key factors influencing international real estate investments:

Barriers to invest in MENA markets	Motivations to invest in MENA markets
<ul style="list-style-type: none"><li>• Lack of transparency (i.e. Lack of historical market performance data, legal issues, and finding qualified local partners)</li><li>• Lack of sophistication</li><li>• Introducing European banks to Sharia structuring</li><li>• Lack of research/ knowledge of MENA markets.</li><li>• Taxation structure</li><li>• Language and cultural issues</li><li>• Currency fluctuations</li><li>• Lack of standing investments</li><li>• Market size (i.e. Small countries are not attractive to large institutional investors)</li></ul>	<ul style="list-style-type: none"><li>• Good economic prospects</li><li>• Excellent demographics</li><li>• Good quality of construction</li><li>• Demand driven markets</li></ul>

## **5.3 CHARACTERISTICS OF FDIs IN CRE AND HOTELS FOR THE SELECTED MENA COUNTRIES**

This section provides an overview of the key findings from fDi Intelligence database, which provides detailed information for each greenfield project in both CRE and hotel sectors for the selected MENA countries from Q1 2003 to Q2 2010 (though the econometric analysis was carried out ‘annually’ starting at Q1 2003 ending at Q4 2009).

### **5.3.1 A BIRD’S EYE VIEW**

As the intention of this research is to investigate both FDI in CRE as well as FDI in the hotel industry, data were collected for both sectors for the eight MENA countries. Table 13 below shows the total FDI in CRE for the whole period. Interestingly, Algeria ranks second after Turkey in attracting foreign investors. The basis for this is that Algeria in year 2008 had huge announcement made by Jelmoli Holding AG through its subsidiary (La Société des Centres Commerciaux d’Algérie), to construct five shopping malls in total in cities of Algiers, Oran, Setif and Tlemcen with an estimated total investment of \$6 bn.

Figure 18 however, shows a different picture, it shows FDI per capita, and as can be seen, UAE ranks first followed by Qatar, as they attracted more FDI per capita compared to other countries in the sample. As these two countries in specific has been reforming and developing their foreign direct investment (FDI) regulations to attract more overseas investment (see the following sections for more details).

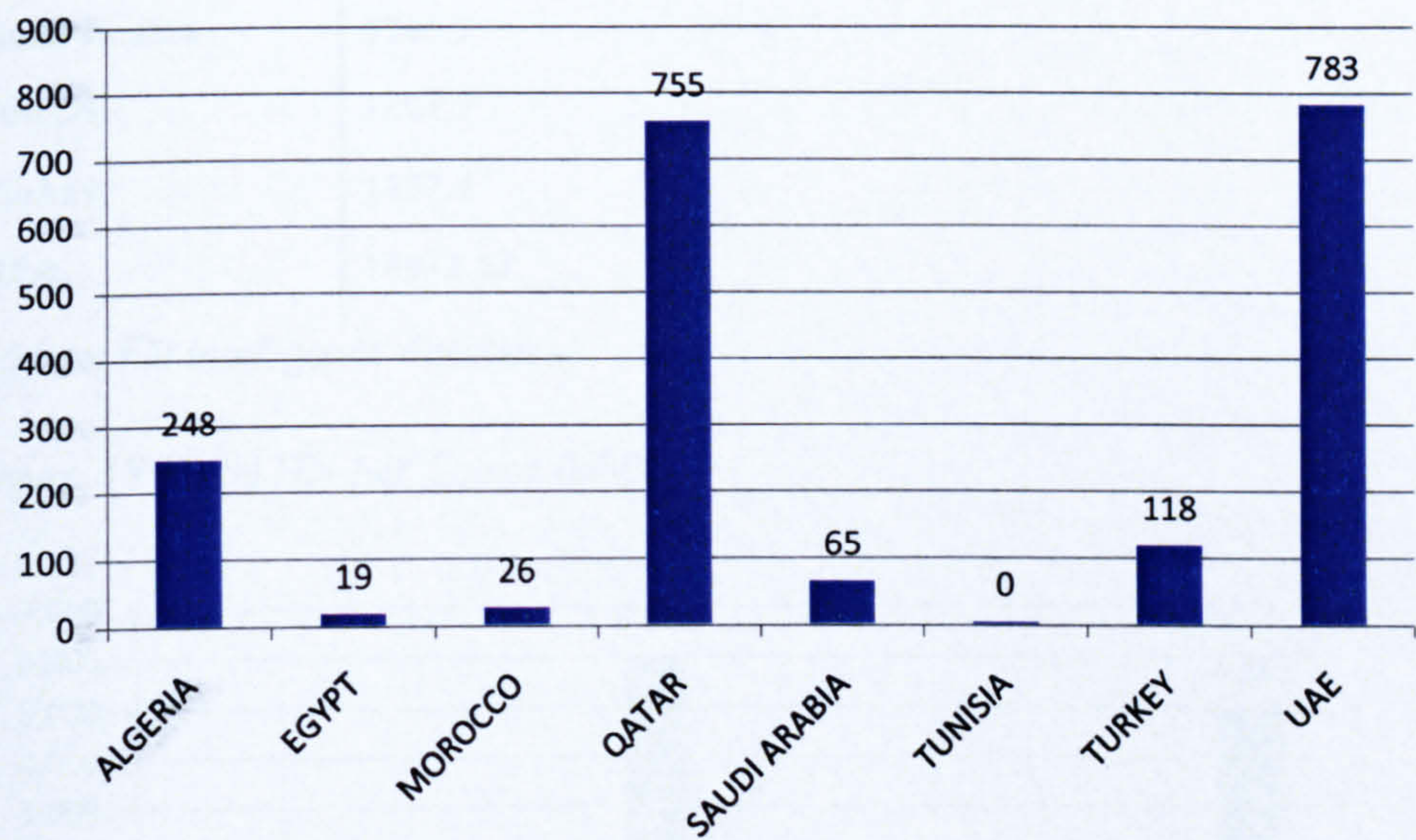


Table 13: Total CRE FDI inflows in selected MENA markets

Country	Commercial real estate FDI USD millions
Algeria	7986.41
Egypt	1400
Morocco	777.2
Qatar	632.3
Saudi Arabia	1465
Tunisia	0
Turkey	8235.33
UAE	2997.81

Source: fDi Intelligence database

Figure 18: CRE FDI per Capita (USD)



Source: fDi Intelligence database

The inflow of foreign direct investment and particularly for hotels sector into Saudi Arabia and Egypt is low (only 34 projects in KSA with approximately \$8bn), and (only 25 projects in Egypt with approximately \$3bn), compared to (88 projects in the UAE,



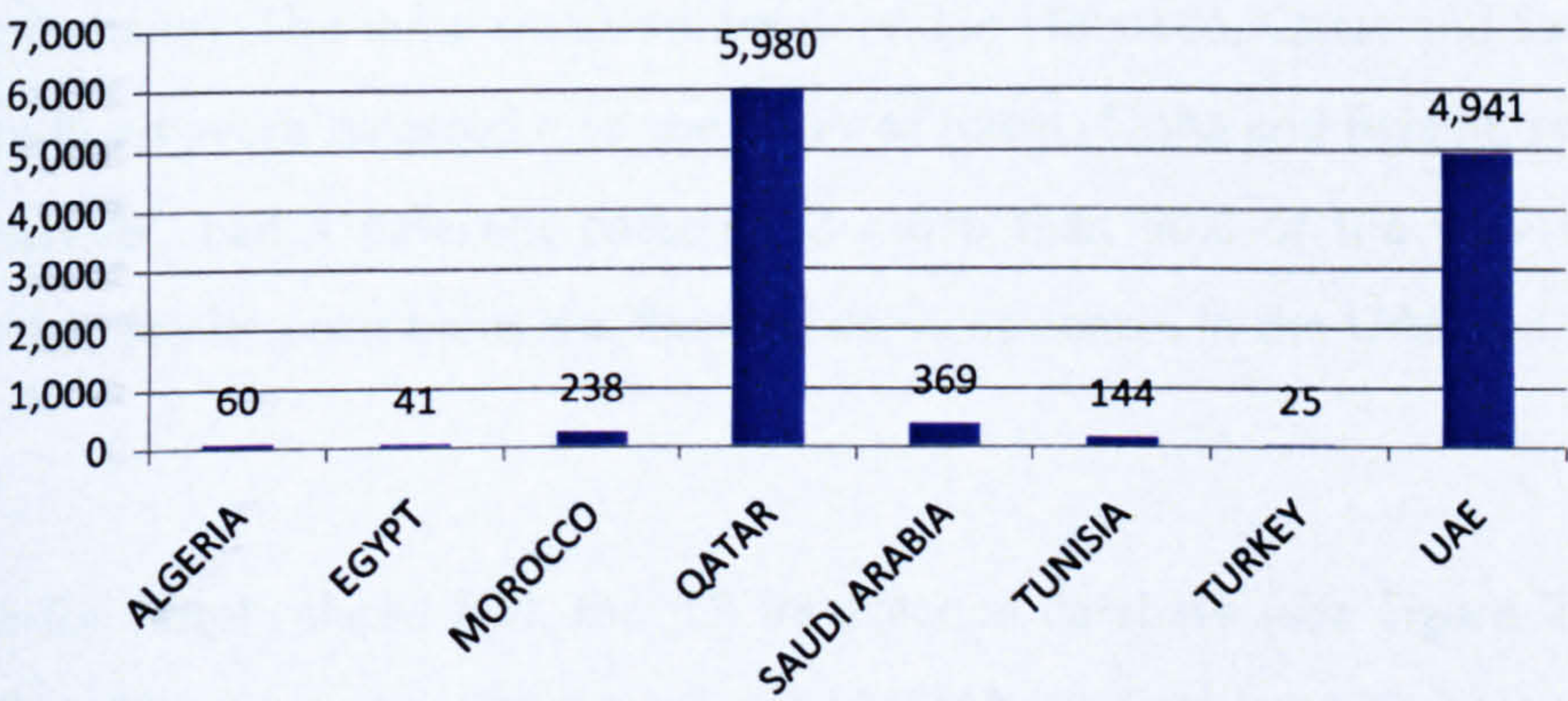
with approximately \$19bn), in spite of the market size and demographics of Saudi Arabia and Egypt are by far larger than the case for UAE (see Table 14 & Figure 19). For instance, the total area of the UAE is about 83,600 sq km with total population of 5.6 million (Cityscape Intelligence, 2009). In KSA, the total area is about 2.25 million square kilometres with a total population of 25 million (Cityscape Intelligence, 2009). And in Egypt, the total population is 87 million and the total area is around 1 million square kilometres.

Table 14: Total hotel FDI inflows in selected MENA markets

Country	Hotel FDI (USD) millions
Algeria	1942.6
Egypt	3047.1
Morocco	7063
Qatar	5006.8
Saudi Arabia	8260.3
Tunisia	1424.7
Turkey	1757.4
UAE	18912.27

Source: fDi Intelligence database

Figure 19 Hotel FDI per Capita (USD)



Source: fDi Intelligence database



Because the fDi Intelligence database provides massive amount of information for each project for each country, it is not possible to report every available information, rather, this section presents the data that sought to be of significance. The following sections therefore will be divided into two parts, the first is about the FDI inflows received in both sectors for all countries, which will discuss for instance, what kind of cities attracted capital (e.g. CBD's, or cities famous for tourism activities)?

The second part will be concerned with source countries of these capital inflows, which will cover for instance, how the concept of culture proximity explains the sources of capital for each sector.

### **5.3.2 FDI INFLOWS IN THE SELECTED MENA COUNTRIES IN CRE AND HOTELS**

According to fDi Intelligence database, it was found that capital flowed for commercial real estate were primarily targeting Central Business Districts (CBD's) (see Figure 20 below).

In Algeria for instance, most FDIs in CRE was directed into Algiers the country's CBD. The same is for Egypt, as all CRE FDIs in Egypt was directed into Cairo (the capital city). The same situation was found in Morocco, Qatar and Saudi Arabia, as all the flows were directed into the cities of Rabat, Doha and Riyadh, respectively. UAE however, had a different pattern, as more than 90% of the flow was directed to Dubai, for its position as the financial services centre in the UAE and the GCC.

As for hotel related FDI, the fDi Intelligence database (see Figure 21 below) shows FDI inflows to hotels for the selected MENA markets have homogenous patterns, as capital flows are mostly directed into CBD's cities or cities famous for tourism activities. For instance, in Turkey (see Figure 21), FDI inflows were primarily directed



to both Istanbul (CBD) and Izmir (the third largest city in Turkey with an extraordinary history, spanning around 5,000 years, and has long been amongst the most cosmopolitan cities in Turkey, with many archaeological sites relating to past Greek, Roman and Byzantine civilisations (World Guides, n.d)).

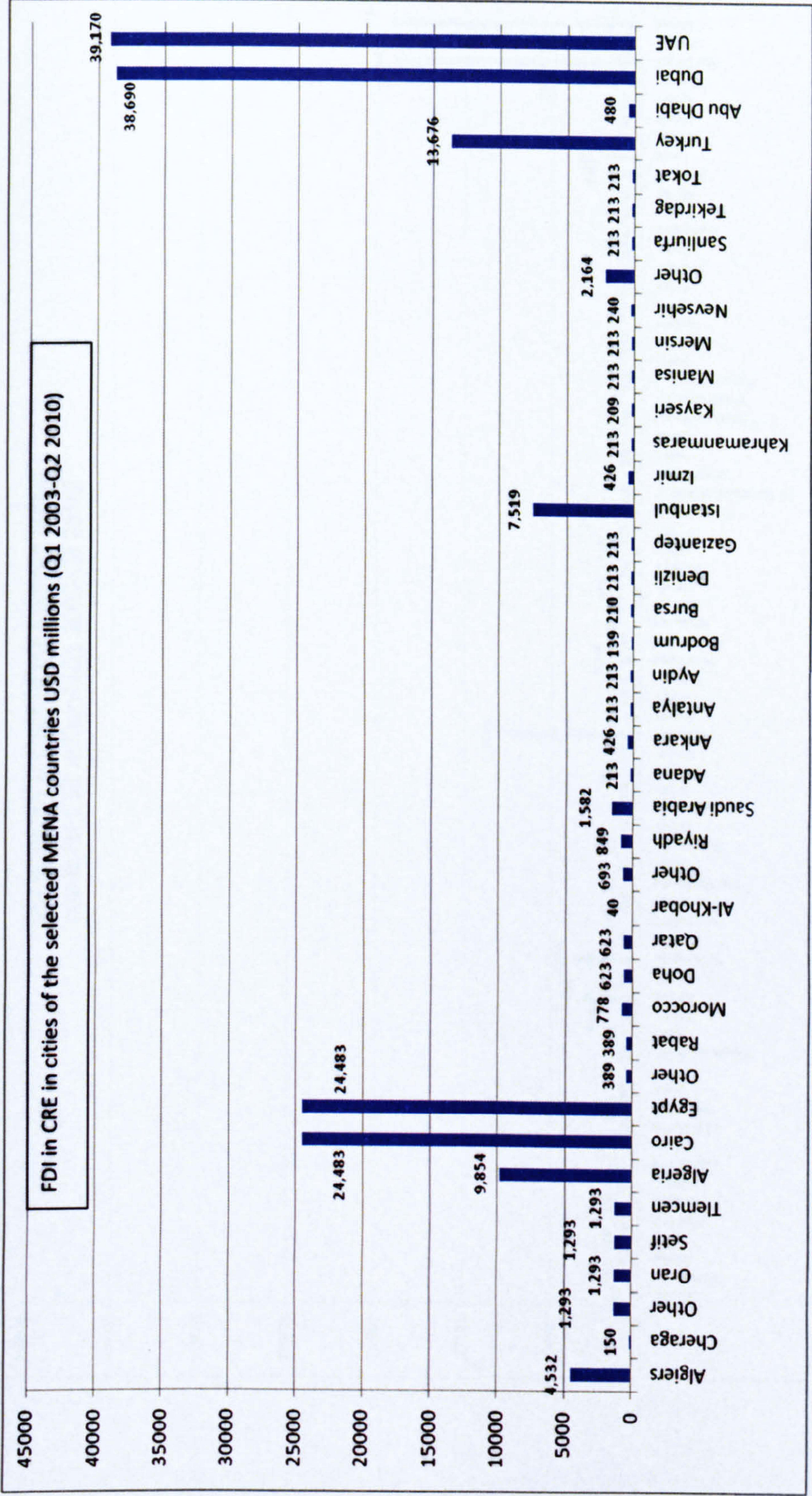
The situation is also similar for Egypt, as most hotels related FDI were directed into cities of Cairo (CBD) and Hurghada (a city that is famous for scuba diving and special marine life (World Guides, n.d)).

In UAE however, FDI in hotels were mainly targeting both Abu Dhabi (the capital city) as well as Dubai. The reason for this maybe is the potential of both cities to attract many local and international tourists for both business and leisure. Abu Dhabi for instance is a city that famous with heritage sites reaching as far back as 5000 BC. The city is also famous for the business-cum-leisure facilities as well as some of the world's most famous museums particularly Guggenheim and Louvre (World Guides, n.d)).

As mentioned earlier, Tunisia did not attract any CRE FDI based on fDi Intelligence database, however, the country has managed to attract FDI in the hotel sector \$1.4 billion worth of hotel projects from 2003-2010.



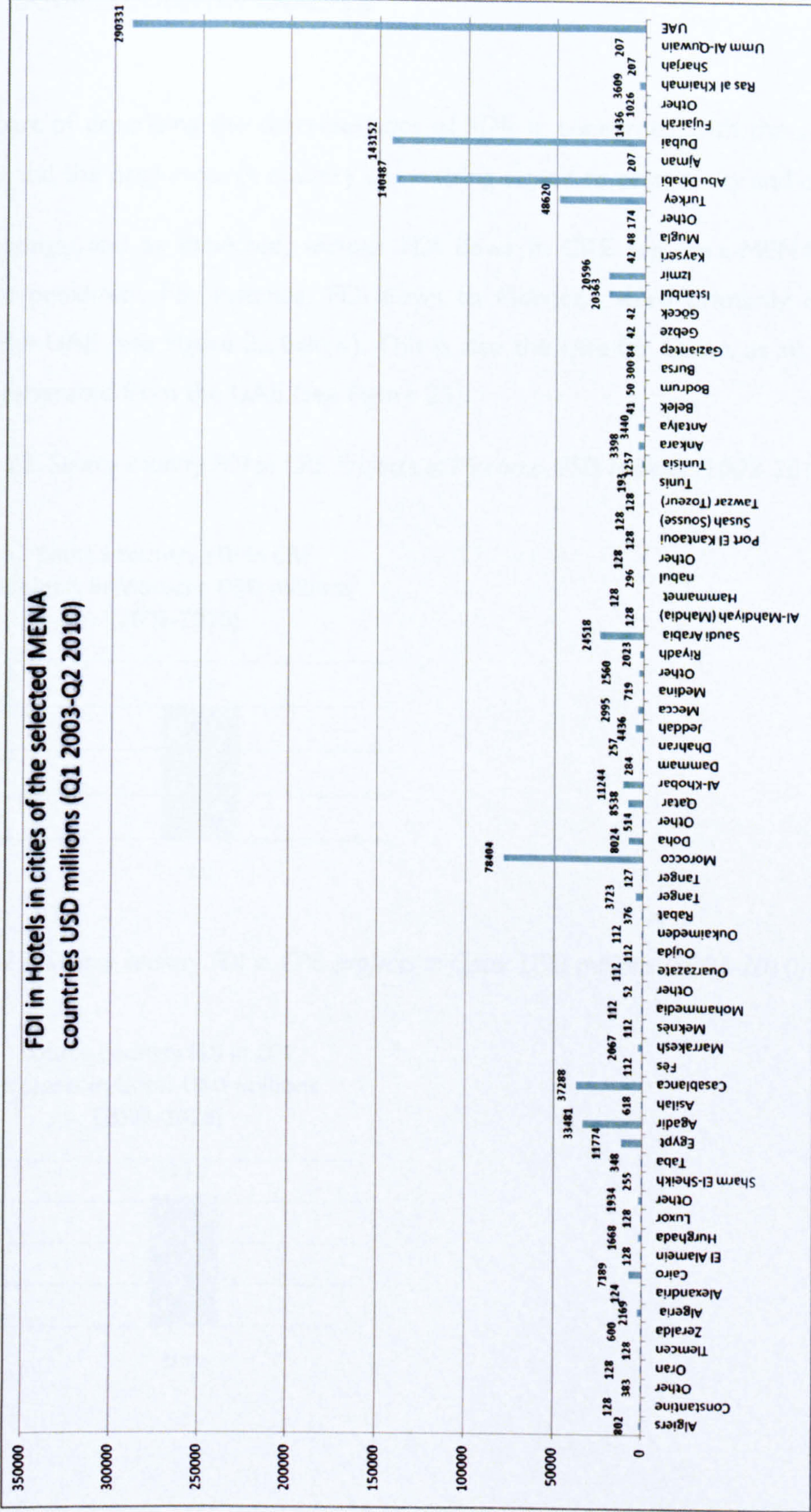
Figure 20: FDI in CRE in cities of the selected MENA countries USD millions (Q1 2003-Q2 2010)



Source: fDi Intelligence database



Figure 2 I: FDI in Hotels in cities of the selected MENA countries USD millions (Q1 2003-Q2 2010)



Source: fDi Intelligence database



5.3.3 SOURCE COUNTRY ANALYSIS

This part of describing the characteristics of FDIs is concerned with the sources of capital and the origin source country committing capital to certain city and country.

Interestingly and as expected, various FDI flows in CRE are intra-MENA, due to culture proximity. For instance, FDI flows to Morocco were primarily originated from the UAE (see Figure 22 below). This is also the case for Qatar, as all the flows were generated from the UAE (see Figure 23).

Figure 22: Source country FDI in CRE Projects in Morocco USD millions (2003-2010)

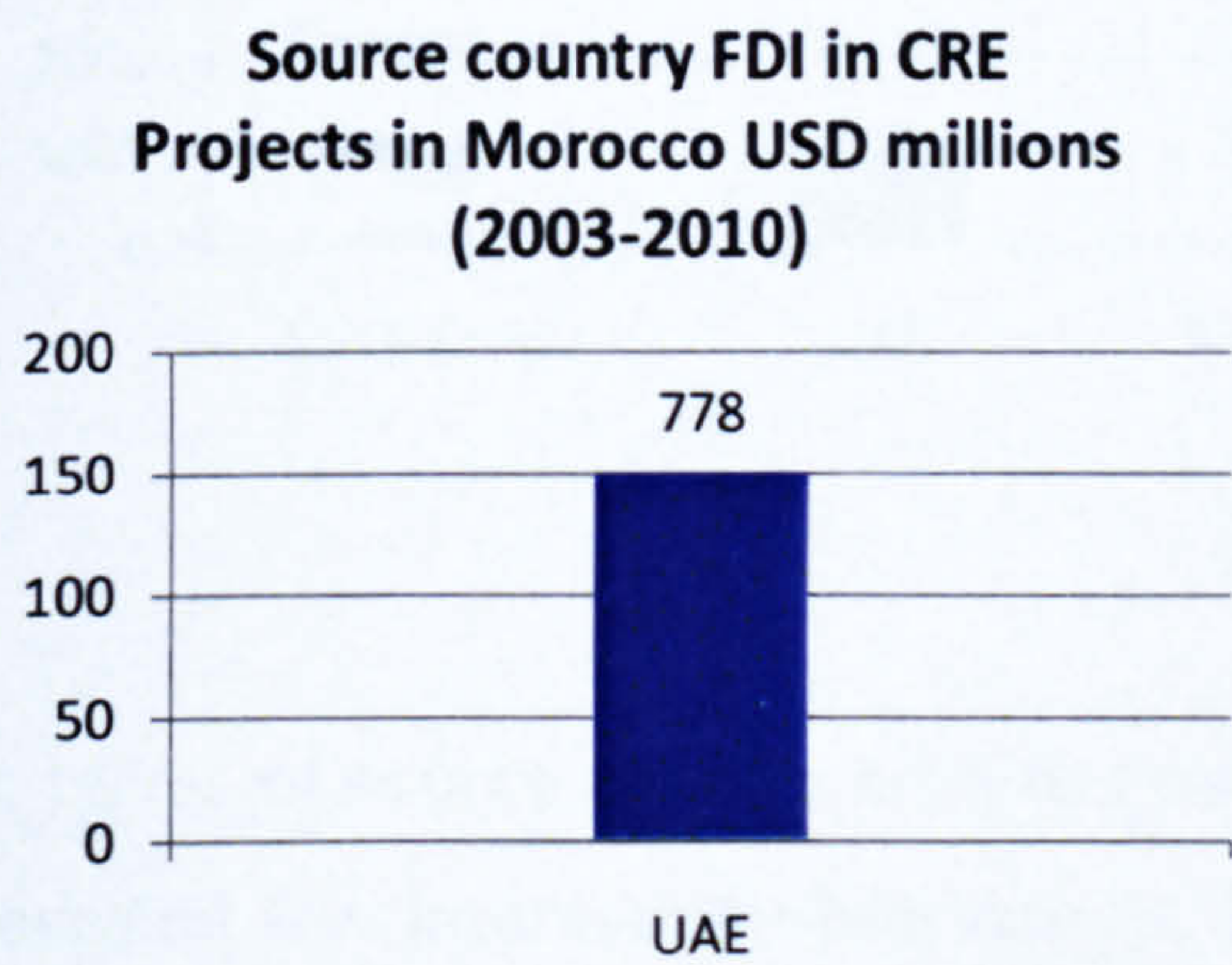
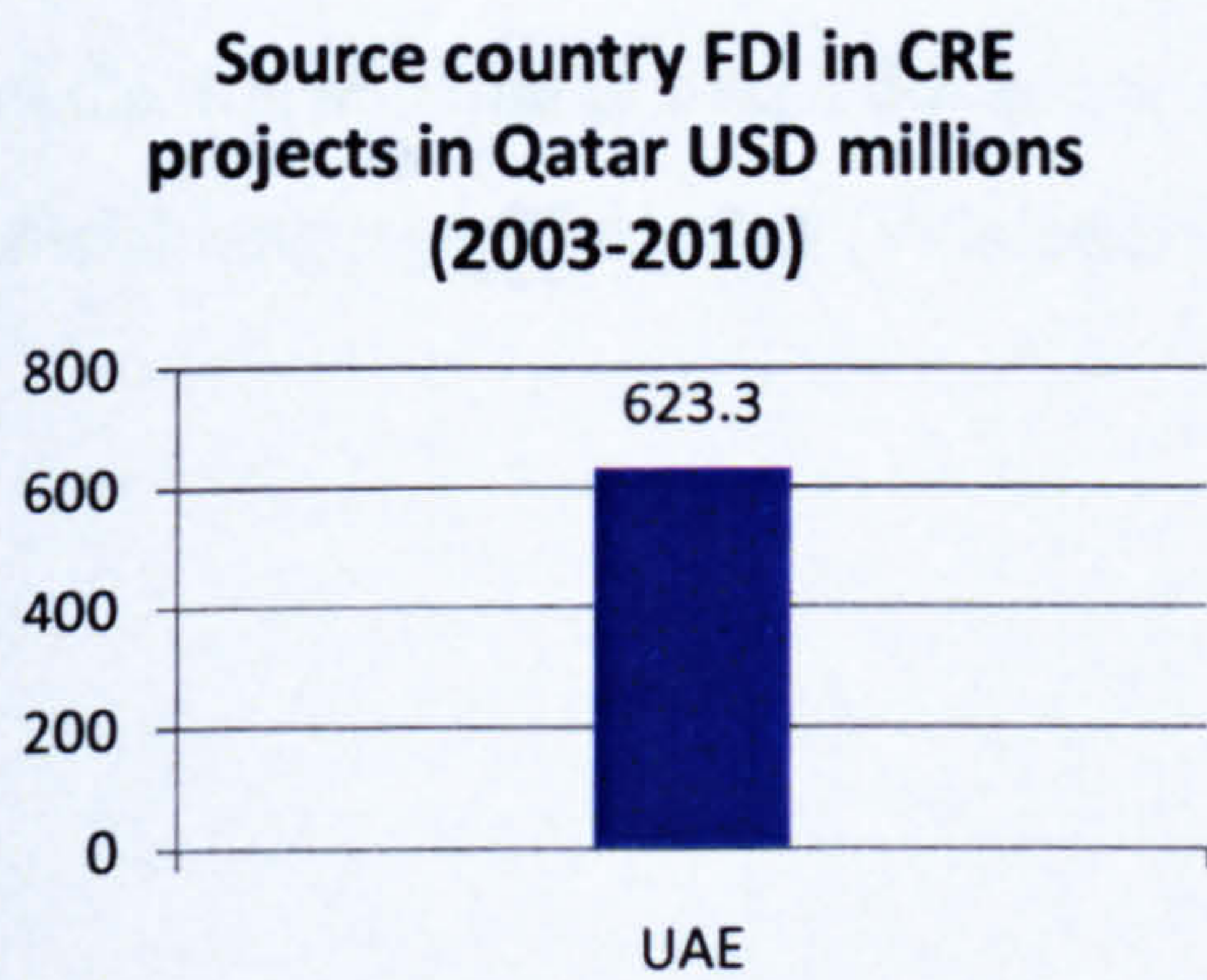


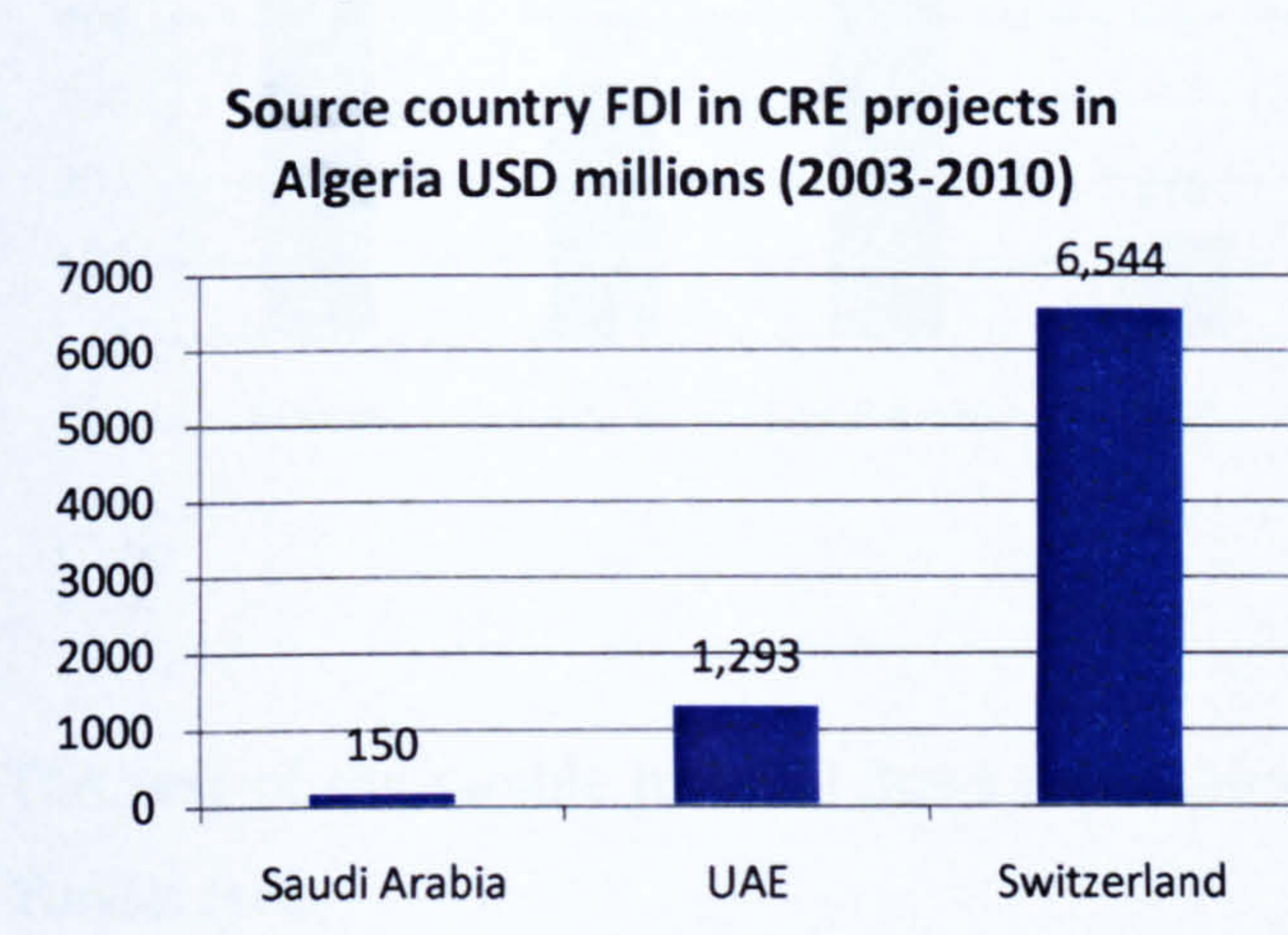
Figure 23: Source country FDI in CRE projects in Qatar USD millions (2003-2010)





Another interesting observation can be found for Algeria, where most FDI in CRE is originated from Switzerland. According to the database, a Swiss company "La Société des centres commerciaux d'Algérie" is committed to build five shopping malls in total in Algeria costing around \$6 bn (see Figure 24).

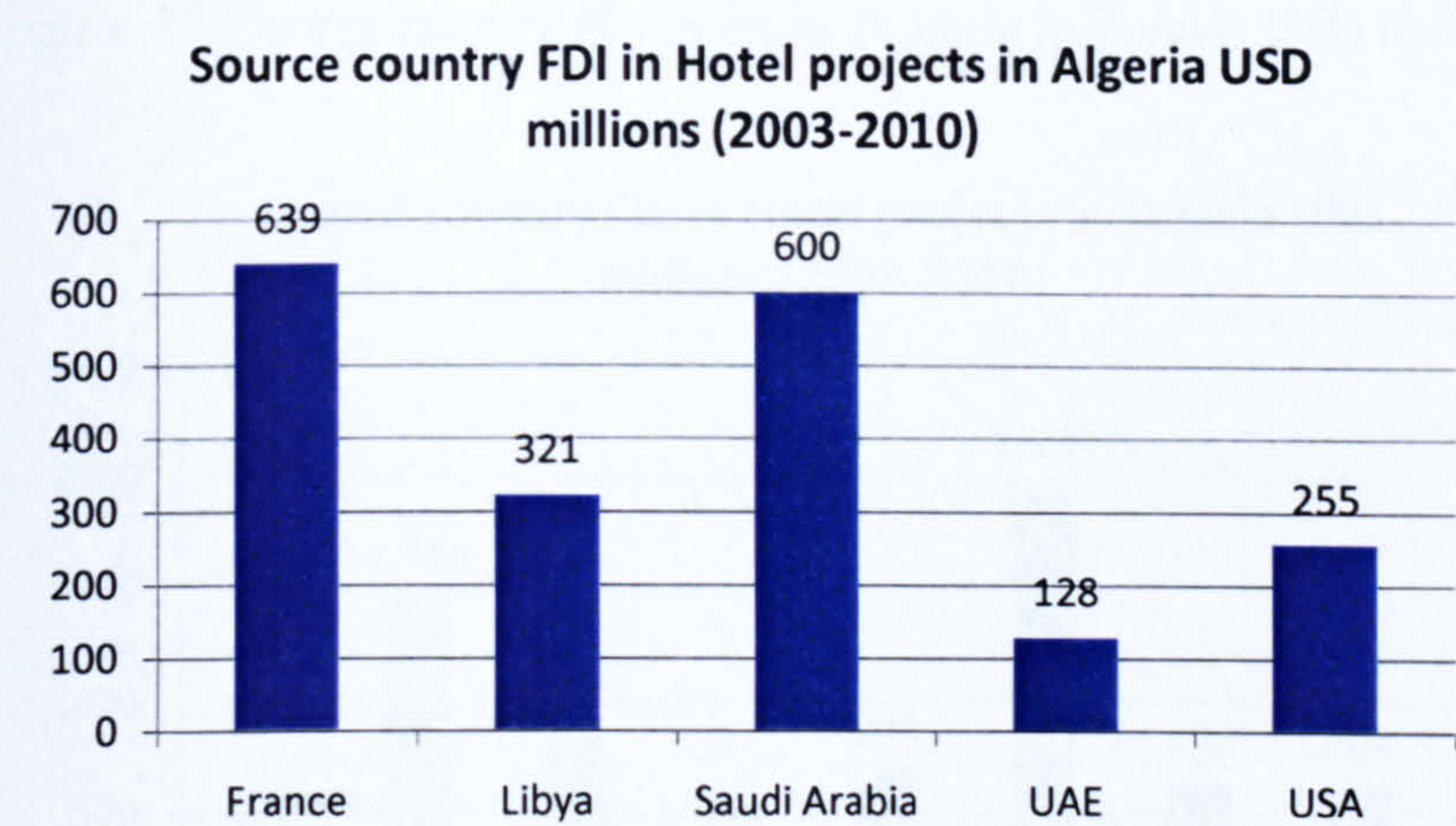
Figure 24: Source country FDI in CRE projects in Algeria USD millions (2003-2010)



In terms of source country analysis related to FDI in hotels, fDi Intelligence database revealed few interesting observations. For instance, and in contrast to the case for commercial real estate FDI, only few FDI flows were originated from culturally similar countries. One case is Algeria, as most of the flows were originated from both the UAE and France (as French language is widely used in government, culture, media (newspapers) and education, and can be regarded as being de facto the co-official language of Algeria (Wikipedia, n.d)) (See Figure 25).



Figure 25: Source country FDI in Hotel projects in Algeria USD millions (2003-2010)



The rest of the sample had FDI flows from almost every continent. For instance, in Tunisia (see

Figure 27), investments were originated from Europe (Austria, Belgium, France, Germany, Ireland and Italy), Asia (Hong Kong and India) and Africa (Egypt). The situation is also similar for Saudi Arabia, where FDI was originated from Belgium, Canada, Switzerland, UAE, UK and USA (see Figure 26).

Figure 26: Source country FDI in Hotel projects in KSA USD millions (2003-2010)

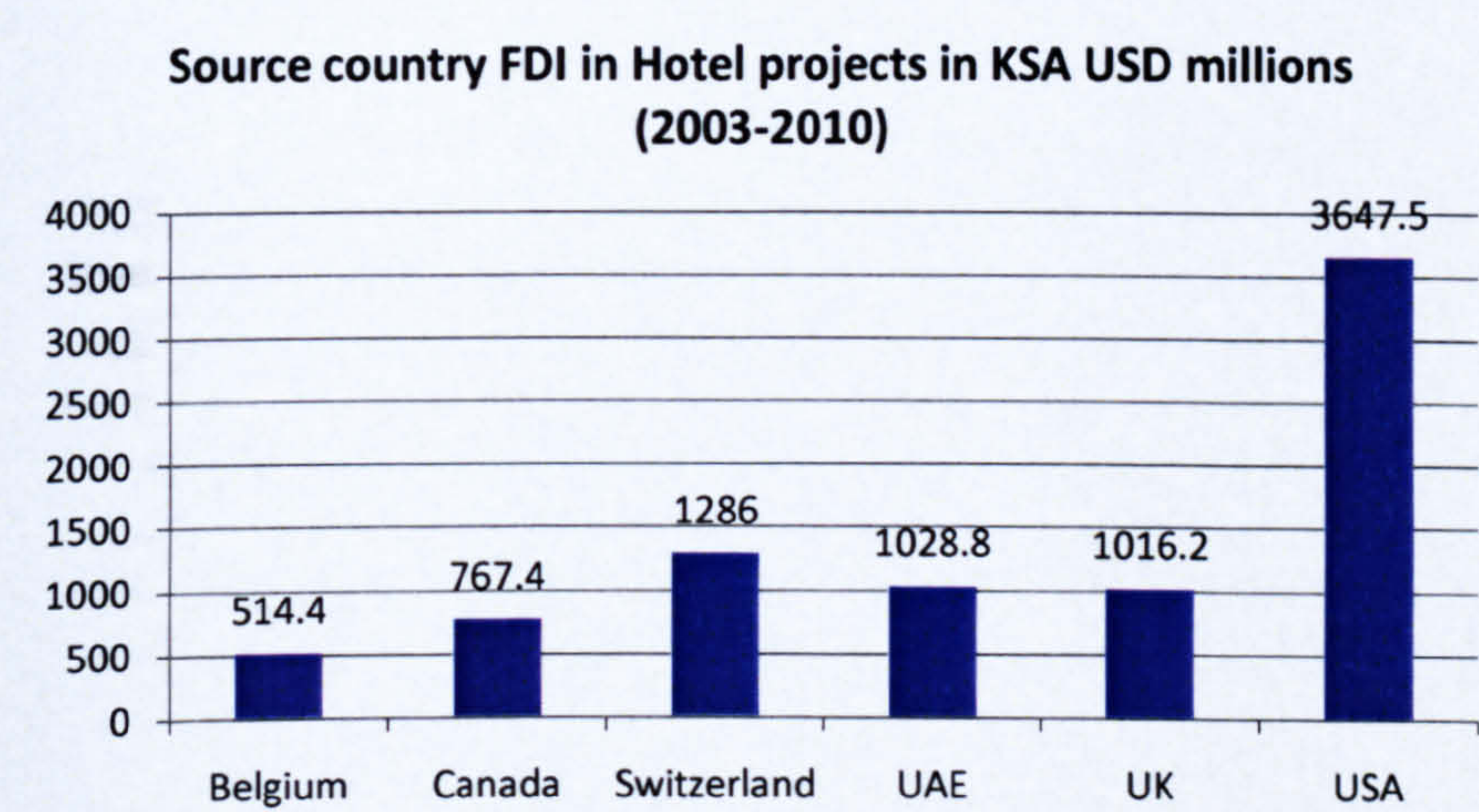
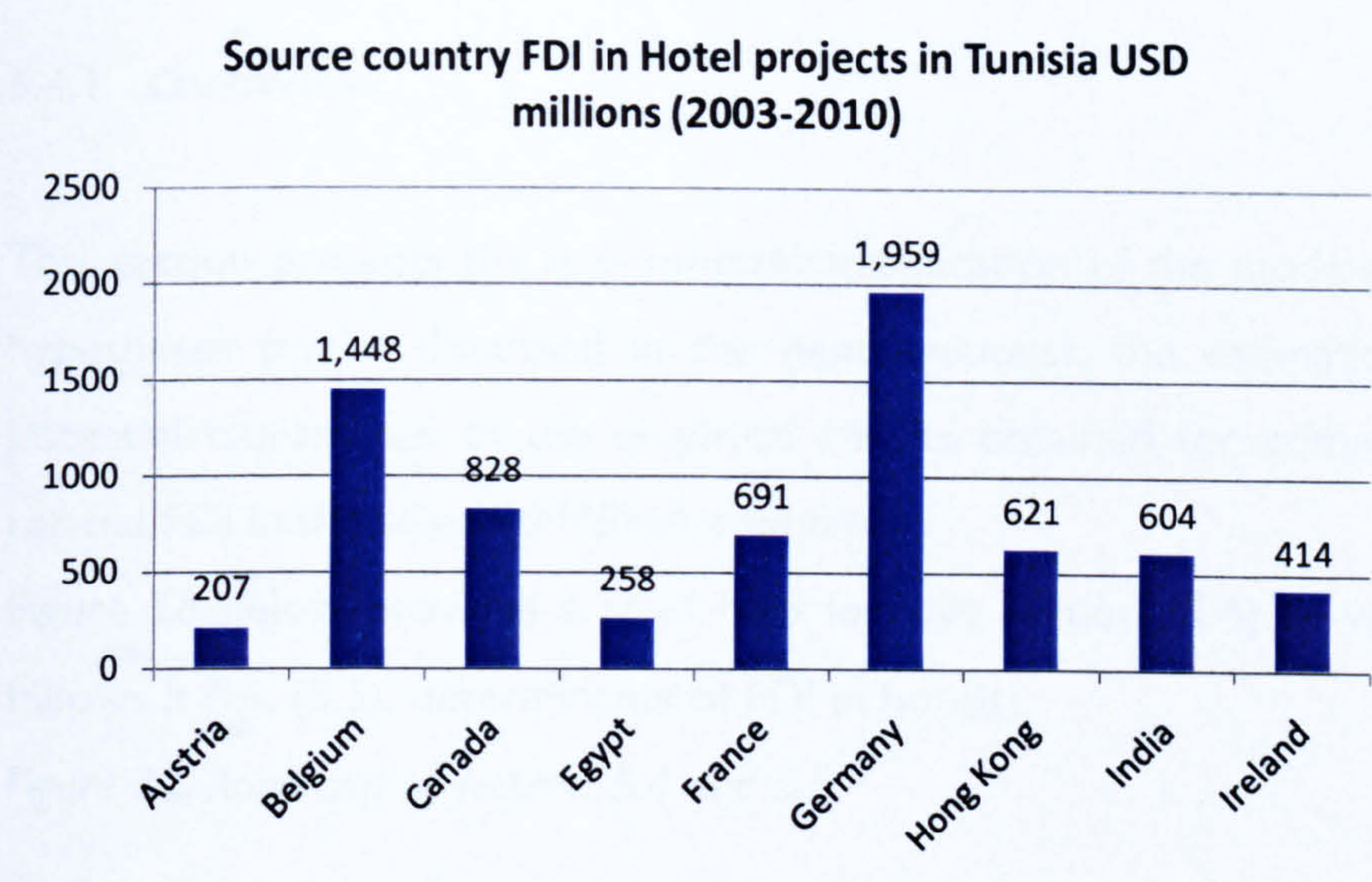




Figure 27: Source country FDI in Hotel projects in Tunisia USD millions (2003-2010)





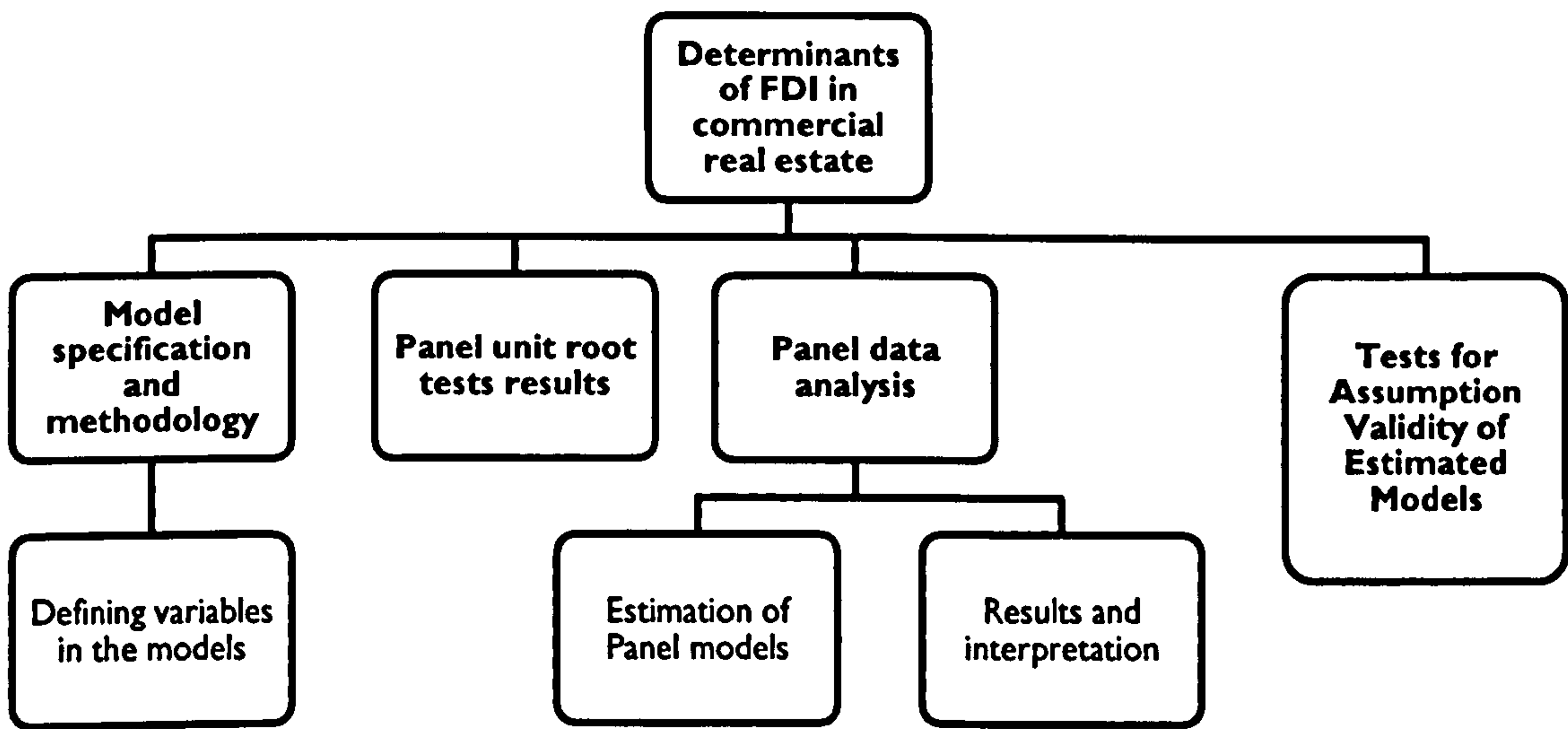
**5.4 DETERMINANTS OF FDI IN COMMERCIAL REAL ESTATE FOR  
SELECTED MENA ECONOMIES**

**5.4.1 OVERVIEW**

This section presents the econometric specification of the models<sup>3</sup> used to test the hypotheses (to be discussed in the next sections), the estimation strategy and a potential explanation of the empirical results obtained for commercial real estate related FDI in the selected MENA countries.

Figure 28 below provides a road map for this section (5.4) as well as the section follows it (i.e. (5.5), determinants of FDI in hotels).

*Figure 28: Roadmap of sections 5.4 and 5.5*



The main objective is to test which factors affected commercial real estate FDI location in the selected MENA markets. In the previous chapters, by reviewing the theoretical and empirical background of commercial real estate FDI location

<sup>3</sup> Wooldridge (2002a) defines an econometric model as an equation relating the dependent variable to a set of explanatory variables and unobserved disturbances, where unknown population parameters determine the ceteris paribus effect of each explanatory variable.

determinants, the potential motivations for investing in the MENA region were brought into attention.

This section therefore, presents the proxies for some of the variables described in Chapter two and assigns their expected signs as well as their hypotheses. In order to test the impact of the selected variables (real estate market size and growth, infrastructure, institutional quality and market transparency), a Pooled Tobit, Pooled OLS<sup>4</sup>, fixed effect (FE) and random effects (RE) models were estimated to a balanced panel<sup>5</sup> of relevant data.

The choice of host countries (Algeria, Egypt, Morocco, Qatar, Tunisia, Turkey, The Kingdom of Saudi Arabia and United Arab Emirates) was determined by the availability of data as well as responses to the interviews in the exploratory study as potential good location of investments within the MENA region.

#### **5.4.2 MODEL SPECIFICATION AND METHODOLOGY**

This section analyses the key factors influencing CRE related FDI flows to the selected MENA countries. This part adopts the reduced form approach with the commercial real estate FDI as the dependant variable<sup>6</sup>. It is also important to note that since there is no unanimous accepted theory of commercial real estate FDI, this research uses a pragmatic approach in selecting the explanatory variables to be included in the models.

Further, the selection of the variables must be inspired by the empirical literature on CRE related FDI. And since as mentioned in earlier chapters, most of the empirical

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<sup>4</sup> Ordinary Least Squares (OLS) is defined by Wooldridge (2002a) as a method for estimating the parameters of a multiple linear regression model. The ordinary least squares estimates are obtained by minimising the sum of squared residuals.

<sup>5</sup> Balanced Panel is a panel data set where all years (or periods) of data are available for all cross-sectional units (Wooldridge, 2002a).

<sup>6</sup> Wooldridge (2002a) defines a dependent variable as the variable to be explained in a multiple regression model (and a variety of other models).



work was about surveys and questionnaires, and only few econometrically tested real estate investment related variables, this research however, selects the most appropriate variables which cover the main themes emerged from the literature, including economic, political, socio-cultural as well as real estate specific variables.

As this research covers eight MENA countries from Q1-2003 to Q4-2009, the appropriate modelling strategy is involving both time-series and cross-sectional analysis, and as it is the purpose of this research to model the determinants of both CRE and hotel related FDI, a cause-effect<sup>7</sup> relationship has to be established. Therefore, each independent variable is lagged<sup>8</sup> one year. The model for commercial real estate FDI therefore can be represented as follows:

$$CFDI/GDP_{it} = \alpha_0 + \alpha_1 CFDI/GDP_{it-1} + \alpha_2 RGDPGROWTH_{it-1} + \alpha_3 INSTRE_{it-1} + \alpha_4 HUMANDEVELOPMENT_{it-1} + \alpha_5 INFRAQUAL_{it-1} + \alpha_6 TOTALTAXRATE_{it-1} + \alpha_7 UNEMPLOYGROWTH_{it-1} + \alpha_8 INVFREEDOM_{it-1} + \alpha_9 INSTITUTIONS_{it-1} + \alpha_{10} PROPERTYRIGHTS_{it-1} + \alpha_{11} PROTECTINVESTOR_{it-1} + \alpha_{12} REIT_{it-1} + \alpha_{13} RETRANSP_{it-1} + C_i + U_{it}$$

Where:

- **$C_i$**  is a country-specific effect represented by country dummies,  $i$  denotes the countries,  $t$  the year and  **$U$**  an error term.
- **CFDI/GDP**: the dependant variable commercial real estate FDI divided by country GDP.
- **CFDI/GDP(-1)**: Commercial real estate FDI divided by country GDP from the previous period
- **RGDPGROWTH**: Real GDP growth rate from the previous period.
- **INSTRE**: Size of institutional real estate market from the previous period.
- **HUMANDEVELOPMENT**: Human development level from the previous period.

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<sup>7</sup> The causal-effect situation is a *ceteris paribus* (all other relevant factors are held fixed) change in one variable has an effect on another variable (Wooldridge, 2002a).

<sup>8</sup> Lagged independent variable is equal to the independent variable from an earlier time period (Wooldridge, 2002a).

- **INFRAQUAL:** Infrastructure quality from the previous period.
- **TOTALTAXRATE:** Total tax rate from the previous period.
- **UNEMPLYGROWTH:** Growth of unemployment from the previous period.
- **INVFREEDOM:** Level of investment freedom from the previous period.
- **INSTITUTIONS:** Quality of institutions: incorporate six variables as follow:
  - **CORRUP:** Control of Corruption level from the previous period.
  - **GOVEFFECT:** Government Effectiveness level from the previous period.
  - **POLITIC:** Political Stability level from the previous period.
  - **REGQUALT:** Regulatory Quality level from the previous period.
  - **RULELAW:** Rule of Law level from the previous period.
  - **VACCOUNT:** Voice and Accountability level from the previous period.
- **PROPERTYRIGHTS:** Enforcement of property rights level from the previous period.
- **PROTECTINVESTOR:** Investor Protection level from the previous period.
- **REIT:** A dummy variable<sup>9</sup> reflecting the existence of Real Estate Investment Trusts (REIT's) lagged one year.
- **RETRANSP:** Level of transparency of real estate markets, lagged one year.

As mentioned earlier, some of the selected variables in the model have been selected pragmatically, as it is believed that these variables to be of significance to this type of FDI, and need to be tested for further contribution to the existing body of knowledge. The below section details variables description, sources, and expected signs (for a summary see Table 15 below).

*Table 15: Description of Commercial real estate FDI variables*

VARIABLES	Unit	Expected sign	Source
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<sup>9</sup> Dummy variable is a variable that takes on the value zero or one.



VARIABLES	Unit	Expected sign	Source
<b>CFDI</b>	% of GDP	n/a	fDi Intelligence (Financial Times Ltd)
<b>Lagged CFDI</b>	one year lag of CRE FDI (%GDP)	[+]	fDi Intelligence
<b>INSTRE</b> (Institutional real estate market estimation)	\$US millions	[+]	Euromonitor International
<b>GDP</b>	\$US millions (to be used when transforming FDI)	[+]	Euromonitor International
<b>REALGDP</b>	GDP, Constant 2000 Prices, US Dollars (Absolute) lagged one year	[+]	Datamintor
<b>REALGDPGRTH</b>	GDP, Constant 2000 Prices, US Dollars(Growth) lagged one year	[+]	Datamintor
<b>UNEMPLYGROWTH</b>	% growth lagged one year	[-]	Euromonitor International
<b>INFRAQUAL</b>	Ranking (1-7) (1: poorest quality, and 7: best quality) lagged one year	[+]	World Economic Forum Global Competiveness Report
<b>REIT</b>	A dummy variable reflect the existence of REIT's vehicles in country i in year t	[+]	various media sources
<b>RETRANSP</b>	Ranking 1-5, where 1 means countries most transparent and 5 to countries with opaque real estate markets, lagged one year	[-]	Jones Lang LaSalle Global Real Estate Transparency Index
<b>CORRUP</b> Corruption (control of corruption)	Ranking 0-1, where 0 is for countries with most corrupted systems, and 1 for least corrupted systems	[+]	Economist Intelligence Unit
<b>GOVEFFECT</b> Government effectiveness (bureaucratic quality)	Ranking 0-1, where 0 is for countries with least effective governments, and 1 for most effective governments	[+]	Economist Intelligence Unit



VARIABLES	Unit	Expected sign	Source
<b>REGQUALT</b>	Ranking 0-1, where 0 is for countries with lowest regulatory quality, and 1 for highest regulatory quality	[+]	Economist Intelligence Unit
Regulatory quality (investment profile)			
<b>RULELAW</b>	Ranking 0-1, where 0 is for countries with least rule of law environment, and 1 for best rule of law environment	[+]	Economist Intelligence Unit
Rule of law (law and order)			
<b>VACCOUNT</b>	Ranking 0-10, where 0 is for countries with least level of freedom, and 10 for best level of freedom	[+]	Economist Intelligence Unit
Voice and accountability			
<b>POLITIC</b>	Ranking 0-1, where 0 is for countries with least political stability environment, and 1 for best political stability environment	[+]	Economist Intelligence Unit
Political stability and absence of violence			
<b>PROTECTINVESTOR</b>	Ranking 0 to 10, with higher values indicating more investor protection.	[+]	The World Bank (Doing Business Database)
<b>TOTALTAXRATE</b>	(% profit)	[-]	The World Bank (Doing Business Database)
<b>HUMANDEVELOPMENT</b>	# (ranging from 0-1, where, best =1 / worst=0)	[+]	Human Development Index: <a href="http://hdr.undp.org/en/statistics/data/">http://hdr.undp.org/en/statistics/data/</a>
<b>PROPERTYRIGHTS</b>	Ranking 0-100, the more certain the legal protection of property, the higher a country's score; similarly, the greater the chances of government expropriation of property, the lower a country's score.	[+]	Heritage Foundation (Index of Economic Freedom)
<b>INVFREEDOM</b>	Ranking 0-100, where 0 means countries that impose many restrictions, and 100 means countries with no investment	[+]	Heritage Foundation (Index of Economic Freedom)
(Investment freedom)			



VARIABLES	Unit	Expected sign	Source
restrictions			

### 5.4.2.1 DEPENDANT VARIABLE

#### 5.4.2.1.1 CommercialFDI/GDP:

The dependant variable, CFDI (Commercial real estate FDI), has been measured by the nominal CRE related FDI flows, as provided by fDi Intelligence database.

The level of CRE investment in each country is normalised by dividing CRE FDI by the country's nominal GDP. This allows us adjust the level of investment for the size of the country's economy. This transformation is useful for two reasons. First, it allows for more direct comparison between countries. Simply comparing the levels of investment in Turkey versus that of, for example, Qatar is not very useful because of the difference in the size of the economies. Secondly, the size of a country's GDP is likely to be relevant for the amount of CRE FDI the country receives (i.e. a larger economy has more opportunities for investment). This transformation allows taking the market size into account in the model, but avoids the problem of endogeneity. Nominal GDP data is derived from Euromonitor International.

Figure 29: Commercial real estate FDI (%GDP) (2003-2009)

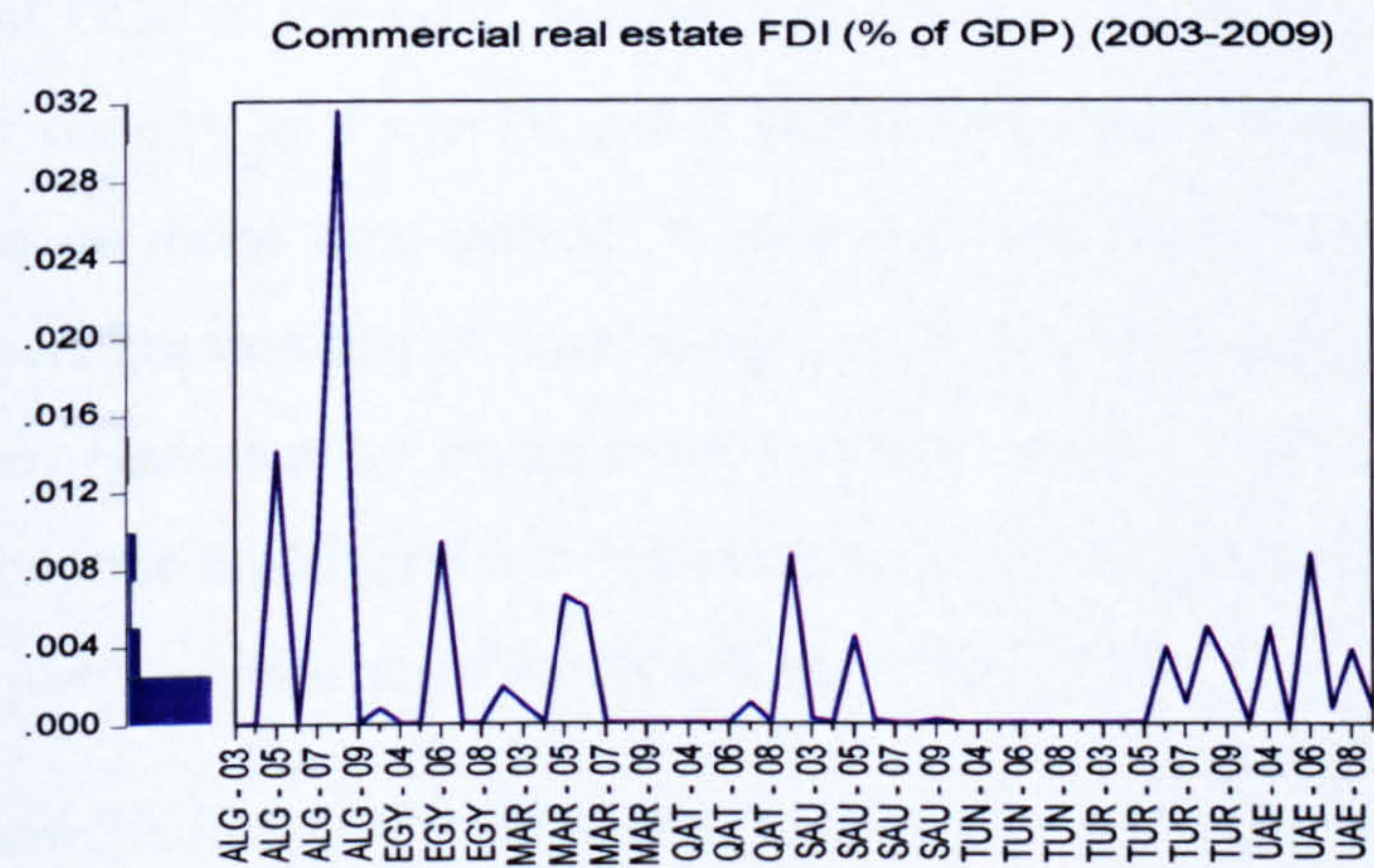




Figure 29 above shows the share of CRE FDI as a % of GDP for all countries. It is evident that Algeria in year 2008 had huge announcement made by Jelmoli Holding AG through its subsidiary (La Société des Centres Commerciaux d'Algérie) a joint-stock company under Algerian law, to construct five shopping malls in total in cities of Algiers, Oran, Setif and Tlemcen with an estimated total investment of \$6 bn. In contrast, fDi Intelligence database shows no commercial real estate FDI has been made in Tunisia for the whole study period.

#### **5.4.2.2 INDEPENDENT VARIABLES**

##### **5.4.2.2.1 Lagged commercial real estate FDI/GDP: $CFDI/GDP(-1)$ :**

The research employs a one year lag of CRE FDI/GDP in the countries as an independent variable to test the 'follow the competitor' hypothesis<sup>10</sup>. A positive and significant coefficient of lagged commercial real estate FDI flows may support the hypothesis that there is evidence for competitor following effects. Therefore, the hypothesised sign is positive.

##### **5.4.2.2.2 Real GDP growth: $RGDPGROWTH(-1)$**

Real GDP is the GDP number reached by valuing all the productive activity within the country at a specific year's prices (here year 2000). When economic activity of two or more time periods is valued at the same year's prices, the resulting figure allows comparison of purchasing power over time, since the effects of inflation have been removed by maintaining constant prices. This variable is directly related to economic health and it is hypothesised that the growth of real GDP lagged one year, to positively and significantly influence CRE FDI.

**Figure 30: Real GDP growth rate (%)**

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<sup>10</sup> See D'Arcy (2009) & Fuchs & Scharmanski (2009) for a discussion on competitor following and investor behaviour when investing internationally.



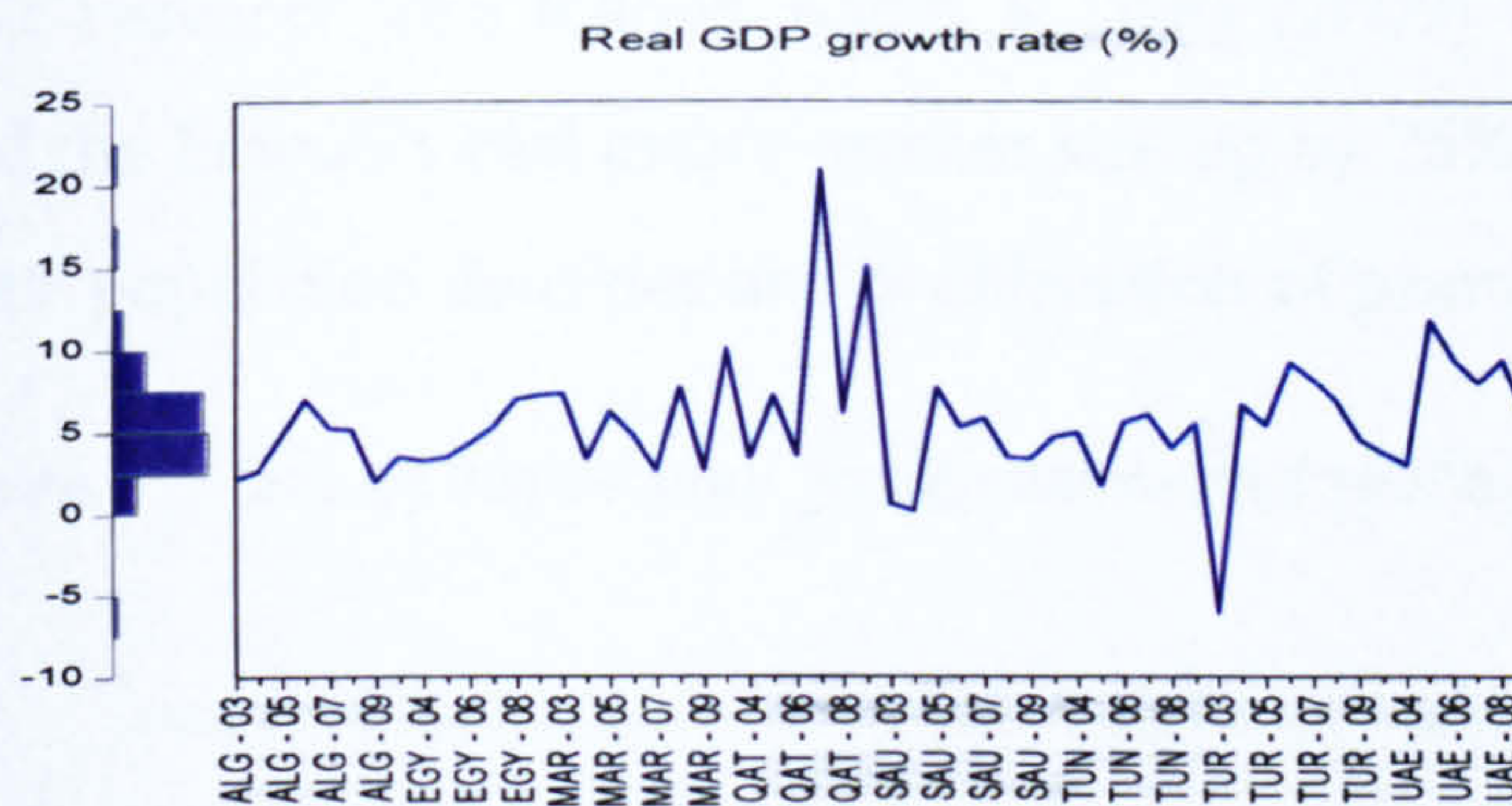


Figure 30 above shows the real growth rate of GDP for the sample countries over the study period. Interestingly, it is evident that Qatar had huge growth which was due to the country's massive investment in the hydrocarbon sector, and its position as the world's largest natural gas producer and its oil and gas output has jumped dramatically between 2004-2009 (Euromonitor International, 2009).

#### 5.4.2.2.3 Size of institutional real estate market: *INSTRE(-1)*

As discussed in the previous chapters, investors get attracted to large real estate markets for many reasons, including potential demand and liquidity. This research proxy these factors by estimating the size of institutional commercial real estate market, following Kapas & Liang (2009), which relates the size of a country's real estate market to a country's GDP.

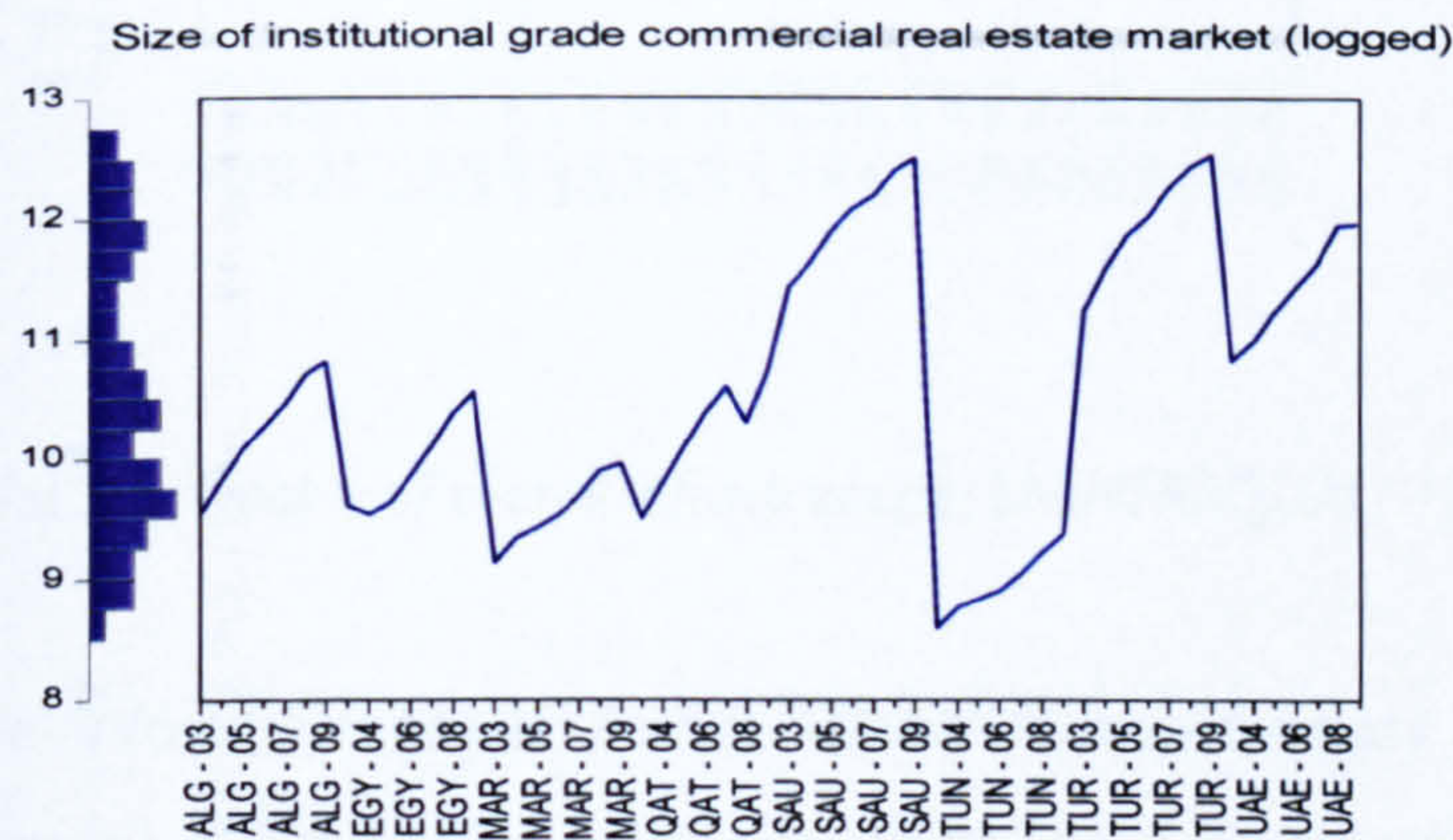
They use a model which account for both GDP and GDP per capita. As they argue, in developed and mature markets, the commercial institutional grade real estate market size (INSTRE) can equal to  $45\% \times \text{GDP}$ , however, they also argue that in less mature or developing markets, the size cannot be the same, and therefore, they use as another proxy 'GDP per capita'. Whereby, the value of the per capita GDP threshold \$20,000 in year 2000 and \$25,000 in year 2008 adjusted annually based on the U.S. inflation rate. Also for any given year for any particular country with GDP per capita less than these thresholds, they used the following relationship:

$$\text{INSTRE} = 45\% \times \text{GDP} \times (\text{GDP per capita} / 20000)^{(1/3)} \text{ for GDP per capita} < 20000$$



This research also follows Kapas & Liang (2009) by adjusting the Qatari, the Saudi and the Emirati’s real estate market size up by 25% (see Figure 31 below), because of their population densities and proliferation of planned urban development projects.

Figure 31: Size of institutional grade commercial real estate market (logged)



It is hypothesised that foreign investors get attracted to large markets, and therefore, a one year lagged value of INSTRE, will have a positive, significant influence on CRE FDI. Data were collected from Euormonitor International.

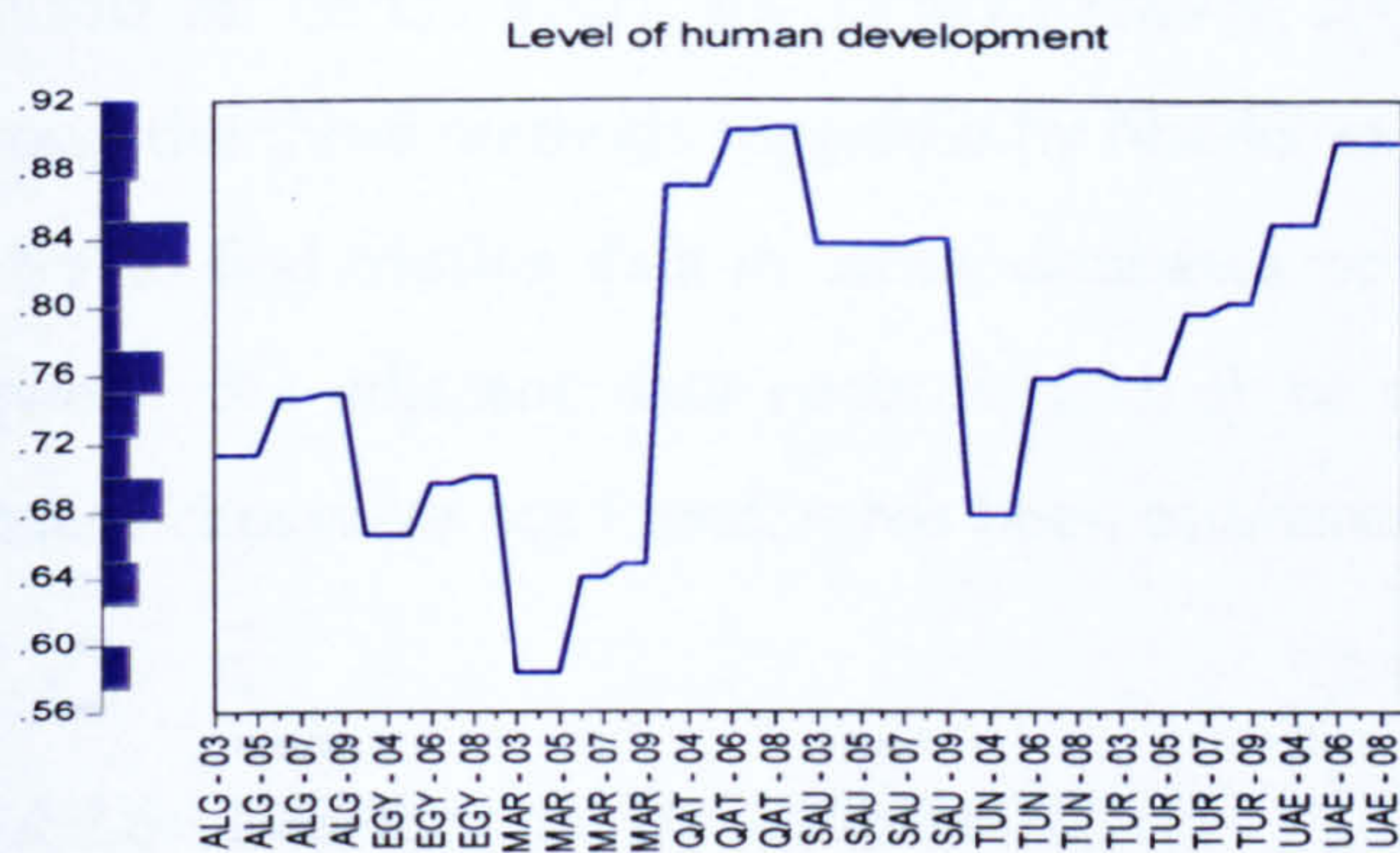
5.4.2.2.4 Human development level: HUMANDEVELOPMENT(-1)

The Human Development Index<sup>11</sup> (HDI) is a composite index measuring average achievement in three basic dimensions of human development, a long and healthy life, access to knowledge and a decent standard of living. This variable ranges from 0-1, where, best =1 / worst=0 (see Figure 32 below), and the lagged value of one year is believed to be positively and significantly influencing commercial real estate FDI. Data is derived from Human Development Report (HDR) database.

Figure 32: Level of human development

<sup>11</sup> Index number is a statistic that aggregates information on economic activity, such as production or prices (Wooldridge, 2002a).

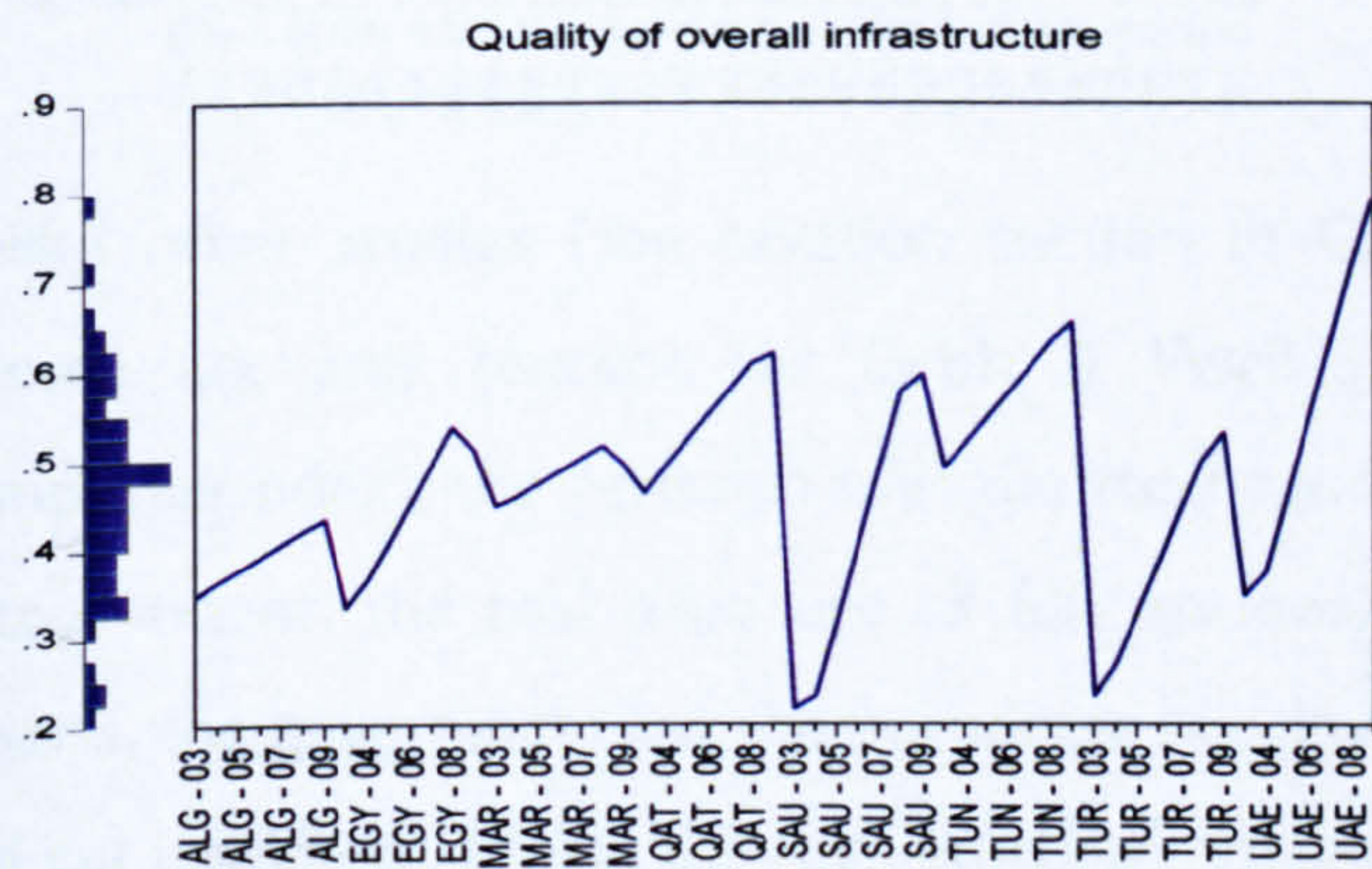




#### 5.4.2.2.5 Quality of overall infrastructure: LNINFRAQUAL(-1)

The World Economic Forum Global Competiveness Report provides an overall measure of the quality of infrastructure based on six underlying dimensions; (Quality of roads, quality of railroad infrastructure, quality of port infrastructure, quality of air transport infrastructure, available seat kilometres, quality of electricity supply and telephone lines). They rank countries (1-7) (where, 1: poorest quality and 7: best quality) (see Figure 33).

Figure 33: quality of overall infrastructure (logged)



This research employs a one year lagged value of this variable as an indicator of the overall quality of the infrastructure in the sample countries. It is also believed that it will be positively and significantly influencing CRE FDI. Unfortunately, data were not

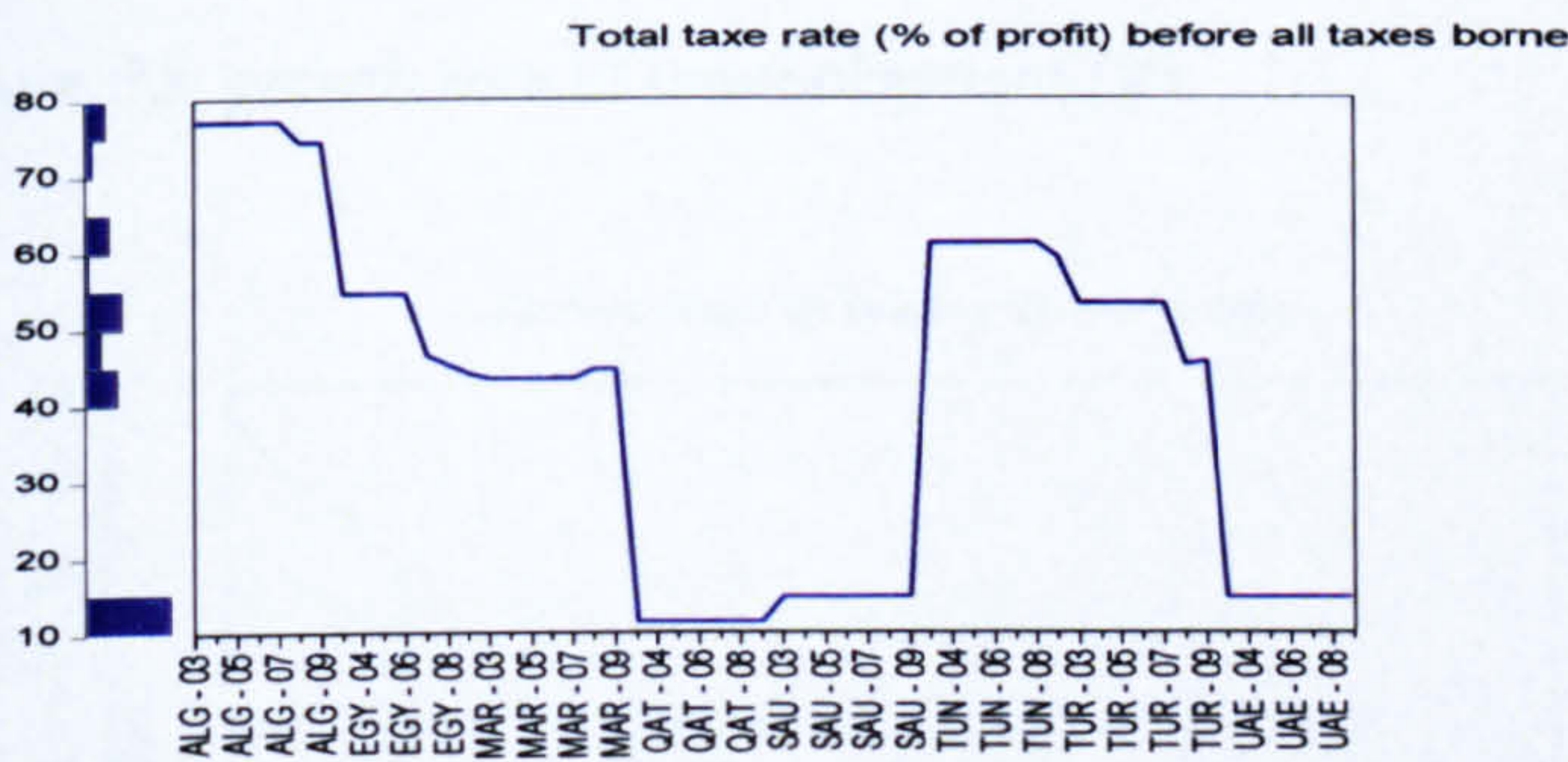


available for certain years, specifically between 2002-2005, and in this case, the study follows the three methods suggested by Nardo, et al (2005) in the following order: a) to try to find missing data in other databases or via the internet, b) to interpolate between the adjacent data records, and c) to use the latest available data. And because data were not found, it has been estimated using interpolation of data.

5.4.2.2.6 Total tax rate: *TOTALTAXRATE(-1)*

The research also employs a taxation related variable, which is extracted from The World Bank (Doing Business Database). The World Bank provides alongside PricewaterhouseCoopers, the total tax rates as a share of profit before all taxes borne.

Figure 34: total tax rate (%of profit) before all taxes borne



Unlike other studies (see taxation section in Chapter two) that used corporate income tax only (except for Groh & Wich (2009) in their FDI attractiveness composite index), the research uses the total tax, as it is believed that it reflects to a better extent, the real exposure of foreign investors to taxation. For instance, in Algeria, the government cut the corporate tax rate in January 2007 from 30% to 25% and cut it again to 19% in the supplementary budget of mid-2008.

However, foreign companies continue to complain that the existing tax system is unwieldy and opaque (EIU, 2010). And as provided by the World Bank, total taxes in Algeria reach up to 74%, which is markedly above the headline marginal tax of 19%.

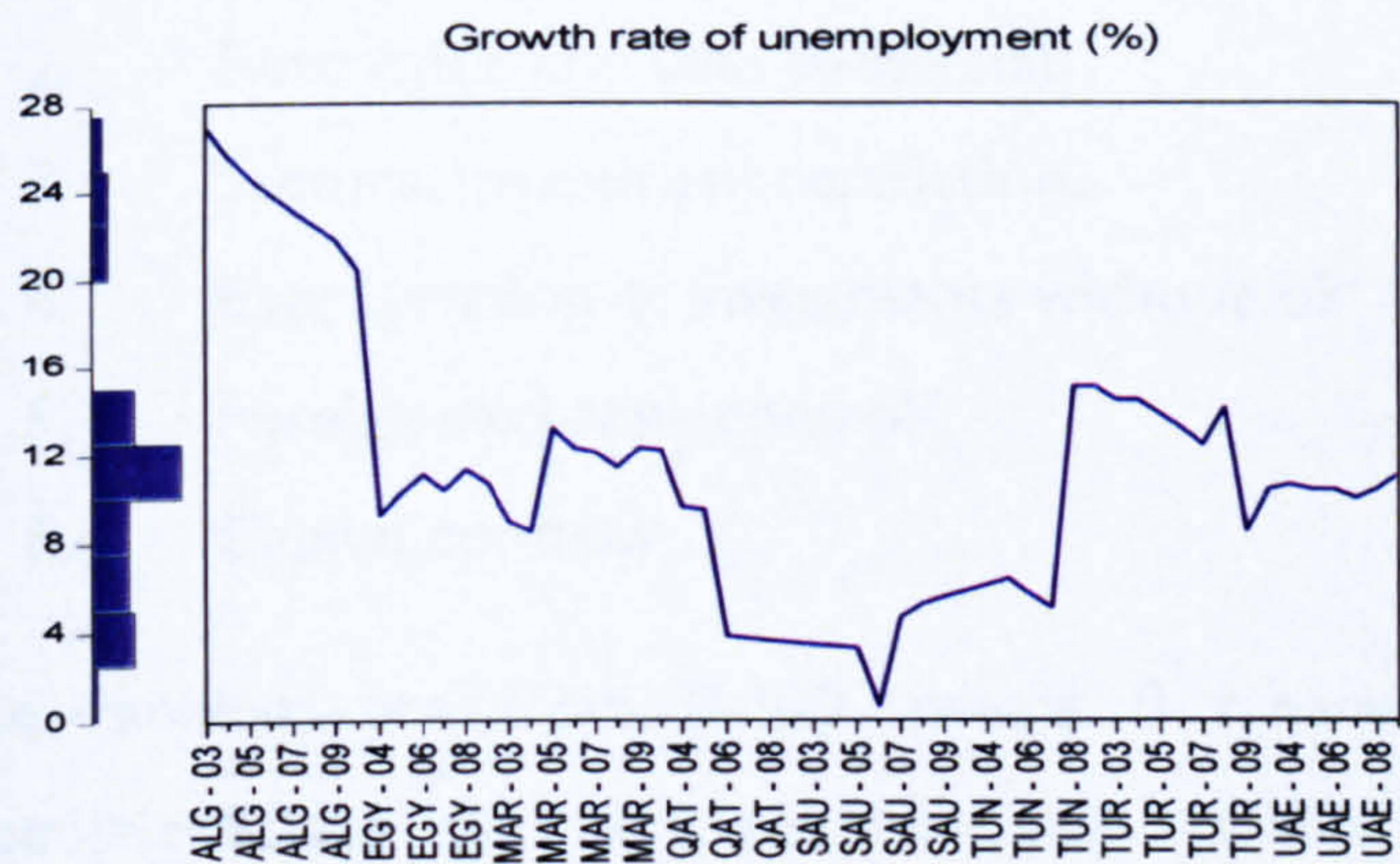


For this reason the study uses the total tax rate and it is expected to have a negative and significant influence on CRE FDI in the selected markets.

5.4.2.2.7 Growth of unemployment: UNEMPLYGROWTH(-1)

The ILO international standard definition of unemployment is based on the following three criteria which should be satisfied simultaneously: "without work", "currently available for work" and "seeking work". The study employs this variable, especially to its direct relation to commercial related real estate. It is well-known that more office and retail space will be required in the case of higher employment and booming working conditions. And the opposite will be the case when unemployment in the increase. The research therefore, employs the % change in unemployment (lagged one year), hypothesising it will be negatively and significantly influencing CRE FDI. Data is collected from Euromonitor International

Figure 35: growth rate of unemployment (%)



Interestingly, Figure 35 shows that Saudi Arabia has the lowest unemployment growth in the sample, however, despite the ‘growth rate’ is low, the level of unemployment is high given that Saudi Arabia is one of the world's fastest growing population (estimated 3% per annum, and according to Euromonitor International (2010), some 60% of the indigenous population is believed to be less than 20 years



old, and 70% is under 30 years old and that unemployment is highest among Saudis in their twenties at an estimated 25%. The Saudi government therefore, tries a recent policy of "Saudiization", which intends to increase employment of its own citizens by replacing 60% of the estimated 5-6 million foreign workers working in Saudi Arabia (EIU, 2008).

#### **5.4.2.2.8 Overall investment climate: INVFREEDOM(-1)**

Another key variable is employed to capture the level of investment freedom in countries in the sample. Because it is difficult to account for all restrictions in details, the research employs the Heritage Foundation (Index of Economic Freedom), which evaluates a variety of restrictions typically imposed on investment. Points, as indicated below, are deducted from the ideal score of 100 for each of the restrictions found in a country's investment regime.

Investment restrictions:

1. National treatment of foreign investment
2. Restrictions on land ownership
3. Sectoral investment restrictions
4. Expropriation of investments without fair compensation
5. Foreign exchange controls
6. Capital controls

The rankings are from 0-100, where 0 means countries that impose many restrictions, and 100 means countries with no investment restrictions. It is believed that a lag of one year of the index will be positively and significantly influencing CRE FDI.

**Figure 36: level of investment freedom**



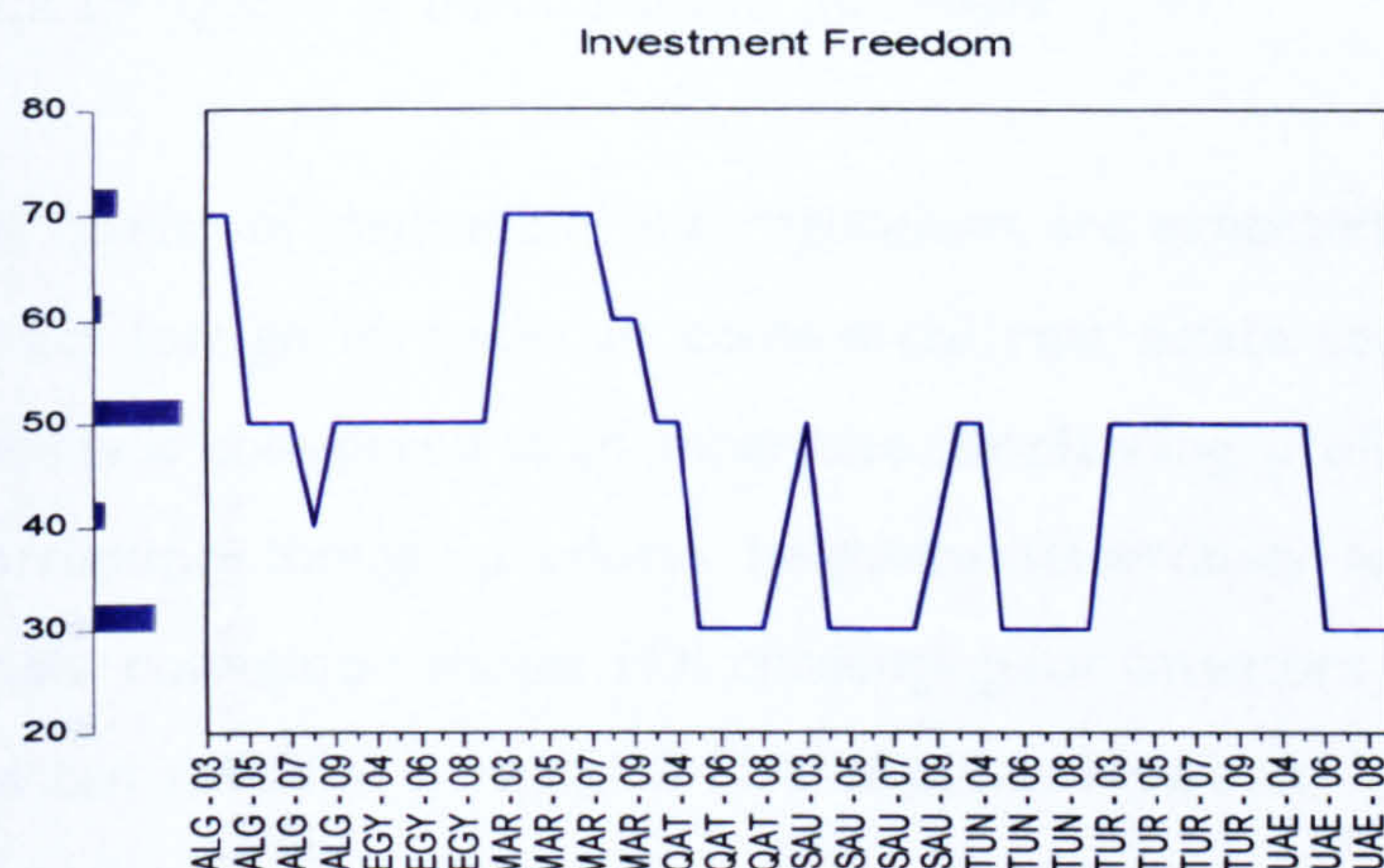


Figure 36 shows how restrictions vary across the sample. For instance, Algeria’s score (70) in 2003 is quite high when compared to (40) in 2009; this can be attributed to the recent efforts of the Algerian government to attract more investment. They provide some incentives for many types of investments. For instance, the Algerian government provides (Markaz, 2008):

- Exemption of custom duties on certain imported goods;
- VAT exemption on some goods and services directly involved with the investment implementation;
- Transfer tax exemption, for all real estate purchases made for the specific purpose of the investment.

In addition to the above incentives, special incentives are also offered for investments in special development zones and for privileged investments. Such incentives incorporate (Markaz, 2008):

- Partial or total state funding for infrastructure investments;
- Exemption for ten years from the settlement of corporate income tax, gross income tax, flat rate payment and tax of professional activity;
- Exemption for ten years from property taxes;
- Additional incentives to improve or facilitate the investment, such as the carry-forward of losses and depreciation;



#### *5.4.2.2.9 Quality of the institutional framework*

The quality of institutions and regulations are expected to play a significant role to attract foreign investors in commercial real estate sectors. For instance, political stability is considered as an imperative for planning, profitability and long-run success. Corruption though produces heightens uncertainty and raises costs. Inability to handle corruption makes FDI challenging for investors from less corrupt countries and can result in a negative FDI decision. However, corruption may also provide some investors preferential access to profitable markets. Generally, weak institutions are expected to deter CRE FDI, whereas high quality institutions attract this type of FDI.

In order to assess the role of institutions and regulations as factors to attract CRE FDI, a set of governance variables are required. Many indices are available for this purpose. However, as the research tries to cover as many governance indicators as possible, the study employs the six dimensions (see below) developed by Daniel Kaufmann and Aart Kraay in the late 1990's, as they developed the so-called the Worldwide Governance Indicators (WGI), which is based on information drawn from 35 data sources provided by 33 different organisations (see Kaufmann et al. (2009) for details). One of the 33 private organisations providing information to the WGI is the Economist Intelligence Unit (EIU).

The research considers employing those six dimensions provided only by the EIU to avoid any bias that could occur from employing the aggregate WGI. The EIU data is available at WGI website and can be accessed by the public.

The EIU data reflect the views of experts and a network of over 500 correspondents, reviewed for consistency by panels of regional experts. The index is quarterly since 1997.



This index is measured into units ranging from 0-1, with higher values corresponding to better governance, therefore, the hypothesis is that the better the governance, the more attractive the country is. A positive sign is expected for all indicators. For this research, EIU data covers the eight MENA countries over the period 2003-2009 (with a one year lag), and they include six dimensions of governance as follows:

1. **Voice and Accountability (VACCOUNT):**

An indicator measures the extent to which country’s citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media.

Figure 37: level of voice and accountability

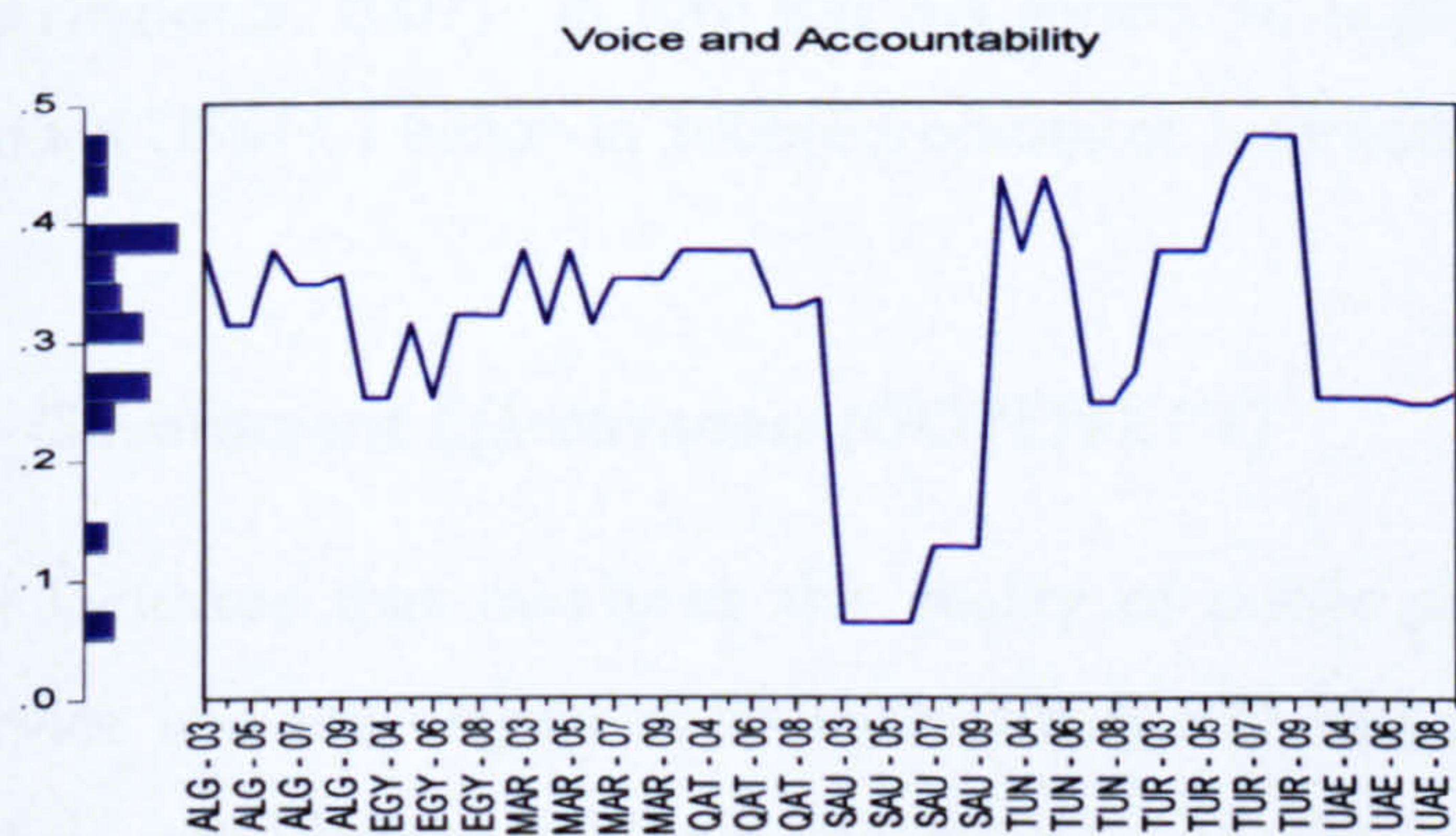


Figure 37 above shows that the sample ranges from 0.05 to 0.5, which can be regarded as low to medium level of voice and accountability.

2. **Political Stability and Absence of Violence (POLITIC)**

An indicator that measures the perceptions of the likelihood that the government will be destabilised or overthrown by unconstitutional or violent means, including domestic violence and terrorism.

Figure 38: level of political stability and absence of violence



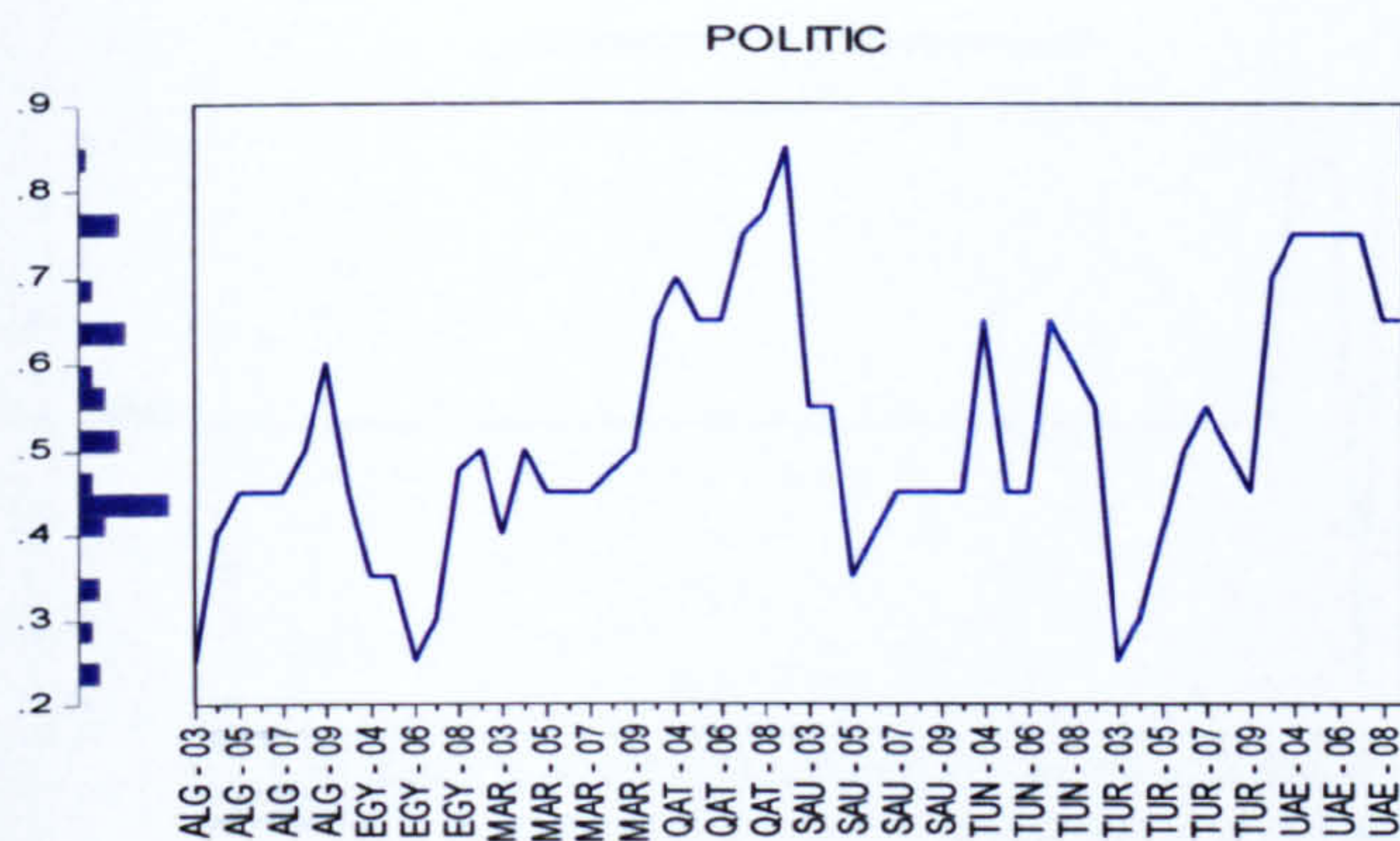


Figure 38 shows that the sample ranges from an extreme of 0.2 (e.g. Algeria) to 0.85 political stability as for the case of Qatar.

For Turkey, there has been much change in recent years (see the above figure 2004-2009), in the political system and fiscal discipline and as a result, the Istanbul Stock Exchange grew by 400% between October 2004 and February 2006(Euromonitor International, 2007). In turn this has generated huge levels of FDI, which reached a record US\$17.1 billion in 2006(Euromonitor International, 2007).

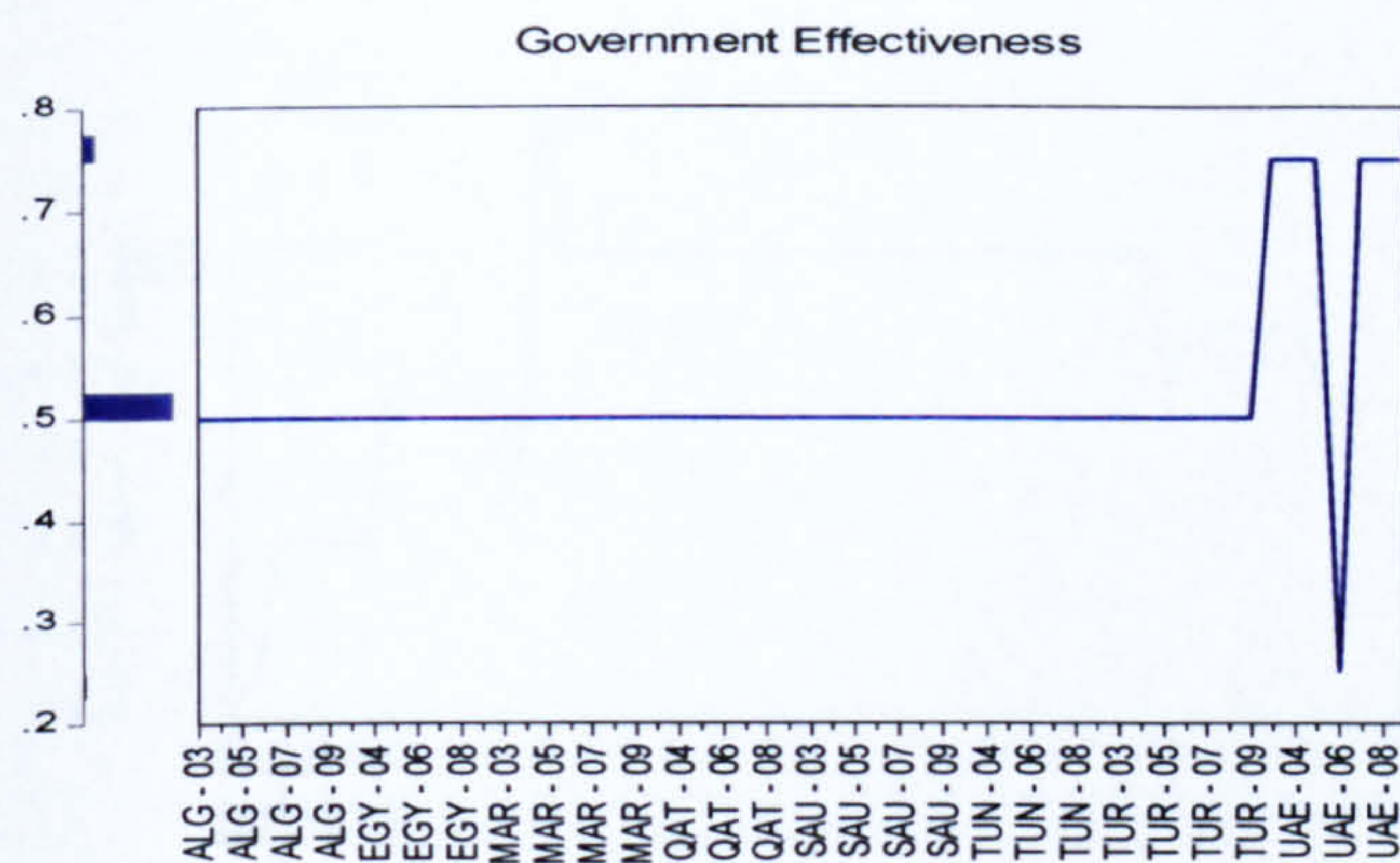
### 3. Government Effectiveness (GOVEFFECT)

An indicator that measures the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government’s commitment to such policies.

Figure 39 shows how governments in the sample are acting similarly; only recently, it is evident that Turkey and UAE are among the most effective governments in the sample.

Figure 39: level of government effectiveness

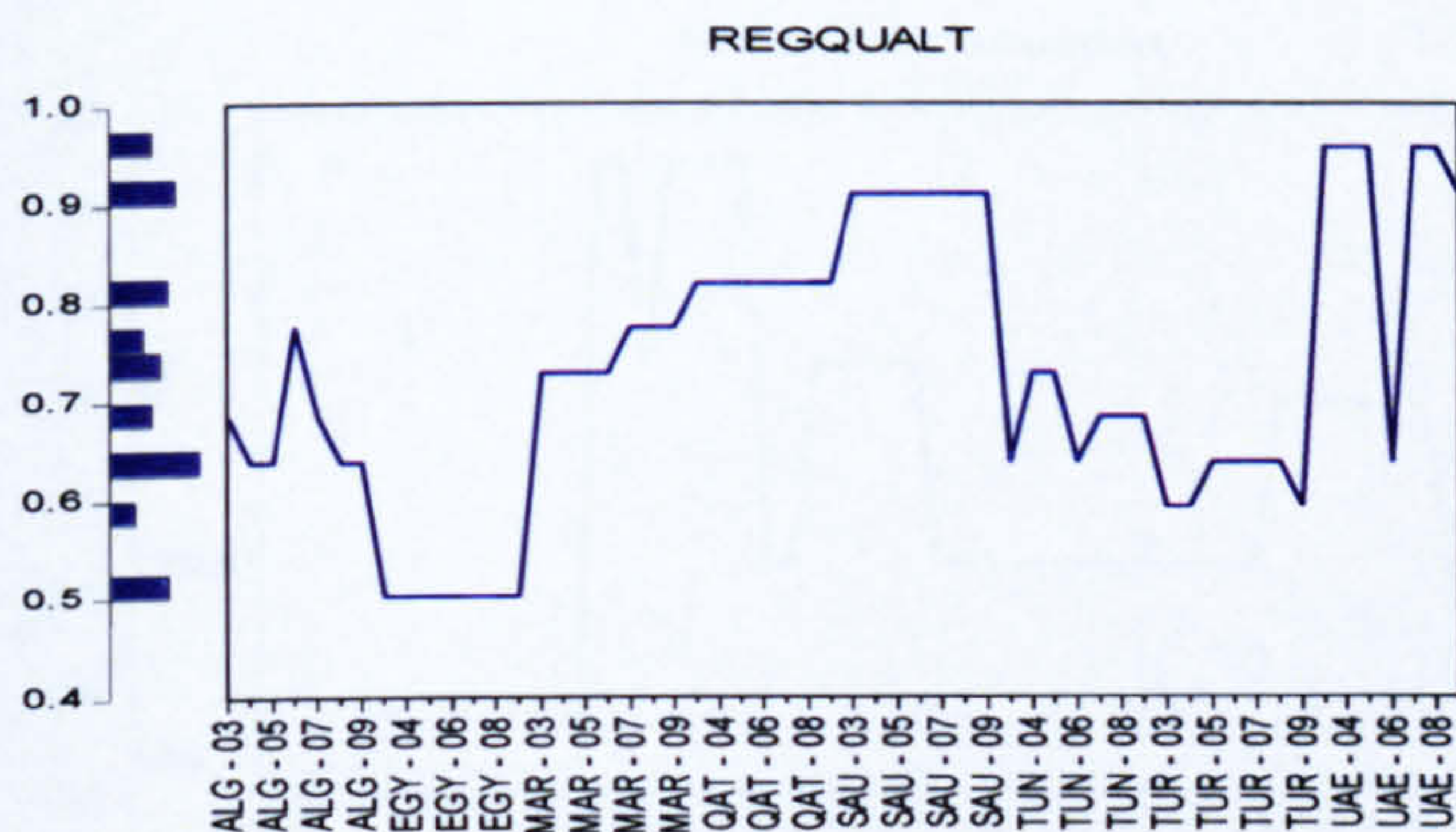




#### 4. Regulatory Quality (REGQUALT)

An indicator measures the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development.

Figure 40: level of regulatory quality

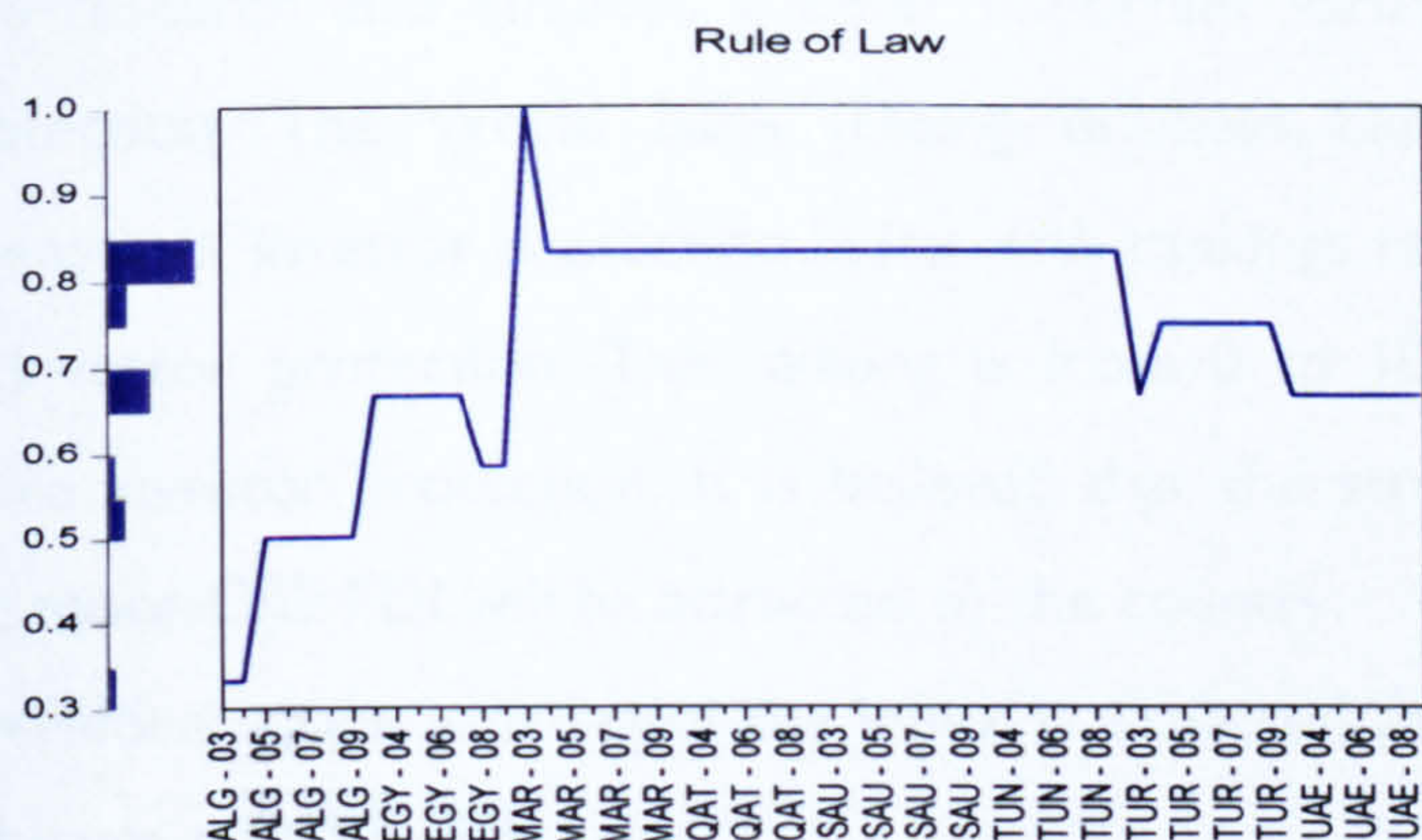


#### 5. Rule of Law (RULELAW)

An indicator that measures the perceptions on the effectiveness and predictability of the judiciary, as well as enforceability of contracts.

Figure 41: level of rule of law

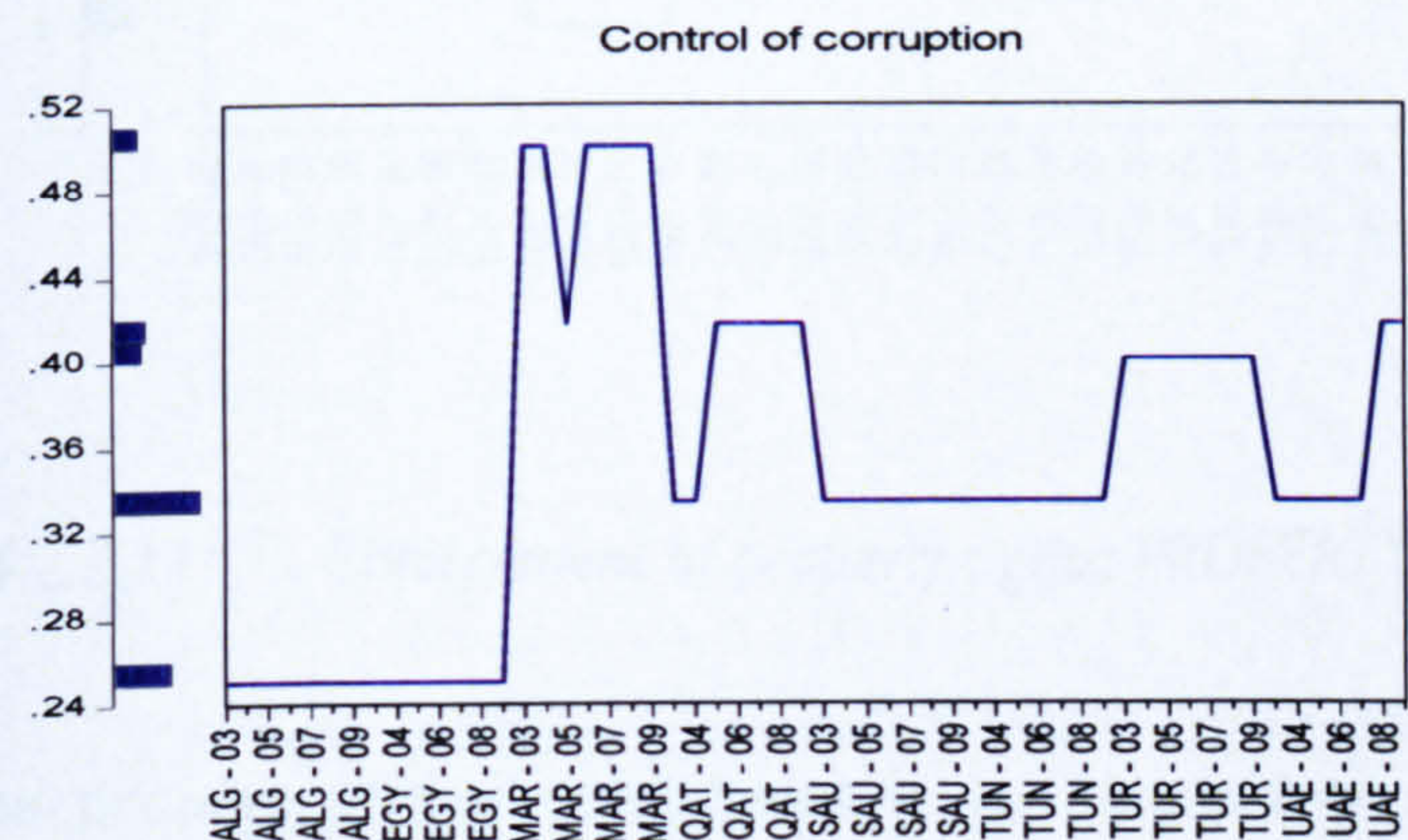




### 6. Control of Corruption (CORRUP)

An indicator that measures the extent to which public power is exercised for private gain, including petty and grand forms of corruption, as well as “capture” of the state by elites and private interests.

Figure 42: level of control of corruption



As variables of institutions are often correlated with one another, it is generally not possible to include several institutions in the same equation. This study therefore, employs each variable at a time. See Table 20 (M2-M7)

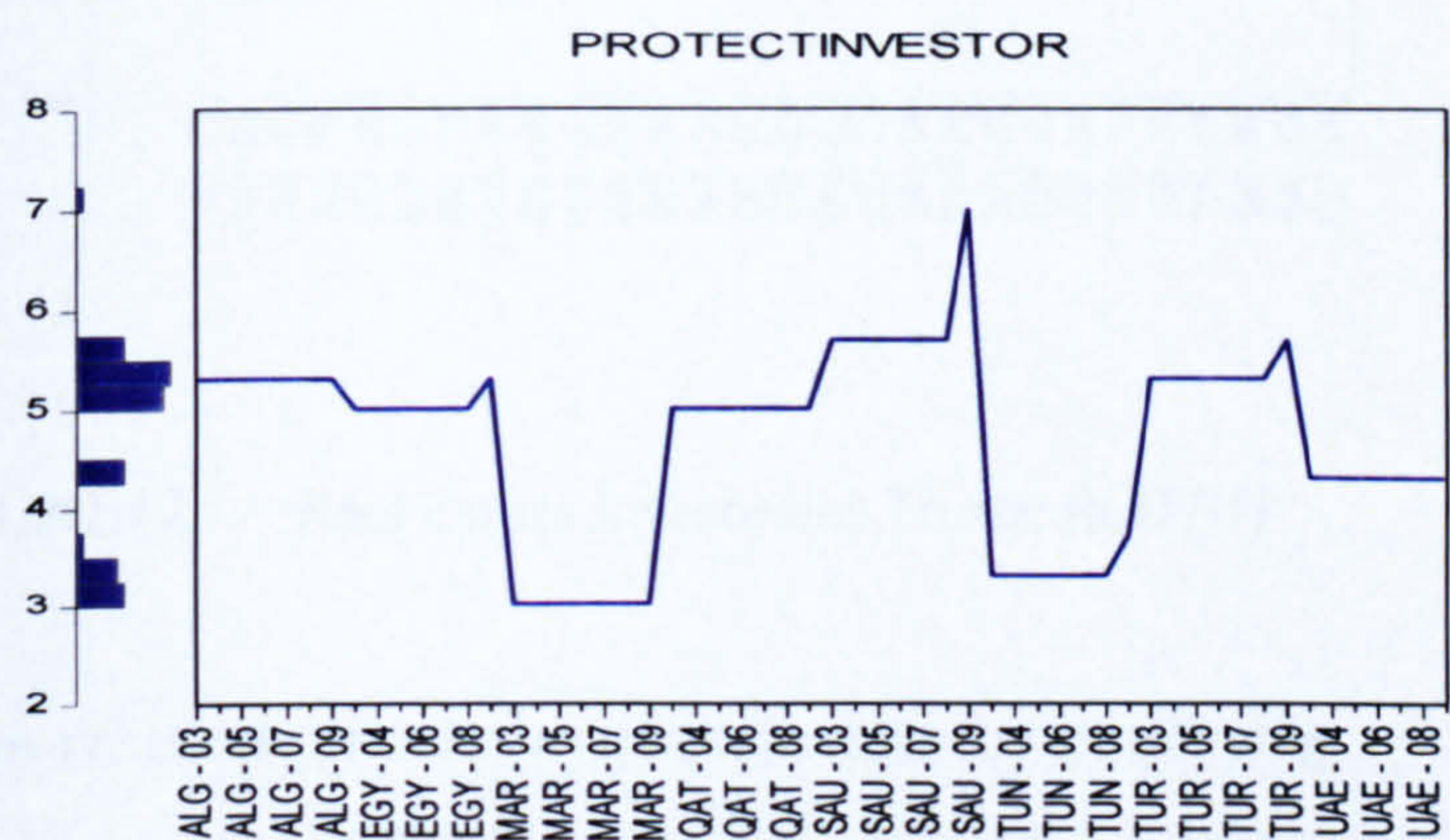
#### 5.4.2.2.10 Strength of investor protection: PROTECTINVESTOR(-1)



The research also employs another important variable that accounts for investor protection. The World Bank (Doing Business Database) provides an index of strength of investor protection index with rankings of countries based on their level of investor protection. The ranking is from 0 to 10, with higher values indicating more investor protection. It is believed that the stronger investors are protected, the more CRE FDI will be attracted to the country.

Therefore, a one year lag of the index is expected to have a positive and significant influence on CRE FDI.

Figure 43: strength of investor protection



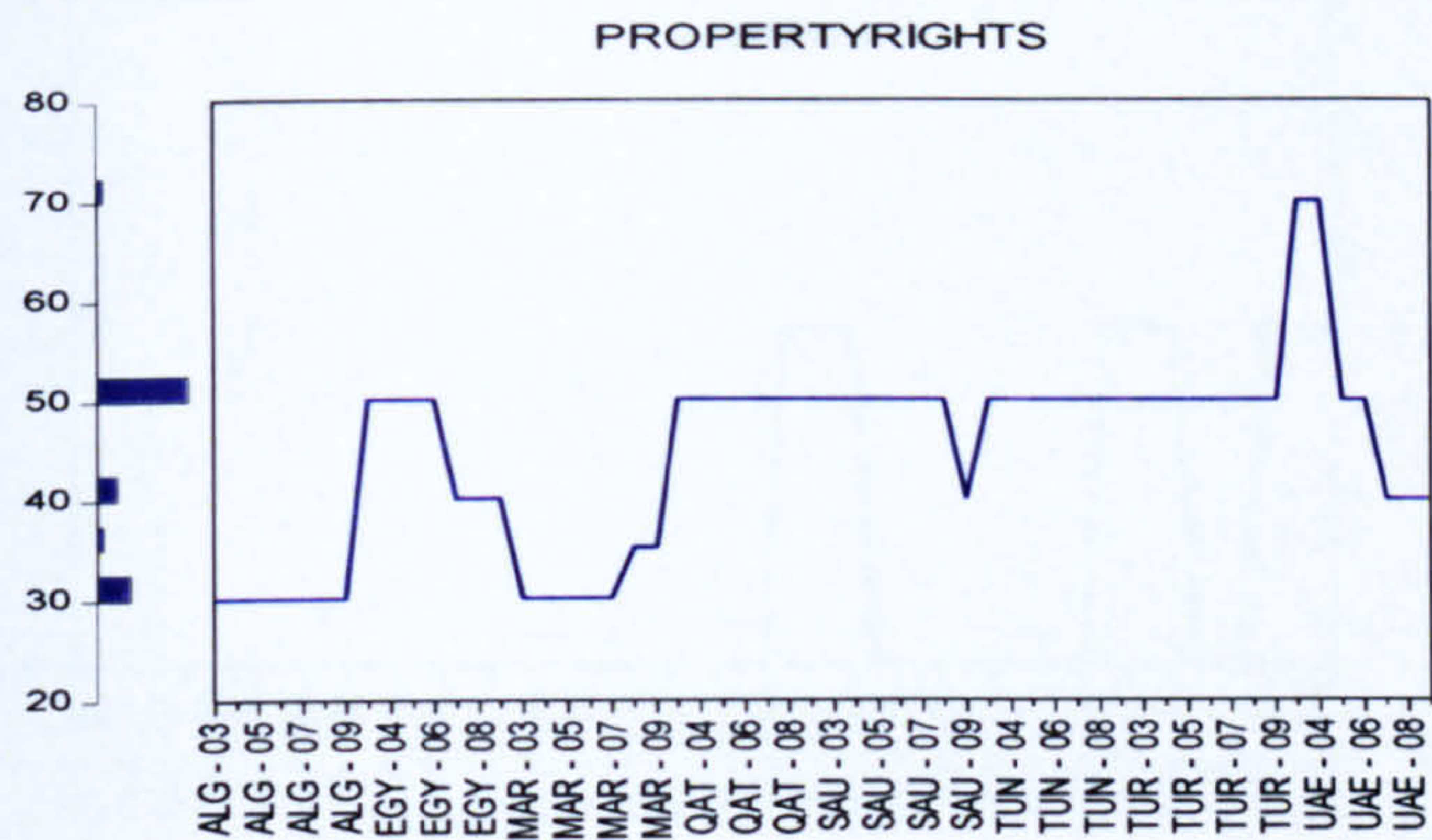
5.4.2.2.11      Enforcement of property rights: PROPERTYRIGHTS(-1)

The property rights component is an assessment of the ability of individuals to accumulate private property, secured by clear laws that are fully enforced by the state. It measures the degree to which a country’s laws protect private property rights and the degree to which its government enforces those laws. It also assesses the likelihood that private property will be expropriated and analyses the independence of the judiciary, the existence of corruption within the judiciary, and the ability of individuals and businesses to enforce contracts. Data is provided by the Heritage Foundation (Index of Economic Freedom). The index ranking based from 0-100, the more certain the legal protection of property, the higher a country’s score;



similarly, the greater the chances of government expropriation of property, the lower a country's score. Therefore, it is hypothesised that it will have a positive and significant influence on CRE FDI.

Figure 44: enforcement of property rights



5.4.2.2.12 Real Estate Investment Trusts: REIT(-1)

The research proxies market liquidity by employing a dummy variable which reflects the existence of REIT's vehicles in country  $i$  in year  $t$ . It is hypothesised that the more liquid the market is, the more attracted foreign investments to that market. A one year lag of REIT's should have a positive influence on CRE FDI. Various media sources were consulted to obtain this information.

5.4.2.2.13 Level of transparency of real estate markets: RETRANSP(-1)

As covered in the previous chapters, the more transparent the real estate market, the more investments it would attract. The study employs the Jones Lang LaSalle Global Real Estate Transparency index, which evaluates the level of real estate market transparency in country  $i$  in year  $t$  attaching a score from 1-5, where 1 means countries most transparent and 5 to countries with opaque real estate markets. Not all countries were covered for the study period; therefore, it is assumed that these



countries have the least value of (5) opaque. The research uses a one year lagged value of the index and hypothesis a negative significant influence on CRE FDI.

Figure 45: existence of Real Estate Investment Trusts (REIT's)

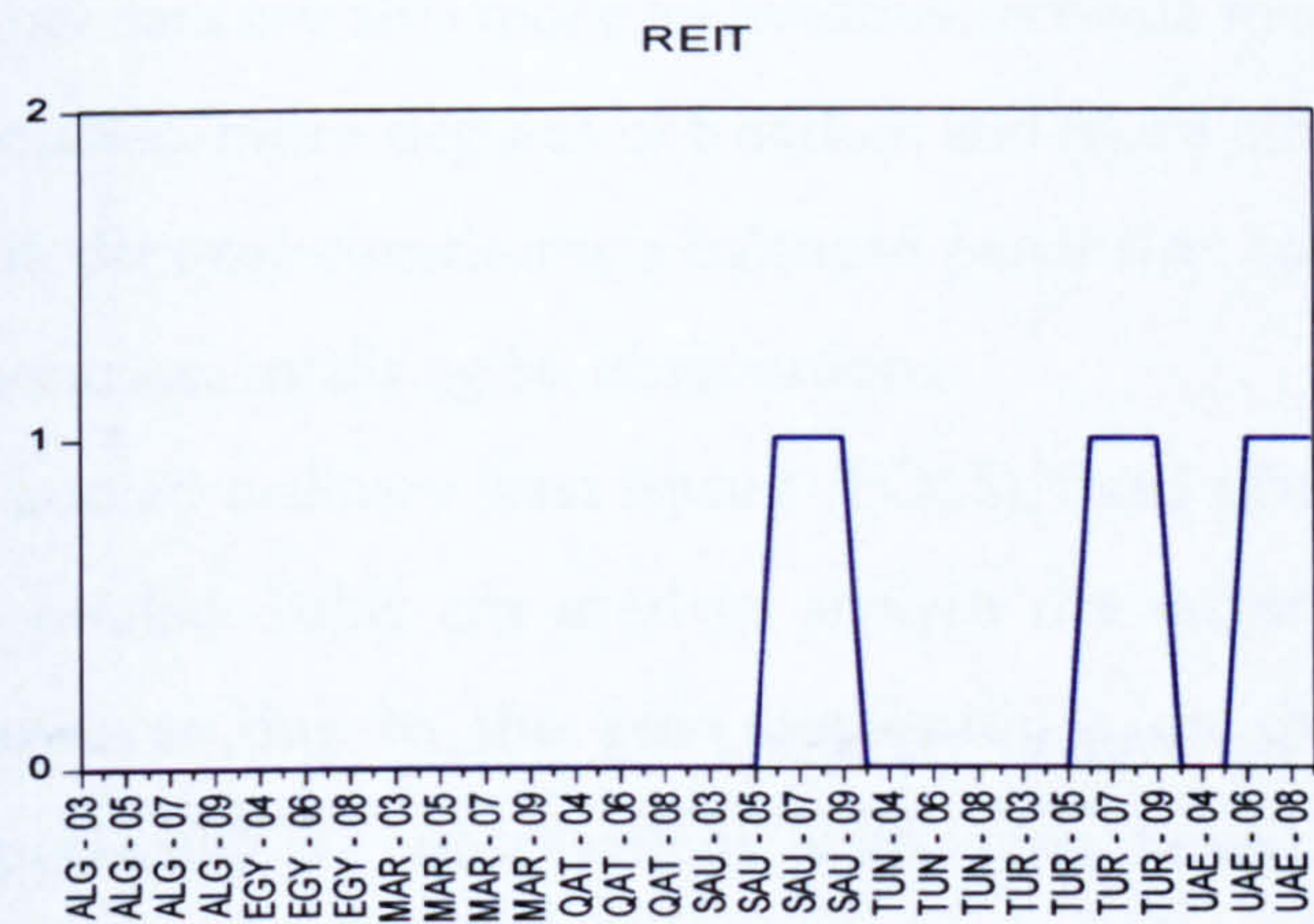
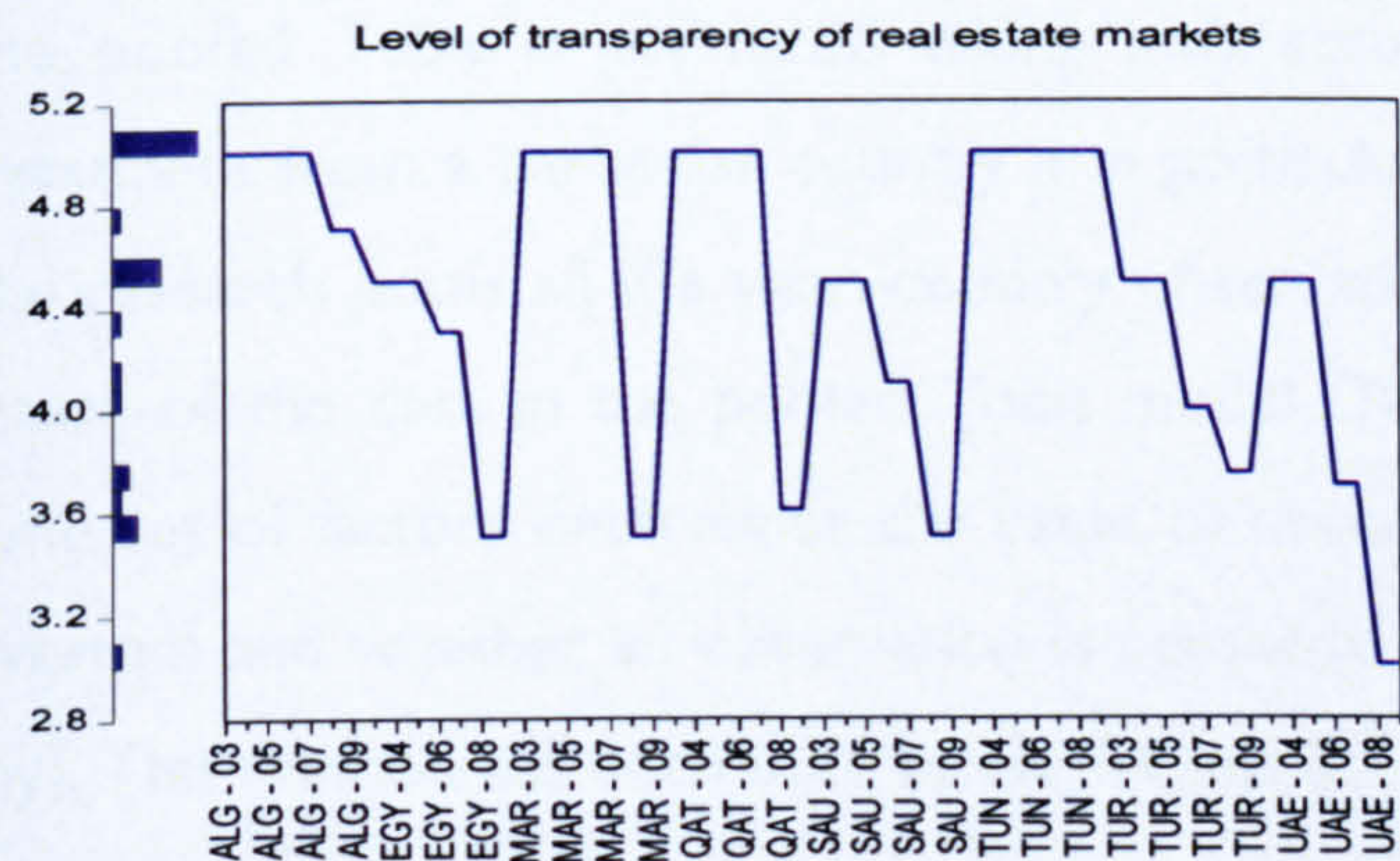


Figure 46: level of transparency of real estate markets



In order to test the influence of the above described variables upon commercial real estate FDI inflows, the research uses a panel data set. There are several benefits of using panel data. The most important is that the combination of time series with cross-sections can enhance the quality and quantity of data in ways that would be impossible using only one of these two dimensions (Gujarati, 2004). Another advantage is that panel data controls for individual heterogeneity (Baltagi, 2005). The variables that are studied differ from one country to another and vary with time; by



using the panel it is possible to control the presence of individual variable effects that are common to a country across time but may vary across countries at any one-time period.

Panel data are also more informative; provide more variability, less collinearity among variables, more degrees of freedom and more efficiency (Baltagi, 2005).

The data set constitutes a balanced panel that covers the period 2003-2009 for eight countries, totalising 56 observations.

A pooled ordinary least square (POLS), fixed effects (FE), random effects (RE) as well as pooled Tobit are used to analyse the factors that affect the flow of CRE FDI. However due to the zero observations on the dependent variables (CFDIGDP) (specifically 32 observations with zero flows), the POLS, FE and RE will give inconsistent and biased estimates and the appropriate technique is pooled Tobit<sup>12</sup> (Gujarati, 2004, p: 616); (Wooldridge, 2002a) calls this situation 'Corner Solution'<sup>13</sup>.

The pooled Tobit is estimated taking into account the observations where no investment from a particular country in a particular year takes place (i.e. zero FDI). The research pools all the year–country observations as well as explores the panel nature of the data in the pooled Tobit model. The Tobit model assumes that the same set of factors determines the value of uncensored observation (how much is invested) and whether an observation is censored (whether there are investments if any). This method has been used by He, Wang, & Cheng (2009), in their recent study on China's FDI in real estate.

Therefore, the observable left-censored dependent variable  $y_{it}$  used in estimation can be:

$$Y_{it} = \begin{cases} Y_{it}^* & \text{if } Y_{it}^* > 0 \\ 0 & \text{if } Y_{it}^* \leq 0 \end{cases}$$

$$Y_{it}^* = \alpha X_{it-1} + \varepsilon_{it} ,$$

---

<sup>12</sup> The Tobit model is a model for a dependent variable that takes on the value zero with positive probability but is roughly continuously distributed over strictly positive values (Wooldridge, 2002a).

<sup>13</sup> Corner solution occurs when a non-negative dependent variable is roughly continuous over strictly positive values but takes on the value zero with some regularity (as in our case).



Where  $Y_{it}$  represents the observed dependent variable,  $Y_{it}^*$  the latent dependent variable,  $X_{it-1}$  stands for a vector of all independent variables, and  $\alpha$  the corresponding vector of parameters.

But before estimating the panel data, it is important to carry out the unit root tests to examine whether the variables are stationary. Therefore, the next section discusses the unit root tests and their results.

### **5.4.3 PANEL UNIT ROOT TESTS**

A time series process is non-stationary if its moments or distributional form change over time. Two important forms of non-stationarity are unit roots and structural breaks, both of which lead to permanent changes. The former induce stochastic trends, which can be eliminated by differencing, or cointegration can also remove unit roots and retain linear combinations of levels of the variables (however, unit roots and cointegration are only invariant under linear transformations of variables) (Hendry, 2009; p.16).

Regressions run on non-stationary time series variables produces spurious results, which are insignificant. Therefore, it is important to make sure that variables are stationary. This means that a stationary time series has three characteristics namely finite mean, variance and auto-covariance over time (Gujarati, 2004).

The commonly used root tests like the Augmented Dickey-Fuller (ADF) and PhillipsPerron (PP) lack power in distinguishing the unit root null from stationary alternatives (Ben-Taher & Giorgioni, 2009). The traditional ADF type tests of unit root suffer from the problem of low power in rejecting the null of stationarity of the series, especially for short-spanned data (as in our case)(Ben-Taher & Giorgioni, 2009).

Some recent developments however have appeared in the panel unit root test including the Levin, Lin and Chu (LLC) and Im, Pesaran and Shin (IPS) tests are the most widely used methods for panel data unit root tests in the literature (Ben-Taher & Giorgioni, 2009). The IPS is general in the sense that it allows for heterogeneity, therefore, it is described as a “Heterogeneous Panel Unit Root Test”. As a result, the test developers have shown that IPS has higher power than other tests in its class (Ben-Taher & Giorgioni, 2009). In contrast, the LLC and IPS tests are based on the ADF prescription. However, LLC hypothesises homogeneity in the dynamics of the autoaggressive coefficient for all cross-sectional (Ben-Taher & Giorgioni, 2009). And therefore, this study applies the LLC test for unit roots in the panel data for consistency purposes and the results are presented in Table 16. The test has been performed using the Modified Schwarz with maximum lag lengths.

Table 16: Panel unit root tests results and conclusions

Variables	LLC Test Result	Conclusion
CFDIGDP	-6.26686***	I(0)
RGDPGROWTH	-6.12141***	I(0)
INSTRE	-4.26516***	I(1)
LN(INSTRE)	-4.73459***	I(0)
HUMANDEVELOPMENT	-1.29020*	I(0)
LNINFRAQUAL	-4.32190***	I(0)
INVFREEDOM	-3.55790***	I(0)
TOTALTAXRATE	-3.04086***	I(0)
UNEMPLYGROWTH	-27.2115***	I(0)
PROTECTINVESTOR	-3.55790***	I(0)
PROPERTYRIGHTS	-3.29306***	I(1)
RETRANSP	-7.14395***	I(1)

\*\*\* Significant at 1%, \*\* significant at 5%, \* significant at 10%

Results of the tests suggest that the model must be estimated using the differenced variables, hence it can only look at short run relationships among these variables. The final short run model therefore, has the following form:



$$CFDI/GDP_{it} = \alpha_0 + \alpha_1 CFDI/GDP_{it-1} + \alpha_2 RGDPGROWTH_{it-1} + \alpha_3 instre_{it-1} + \alpha_4 HUMANDEVELOPMENT_{it-1} + \alpha_5 infraqual_{it-1} + \alpha_6 TOTALTAXRATE_{it-1} + \alpha_7 UNEMPLOYGROWTH_{it-1} + \alpha_8 INVFREEDOM_{it-1} + \alpha_9 INSTITUTIONS_{it-1} + \alpha_{10} \Delta PROPERTYRIGHTS_{it-1} + \alpha_{11} PROTECTINVESTOR_{it-1} + \alpha_{12} REIT_{it-1} + \alpha_{13} \Delta RETRANSP_{it-1} + C_i + U_{it}$$

Where:  $\Delta$  denotes first difference<sup>14</sup>. The small case letters denotes that the variables are in natural logarithmic terms, all other variables are stationary in level, so they are included as they are.

#### 5.4.4 PANEL DATA ANALYSIS FOR COMMERCIAL REAL ESTATE FDI

##### 5.4.4.1 ESTIMATION OF PANEL MODELS

This section presents the findings on the estimated models. But prior to estimating the panel, a correlation matrix of the variables was prepared (the correlation matrix and the descriptive statistics are calculated using the absolute values of the variables).

The pair wise correlations were not large enough to warrant concern about possible multicollinearity<sup>15</sup> problems. Eviews also cannot compute matrices with perfect multi-collinearity and gives a message ‘Near Singular Matrix’, which indicates the existence of near perfect multi-collinearity.

Table 18 presents the Pearson’s correlation coefficients<sup>16</sup> between variables.

---

<sup>14</sup> First difference is a transformation on a time series constructed by taking the difference of adjacent time periods, where the earlier time period is subtracted from the later time period (Wooldridge, 2002a).

<sup>15</sup> Multicollinearity is a term that refers to correlation among the independent variables in a multiple regression model; it is usually invoked when some correlations are “large,” but an actual magnitude is not well-defined (Wooldridge, 2002a).

<sup>16</sup> Correlation coefficient is a measure of linear dependence between two random variables that does not depend on units of measurement and is bounded between -1 and 1 (Wooldridge, 2002a).

Table 17: Descriptive statistics for variables employed in the commercial real estate FDI panel

	CFDIGDP	RGDPGROWTH	LOGINSTRE	HUMANDEVELOPMENT	INFRAQUAL	TOTALTAXRATE	UNEMPLYGROWTH
Mean	0.002249	5.477661	10.54125	0.769911	0.471497	40.24821	11.09078
Median	0.000000	5.186500	10.37132	0.760500	0.487440	44.60000	10.30000
Maximum	0.031527	20.83500	12.53959	0.910000	0.796320	76.90000	26.84000
Minimum	0.000000	-6.147000	8.592115	0.583000	0.216000	11.30000	0.600000
Std. Dev.	0.005091	3.750990	1.140862	0.093578	0.119940	22.94741	6.261242
Skewness	3.865357	1.020837	0.217446	-0.189801	0.061595	-0.004512	0.820076
Kurtosis	21.08082	8.165651	1.838280	2.018608	3.083214	1.624286	3.206969
Observatio ns	56	56	56	56	56	56	56

	CORRUP	GOVEFFECT	POLITIC	REGQUALT	RULELAW	VACCOUNT	INVFREEDOM	PROPERTYRIGH TS	PROTECTINVEST OR	REIT	RETRANSP
Mean	0.34861	0.520833	0.50885	0.731061	0.73263	0.304635	46.25000	44.16667	4.612500	0.18750	4.360417
Median	0.33333	0.500000	0.46250	0.727273	0.79166	0.323250	50.00000	50.00000	5.000000	0.00000	4.500000
Maximum	0.50000	0.750000	0.77500	0.954545	1.00000	0.472500	70.00000	70.00000	5.700000	1.00000	5.000000
Minimum	0.25000	0.250000	0.25000	0.500000	0.33333	0.062500	30.00000	30.00000	3.000000	0.00000	3.000000
Std. Dev.	0.07709	0.086807	0.14754	0.142151	0.13961	0.104689	13.62491	9.128709	0.935045	0.39444	0.636977
Skewness	0.39786	1.312546	0.20623	0.040110	-1.120847	-0.908529	0.243874	-0.217089	-0.699379	1.60128	-0.506474
Kurtosis	2.41890	7.339100	2.15281	1.998622	4.04723	3.382113	2.134145	2.806120	1.983307	3.56410	1.920534
Observation s	56	56	56	56	56	56	56	56	56	56	56



Table 18: Correlation matrix for dependant, independent and control variables for commercial real estate FDI panel

Correlation	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1. CFDIGOP	1																	
2. RGDPGROWTH	0.124	1																
3. LOGINSTRE	0.071	0.1149	1															
4. HUMANDEV ELOPMENT	0.225*	-0.049	-0.44***	1														
5. INFRAQUAL	-0.054	0.41***	-0.0659	-0.0025	1													
6. TOTALTAXRATE	0.208	-0.30**	-0.44***	0.50***	-0.241*	1												
7. UNEMPLYGROWTH	0.325**	-0.19	-0.162	0.40***	-0.267**	0.65***	1											
8. CORRUP	-0.187	0.166	0.069	-0.267**	0.244**	-0.35***	-0.37***	1										
9. GOVEFFECT	-0.103	0.07	0.203	-0.44***	0.1852	-0.296**	-0.0291	0.0543	1									
10. POLITIC	0.006	0.48***	0.0746	-0.38***	0.47***	-0.54***	-0.295**	0.2075	0.329**	1								
11. REGQUALT	-0.145	0.162	0.34***	-0.50***	0.1924	-0.71***	-0.40***	0.340**	0.51***	0.52***	1							
12. RULELAW	-0.306**	0.149	-0.0522	-0.311**	0.253*	-0.49***	-0.77***	0.65***	-0.1255	0.2084	0.328**	1						
13. VACCOUNT	0.062	0.112	-0.322**	0.1773	0.1028	0.47***	0.36***	0.2106	-0.1433	-0.0341	-0.48***	-0.1143	1					
14. INVFREEDOM	-0.001	-0.222*	-0.320**	0.37***	-0.41***	0.42***	0.43***	0.1588	-0.0778	-0.39***	-0.328**	-0.233*	0.38***	1				
15. PROPERTYRIGHTS	-0.246*	0.056	0.224*	-0.67***	-0.0605	-0.46***	-0.52***	-0.056	0.2004	0.320**	0.1936	0.337**	-0.1852	-0.44***	1			



Correlation	16. PROTECTIN	17. REIT	18. RETRANSP
	0.106	-0.0039	0.0108
	-0.028	0.1601	-0.1743
	0.66***	0.72***	-0.63***
	0.0114	-0.36***	0.1905
	-0.336**	0.34***	-0.36***
	-0.1763	-0.326**	0.40***
	0.0666	-0.1958	0.248*
	-0.47***	0.1275	-0.1374
	-0.0958	0.1181	-0.222
	-0.1573	0.1026	-0.1573
	0.0136	0.255*	-0.1515
	-0.34***	0.0685	0.0035
	-0.29**	-0.158	0.207
	-0.257*	-0.335**	0.256*
	0.1628	0.1103	-0.101
	1	0.31**	-0.27**
		1	-0.63***
			1



Table 19: correlation analysis dependant vs. independent variables for commercial real estate FDI

Correlation	
	CFDIGDP
CFDIGDP(-1)	0.060
RGDPGROWTH	0.124
LOGINSTRE	0.071
HUMANDEVELOPMENT	0.225*
INFRAQUAL	-0.054
TOTALTAXRATE	0.208
UNEMPLYGROWTH	0.325**
CORRUP	-0.187
GOVEFFECT	-0.103
POLITIC	0.006
REGQUALT	-0.145
RULELAW	-0.306**
VACCOUNT	0.062
INVFREEDOM	-0.001
PROPERTYRIGHTS	-0.246*
PROTECTINVESTOR	0.106
REIT	-0.0039
RETRANSP	0.0108

\*\*\* Significant at 1%, \*\* significant at 5%, \* significant at 10%

Interestingly, the matrix Table 19 shows occasional correlations between dependant and independent variables. Clearly, the correlation results can be distorted due to the fact that the dependant variable contains 32 zero observations.

With this in mind, FDI in CRE (CFDIGDP) still have strong negative correlations with both rule of law and property rights. And as discussed earlier, these are indicators of the importance of the institutional framework of countries and specifically the role of law in attracting foreign investments. It will be more interesting to identify the direction of influence in the panel analysis, and whether other variables will be significant in relation to CFDIGDP in the research models.

In terms of panel estimation, and due to the zero observation on the dependent variables (CFDIGDP), the POLS, FE and RE will give inconsistent and biased estimates and the appropriate technique is pooled Tobit (Gujarati, 2004, p. 616); and hence a pooled Tobit regression was employed to analyse the determinants.

In the previous sections, the overall variables and model has been specified and discussed, however, it is not possible to estimate all the specified variables at once, as many variables can be proxy for same underlying facts, for this reason, and after running many iterations, the research arrived at a base model and have the following variables:

- One lagged period of CRE FDI (%GDP) (CFDI/GDP(-1))
- One lagged period of real GDP growth (RGDPGROWTH(-1))
- One lagged period of institutional real estate market size (logged) (LNINSTRE(-1))
- One lagged period human development level (HUMANDEVELOPMENT(-1))
- One lagged period of quality of infrastructure (INFRAQUAL(-1))
- One lagged period of total tax rate (TOTALTAXRATE(-1))
- One lagged period of growth of unemployment (UNEMPLYGROWTH(-1))

Unfortunately, due to the many zeros in the dependant variable as well as the short time series nature of the data, it is not possible to estimate the models using different lags (more than one year), as the aim is to maximise the number of observation and degrees of freedom in the panel. Also concerning conducting a singular cross-sectional analysis, it was not feasible due to only having eight countries in the study, thus the best option is to conduct a pooled Tobit estimation for the research models, with a one year lag of the independent variables.

The functional form of the base model is (see Table 20 MI):



$$\text{CFDIGDP} = \text{Constant} + (\text{CFDIGDP}(-1)) + (\text{RGDPGROWTH}(-1)) + (\text{LNINSTRE}(-1)) \\ + (\text{HUMANDEVELOPMENT}(-1)) + (\text{INFRAQUAL}(-1)) + (\text{TOTALTAXRATE}(-1)) + \\ (\text{UNEMPLYGROWTH}(-1))$$

Using Eviews statistical package, the panel equation was estimated (see Table 20 M1). For all other 'control' variables, the research adds one independent variable at a time to the base model to estimate the effect of that variable (see Table 20 M2-M12)

Table 20: Determinants of commercial real estate FDI (Pooled Tobit)

CFDI/GDP	Pooled Tobit											
MODEL	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12
Constant	-0.083233**	-0.079395**	-0.093318**	-0.129796***	-0.090434**	-0.065860	-0.081887**	-0.100323**	-0.081815**	-0.111887**	-0.099443**	-0.084238**
CFDI/GDP(-1)	-0.301828	-0.304177	-0.273564	-0.480242*	-0.285868	-0.298018	-0.303161	-0.250069	-0.251009	-0.348724	-0.317844	-0.311692
RGDPGROWTH(-1)	0.000742*	0.000751*	0.000748**	0.000358	0.000768*	0.000721*	0.000765*	0.000797*	0.000740*	0.000835*	0.000624	0.000745*
LOGINSTRE(-1)	0.004236**	0.004135**	0.004332**	0.005812***	0.004058**	0.003870**	0.004178**	0.004990**	0.004252**	0.007384**	0.005461*	0.004288**
HUMANDEVELOPMENT(-1)	0.037634*	0.035738	0.042214*	0.060450**	0.036906*	0.033318	0.036630	0.041210	0.036189	0.062324**	0.036741	0.038112*
INFRAQUAL(-1)	-0.006532	-0.005864	-0.007725	-0.019493	-0.005289	-0.004975	-0.005904	-0.003735	-0.006458	-0.019967	0.003061	-0.006054
TOTALTAXRATE(-1)	-0.000160	-0.000151	-0.000133	1.34E-05	-7.32E-05	-0.000128	-0.000148	-0.000180	-0.000179	-0.000226	-0.000141	-0.000160
UNEMPLOYGROWTH(-1)	0.001089**	0.001054**	0.000973*	0.000691	0.000919*	0.000784	0.001084*	0.001037*	0.001127**	0.001255**	0.001086*	0.001090*
CORRUP(-1)		-0.004474										
GOVEFFECT(-1)			0.011950									
POLITIC(-1)				0.037238**								
REGQUALT(-1)					0.010247							
RULELAW(-1)						-0.011790						
VACCOUNT(-1)							-0.002527					
INVFREEDOM(-1)								0.000119				
ΔPROPERTYRIGHTS									0.000298			
PROTECTINVESTOR(-1)												-0.003818



REIT(-1)		-0.004143									
ΔRETRANSP		0.000957*									
No of observation	56	56	56	56	56	56	56	56	56	56	56
	32	32	32	32	32	32	32	32	32	32	32
Left censored obs	24	24	24	24	24	24	24	24	24	24	24
	73.06921	63.68193	62.75766	64.89149	62.49789	65.42511	62.28726	62.25729	63.06922	62.57255	63.00752
Log Likelihood	26.53367	24.8083	22.95976	27.22742	22.4402	28.29466	22.01896	21.95901	23.58288	22.58954	23.45947
	21.8874										
LR chi square	0.0004	0.0017	0.0034	0.0006	0.0042	0.0004	0.0049	0.005	0.0027	0.0039	0.0028
	0.0051										
Prob>Chi square											

\*, \*\* and \*\*\* denote significance at 10%, 5% and 1%, respectively.

Note: as in other limited dependent variable models, the estimated coefficients do not have a direct interpretation.

#### **5.4.4.2 RESULTS AND INTERPRETATION**

This section reports the results of the panel analysis. Table 21 below summarises the findings from different model specifications, starting with Model 1, which is the base model specification. Subsequent models add different control variables to the basic model specification. All models were estimated using the censored pooled Tobit model to account for the zeros in the dependant variable. It is important to note that the case of pooled Tobit is as in other limited dependent variable models, the estimated coefficients do not have a direct interpretation (Wooldridge, 2002).

A summary of the hypotheses with the independent and control variables and their predicted and actual signs is shown in Table 21.

Interestingly, in the base model (M1), only real GDP growth, size of real estate market, human development level, have the correct signs and are significant at the 5-10% levels. Countries with healthier economies, larger institutional real estate markets, higher degrees of education and a decent standard of living received more CRE FDI than others in the sample. The model reveals some interesting findings especially with the lagged value of CRE FDI, which opposed to what is normally anticipated in the general FDI literature.

First, as the research tries to test the 'following the competitor' hypothesis, a lagged CFI/GDP is included in the model specification. The estimated model shows that it has a negative and insignificant sign, thus indicates that H1 is rejected. Although, as pointed out earlier, when that hypothesis was formulated, the positive influence on CRE FDI, as several studies have acknowledged that the presence of foreign investors may act as a catalyst to attract further investors (see D'Arcy, (2009) and Fuchs & Scharmanski, (2009)). The result may suggest however, that investors are rational in their investments decisions and might not follow each other, which corresponds with findings of (Fuchs & Scharmanski, 2009).

Second, the growth of unemployment found to be positively and significantly influencing CFI. As this contradicts to what has been initially hypothesised, the



results however might indicate that unemployment is a proxy for labour availability, which is an essential element to undertaking development projects.

Finally, quality of infrastructure is found to be negative and insignificant in the base model, which opposes to the hypothesis of being positive and significant.

Therefore, perhaps the role of infrastructure is not so critical in the CRE FDI decisions under certain circumstances.

Throughout, most model specifications (i.e. M1-M12), the impact of economic health, real estate market size and level of human development on CFDI appears to be insensitive to changes in control variables.

In the following models (M2-M12), the base model specification is augmented by other potential CFDI determinants.

In models (M2-M7), the research tries to capture the impact of quality of institutions on CFDI. In model (M2), the research controls for corruption, and as can be seen from the table, corruption has a negative but insignificant influence on CFDI, which opposes the hypothesis of having a positive, significant impact on CFDI. This could be interpreted as the role of control of corruption is not so critical in the CRE FDI decisions.

*Table 21: Summary of hypotheses and control variables*

H#	Hypothesis	Variable name	Expected sign	Actual sign
H1	Foreign investors are more likely to follow their competitors which will therefore will be positively associated with CRE FDI	Lagged CFDIGDP	[+]	N.S
H2	Growth of economies attracts foreign investors and therefore, will be positively associated with CRE FDI.	RGDPGROWTH	[+]	[+]*
H3	The larger the size of the economy (measured by size of real estate market), the more attractive is the	LOGINSTRE	[+]	[+]**

	country and thus will be positively associated with CRE FDI			
H4	Foreign investors get attracted to countries with sound human development levels, thus will be positively associated with CFDI	HUMANDEVELOPMENT	[+]	[+]**
H5	The overall quality of country's infrastructure will attract foreign investors and thus increase CFDI.	INFRAQUAL	[+]	N.S
H6	Foreign investors are more sensitive to taxation as it impacts the overall profitability of the investment and thus the higher the taxes, the less investors get attracted to such environment and thus will be negatively associated with CFDI	TOTALTAXRATE	[-]	N.S
H7	The growth of unemployment will discourage investors to invest in CRE related FDI	UNEMPLYGROWTH	[-]	[+]**
<i>Control variables</i>				
C1	Overall investment climate (investment freedom)	INVFREEDOM	[+]	N.S
C2	Control of corruption	CORRUP	[+]	N.S
C3	Government effectiveness	GOVEFFECT	[+]	N.S
C4	Political stability and absence of violence	POLITIC	[+]	[+]**
C5	Regulatory quality	REGQUALT	[+]	N.S
C6	Rule of law	RULELAW	[+]	N.S
C7	Voice and accountability	VACCOUNT	[+]	N.S
C8	Enforcement of property rights	PROPERTYRIGHTS	[+]	N.S
C9	Investor protection	PROTECTINVESTOR	[+]	N.S
C10	Existence of Real Estate Investment Trusts (REIT's)	REIT	[+]	[-]*
C11	Overall transparency level of real estate markets	RETRANSP	[-]	N.S

\*\*\* Significant at 1%, \*\* significant at 5%, \* significant at 10%. N.S: Not significant



In Model 3 the research tries to capture the impact of government effectiveness on CFDI. The results show that it has a positive but insignificant influence on CFDI. Perhaps the role of this variable is not so critical in the CRE FDI decisions under certain circumstances.

In Model 4, the research controls for political stability and its impact on CRE FDI. As expected, political stability has a positive impact on CFDI and is significant at the 5% level. Unlike corruption, the results reflect the current political situation in the Middle Eastern region, as it is full of tensions and controversies between political parties, and still under huge political threats (these threats are beyond the scope of this research). Most importantly however, the results suggest that political stability and absence of violence is a significant determinant of CFDI.

Model 5 controls for regulatory quality and as can be seen from the table, it has the wrong sign (i.e. negative) and insignificant. The insignificance of the coefficient cannot give any firm conclusion.

In Model 6 the study tries to capture the impact of rule of law on CFDI. The result shows the variable to be negative and was not significant. Again, the insignificance of the coefficient cannot give any firm conclusion.

In Model 7, the research controls for voice and accountability and its impact on CFDI. As can be seen from the table, the variable has the expected sign (positive), but not significant. No firm conclusions can be drawn.

In Model 8 the research employs the investment freedom index by Heritage Foundation as a proxy for investment restrictions. As expected, investment freedom has a positive sign, but insignificant. The insignificance of the coefficient cannot provide any firm conclusions.

Model 9 employs another policy-related variable, property rights, and as can be seen from the table, the variable has the correct sign (positive), but insignificant.

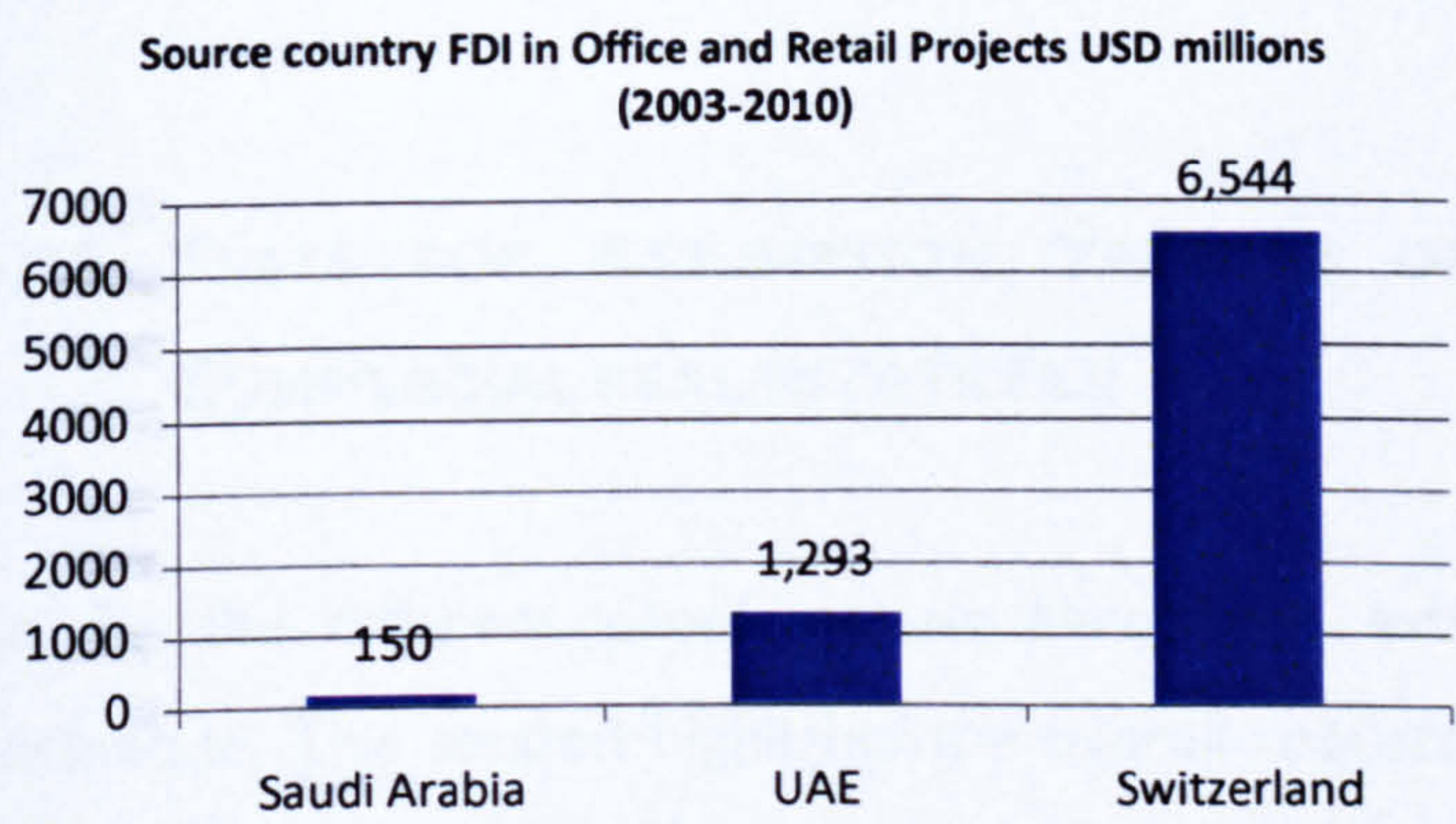


In Model 10, the study also accounts for another policy-related variable, investor protection. As can be seen from the table, the variable has negative and insignificant impact on CFDI. This could be interpreted as the role of investment protection is not so critical in commercial real estate FDI decisions.

Model 11 tries to capture the impact of market liquidity in attracting CFDI. As a proxy, the research uses a dummy variable reflecting the existence of REIT's in the relevant countries as a proxy for market liquidity. Interestingly, the results suggest that market existence of REIT's is negatively and significantly (at 10% level) influencing CFDI. One partial explanation is that this region is relatively wealthy and specifically the Gulf Cooperation Council countries, including Qatar, Saudi Arabia and UAE. And that investors and citizens from those countries are targets by other MENA countries in all real estate asset classes. For instance, fDi Intelligence database (Figure 47 below) shows that considerable amount of CRE FDIs made in Egypt, were through GCC investors.

Another interesting example is Saudi Arabia; nearly half of FDI in commercial real estate were through UAE investors (see Figure 48 below).

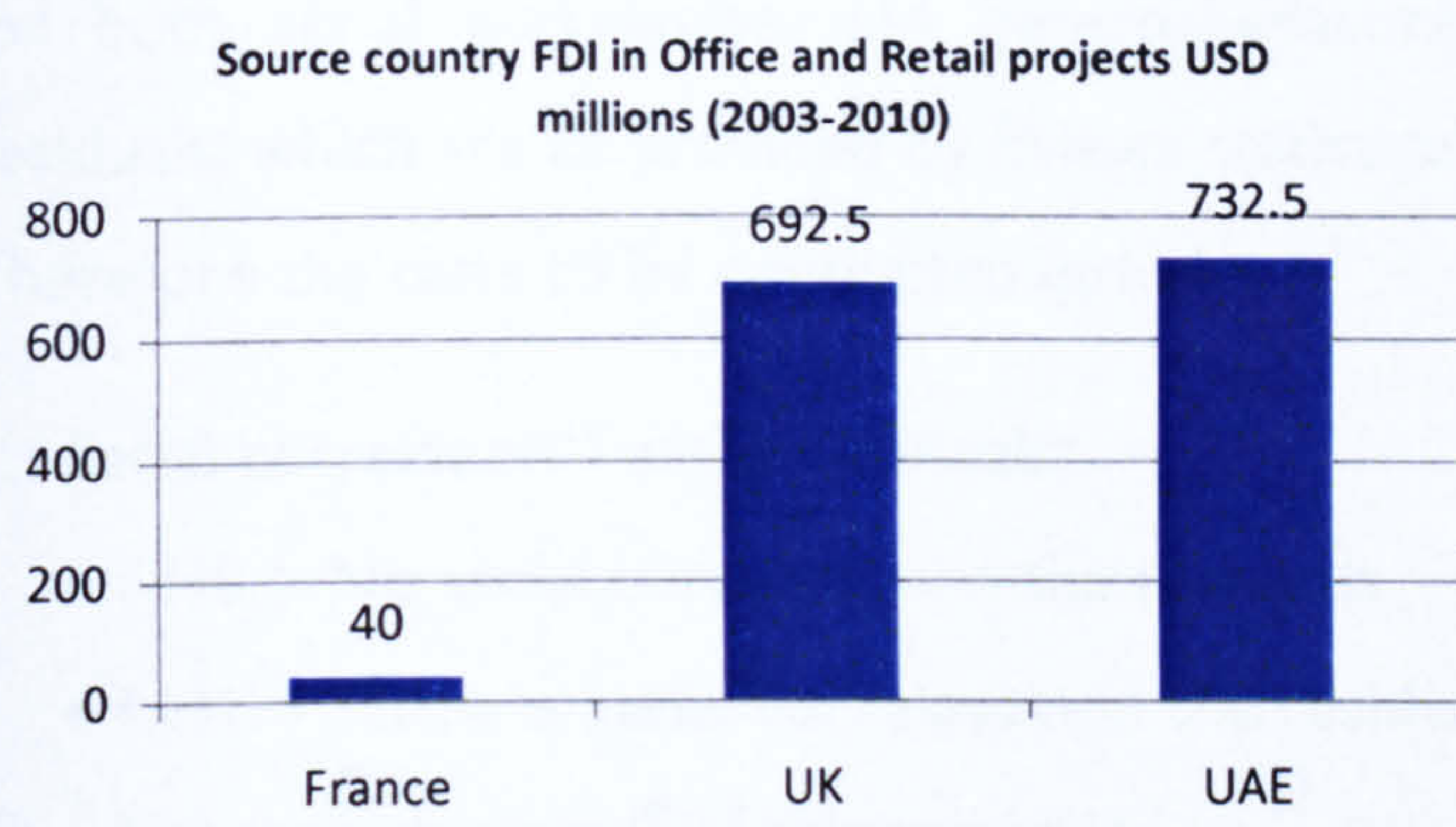
Figure 47: Source country CRE FDI into Egypt (2003-2010)



Source: fDi Intelligence database

Figure 48: Source country of CRE FDI to Saudi Arabia (2003-2010)





Source: *fDi Intelligence database*

Finally, in Model 12, the study tries to capture the impact of level of transparency of real estate markets on CFDI. The study uses the Jones Lang LaSalle Transparency index as a proxy. As can be seen from the table, it has a positive sign and insignificant influence on CFDI.

The overall picture that emerges is that country specific factors (i.e. economic health, level of human development and standard of living as well as political stability and absence of violence and terrorism) as well as real estate sector-specific variables (size of institutional real estate market), consistently support their hypotheses as explanations for commercial real estate related FDI.

**5.4.5 TESTS FOR ASSUMPTION VALIDITY OF ESTIMATED MODELS FOR COMMERCIAL REAL ESTATE FDI**

So far the different panel models have been estimated using the pooled Tobit technique. This section highlights the overall robustness and validity of these models (details of each individual test can be found in Appendix 7).

Unlike the fixed and random effects panel estimation, which requires conducting tests of autocorrelation, homoskedasticity, White heteroskedasticity and normality tests of residuals, the pooled Tobit tests can be done using the Correlogram Q-Stat



for both serial correlation and heteroskedasticity as well as normality test of residuals, which are all provided by Eviews statistical package for pooled Tobit.

Therefore the tests to be conducted include:

1. Serial correlation<sup>17</sup> in the residuals:

- H0 = No serial correlation in the residuals
- H1 = There is serial correlation in the residuals

2. Heteroskedasticity<sup>18</sup> of the residuals:

- H0 = no heteroskedasticity (i.e. variance of residuals is constant)
- H1 = There is heteroskedasticity (i.e. variance of residuals is not constant)

3. Normality<sup>19</sup> of the residues:

- H0 = Residuals are normally distributed
- H1 = Residuals are not normally distributed.

Appendix 7 details all the above robustness and validity tests. Table 22 below summarises the results of the tests for all the models. Clearly, H0 can be accepted for both serial correlation and heteroskedasticity, and rejected for normality of residuals. This is not an unanticipated result, indeed, according to Wooldridge (2002; p.534), any inconsistency is expected with pooled Tobit models, as censoring the dependant variable do impact the overall distribution of data and can cause heteroskedasticity and non-normality in the residuals. He adds that even in the presence of both heteroskedasticity or non normality, the pooled Tobit functional form can be generalised and that it should be viewed in that light. Thus the research models are still valid and can be generalised.

---

<sup>17</sup> Serial correlation often occurs in a time series or panel data model and is the correlation between the errors in different time periods (Wooldridge, 2002a).

<sup>18</sup> Heteroskedasticity is the variance of the error term, given the explanatory variables, is not constant (Wooldridge, 2002a).

<sup>19</sup> Normality Assumption is the classical linear model assumption which states that the error (or dependent variable) has a normal distribution, conditional on the explanatory variables.



Table 22: Summary of validity and robustness tests of CRE FDI models

Model #	Serial correlation	Heteroskedasticity	Normality
1	√	√	×
2	√	√	×
3	√	√	×
4	√	√	×
5	√	√	×
6	√	√	×
7	√	√	×
8	√	√	×
9	√	√	×
10	√	√	×
11	√	√	×
12	√	√	×

## **5.5 DETERMINANTS OF FDI IN HOTELS FOR SELECTED MENA ECONOMIES**

### **5.5.1 OVERVIEW**

This section is the second core empirical work of this research and specifically about the determinants of hotel related FDI in the selected MENA markets.

As in the previous section, this section presents the econometric specification of the models used to test the relevant hypotheses, the estimation strategy and a potential explanation of the empirical results obtained for hotel related FDI in the selected MENA countries.

The main objective is to test which factors affected hotel FDI location in the selected MENA markets.

Following the relevant literature, this section presents the proxies for the variables described in Chapter three and assigns their expected signs as well as the hypothesis related to each one.

In order to test the impact of the selected variables a Tobit, POLS, fixed and random effects models were estimated to a balanced panel of relevant data.

### **5.5.2 MODEL SPECIFICATION AND METHODOLOGY**

This part too adopts the reduced form approach with the hotel FDI as the dependant variable. As for the case of commercial real estate FDI, there is no unanimous accepted theory of hotel FDI; therefore, this part of the research also uses a pragmatic approach in selecting the explanatory variables to be included in the models. Further, the selection of the variables must be inspired by the empirical literature on hotel related FDI. And since as mentioned in earlier chapters, most of the empirical work was about surveys and questionnaires, and only few econometrically tested hotel investment related variables, and since this research



covers selected MENA countries from Q1-2003 to Q4-2009, the appropriate modelling strategy is involving both time-series and cross-sectional analysis. The model therefore can be represented as follows:

$$\begin{aligned} \text{HFDI/GDP}_{it} = & \alpha_0 + \alpha_1 \text{HFDI/GDP}_{it-1} + \alpha_2 \text{TOTALTAXRATE}_{it-1} + \\ & \alpha_3 \text{REALVEXPOTGDP}_{it-1} + \alpha_4 \text{TAGROWTH}_{it-1} + \alpha_5 \text{RGDPGROWTH}_{it-1} + \\ & \alpha_6 \text{HUMANDEVELOPMENT}_{it-1} + \alpha_7 \text{INFRAQUAL}_{it-1} + \alpha_8 \text{PROTECTINVESTOR}_{it-1} + \\ & \alpha_9 \text{INVFREEDOM}_{it-1} + \alpha_{10} \text{INSTITUTIONS}_{it-1} + C_i + U_{it} \end{aligned}$$

Where:

- **$C_i$**  is a country-specific effect represented by country dummies,  $i$  denotes the countries,  $t$  the year and  **$U$**  an error term.
- **HFDI/GDP**: the dependant variable Hotel FDI divided by country GDP.
- **HFDI/GDP(-1)**: Hotel FDI divided by country GDP from the previous period
- **TOTALTAXRATE**: total tax rate from the previous period.
- **REALVEXPOTGDP**: Real visitor expenditure divided by GDP from the previous period.
- **TAGROWTH**: Travel Arrival growth from the previous period.
- **RGDPGROWTH**: Real GDP growth from the previous period.
- **HUMANDEVELOPMENT**: Human development level from the previous period.
- **INFRAQUAL**: Infrastructure quality from the previous period.
- **PROTECTINVESTOR**: Investor Protection level from the previous period.
- **INSTITUTIONS**: Quality of institutions: incorporate six variables as follow:
  - **CORRUP**: Control of Corruption level from the previous period.
  - **GOVEFFECT**: Government Effectiveness level from the previous period.
  - **POLITIC**: Political Stability level from the previous period.
  - **REGQUALT**: Regulatory Quality level from the previous period.
  - **RULELAW**: Rule of Law level from the previous period.
  - **VACCOUNT**: Voice and Accountability level from the previous period.



- **INVFREEDOM**: Level of investment freedom from the previous period.

Some of the variables in the model have been pragmatically selected, as it is believed that these variables to be of significance to this type of FDI, and need to be tested for further contribution to the existing body of knowledge. The below section details the variables used in the research as well as description, sources, and expected signs (for a summary see Table 23 below).

Table 23: Description of hotel FDI related variables

Variables	Unit	Expected sign	Sources
<b>HFDI</b>	% of GDP	n/a	fDi Intelligence (Financial Times Ltd)
<b>HFDI(-1)</b>	one year lag of Hotel FDI (%GDP)	[+]	fDi Intelligence
<b>REALVEXPOT</b>	US\$ millions lagged one year	[+]	World Travel and Tourism Council WTTC
<b>TA</b>	'000 Tourist Arrivals lagged one year	[+]	World Travel & Tourism Council (WTTC)
<b>TAGROWTH</b>	% Growth of TA lagged one year	[+]	World Travel & Tourism Council (WTTC)
<b>GDP</b>	\$US millions	[+]	Euromonitor International
<b>REALGDP</b>	GDP, Constant 2000 Prices, US Dollars (Absolute) lagged one year	[+]	Datamintor
<b>REALGDPGRTH</b>	GDP, Constant 2000 Prices, US Dollars(Growth) lagged one year	[+]	Datamintor
<b>INFRAQUAL</b>	Ranking (1-7) (1: poorest quality, and 7: best quality) lagged one year	[+]	World Economic Forum Global Competiveness Report



<b>TOTALTAXRATE</b>	(% profit)	<b>[-]</b>	The World Bank (Doing Business Database)
<b>CORRUP</b>	Ranking 0-1, where 0 is for countries with most corrupted systems, and 1 for least corrupted systems	<b>[+]</b>	Economist Intelligence Unit
Corruption (control of corruption)			
<b>GOVEFFECT</b>	Ranking 0-1, where 0 is for countries with least effective governments, and 1 for most effective governments	<b>[+]</b>	Economist Intelligence Unit
government effectiveness (bureaucratic quality)			
<b>REGQUALT</b>	Ranking 0-1, where 0 is for countries with lowest regulatory quality, and 1 for highest regulatory quality	<b>[+]</b>	Economist Intelligence Unit
regulatory quality (investment profile)			
<b>RULELAW</b>	Ranking 0-1, where 0 is for countries with least rule of law environment, and 1 for best rule of law environment	<b>[+]</b>	Economist Intelligence Unit
Rule of law (law and order)			
<b>VACCOUNT</b>	Ranking 0-1, where 0 is for countries with least level of freedom, and 1 for best level of freedom	<b>[+]</b>	Economist Intelligence Unit
Voice and accountability			
<b>POLITIC</b>	Ranking 0-1, where 0 is for countries with least political stability environment, and 1 for best political stability environment	<b>[+]</b>	Economist Intelligence Unit
Political stability and absence of violence			



<b>PROTECTINVESTOR</b>	Ranking 0 to 10, with higher values indicating more investor protection.	[+]	The World Bank (Doing Business Database)
<b>HUMANDEVELOPME NT</b>	# (ranging from 0-1, where, best =1 / worst=0)	[+]	Human Development Index: <a href="http://hdr.undp.org/en/statistics/data">http://hdr.undp.org/en/statistics/data</a>

**5.5.2.1 DEPENDANT VARIABLE**

*5.5.2.1.1 HotelFDI/GDP:*

The dependant variable, HFDI (Hotel FDI), has been measured by the nominal hotel related FDI flows, as provided by fDi Intelligence database, GDP data is derived from Euromonitor International. It must be noted though that fDi Intelligence database does not provide any information on the contractual agreement or type of operation of hotels; rather they argue that this information does not exist. However, they also claim that they only provide data for projects, that foreign investors have either minority or majority equity stack in the projects. This ensures to some extent that these projects can be considered as FDIs.

The level of hotel investment in each country is normalised by dividing hotel FDI by the country's GDP. This allows us adjust the level of investment for the size of the country's economy. This transformation allows us taking the market size into account in the model, but avoids the problem of endogeneity.

**5.5.2.2 INDEPENDENT VARIABLES**

*5.5.2.2.1 Lagged Hotel FDI/GDP: HFDI/GDP(-1):*



In order to test following the competitor hypothesis, the research employs one year lag of Hotel FDI/GDP in the countries as an independent variable. A positive coefficient of lagged hotel FDI flows may support the hypothesis that there evidence for competitor following effects.

#### **5.5.2.2.2 Total tax rate: *TOTALTAXRATE(-1)***

The research also employs total tax rate as an independent variable. As mentioned in the previous chapter, the total taxes as a share of profit before all taxes borne. It is expected that taxation will negatively impact Hotel FDI in the selected markets.

The opaqueness of the regulations in terms of tax holidays and other incentives makes it difficult to account for all specific tax considerations for each country. However, it is still believed that taxes need to be taken into the model as a key determinant for hotel FDI, as sooner or later, taxes will impact these long term businesses.

#### **5.5.2.2.3 Real visitor expenditure: *REALVEXPOTGDP(-1)***

The research accounts for tourism demand by employing the real visitor expenditure variable. It is defined as the real expenditure by international visitors on goods and services within the economy. Such inbound tourism spending includes (from the balance of payments accounts) both travel spending and spending on passenger transport services provided by the nation's firms to non-residents. Data is collected from the World Travel and Tourism Council (WTTC), and has been transformed by dividing it by GDP, to account for variations of market size and account for comparability. The variable is lagged one year, and the expected sign is positive.

**Figure 49: Real visitor expenditure (%GDP)**



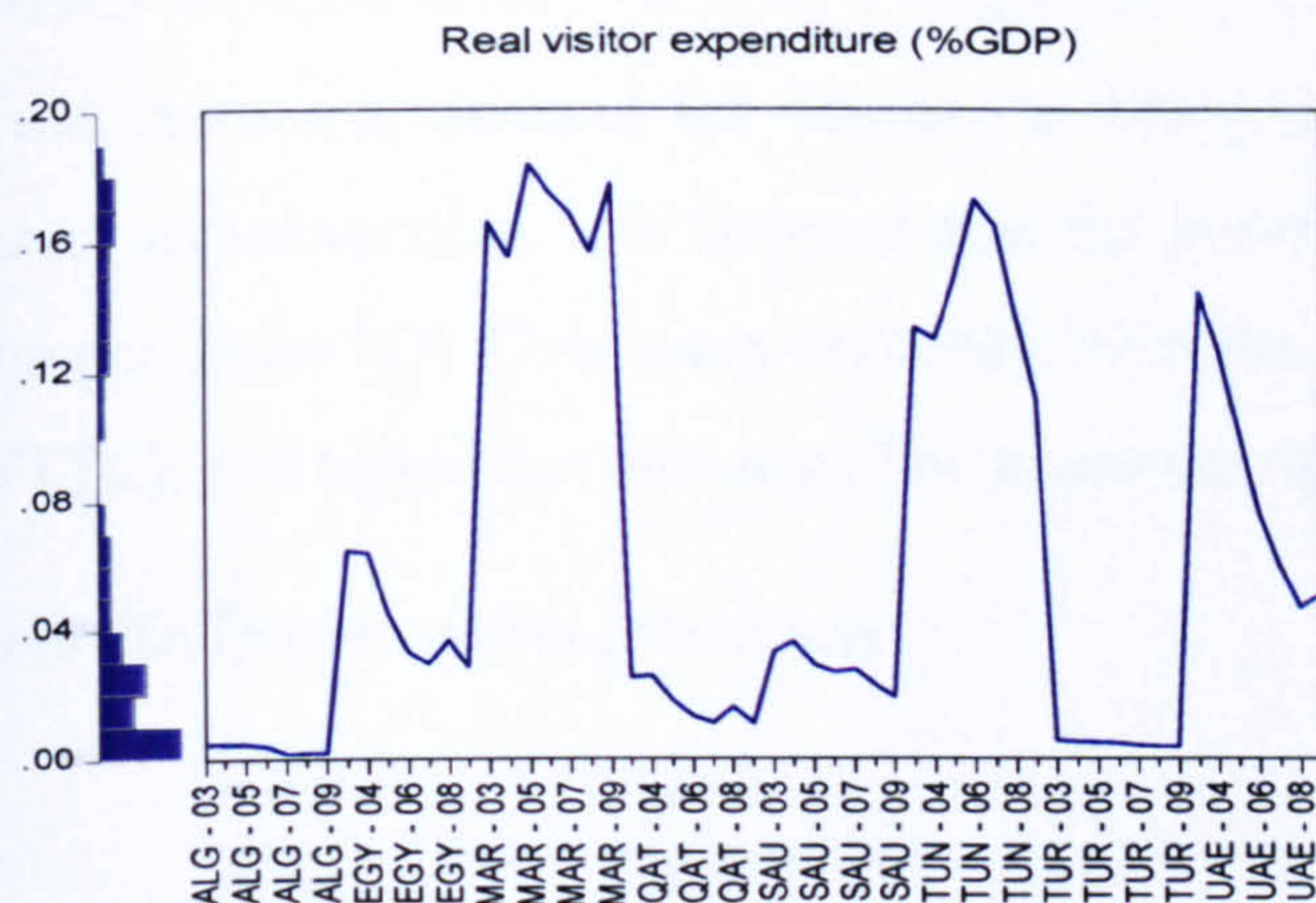


Figure 49 shows how tourism is contributing to both the Moroccan and Tunisian economies. In Morocco for instance, and since the mid 1990s, tourism has become a main driver of the Moroccan economy. This affluence increased in response to the Vision 2010 plan set out in January 2001 by King Mohamed VI.

The Vision 2010 is a road map that aims to attract: 10 million tourists in 2010; increase capacity by 160,000 beds (130, 000 on the coast and 30,000 for cultural destinations) to reach a total of 230,000 in 2010; and invest more than Dh80 billion over the 2001- 2010 period to improve infrastructure, roads, tourist attractions, leisure ports and hotels; and create 600,000 jobs. The Vision 2010 has radically changed the map of tourism in Morocco (Euromonitor International, 2009).

According to Euromonitor International (2009), the Vision 2010 plan has given a strong political dynamic to the tourism sector, positioning tourism as a national economic priority within six targeted areas. These include: product development; professional education and qualifications; the development of the transport infrastructure (especially Airline industry); the improvement in marketing and communication locally and abroad; the improvement in the tourism environment; and finally, the development of an adequate tourism infrastructure.

#### 5.5.2.2.4 Tourism Arrival Growth rate: TAGROWTH(-1)



Another demand driven variable is employed in the study. As mentioned previously in the literature, demand for tourism is being determined by accounting for the tourist arrival variable. It is believed that the growth of tourist arrivals can positively influence hotel FDI. Data were collected from the World Travel & Tourism Council (WTTC), and lagged for one year. The expected sign is positive and significant.

Figure 50: Tourism arrival growth rate

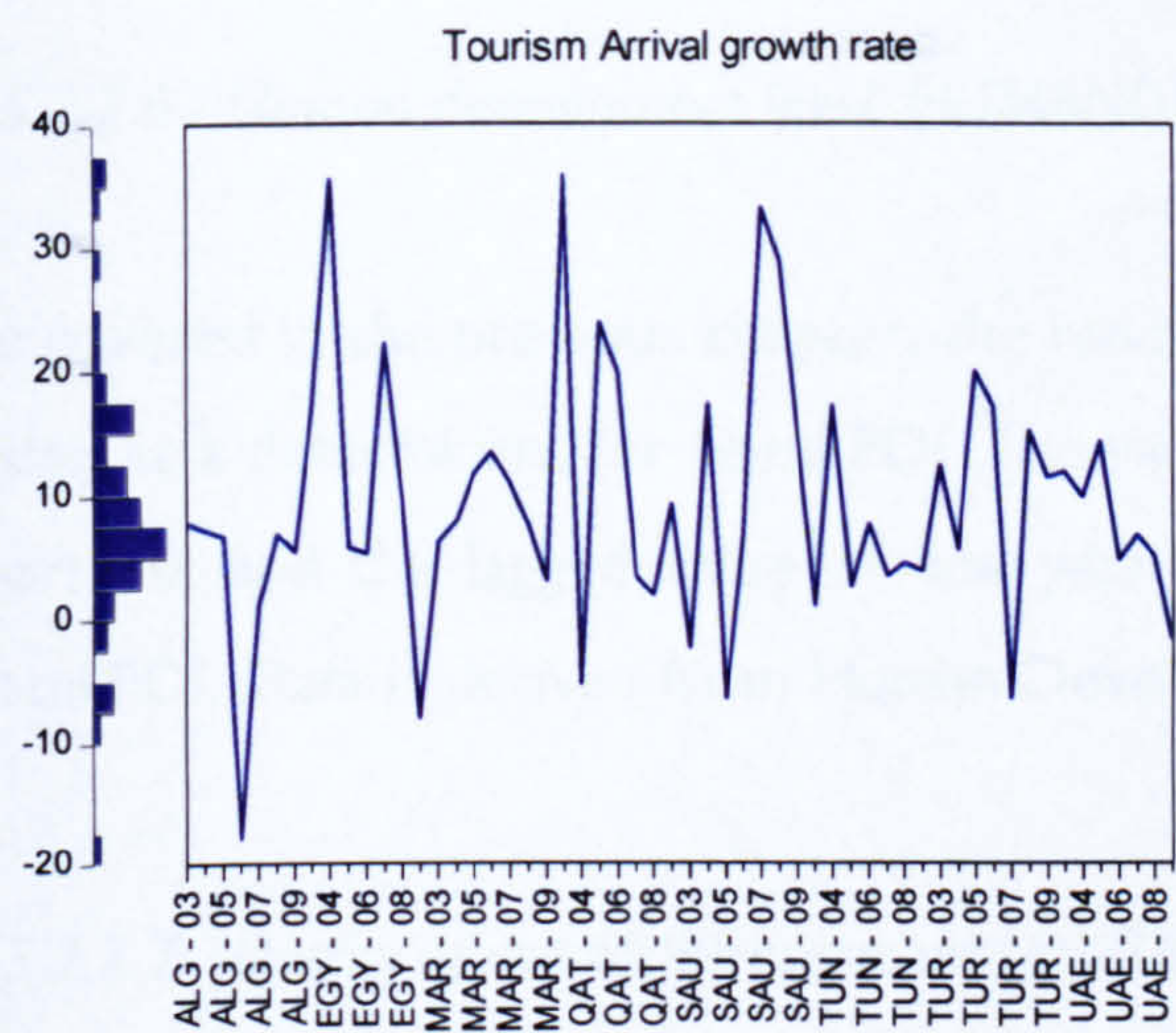


Figure 50 above shows the lack of travellers to Algeria, compared to neighbouring countries such as Tunisia and Morocco, which in itself an indication of the country's long neglect of an industry that can offer one of the world's undiscovered tourist gems. According to Euromonitor International (2008), Algeria, now wants to promote its tourist industry, as the government has realised that state management of hotels is not the best way forward, which has resulted in the low number of tourists, a programme has been initiated to privatise its 73 state-owned hotels with the aim of revitalising the tourism industry. However, the main weakness of this initiative is the inability of the Algerian Ministry of Tourism to provide quality and a variety of tourist sites for inbound tourists to explore and visit, which has to work in parallel with hotel privatisation to ensure inbound tourists have high-quality locations to visit. Another issue is security, as the US State Department and the British Foreign Office often advise their citizens against travelling to Algeria (Euromonitor International, 2008).



#### **5.5.2.2.5 Real GDP growth: *RGDPGROWTH(-1)***

Real GDP growth is also employed as one other determinant for hotel FDI. It is believed that economic health is key to attracting hotel investors and a one year lag is believed to positively influence hotel FDI.

#### **5.5.2.2.6 Human development level: *HUMANDEVELOPMENT(-1)***

As covered in the previous chapter, the research also uses the Human Development Index as a determinant for hotel FDI. The variable ranges from 0-1, where, best =1 / worst=0, and the lagged value of one year is believed to be positively influencing hotel FDI. Data is derived from Human Development Report (HDR) database.

#### **5.5.2.2.7 Quality of overall infrastructure: *INFRAQUAL(-1)***

The research also employs a one year lagged value of the quality of infrastructure as an indicator of the overall quality of the infrastructure in the sample countries. It is also believed that it will be positively influencing hotel FDI.

#### **5.5.2.2.8 Strength of investor protection: *PROTECTINVESTOR(-1)***

The study also employs strength of investor protection variable (see previous chapter for details). It is believed that the stronger investors are protected, the more hotel FDI will be attracted to the country. Therefore, a one year lag of the index is expected to have a positive influence on hotel FDI.



#### **5.5.2.2.9 Quality of the institutional framework**

As covered in the previous section, the research is devoted to assess the role of institutions and regulations as factors to attract hotel FDI. The same set of governance variables developed by Economist Intelligence Unit (EIU) will be employed. These are as follows:

- *Voice and Accountability (VACCOUNT)*
- *Political Stability and Absence of Violence (POLITIC)*
- *Government Effectiveness (GOVEFFECT)*
- *Regulatory Quality (REGQUALT)*
- *Rule of Law (RULELAW)*
- *Control of Corruption (CORRUP)*

The first two indicators (VACCOUNT and POLITIC) are essentially related to the way authorities are selected and replaced; the GOVEFFECT and REGQUALT indicators refer to the ability of the government to formulate and implement sound policies (credibility); and the last two variables, RULELAW and CORRUP, consider aspects related to the respect, on the part of both citizens and the government, for the institutions that resolve their conflicts, and govern their interactions (flexibility). These six governance indicators are measured into units ranging from about 0-1, with higher values corresponding to better governance.

As variables of institutions are often correlated with one another, it is generally not possible to include several institutions in the same equation. Therefore, each variable will be employed once at a time (See Table 28).

#### **5.5.2.2.10 Overall investment climate: INVFREEDOM(-1)**

Finally, the research tries to capture different investment restrictions in the sample by employing the Heritage Foundation (Index of Economic Freedom), which



evaluates a variety of restrictions typically imposed on investment. The investment restrictions include:

- 1. National treatment of foreign investment
- 2. Restrictions on land ownership
- 3. Sectoral investment restrictions
- 4. Expropriation of investments without fair compensation
- 5. Foreign exchange controls
- 6. Capital controls

The index ranges from 0-100, where 0 means countries that impose many restrictions, and 100 means countries with no investment restrictions. It is believed that a lag of one year of the index will be positively influencing hotel FDI.

To test the influence of the above described variables upon hotel FDI inflows, the study uses a panel data set. Concerning the dependant variable, it also has zero values in the hotel FDI, specifically five observations. And as the case for CRE FDI, estimating using the OLS can be biased and inconsistent (Gujarati, 2004: p.616). For this purpose, the study also analyses hotel FDI censored at zero, hence a pooled Tobit regression was employed to analyse the determinants of hotel FDI censored at zero values.

Before estimating the panel data, it is also essential to carry out the unit root tests to examine whether the variables are stationary. Therefore, the next section discusses the unit root tests and their results.

**5.5.2.3 PANEL UNIT ROOT TESTS**

Table 24 below shows the results of the unit root test (Levin, Lin and Chu (LLC)) test, and confirms that the null hypothesis is rejected for all series tested at their levels.



Table 24: Unit root test results of variables

Variables	LLC Test results	Conclusion
HFDIGDP	-16.5351***	I(0)
HUMANDEVELOPMENT	-1.29020*	I(0)
INFRAQUAL	-4.32190***	I(0)
INVFREEDOM	-3.55790***	I(0)
REALVEXPOTGDP	-2.44533***	I(0)
RGDPGROWTH	-6.12141***	I(0)
TAGROWTH	-5.95415***	I(0)
TOTALTAXRATE	-3.04086***	I(0)
PROTECTINVESTOR	-3.55790***	I(0)

\*\*\* Significant at 1%, \*\* significant at 5%, \* significant at 10%

Results of the tests suggest that the model can be estimated without using the differenced variables. The final model therefore, has the following form:

$$\begin{aligned} \text{HFDI/GDP}_{it} = & \alpha_0 + \alpha_1 \text{HFDI/GDP}_{it-1} + \alpha_2 \text{TOTALTAXRATE}_{it-1} + \\ & \alpha_3 \text{REALVEXPOTGDP}_{it-1} + \alpha_4 \text{TAGROWTH}_{it-1} + \alpha_5 \text{RGDPGROWTH}_{it-1} + \\ & \alpha_6 \text{HUMANDEVELOPMENT}_{it-1} + \alpha_7 \text{INFRAQUAL}_{it-1} + \alpha_8 \text{PROTECTINVESTOR}_{it-1} + \\ & \alpha_9 \text{INVFREEDOM}_{it-1} + \alpha_{10} \text{INSTITUTIONS}_{it-1} + C_i + U_{it} \end{aligned}$$

Where all variables are stationary in level, so they are included as they are.

5.5.3 HOTELS PANEL DATA ESTIMATION

5.5.3.1 PANEL MODEL ESTIMATION

The correlation matrix and the descriptive statistics were calculated using the absolute values of the variables (see Table 25 & Table 26).



Table 25: Descriptive statistics for variables employed in the hotel FDI panel

	HFDIGDP(-1)	TOTALTAXRATE(-1)	REALVEXPOTGDP(-1)	TAGROWTH(-1)	RGDPGROWTH_1	HUMANDEVELOPMENT(-1)	INFRAQUAL_1
Mean	0.007495	40.54792	0.063554	9.871250	5.856083	0.766104	0.490380
Median	0.004323	44.85000	0.033075	7.600000	5.328500	0.758000	0.493200
Maximum	0.033068	76.90000	0.183237	35.95000	20.83500	0.910000	0.796320
Minimum	0.000000	11.30000	0.001485	-18.00000	0.128000	0.583000	0.230400
Std. Dev.	0.008347	23.16453	0.063158	10.67751	3.467567	0.094394	0.112819
Skewness	1.315563	-0.022776	0.705193	0.412802	2.029346	-0.188557	0.135323
Kurtosis	3.817879	1.606463	1.860656	3.810357	9.235464	1.993324	3.214573
Observations	48	48	48	48	48	48	48

	CORRUP(-1)	GOVEFFECT(-1)	POLITIC(-1)	PROTECTINVESTOR(-1)	REGQUALT(-1)	RULELAW(-1)	VACCOUNT(-1)	INVFREEDOM(-1)
Mean	0.348611	0.520833	0.508854	4.612500	0.731061	0.732639	0.304635	46.25000
Median	0.333333	0.500000	0.462500	5.000000	0.727273	0.791667	0.323250	50.00000
Maximum	0.500000	0.750000	0.775000	5.700000	0.954545	1.000000	0.472500	70.00000
Minimum	0.250000	0.250000	0.250000	3.000000	0.500000	0.333333	0.062500	30.00000
Std. Dev.	0.077095	0.086807	0.147541	0.935045	0.142151	0.139611	0.104689	13.62491
Skewness	0.397863	1.312546	0.206238	-0.699379	0.040110	-1.120847	-0.908529	0.243874
Kurtosis	2.418904	7.339100	2.152811	1.983307	1.998622	4.047233	3.382113	2.134145
Observations	48	48	48	48	48	48	48	48



Table 26: Correlation matrix for dependant, independent and control variables for hotel FDI panel

Correlation	1	2	3	4	5	6	7	8	9	10	11	12	13	14	1
HFDIGDP	1														5
TOTALTAXRATE	-0.395***	1													
REALVEXPOTGDP	0.323**	0.064	1												
TAGROWTH	-0.0342	-0.2168	-0.0358	1											
RGDPGROWTH	0.238*	-0.304**	-0.0962	-0.067	1										
HUMANDEVELOP	-0.1117	0.52***	-0.0933	-0.061	-0.049	1									
MENT															
INFRAQUAL	0.321**	-0.241*	0.2213	-0.064	0.44***	-0.0025	1								
CORRUP	0.369***	-0.35***	0.41***	0.0389	0.1669	-0.267**	0.244*	1							
GOVEFFECT	0.281**	-0.296**	0.122	-0.024	0.07	-0.44***	0.1852	0.0543	1						
POLITIC	0.427***	-0.54***	0.0918	-0.068	0.48***	-0.38***	0.47***	0.2075	0.329**	1					
PROTECTINVEST	-0.359***	-0.1763	-0.50***	0.1196	-0.0285	0.0114	-0.336**	-0.47***	-0.0958	-0.1573	1				
OR															
REGQUALT	0.372***	-0.71***	0.1007	0.016	0.1623	-0.50***	0.1924	0.340**	0.51***	0.52***	0.0136	1			
RULELAW	0.1862	-0.49***	0.44***	0.1839	0.1495	-0.311**	0.253*	0.65***	-0.1255	0.2084	-0.34***	0.328**	1		
VACCOUNT	-0.0169	0.47***	0.0386	-0.092	0.1126	0.1773	0.1028	0.2106	-0.1433	-0.0341	-0.294**	-0.48***	-0.114	1	
INVFREEDOM	0.0499	0.42***	0.242*	-0.014	-0.222*	0.37***	-0.41***	0.1588	-0.0778	-0.39***	-0.257*	-0.328**	-0.23*	0.38***	1

\*\*\*, \*\*, \* denotes significant at 1%, 5% and 10%, respectively.



Table 27: Correlation matrix (dependant vs. all independent variables) for hotel FDI panel

Correlation	HFDIGDP
HFDIGDP(-1)	0.391034
TOTALTAXRATE(-1)	-0.418039***
REALVEXPOTGDP(-1)	0.345872***
TAGROWTH(-1)	0.082825
RGDPGROWTH_1	0.270806**
HUMANDEVELOPMENT(-1)	-0.056115
INFRAQUAL_1	0.355238***
CORRUP(-1)	0.359171***
GOVEFFECT(-1)	0.236522*
POLITIC(-1)	0.478399***
PROTECTINVESTOR(-1)	-0.381454***
REGQUALT(-1)	0.335257***
RULELAW(-1)	0.240289*
VACCOUNT(-1)	0.010185
INVFREEDOM(-1)	0.080180

\*\*\*, \*\*, \* denotes significant at 1%, 5% and 10%, respectively

As with the case of commercial real estate FDI inflows, hotel FDI inflows have zero values which makes the POLS, FE and RE inconsistent and biased and the appropriate technique is pooled Tobit (Gujarati, 2004, P: 616); and hence a pooled Tobit regression was employed to analyse the hotel FDI determinants.

As it is not possible to estimate all the variables at once, and after many trials, the research arrived at a base model and has the following variables:

- One lagged period of hotel FDI (%GDP) (HFDI/GDP(-1))
- One lagged period of total tax rate (TOTALTAXRATE(-1))
- One lagged period of real visitor expenditure (%GDP) (REALVEXPOTGDP (-1))
- One lagged period of the % growth of tourist arrivals (TAGROWTH (-1))
- One lagged period of real GDP growth (RGDPGROWTH(-1))
- One lagged period human development level (HUMANDEVELOPMENT(-1))
- One lagged period of quality of infrastructure (INFRAQUAL(-1))



As mentioned previously, due to the many zeros in the dependant variable as well as the short time series nature of the data, it was not possible to try different lags more than one year.

The final functional form of the initial panel estimation is (see Table 28 M1):

$$\text{HFDIGDP} = \text{Constant} + (\text{HFDIGDP}(-1)) + (\text{TOTALTAXRATE}(-1)) \\ + (\text{REALVEXPOTGDP}(-1)) + (\text{TAGROWTH}(-1)) + (\text{RGDPGROWTH}(-1)) + \\ + (\text{HUMANDEVELOPMENT}(-1)) + (\text{INFRAQUAL}(-1))$$

For all other 'control' variables, the research adds one independent variable at a time to the base model to estimate the effect of that variable (see Table 28 M2-M19)



Table 28: Determinants of hotel FDI (Pooled Tobit)

HFDI/GDP	Pooled Tobit								
	1	2	3	4	5	6	7	8	9
Constant	-0.015938	-0.019560*	-0.026673*	-0.026624**	0.038978	-0.015241	-0.005379	-0.018302*	-0.025179**
HFDIGDP(-1)	0.036498	0.024437	0.002213	-0.012777	-0.049757	0.036856	-0.024509	-0.010593	-0.069064
TOTALTAXRATE(-1)	-0.000181***	-0.00017***	-0.00018***	-0.0001**	-0.00025***	-0.00018**	-0.00023***	-0.0002***	-0.00021***
REALVEXPOTGDP(-1)	0.055010***	0.05024***	0.05439***	0.05448***	0.046490***	0.055139***	0.071612***	0.05693***	0.037851**
TAGROWTH(-1)	3.71E-05	3.81E-05	3.10E-05	6.12E-05	5.61E-05	3.58E-05	3.62E-05	2.11E-05	1.31E-05
RGDPGROWTH_1	0.000621**	0.000591**	0.000605**	0.000530*	0.000483*	0.000619**	0.000607**	0.000495*	0.000596**
HUMANDEVELOPMENT(-1)	0.025201**	0.025477**	0.03073***	0.031677**	0.023776**	0.02503**	0.026764**	0.027620**	0.017054**
1)									
INFRAQUAL_1	0.006230	0.006678	0.005784	-0.001205	-0.006250	0.006244	0.007213	0.003966	0.022551*
CORRUP(-1)		0.009782							
GOVEFFECT(-1)			0.013991						
POLITIC(-1)				0.017354*					
PROTECTINVESTOR(-1)					-0.00805**				
REGQUALT(-1)						-0.000622			
RULELAW(-1)							-0.014402		
VACCOUNT(-1)								0.016666	
INVFREEDOM (-1)									0.000241**
No of observation	48	48	48	48	48	48	48	48	48
Left censored obs	5	5	5	5	5	5	5	5	5
Uncensored obs	43	43	43	43	43	43	43	43	43
Log Likelihood	150.5809	150.7858	151.1739	152.1154	152.617	150.5825	151.5974	151.6004	153.1897
LR chi square	26.86752	27.27717	28.05343	29.93649	30.93959	26.87071	28.9005	28.90633	32.08509



Prob>Chi square | 0.0004 0.0006 0.0005 0.0002 0.0001 0.0007 0.0003 0.0003 0.0001

\*, \*\* and \*\*\* denote significance at 10%, 5% and 1%, respectively.



### **5.5.3.2 RESULTS AND INTERPRETATION**

This section reports the results of the panel analysis. Table 29 summarises the findings from different model specifications, starting with Model 1, which is the base model specification. Models M2-M9 adds different control variables to the basic model M1.

As mentioned earlier, all models were estimated using the censored pooled Tobit model to account for the zeros in the dependant variable. It is important to note that the case of pooled Tobit is as in other limited dependent variable models, the estimated coefficients do not have a direct interpretation (Wooldridge, 2002).

A summary of the hypotheses with the independent and control variables and their predicted and actual signs is shown in Table 29.

Starting with the base model (M1), only total tax rate, real visitor expenditure, real growth of gross domestic product as well as the level of human development have the correct signs and are significant at the 5% level. However, the other three variables still have the correct signs but insignificant.

As the research tries to test the “following the competitor” hypothesis (H1), a one year lag of hotel FDI is employed. Interestingly, a positive-sign was identified, which is in keeping with the formulation of H1. This influence is not statistically significant though. Therefore, perhaps the role of this variable is not so critical in the hotel FDI decisions under certain circumstances. This variable has not be tested before in the hotel related FDI literature, and thus this research cannot relates it to any other similar studies, however, the results suggests that hotel investors act differently under different conditions.

H2 has indeed been confirmed by the model, since the total tax rate has a negative and statistically significant influence on hotel FDI ( $p < 0.01$ ). Therefore, taking up again what was explained in regard to commercial real estate FDI, it can be concluded that the total tax rate have a negative significant influence on hotel investors covered in



the period of the study and assume that it is a critical part in their internationalisation decisions.

It must be noted though that tax holidays and other incentives have not taken into account, however, the results support the hypothesis that high taxes negatively influence hotel related FDI.

The results obtained also support H3, as the Tobit analysis shows a strong relationship between the real visitor expenditure and hotel FDI ( $p < 0.01$ ). This suggests that hotel investors do consider this variable as a key determinant in their investment decision making, as it reflects the demand for their products/ services.

Corresponding to the H4, a positive sign for the growth of tourist arrivals is found, but without statistical significance. Therefore, perhaps the role of this variable is not critical in the hotel FDI inflows.

As for H3, H5 is found to have positive and significant influence on hotel FDI. The results suggests that countries with real growth in their GDP, do receive more hotel FDI inflows, and this supports the hypothesis that investors do take the economic health of a country as a key determinant in their internationalisation decision. The result also corresponds with findings of (Dunning & Kundu, The internationalization of the hotel industry - some new findings from a field study, 1995).

Therefore, following a line of argument similar to H3, it can be deduced that larger markets with sound macroeconomics do have influence on hotel FDI inflows.

H6 has indeed been confirmed by the model, since the level of human development has a positive and statistically significant influence on hotel FDI ( $p < 0.05$ ). As for the case of commercial real estate FDI, it seems that investors care much about countries with decent standard of living.

Finally, quality of infrastructure, a positive sign was identified, which is in keeping with the formulation of H7. However, this influence is not statistically significant.



Therefore, perhaps the role of infrastructure is not so critical in the hotel FDI decisions under certain circumstances.

Throughout, all model specifications (i.e. M1-M9), the impact of taxation environment, tourism market size, economic health and level of human development on HFDI appears to be insensitive to changes in control variables.

Table 29: Summary of hypotheses and control variables

H#	Hypothesis	Variable name	Expected sign	Actual sign
H1	Hotel investors are more likely to follow their competitors which will therefore will be positively associated with hotel FDI	Lagged HFDIGDP	[+]	N.S
H2	Hotel investors are more sensitive to taxation as it impacts the overall profitability of the business and thus the higher the taxes on the long-term, the less investors get attracted to such environment and thus will be negatively associated with HFDI	TOTALTAXRATE	[-]	[-]***
H3	Hotel investors are more likely to invest in markets where real tourist expenditure (% of GDP) is high, thus will be positively associated with HFDI.	REALVEXPOTGDP	[+]	[+]***
H4	Hotel investors get attracted to markets with high % growth of tourist arrivals thus will be positively associated with HFDI.	TAGROWTH	[+]	N.S
H5	Growth of economies attracts foreign investors and therefore, will be positively associated with hotel FDI.	RGDPGROWTH	[+]	[+]***
H6	Foreign investors get attracted to countries with sound human development levels, thus will be positively associated with hotel FDI	HUMANDEVELOPMENT	[+]	[+]**
H7	The overall quality of country's infrastructure will attract foreign investors and thus will be positively	INFRAQUAL	[+]	N.S



associated with hotel FDI.				
Control variables				
C1	Control of corruption	CORRUP	[+]	N.S
C2	Government effectiveness	GOVEFFECT	[+]	N.S
C3	Political stability and absence of violence	POLITIC	[+]	[+]**
C4	Investor protection	PROTECTINVESTOR	[+]	[-]**
C5	Regulatory quality	REGQUALT	[+]	N.S
C6	Rule of law	RULELAW	[+]	N.S
C7	Voice and accountability	VACCOUNT	[+]	N.S
C8	Overall investment climate (investment freedom)	INVFREEDOM	[+]	[+]**

\*\*\* Significant at 1%, \*\* significant at 5%, \* significant at 10%. N.S: Not significant

Concerning control variables, it can be highlighted that control of corruption; government effectiveness; regulatory quality; rule of law as well as voice and accountability levels did not prove significant and have consequently not determined the hotel FDI inflows analysed. Only political stability, investor protection and level of investment freedom turned out to be statistically significant ( $p < 0.05$ ).

In model (M2), the research controls for corruption, and as can be seen from the table, corruption has the expected positive sign but insignificant influence on hotel FDI. Again this could be interpreted as the role of control of corruption is not so critical in the hotel FDI decisions.

In Model 3 and as the study tries to capture the impact of government effectiveness on hotel FDI, the results show again that it has a positive but insignificant influence on hotel FDI, which makes this variable not critical in hotel FDI decisions.

In Model 4, the research controls for political stability and its impact on hotel FDI. Indeed and as expected, political stability has a positive impact on hotel FDI and is statistically significant at the 1% level. Similar to the results obtained for CRE FDI, political instability in the MENA region act as threat to further attract hotel related investments in certain markets.



For instance, in Algeria and throughout the period of study, only eleven hotels investment were announced by foreign chains with an estimated total investment of \$2.6 billion. Compared with the UAE for instance, this has more than eighty hotel investments (for the same period) with an estimated \$20 billion, approximately ten times what has been announced in Algeria. This assures that political stability plays a critical role in hotel internationalisation decisions.

In Model 5 and contrary to what was expected, the model shows that the strength of investor protection has a negative sign and statistically significant at the 5% level. In this regard, and although, as pointed out when the study expected the positive influence on the hotel FDI, there is empirical evidence in the hotel industry in which that relationship is not totally confirmed either it has the wrong sign (i.e. negative). According to the UNCTAD (2007), hotel investors are minimising such risks considerably (i.e. weak investor protection), as well as achieving a high degree of control via certain contractual agreements, thus, growth can take place faster and assuming less risk.

In Model 6 the research tries to capture the impact of regulatory quality on hotel FDI. The result shows the variable to be negative and was not significant. The insignificance of the coefficient confirms that the variable is not so critical for hotel related FDI decisions.

In Model 7, the study controls for rule of law and its impact on hotel FDI. As can be seen from the table, the variable has the wrong sign (negative), and not significant. This again implies that the variable is not critical to hotel internationalisation decisions.

Model 8 employs another institutional-related variable, voice and accountability. The model shows that the variable has the correct sign (positive), but not statistically significant. This again implies on its non-critical role in the hotel FDI decisions.

Finally, in Model 9 undoubtedly and as expected, level of investment freedom in countries has the positive sign, and statistically significant at the 1% level.



The overall picture that emerges is that country specific factors (i.e. tax environment, level of human development and standard of living, real growth of economy, as well as political stability and absence of violence and terrorism) as well as hotel sector-specific variables (i.e. real visitor expenditure and level of investment freedom); consistently support their hypotheses as explanations for hotel FDI.

#### **5.5.3.3 TESTS FOR ASSUMPTION VALIDITY OF ESTIMATED MODELS FOR HOTEL FDI**

This section summarises the overall validity and robustness tests conducted for the models (details of each individual test can be found in Appendix 7).

The pooled Tobit tests can be done using the Correlogram Q-Stat for both serial correlation and heteroskedasticity as well as normality test of residuals, which are all provided by Eviews statistical package for pooled Tobit.

Therefore the tests will be conducted includes:

1. Serial correlation in the residuals:
  - $H_0$  = No serial correlation in the residuals
  - $H_1$  = There is serial correlation in the residuals
2. Heteroskedasticity of the residuals:
  - $H_0$  = no heteroskedasticity (i.e. variance of residuals is constant)
  - $H_1$  = There is heteroskedasticity (i.e. variance of residuals is not constant)
3. Normality of the residues:
  - $H_0$  = Residuals are normally distributed
  - $H_1$  = Residuals are not normally distributed.

Appendix 7 details all the above robustness and validity testes. Table 30 below summarises the results of the tests for all the models (M1-M9). Clearly,  $H_0$  is accepted for serial correlation, but reject for both heteroskedasticity and normality of residuals.



As mentioned in the previous section, the models are valid, however, due to non-normality and heteroskedasticity of the residuals, the models are less robust, as the coefficients can be either over or under-estimated, however, the significance and sign of the coefficients are still valid, and the functional form and conclusions can be drawn and generalised

Table 30: Summary of validity and robustness tests of hotel FDI models

Model #	Serial correlation	Heteroskedasticity	Normality
1	√	×	×
2	√	×	×
3	√	×	×
4	√	×	×
5	√	×	×
6	√	×	×
7	√	×	×
8	√	×	×
9	√	×	×

### 5.6 SUMMARY

This chapter considered the design and development of the econometric models for FDI in real estate and different models for FDI in hotels. The chapter also discussed the results and validated the models using the validity and robustness tests. It was found that the models are valid, however, due to non-normality and heteroskedasticity of the residuals, the models are less robust, as the coefficients can



be either over or under-estimated, however, the significance and sign of the coefficients are still valid, and the functional form and conclusions can be drawn and generalised (Wooldridge, 2002).



## **6. CHAPTER SIX: CONCLUSIONS, LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH**

### **6.1 INTRODUCTION**

The overall aim of this thesis is to contribute to the existing body of knowledge by examining the determinants of foreign direct investment in commercial real estate and hotel sectors, in selected MENA economies. To achieve this aim the research econometrically examined selected MENA countries for a certain time-period (2003-2009). This chapter summarises the results of the thesis. It also discusses policy implications and limitations of the thesis and offers some suggestions for future research.

Chapter one of this thesis outlined the broad scope of study. It also highlighted the research aim and objectives, research design and key contributions to the body of knowledge. Chapters two and three aimed at building the theoretical frameworks of the study. This was achieved by reviewing the relevant literature including the international business and real estate and hotel investment sources. The main conclusions were about identifying the set of determinants (drivers as well as barriers) of FDI in both CRE and hotel sectors.

Chapter two was mainly concerned with literature review of international real estate investment as well as hotel investment. It presented the many forms of investment in commercial real estate, and covered the decision-making process of investing in international real estate. The chapter also critically reviewed theories related to real estate including Modern Portfolio Theory and Dunning's Ownership-Location-Internalisation (OLI) framework, and specifically applied the OLI framework to the real estate sector by employing the L dimension as explanation to FDI decisions. The chapter also provided a comprehensive review of the different factors influencing



international real estate investments (including economic, political, institutional as well as real estate specific factors), to formulate a conceptual framework of the determinants of FDI in real estate.

The other sections of the chapter were also concerned with foreign direct investment in hotels. They linked tourism to the hotel industry, and then presented the most common market entry strategies of hotel MNC's including both FDI and non-equity forms of exposure. Then, suggested the application of the OLI framework to the hotel industry, by employing the L dimension to explain the FDI decisions. The chapter ended by a comprehensive review of the different factors influencing internationalisation of hotel MNC's, which formulated a framework of the determinants of FDI in the hotel sector.

It was found that not all developing countries receive as much real estate and hotel related FDI as they might expect, despite liberalisation efforts and economic reforms. Nonetheless, the rising significance of global real estate and hotel related FDI as two attractive sectors have encouraged very few researchers to produce literature about determinants of these sectoral FDI. However, there are many gaps in the literature which led to this research. The major gap is that there are no empirical studies on the determinants of commercial real estate and hotel FDI on emerging and transitional countries that specifically focus on the MENA region. This study therefore, is the first attempt to investigate the determinants of commercial real estate and hotel FDI specifically upon the MENA countries.

Chapter three was mainly concerned with the MENA region and its fit into the global context. The chapter tried to provide a clear view of the MENA region as well as examining the selected MENA countries, in terms of their political, economical and taxation regimes.

Chapter four explained and evaluated 'econometric modelling' as the research methodology adopted, and discussed how the research aims have influenced the choice of this method. The econometric analysis was carried out by different panel data procedures to test the hypotheses of the study. As the dependant variables in

both the CRE and hotel FDI, contained zero observations, the econometric analysis has to be done using a corner solution called the Tobit model, which censors these zero observations to avoid the biasness and inconsistency that may arise from using OLS regressions (Gujarati, 2004).

The chapter also presented the sources of data consulted in formulating the models. A specific focus has been given to the main source for the dependant variables (i.e. fDi Intelligence), and its strength and weaknesses.

Chapter five considered the design and development of the econometric models for FDI in real estate and different models for FDI in hotels. The chapter also discussed the results and validated the models using the validity and robustness tests. It was found that the models are valid, however, due to non-normality and heteroskedasticity of the residuals, the models are less robust, as the coefficients can be either over or under-estimated, however, the significance and sign of the coefficients are still valid, and the functional form and conclusions can be drawn and generalised, as the aim of the study is to study the determinants of FDI not to predict FDI (Wooldridge, 2002) (see Appendix 7).

As the empirical work of this thesis consists of two parts (i.e. determinants of both FDI in real estate and FDI in hotels), the conclusions also are divided into two sections as follows:

## **6.2 CONCLUDING REMARKS ON FDI IN REAL ESTATE**

In summary, this research revealed different interesting findings. Starting with secondary data related to FDI inflows into CRE for the selected MENA countries. According to fDi Intelligence database, it was found that capital flowed for commercial real estate were primarily targeting Central Business Districts (CBD's) (see chapter 5.3). As an example, all CRE FDIs in Egypt was directed into Cairo (the capital city). The same situation was for Morocco, Qatar and Saudi Arabia, as all the



flows were directed into the cities of Rabat, Doha and Riyadh, respectively. UAE however, had a different pattern, as more than 90% of the flow was directed to Dubai, for its position as the financial services centre in the UAE and the GCC.

Another observation from fDi Intelligence database was related to source country of capital. Interestingly and as expected, various FDI flows in CRE are intra-MENA, due to culture proximity (see chapter 5.3). For instance, FDI flows to Morocco, was primarily originated from the UAE. This is also the case for Qatar, as all the flows were generated from the UAE.

The findings for the econometric analysis of FDI in commercial real estate shows that country specific factors (i.e. economic health, standard of living and levels of human development as well as political stability and absence of violence) as well as real estate sector-specific variables (size of institutional real estate market), consistently support the hypotheses as explanations for commercial real estate related FDI.

These findings are slightly consistent with the results obtained in the literature (see Chapter two). For instance, market size and political stability are significant and carry the expected positive signs for real estate FDI flows to the selected MENA countries, while other determinants such as the quality of infrastructure, real estate market transparency, government effectiveness, control of corruption, rule of law and regulatory quality are not significant. The one year lagged value of commercial real estate FDI has the opposite sign (i.e. negative) that one predicted by previous studies<sup>20</sup> that indicate that investors are rational in their investments decisions and might not follow each other, which corresponds with findings of (Fuchs & Scharmanski, 2009).

Further, one determinant and perhaps the most important finding of the econometric analysis of FDI in CRE which explains why some of the selected the

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<sup>20</sup> Refer to D'Arcy (2009) and Fuchs & Scharmanski (2009) for a review on international investors behaviour in emerging markets.

MENA countries attract real estate FDI less than most other MENA countries, it is political instability which was found to be a significant determinant and main obstructions to attracting real estate related FDI, if not the main one. These results seem to be quite important for policy. Policy-makers should be aware of the negative effect of the political risk to FDI. Politicians from the MENA should know that political risk in their countries is probably the greatest obstacle to their real estate market development. These findings should be seriously considered in any policy making effort on the part of the government.

In chapter two, it is found that investors start their venture journey screening countries for real estate opportunities using scoring models (see also Appendix 6.4), this study supports investors methodology and asserts that certain factors such as general macroeconomic indicators, which are obtainable from the IMF, the World Bank and other sources, may provide a useful first stage screening comparisons, of the country selection process, with the aim to narrow down choices from the 185 nations in the world. The study also suggests that some variables are very useful to partially assess investment risk and of importance when deciding on venturing into the unknown (e.g. political instability), as this variable is found to be explaining the riskiness of the countries and the flow of funds especially in the MENA countries.

### **6.3 CONCLUDING REMARKS ON FDI IN HOTELS**

According to fDi Intelligence database (see chapter 5.3), FDI inflows to hotels for the selected MENA markets have homogenous patterns, as capital flows are mostly directed into CBD's cities or cities famous for tourism activities. For instance, in Turkey (see chapter 5.3), FDI inflows were primarily directed to both Istanbul (CBD) and Izmir (the third largest city in Turkey with an extraordinary history, spanning around 5,000 years, and has long been amongst the most cosmopolitan cities in Turkey, with many archaeological sites relating to past Greek, Roman and Byzantine civilisations (World Guides, n.d)).



The situation is also similar for Egypt, as most hotels related FDI were directed into cities of Cairo (CBD) and Hurghada (a city that is famous for scuba diving and special marine life (World Guides, n.da)).

In terms of source country analysis, fDi Intelligence database revealed few interesting observations. For instance, and in contrast to the case for commercial real estate FDI, only few FDI flows were originated from culturally similar countries. One case is Algeria, as most of the flows were originated from both the UAE and France (as French language is widely used in government, culture, media (newspapers) and education, and can be regarded as being de facto the co-official language of Algeria (Wikipedia, n.d)). The rest of the sample had FDI flows from almost every continent. For example, in Tunisia, investments were originated from Europe (Austria, Belgium, France, Germany, Ireland and Italy), Asia (Hong Kong and India) and Africa (Egypt). The situation is also similar for Saudi Arabia, where FDI was originated from Belgium, Canada, Switzerland, UAE, UK and USA.

The findings for the econometric analysis of FDI in hotels shows that country specific factors (i.e. tax environment, human development level and real growth of economy and political stability and absence of violence) as well as hotel sector-specific variables (i.e. real visitor expenditure and level of investment freedom); consistently support their hypotheses as explanations for hotel FDI.

The findings of the research are somewhat inconsistent with the results obtained in the literature (see Chapter two). For instance, the value of hotel FDI from the previous period is not significant for FDI flows to the selected MENA countries<sup>21</sup>, while other determinants such as market size, stability of the country and investment freedom are significant and carry the expected signs. The investor protection has the opposite sign that one predicted which indicate that hotel investors are minimising

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<sup>21</sup> Although there is no previous study examined the 'following the competitor' hypothesis, refer to Kundu & Contractor (1999) for a discussion and tests of 'following the client' hypothesis.

such risks considerably, as well as achieving a high degree of control via certain contractual agreements.

Further, three determinants explain why some of the selected MENA countries attract hotel FDI less than most other countries at a similar stage of development in the MENA region: taxation is considered as a problem to hotel investors and plays a key role in attracting MNC's into the MENA region. The second is the level of investment freedom which is found to be significant in explaining hotel related FDI. Once again, political instability, violence and terrorism were found to be one of the most important findings of the econometric analysis of FDI in hotels.

Governments are required to understand the potential benefits to be gained from attracting global hotel MNC's, and in order to do so, UNCTAD (2007) survey suggests that a host country need to have in place a wider policy framework to make the most of the opportunities (e.g. by encouraging the establishment of local firms capable of taking advantage of the transfer and diffusion of technology and expertise) and minimise any costs. Governments (if to take full advantage of FDI as a catalyst and a complement to domestic investment), need a coherent and integrated policy framework (UNCTAD, 2007). But this is not simple in tourism, as it is a cross-cutting and interlinking activity, with a long value chain that involves the provision of services by many providers – private and public; the number and range of policies that need attention are large, far-reaching and diverse (UNCTAD, 2007).

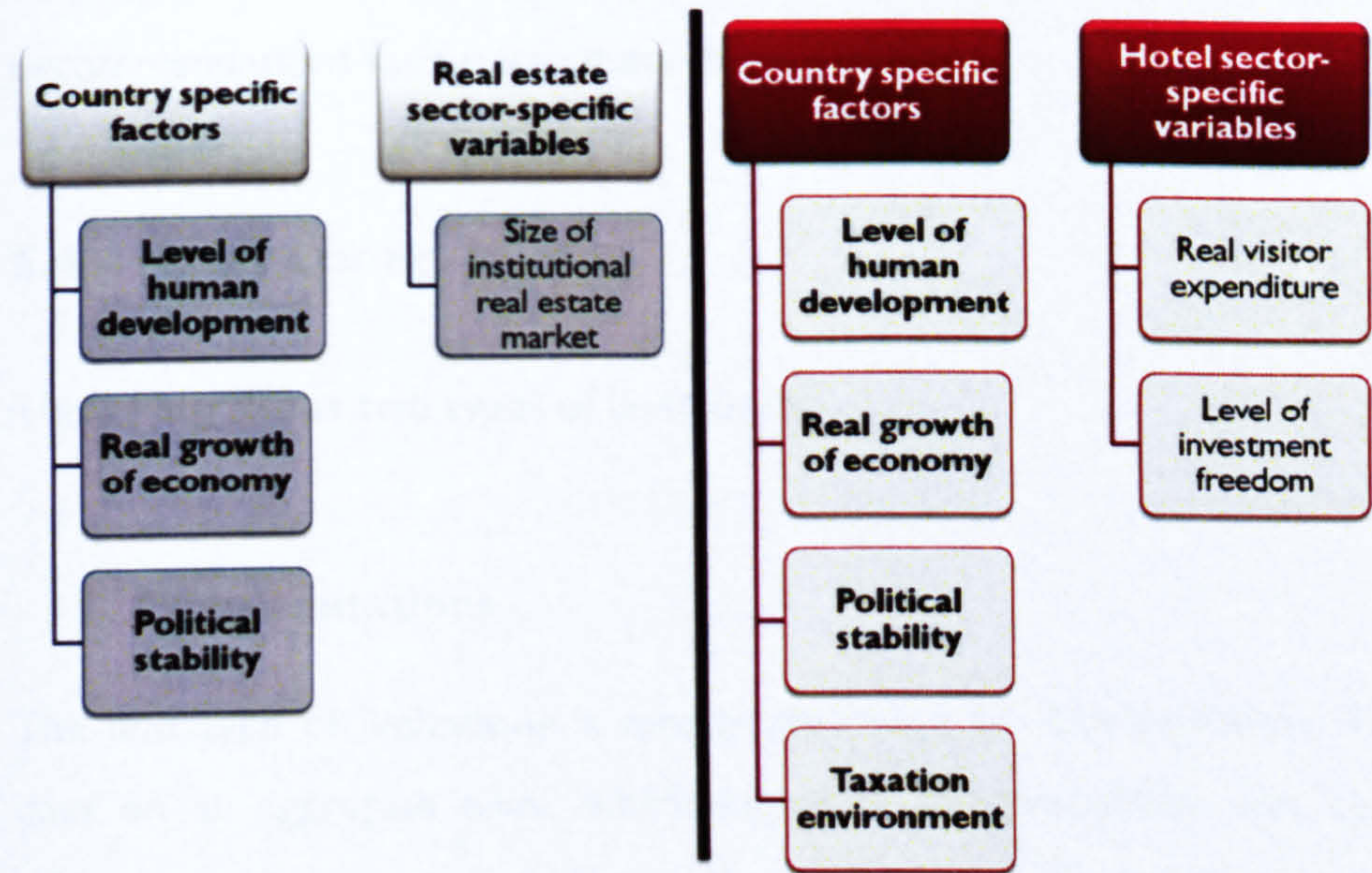
This study supports what suggested by Kundu & Contractor (1999); as they state that managers in the strategic planning departments of global hotel firms continuously search for foreign expansion locations, and to do so, managers analyse and compare countries, and as this study shows, the screening process could be performed using both general (e.g. tax environment, human development level and real growth of economy) as well as sector specific variables (e.g. real visitor expenditure). Data are available for the public for all these variables and can assist in evaluating options. The study suggests that managers should consult certain variables



(e.g. political stability), as these are of importance in explaining flows of funds into the hotel industry in the MENA region and could be of importance to other parts of the world.

Table 31 below shows the key findings from modelling FDI in both CRE and hotels, and as can be seen, both types of investors are concerned with almost the same country level factors (e.g. country level of development, growth of the economy and political stability). The sector specific factors, are consistent with what found in the literature and support the research hypotheses, for instance, larger real estate markets do attract more investors in to the country. The situation is same for hotel investors, as they consider demand for tourism (measured by visitor expenditure) a significant variable when deciding on hotel investment.

Table 31: Findings of modelling FDI in CRE and hotel greenfield projects



In the end, it is worthwhile to emphasise that this is one of the few FDI studies that have incorporated sector-specific variables for both real estate and hotel industries. And to the best of our knowledge the first to investigate the MENA markets. And the findings of this thesis can be seriously considered in any policy making effort on the part of the government. Policies should be designed to stabilise the overall



investment environment which should help MENA countries to attract more sectoral FDI. Such policies could include measures to improve the regulatory environment, reduce currency and financial risk, and avoid political and social instability.

According to the World Bank (2003) MENA strategy paper, the region's sensitive political environment has resulted in policies being overly oriented toward short-run gain, at the expense of long-run objectives. This has contributed to the instability of investment risk. World Bank (2003) paper therefore recommends the reorientation of policies toward long-term objectives in order to help reduce the degree of risk instability in the region.

It is hoped that this study will spark more sector-specific studies, especially in the relatively neglected area of service related FDI.

The next sections depict the limitations of this research as well as considering recommendations for future research.

## **6.4 LIMITATIONS**

This research has two types of limitations.

### **1. Data limitations**

The first type of limitations is mostly attributed to data problems. This study uses data on an aggregate level, which increases the probability that some important information has been lost during the collection and transformation of the data. Another limitation is the fact, that only annual time-series have been used to compute the panel models. Furthermore, the short time period covers the years 2003 to 2009 which casts some doubts whether a vigorous econometric analysis can be undertaken.



The accuracy of the data basis can further be challenged by the fact that the research uses data mostly at the aggregate level from a variety of sources including public and private agencies, which definitely influence the accuracy of such data. Although this is the case, the study collected data from the most reliable sources including firm level data (at a cost).

Another issue in the nature of the data especially the dependant variable has forced the use of a corner solution technique (i.e. Tobit model) to overcome the bias and inconsistency of using the OLS, however, this came at a cost, essentially in the robustness of the models, yet, the functional forms are valid and generalisable.

## **2. Period of study**

As the period of study is three years, it was not possible to expand more on the qualitative data end. This is however, an opportunity for future research, where can collect more primary data from foreign investors, policy makers as well as property and hotel markets intermediaries.

## **6.5 RECOMMENDATIONS FOR FUTURE RESEARCH**

There are few possible directions for future research in this arena, these can be summarised as follows:

The first recommendation is to extend the current research and examine the impact of these sectoral FDI's on economic growth of those countries. It would be interesting to determine the significance of both sectors to the wider economy, and whether governments are making enough efforts to take full advantage of these two sectors as part of their plans to economic growth.

The second recommendation is to look at different countries or regions, for instance, to cover Eastern Europe or South East Asia. This could entail modelling

both commercial real estate as well as hotel related FDI's. Data sources could vary though, especially for FDI related variables. Concerning independent variables, the current study already tried pragmatically a number of variables for the first time, and thus suggests that variables from this research as well as other variables will be interesting to be empirically tested.



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8. APPENDICES

8.1 APPENDIX I: KEY DEFINITIONS

**FDI in the context of greenfield and expansion investments** This study defines FDI as ‘the direct investment announced and committed by foreign CRE and hotel investors in a host country, which will result in creating a new asset or expanding of an existing asset which will entail capital investment and create jobs.’

In this research, only greenfield (new assets) and expansions of existing projects are considered where additional investment and jobs are created. Joint ventures are also included in the research where they lead to a new physical (greenfield) operation. Mergers & acquisitions (M&A) and other equity investments are not included as part of this research.

**Property/ real estate** Property or real estate is defined and limited to non-residential and non-industrial fixed assets of office and retail buildings only. There is only one exception where ‘residential’ properties may be included, and this where they are under the ‘mixed-used’ project category.

**Hotel property** The World Tourism Organisation (WTO) defines hotels within the classification of tourism accommodation as “collective tourist establishments”, comprising: *hotels, apartment-hotels, motels, roadside inns, beach hotels, residential clubs and similar establishments providing hotel services including more than bed-making and cleaning of rooms*”.

**Foreign investors** Foreign investors and developers include (public and private real estate firms, multinational banks, international institutional investors, pension funds and pension fund



	advisors, construction firms, and multinational corporations) who are involved in developing CRE and hotel projects in foreign countries.
<b>Hotel Multinational Corporation (MNC):</b>	Hotel multinational corporation (MNC) that renders tourism and hospitality services. Including private hotels, residential hotels, guest houses, boarding houses, lodging houses, bed and breakfast, inns, pensions, motels, etc (Johnson, 2002).



8.2

APPENDIX 2: FACTORS INFLUENCING INTERNATIONAL REAL ESTATE INVESTMENT

Category	Factors	Author (s)
POLITICAL AND REGULATORY FACTORS	Liberalisation of financial market environment	Chin, Dent, & Roberts, (2006); Lim, McGreal, & Webb (2006)
	Standardisation of property rights and market practice	Chin, Dent, & Roberts, (2006); Lim, McGreal, & Webb (2006)
	Restrictions & regulations on foreign investors	Chin, Dent, & Roberts, (2006); Mcgreal, Parsa, & Keivani, (2002)
	Legal regulation	Chin, Dent, & Roberts, (2006); Mcgreal, Parsa, & Keivani, (2002)
	Taxation	Chin, Dent, & Roberts, (2006)
	Transparency of legislative system	Chin, Dent, & Roberts, (2006); Lim, McGreal, & Webb (2006)
	Government intervention	Chin, Dent, & Roberts, (2006)
	Perceived corruption level	Chin, Dent, & Roberts, (2006); Lim, McGreal, & Webb (2006)
	Preferential tax incentives for FDI	Zhu, Sim, & Zhang (2006)
	restrictions on foreign sale	Mcgreal, Parsa, & Keivani, (2002)
	restrictions on foreign lease/rent	Mcgreal, Parsa, & Keivani, (2002)
	restrictions on repatriation of profits	Mcgreal, Parsa, & Keivani, (2002)
	restrictions on currency control	Mcgreal, Parsa, & Keivani, (2002)
	Internal political Stability	Chin, Dent, & Roberts, (2006); Lim, McGreal, & Webb (2006)
	External political Stability	Chin, Dent, & Roberts, (2006); Lim, McGreal, & Webb (2006)
	Regulation on construction	Sim, Zhu, & Zhang (2003)



	Regulation on development financing	Sim, Zhu, & Zhang (2003)
	Regulation on property investment	Sim, Zhu, & Zhang (2003)
	Planning and conservation policies	Sim, Zhu, & Zhang (2003)
	Governmental permits	Sim, Zhu, & Zhang (2003)
	Bureaucracy/officialdom	Sim, Zhu, & Zhang (2003); Mcgreal, Parsa, & Keivani, (2002)
<b>ECONOMIC FACTORS</b>	Economic environment	Chin, Dent, & Roberts, (2006); Mcgreal, Parsa, & Keivani (2002)
	Stable development environment	Chin, Dent, & Roberts, (2006)
	Availability of skilled workers	Chin, Dent, & Roberts, (2006)
	Strength & stability of economy	Chin, Dent, & Roberts, (2006); Lim, McGreal, & Webb (2006)
	Currency exchange stability & convertibility	Chin, Dent, & Roberts, (2006); Lim, McGreal, & Webb (2006)
	Currency exchange Rate	Lim, McGreal, & Webb (2006)
	Track record of macroeconomic policies	Lim, McGreal, & Webb (2006)
	Creditworthiness of Country	Lim, McGreal, & Webb (2006)
	The presence of property intermediaries	Chin, Dent, & Roberts, (2006); Sim, Zhu, & Zhang (2003)
	Property market data availability and standardisation	Chin, Dent, & Roberts, (2006); Sim, Zhu, & Zhang (2003)
	Quality of property products	Chin, Dent, & Roberts, (2006)
	User and investor opportunities	Chin, Dent, & Roberts, (2006)
	Level of transparency of the market	Chin, Dent, & Roberts, (2006); Sim, Zhu, & Zhang (2003)
	Urban form (planning)	Chin, Dent, & Roberts, (2006)
	Potential of the market	Zhu, Sim, & Zhang (2006)
<b>REAL ESTATE MARKET SPECIFIC FACTORS</b>	Education, training and employment	Zhu, Sim, & Zhang (2006)
	Availability of institutional investment grade properties	Lim, McGreal, & Webb (2006)



	Limitations of release of site in greenfield areas	Sim, Zhu, & Zhang (2003)
	Quality of human resources	Sim, Zhu, & Zhang (2003)
	Availability of finance	Mcgreal, Parsa, & Keivani, (2002)
	Market size	Falkenbach (2009)
	Liquidity of property markets	Falkenbach (2009)
	Ability to identify acquisitions in a foreign market	Worzala (1994)
	Supply and demand fundamentals	Lim, McGreal, & Webb (2006)
	Cultural differences	Chin, Dent, & Roberts (2006)
	Way of doing business	Lim, McGreal, & Webb (2006)
	Cultural differences	Lim, McGreal, & Webb (2006)
<b>SOCIAL RELATED FACTORS</b>	Language barriers	Lim, McGreal, & Webb (2006)
	Custom and habit	Lim, McGreal, & Webb (2006)
	Personal contacts	Lim, McGreal, & Webb (2006)
	Company's development strategy	Zhu, Sim, & Zhang (2006)
	Penetration into new market	Zhu, Sim, & Zhang (2006)
	Accumulation of experience in the market	Zhu, Sim, & Zhang (2006)
	Diversification of investment	Zhu, Sim, & Zhang (2006)
	Search for higher returns	Lim, McGreal, & Webb (2006)
	Steady income stream	Lim, McGreal, & Webb (2006)
	Potential capital appreciation	Lim, McGreal, & Webb (2006)
<b>COMPANY/ INVESTOR MOTIVATIONAL FACTORS TO INVEST INTERNATIONALLY</b>	Lack of opportunities in domestic Markets	Lim, McGreal, & Webb (2006)
	Tax incentives	Lim, McGreal, & Webb (2006)
	Match foreign assets to foreign Liabilities	Lim, McGreal, & Webb (2006)
	Sound economic policies and market orientated reforms in foreign countries	Lim, McGreal, & Webb (2006)
	Poor returns in home country	Lim, McGreal, & Webb (2006)
	Penetration of new markets	Sim, Zhu, & Zhang (2003)
	Broadening markets	Sim, Zhu, & Zhang (2003)
	Diversification of investment	Sim, Zhu, & Zhang (2003)



Establishment of Foothold	Sim, Zhu, & Zhang (2003)
Accumulation of experience	Sim, Zhu, & Zhang (2003)
Share of Culture & Value	Sim, Zhu, & Zhang (2003)
Gaining a dominant position	Sim, Zhu, & Zhang (2003)
Utilizing local fiscal incentives	Sim, Zhu, & Zhang (2003)

Source: Developed for this study



8.3 APPENDIX 3: RECENT STUDIES ON MARKET MATURITY PARADIGM

Author(s)/ date	Countries /Cities investigated	Methodology employed	Themes of research	Research Focus
Mcgreal, Parsa, & Keivani (2002)	Budapest, Prague and Warsaw	Qualitative:  Primary Data:  Focus groups, structured interviews and Questionnaire survey.  And  Secondary data sources on macroeconomics and market data	Four themes:  1. the rationale for investment in emerging markets in general and specifically in central Europe; 2. factors influencing/ barriers to property investment; 3. policy mechanisms and institutional perspectives; 4. future development within a regional and wider European context	Analysing market maturity levels following the market maturity paradigm
Lim, McGreal, & Webb (2006)	Central/ South America and Africa	Quantitative:  Mailed survey	Two Themes:  1. The nature of domestic and foreign real estate investment by the respondent companies and the main factors governing the decisions of institutions into international real estate investments. 2. the perceptions of risk and return of active real estate investors in Central/South America and Africa	To examine, from the perspective of U.S. and European real estate investors, their attitudes about direct investment into real estate in Central/South America and Africa,
Chin, Dent, & Roberts (2006)	Singapore; Hong Kong; Taipei; Kuala Lumpur; and Bangkok	E-mailed Survey and face-to-face interviews	Three themes:  1. Market Maturity 2. Institutional factors 3. Investment determinants	Explore levels of maturity of different Southeast Asia cities.

Source: Developed for this study



8.4

APPENDIX 4: SUMMARY OF INFLUENCING VARIABLES ON  
INTERNATIONAL REAL ESTATE INVESTMENT DECISION-MAKING

Category	Sub Category	Variables	Author
Economic/ Political Factors	Market Size/ Drivers/ Barriers	Population	Baum, A (2008)
		GDP per capita	Baum, A (2008) Newell, G. (2009)
		Average expected growth rate in real GDP as a proxy for real estate return	Lee, S. (2005)
		GDP as a proxy for the investable market size	Lee, S (2005) Chen & Hobbs (2003)
		Level of urbanisation	Lee, S. (2005)
		Real GDP per capita	Chen & Hobbs (2003)
		GDP growth rate	Chen & Hobbs (2003)
		Inflation	Chen & Hobbs (2003)
		Change in unemployment rate	Chen & Hobbs (2003)
		Market size (using proprietary method to estimate the aggregate value of real estate).	Chen & Hobbs (2003)
		Market liquidity (analysis of the value of the companies in the global property research 250 property shares index. Also they measure domestic liquidity risk by finding out the spread between inflation rate and average cap rates	Chen & Hobbs (2003)
		Mean annual GDP growth	Liao & Mei (1999)
	Governmental factors	Economic system situation	Chen & Hobbs (2003)
		Global competitiveness	Newell, G. (2009)
		Infrastructure	Newell, G. (2009)
		Credit risk	Geurts & Jaffe (1996)
		Market efficiency	Newell, G. (2009)
		Business sophistication	Newell, G. (2009)
		Economic efficiency	Liao & Mei (1999)
		Economic risk	Geurts & Jaffe (1996)
		Insurance premiums	Geurts & Jaffe (1996)
		Country's literacy rate	Chen & Hobbs (2003)
	Country risk	Lee (2005) Liao & Mei (1999)	
	Political risk	Geurts & Jaffe (1996)	
Institutional	FDI Factors	Foreign ownership restrictions	Newell, G. (2009)



Factors			
		Taxation	Lee, S. (2005)
		<b>The degree of foreign control</b>	<b>Geurts &amp; Jaffe (1996)</b>
Financial Institutions	Soundness of banks		Newell, G. (2009)
	<b>Local stock market access</b>		<b>Newell, G. (2009)</b>
	Financial markets sophistication		Newell, G. (2009)
<b>Property Rights Factors</b>	<b>The rule of law</b>		<b>Liao &amp; Mei (1999)</b>
	Security of property rights		Lee, S. (2005) Geurts & Jaffe (1996) Newell, G. (2009)
	<b>Arbitrary expropriation</b>		<b>Geurts &amp; Jaffe (1996)</b>
	Bribery and corruption		Geurts & Jaffe (1996)
	<b>Entrepreneurship and innovation</b>		<b>Geurts &amp; Jaffe (1996)</b>
	Intellectual property rights		Geurts & Jaffe (1996)
	<b>Coercion of contract</b>		<b>Liao &amp; Mei (1999)</b>
Socio-Cultural Factors	Higher education and training		Newell, G. (2009)
	<b>Life expectancy</b>		<b>Geurts &amp; Jaffe (1996)</b>
	Illiteracy		Geurts & Jaffe (1996)
	<b>Quality of living</b>		<b>Geurts &amp; Jaffe (1996)</b>
	The percentage of homeownership		Geurts & Jaffe (1996)
	<b>Treatment of foreigners</b>		<b>Geurts &amp; Jaffe (1996)</b>
Technological Factors	Technology readiness		Newell, G. (2009)
	<b>Innovation</b>		<b>Newell, G. (2009)</b>
Real Estate Market Transparency	Real estate market transparency level		Newell, G. (2009) Baum, A (2008) Lee, S. (2005)
	<b>Corruption</b>		<b>Newell, G. (2009)</b> <b>Liao &amp; Mei (1999)</b>
	Legal structure		Chen & Hobbs (2003)

Source: Developed for this study



## **8.5 APPENDIX 5: REAL ESTATE DATA PROVIDERS IN THE MENA:**

The current sources of real estate data are very limited and only available at a relatively high cost with private organisations (except for Mazaya real estate index). The main sources can be summarised as follows:

### **a. Cityscape Intelligence website:**

The website covers MENA countries except for Algeria and Turkey. It provides a comprehensive database on past and current construction projects with great level of details. It also provides 'country profiles' covering many aspects such as rules and regulations, anticipated supply and demand (by real estate sector), and general overview of the market. Further, the website details the companies working within the construction industry and provides up to date research and consultancy reports provided by the key players in the industry (e.g. JLL, Colliers and DTZ and many others).

Most recently, the website launched exclusive pricing data on residential properties in major MENA cities. These data however, when compared to the Investment Property Databank (IPD) index, Cityscape Intelligence lacks important data on other sectors such as commercial, where certain data for the MENA is almost non-existence, and this is seen as a major deterrent to global investors (JLL, 2008).

### **b. REIDIN.com**

REIDIN.com is considered to be the most informative database on emerging real estate markets, including the MENA markets. The website provides many products and services that are of benefit to domestic as well as global investors. The main tool is called REBIS.com and is concerned with providing data including:

- Price Indices
- Market Price Data



- Macro Economic Indicators
- Projects Database
- Building Database
- Company Database
- Deals, Valuations, Listings

The website also provide a product called RETAILFocus which is a retail real estate/shopping centres database that provides in-depth data on retail property markets across emerging countries. The database includes shopping centre and retailer Profiles, GLA, footfall, price data, news, research, upcoming retail projects, owner, developer, property manager profiles powered by analysis and comparison tools and search engine.

Another product is DUBAIFocus which is considered the first exclusive online information product tracking real estate deals and transactions in Dubai, with a comprehensive database going back to 1973. The DUBAIFocus also provides daily information on all types of land, villa and flat deals (sales, mortgage, lease, grant, inheritance, etc.) in Dubai.

The website also comprises indices for residential real estate mainly focusing on UAE (Dubai) and Turkey (7 cities, namely Istanbul, Ankara, Izmir, Kocaeli, Bursa, Adana and Antalya).

### **c. Mazaya Real Estate index:**

Mazaya Real Estate (a Kuwaiti listed company) has introduced in early 2007 the Mazaya Real Estate Index - the first of its kind in the Middle East. The index measures the prices of properties across the GCC, as opposed to other indices which only measure the share prices of property firms listed on the regions' stock exchanges. Since late 2009, the index is temporarily suspended to incorporate market realities and to be activated in the near future (Zawya, 2009).

## 8.6 APPENDIX 6: QUALITATIVE DATA ANALYSIS RESULTS

### PART I: INVESTMENT STRATEGIES IN EMERGING MARKETS

Node: Investment Strategy

Documents in Set: All Documents

Passage 1 of 6 Section 0, Paras 8 to 9, 392 chars.

9: when deciding on an emerging market, you look at strong prospective GDP growth, number one; usually backed up by good strong demographic, population growth, young people, OK, a stable currency, which probably means not huge inflation; we've talked about transparency, the presence of partners who are familiar of western ways of doing business.

---

Passage 2 of 6 Section 0, Para 13, 361 chars.

13: The fund manager will travel to the region and talk to anybody he knows to locate local partners. He often uses bankers or real estate service providers to be introduced to local developers or local investors to form joint ventures. Sometimes the joint venture partner will come to the western market to look at partners, but usually it is the other way around.

---

Passage 3 of 6 Section 0, Para 15, 406 chars.

15: Usually the fund manager is simply underwriting the project, which means he audits the numbers, make sure that he is comfortable with them, he believes they are a fair representation of what could happen and generally speaking would take let's say 50% responsibility for the capital, but leave a 100% of responsibility to the partner, subject to a committee comprising both partners overseeing the project.

---

Passage 1 of 3 Section 0, Para 15, 472 chars.

15: you take this few data which does exist like population growth (estimates, history), GDP (history), hence derive real estate data out of these data, and that's obviously has an error I don't know plus or minus 20% or so, huge error margin, but this is the only data you get, which is definitely one of the key issues there which leads to the risk but the chances as well, this is the lack of data. We here try to help ourselves by using local people and local knowledge.

---

Passage 2 of 3 Section 0, Para 27, 228 chars.

27: you just choose a country and look at its main drivers of the country, which is population growth and anticipated GDP growth, and then once we selected this emerging country, it is the same process but it is here opportunistic.

---

Passage 3 of 3 Section 0, Para 27, 1332 chars.



27: Also in these countries we have our country ranking, we do have political stability ranking and we take lots of the data of the Economist Intelligent Unit, these are quite good data for these countries. Ok this how we ended up with a country, then we start defining the type of real estate we want to do whatever the strategy is, retail, residential, some countries very interesting potentially, we've to define the regions, the cities maybe, and then we zoom on the product, whether to take this building or that building, and that is in most cases i would say is opportunistic, because you don't always have the choice between two plots of land in the same street we want to go, then we set our target range and go to get whatever we can get by starting the due diligence on whatever is available in the market. And in the due diligence some projects turn out to be feasible, others not, but this requires some resources because you have to have like a big filter to choose the remaining feasible properties to continue the due diligence. And during due diligence you'll get more confidence, it's feasible, satisfy your needs, promising to your investors. For the MENA, for instance, we need to understand their local markets to this level of detail.

---

**PART 2: CROSS-BORDER BARRIERS TO MENA REAL ESTATE MARKETS**

Node: /Cross border barriers to MENA /Transparency,

Treenode address: (13 3)

Passage 1 of 2 Section 0, Para 5, 183 chars.

5: I think the Jones Lang survey is a good model for transparency, you simply look at the JL transparency data, but really what people mean by transparency is the avoidance of corruption

---

Passage 2 of 2 Section 0, Para 31, 78 chars.

31: lack of transparency, which make it very difficult to find partners to invest with.

---

Document 2 of 3 Interview 2

Passage 1 of 3 Section 0, Para 33, 39 chars.

33: The keyword here is market transparency.

---

Passage 2 of 3 Section 0, Para 33, 350 chars.

33: Further into Egypt for example, it's potentially great country, great story, I think population growth is quite high, so there is lot of potential there but in the transparent like anything so would not like to go simply because we couldn't survive, then if you would work there with local partner you would need to trust the local partner to 100%,

---

Passage 3 of 3 Section 0, Para 35, 306 chars.



35: Transparency could be legal issues, that is very easy to take from the world bank or EIU rankings, things like, stability, transparency, corruption also legal security, which funny enough worse in Italy but that is not the question, political stability, market data accessibility, and any historical data.

---

Node: /Cross border barriers to MENA /Transparency,/Property Data

Treenode address: (13 3 4)

Passage 1 of 1 Section 0, Para 15, 224 chars.

15: Obviously, you would like to see what this market already do, so you start looking at data on population growth, data on the growth income product, also you would love to see data on the historical markets which we do not get [...] hence derive real estate data out of these data, and that's obviously has an error. I don't know plus or minus 20% or so, huge error margin

---

Node: /Cross border barriers to MENA /Transparency,/Finding appropriate local partners

Treenode address: (13 3 2)

Passage 1 of 1 Section 0, Para 31, 77 chars.

31: lack of transparency, which make it very difficult to find partners to invest

---

Passage 2 of 7 Section 0, Para 19, 80 chars.

19: And for example in Saudi it is impossible to do anything without a local partner

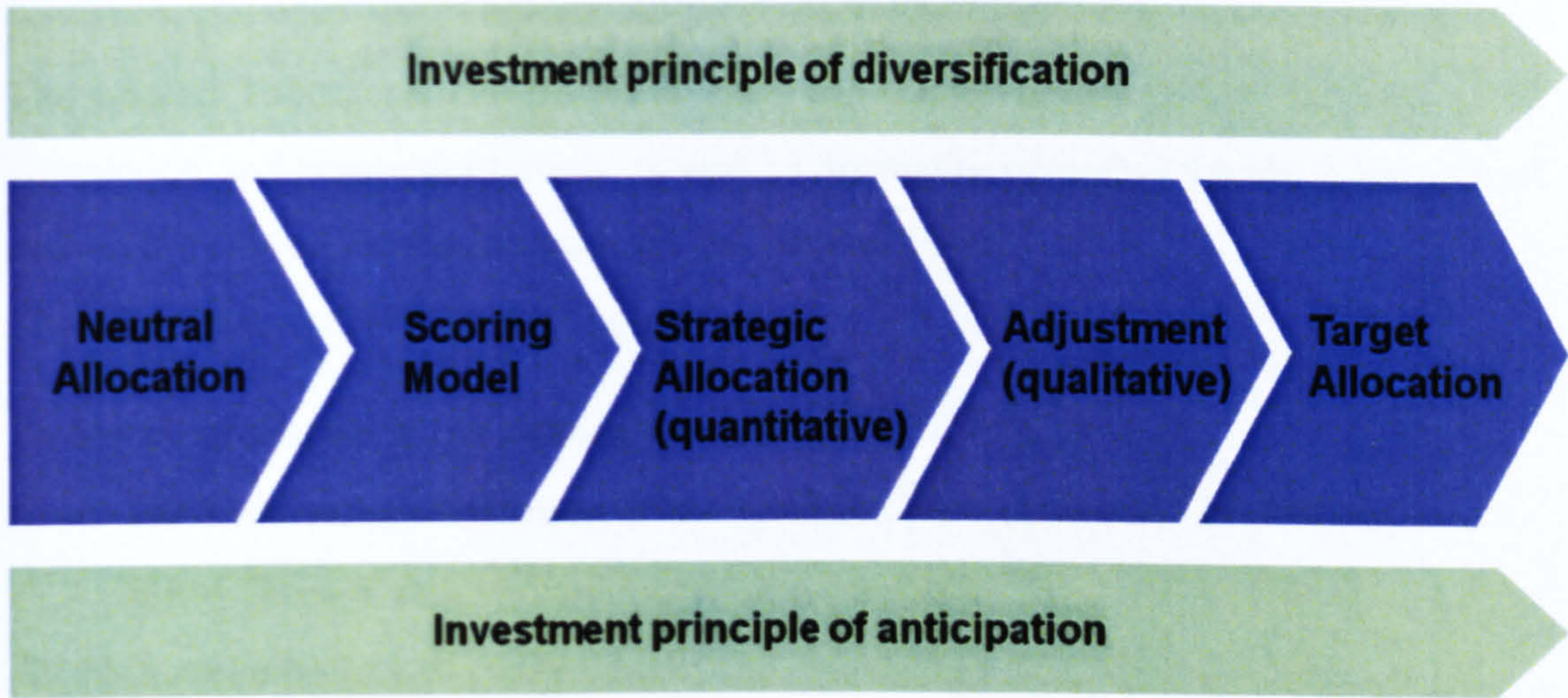
---

Passage 7 of 7 Section 0, Para 23, 125 chars.

23: So you need smart local partner that goes smart enough and understand it and then we can enter into such type of partnership.



PART 3: ALLOCATION SYSTEM



PART 4: THE SCORING MODEL

Primary Criteria	(%)	Secondary Criteria	Indicator
Economy	50%	Market Dynamics Market Depth Competitiveness Currency Risk	GDP (%pa); 10-year Forecast GDP per capita Global Competitiveness Index; World Economic Forum EIU Ranking
Country's Political Risk	15%	Country Risk	Euromoney Country Risk Rating (0-100)
Demography	5%	Population Development	Population Forecast 2008 until 2030
Real Estate Market	30%	Maket Maturity Current Yields Potential Rent	Global Real Estate Transparency Index 2006 Risk Premium Rent



8.7 APPENDIX 7: TESTS FOR ASSUMPTION VALIDITY OF ESTIMATED MODELS

The pooled Tobit tests can be done using the Correlogram Q-Stat for both serial correlation and heteroskedasticity as well as normality test of residuals, which are all provided by Eviews statistical package for pooled Tobit.

Therefore the tests will be conducted includes:

- 1. Serial correlation in the residuals:
  - H0 = No serial correlation in the residuals (Accepted if Prob>0.05)
  - H1 = There is serial correlation in the residuals
- 2. Heteroskedasticity of the residuals:
  - H0 = no heteroskedasticity (i.e. variance of residuals is constant) (Accepted if Prob>0.05)
  - H1= There is heteroskedasticity (i.e. variance of residuals is not constant)
- 3. Normality of the residues:
  - H0= Residuals are normally distributed (Accepted if JB<5.99, and/ or p>0.05)
  - H1= Residuals are not normally distributed.

8.7.1 TESTS FOR ASSUMPTION VALIDITY OF ESTIMATED MODELS FOR COMMERCIAL REAL ESTATE FDI

Model I (base model)

Correlogram Q-stat for serial correlation

Date: 08/02/10 Time: 08:21  
Sample: 2004 2009  
Included observations: 48

Autocorrelation	Partial Correlation	AC	PAC	Q-Stat	Prob
.*) .	.*) .	1	-0.144	-0.144	1.0543 0.305



.* .	.* .	2	-0.161	-0.186	2.4107	0.300
. *.	. *.	3	0.172	0.124	3.9803	0.264
.* .	.* .	4	-0.179	-0.174	5.7244	0.221
. .	. .	5	-0.009	-0.008	5.7289	0.333

Conclusion: Accept H0, no serial correlation

### Correlogram Q squared -stat for heteroskedasticity

Date: 08/02/10 Time: 08:24

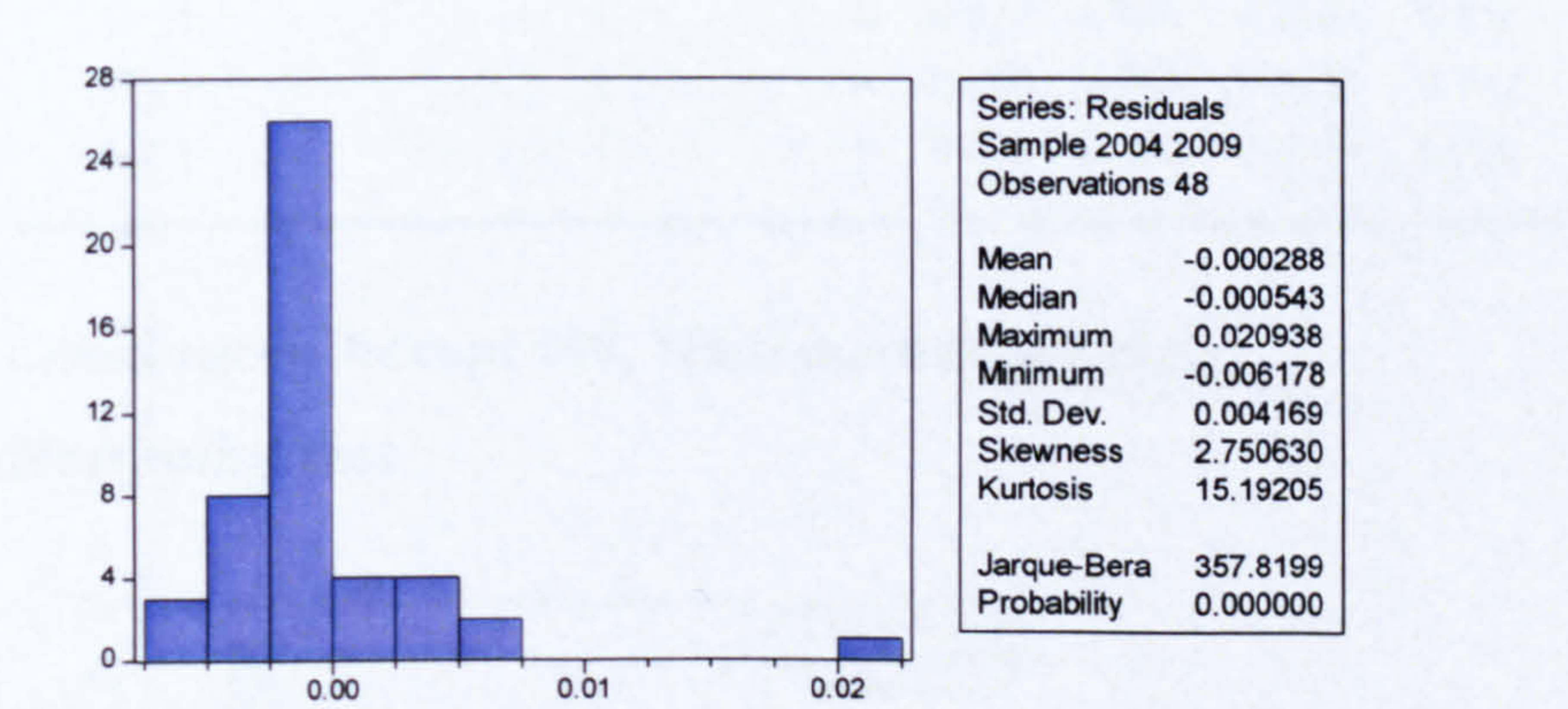
Sample: 2004 2009

Included observations: 48

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
. .	. .	1	-0.026	-0.026	0.0358	0.850
. .	. .	2	0.069	0.068	0.2835	0.868
. .	. .	3	0.030	0.034	0.3317	0.954
. .	. .	4	0.057	0.054	0.5061	0.973
. .	. .	5	0.002	0.001	0.5065	0.992

Conclusion: Accept H0, No heteroskedasticity

### Normality test



Conclusion: Reject H0, residuals are not normally distributed

### Model 2 control variable: (CORRUP(-1))

### Correlogram Q-stat for serial correlation



Date: 08/02/10 Time: 08:35  
Sample: 2004 2009  
Included observations: 48

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
. *   .	. *   .	1	-0.142	-0.142	1.0232	0.312
. *   .	. *   .	2	-0.161	-0.185	2.3730	0.305
.   *	.   *	3	0.171	0.125	3.9342	0.269
. *   .	. *   .	4	-0.186	-0.182	5.8229	0.213
.   .	.   .	5	-0.010	-0.010	5.8280	0.323

Conclusion: Accept H0, no serial correlation

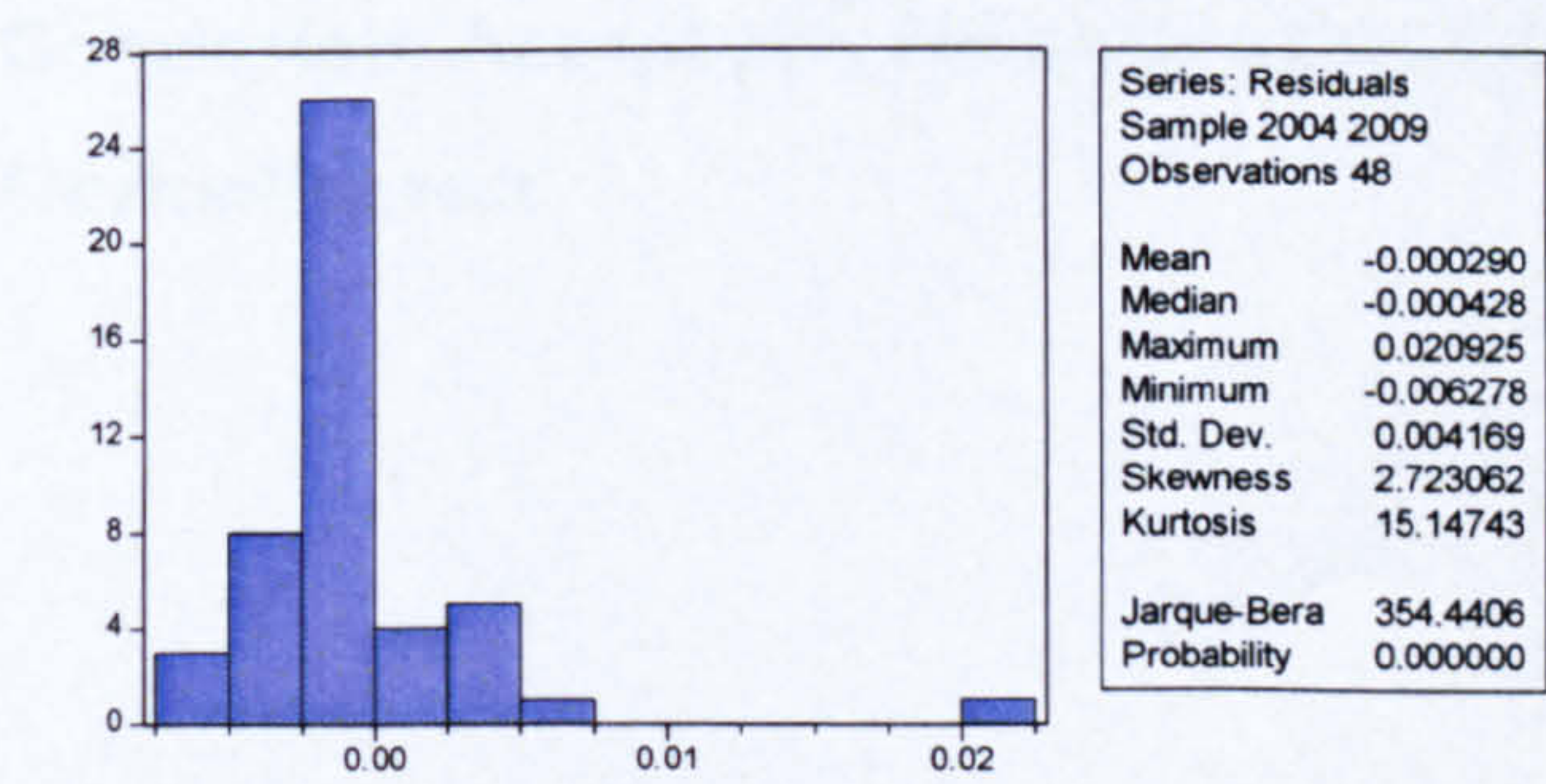
Correlogram Q squared -stat for heteroskedasticity

Date: 08/02/10 Time: 08:37  
Sample: 2004 2009  
Included observations: 48

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
.   .	.   .	1	-0.023	-0.023	0.0274	0.868
.   .	.   .	2	0.070	0.069	0.2824	0.868
.   .	.   .	3	0.024	0.028	0.3138	0.957
.   .	.   .	4	0.060	0.057	0.5126	0.972
.   .	.   .	5	0.002	0.002	0.5129	0.992

Conclusion: Accept H0, No heteroskedasticity

Normality test



Conclusion: Reject H0, residuals are not normally distributed



Model 3 control variable: GOVEFFECT(-1)

Correlogram Q-stat for serial correlation

Date: 08/02/10 Time: 08:38

Sample: 2004 2009

Included observations: 48

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
. *   .	. *   .	1	-0.147	-0.147	1.1053	0.293
. *   .	. *   .	2	-0.172	-0.198	2.6545	0.265
.   *   .	.   *   .	3	0.181	0.129	4.3976	0.222
. *   .	. *   .	4	-0.176	-0.173	6.0861	0.193
.   .   .	.   .   .	5	-0.009	-0.003	6.0910	0.297

Conclusion: Accept H0, no serial correlation

Correlogram Q squared -stat for heteroskedasticity

Date: 08/02/10 Time: 08:38

Sample: 2004 2009

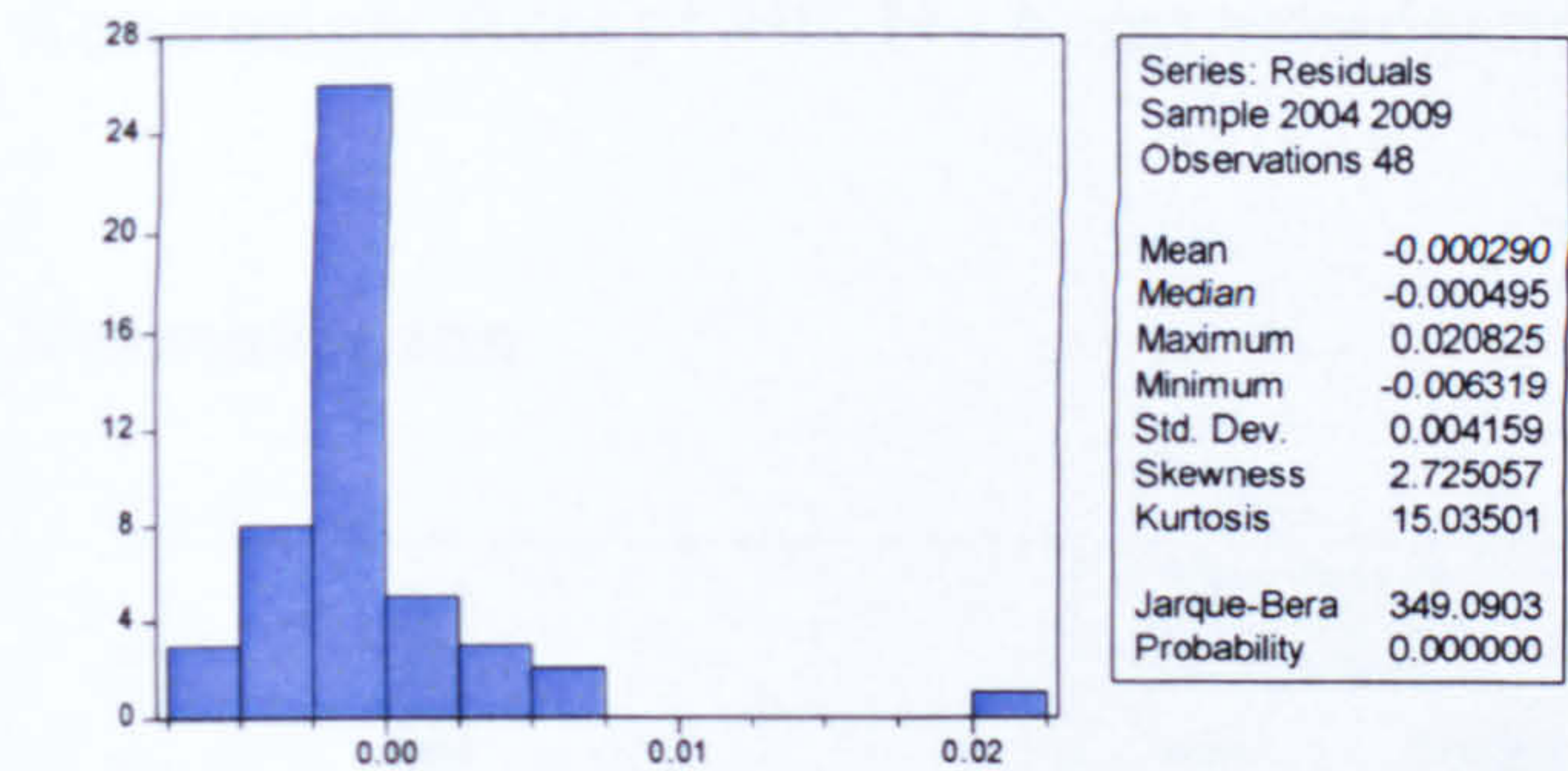
Included observations: 48

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
.   .   .	.   .   .	1	-0.026	-0.026	0.0354	0.851
.   .   .	.   .   .	2	0.074	0.073	0.3183	0.853
.   .   .	.   .   .	3	0.034	0.038	0.3800	0.944
.   .   .	.   .   .	4	0.053	0.050	0.5315	0.970
.   .   .	.   .   .	5	0.003	0.000	0.5319	0.991

Conclusion: Accept H0, No heteroskedasticity

Normality test





**Conclusion: Reject H0, residuals are not normally distributed**

**Model 4 control variable: POLITIC(-1)**

**Correlogram Q-stat for serial correlation**

Date: 08/02/10 Time: 08:39  
Sample: 2004 2009  
Included observations: 48

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
**  .	**  .	1	-0.217	-0.217	2.4055	0.121
**  .	**  .	2	-0.256	-0.318	5.8176	0.055
.  * .	.   .	3	0.186	0.051	7.6544	0.054
*  .	*  .	4	-0.089	-0.124	8.0886	0.088
.   .	.   .	5	0.001	0.022	8.0887	0.151

**Conclusion: Accept H0, no serial correlation**

**Correlogram Q squared -stat for heteroskedasticity**

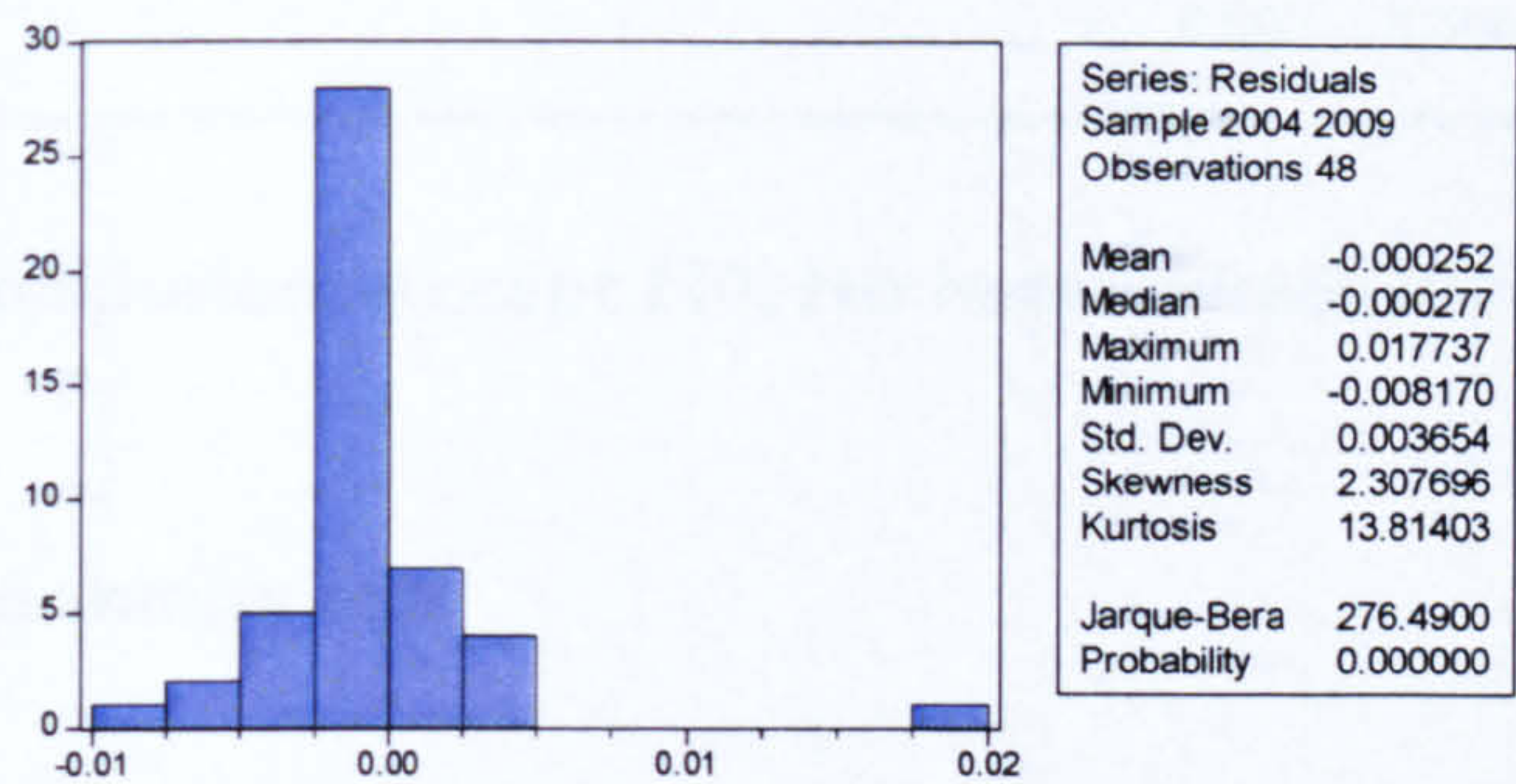
Date: 08/02/10 Time: 08:39  
Sample: 2004 2009  
Included observations: 48

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
.  * .	.  * .	1	0.168	0.168	1.4373	0.231
.  * .	.   .	2	0.098	0.072	1.9358	0.380
.   .	.   .	3	0.042	0.015	2.0286	0.566
.   .	.   .	4	-0.018	-0.035	2.0467	0.727
.   .	.   .	5	0.008	0.012	2.0504	0.842



Conclusion: Accept H0, No heteroskedasticity

Normality test



Conclusion: Reject H0, residuals are not normally distributed

Model 5 control variable: REGQUALT(-1)

Correlogram Q-stat for serial correlation

Date: 08/02/10 Time: 08:40

Sample: 2004 2009

Included observations: 48

Autocorrelation	Partial Correlation	AC	PAC	Q-Stat	Prob	
. *   .	. *   .	1	-0.128	-0.128	0.8318	0.362
. *   .	. *   .	2	-0.149	-0.168	1.9866	0.370
.   * .	.   * .	3	0.158	0.120	3.3199	0.345
. *   .	. *   .	4	-0.176	-0.173	5.0187	0.285
.   .	.   .	5	-0.009	-0.009	5.0237	0.413

Conclusion: Accept H0, no serial correlation

Correlogram Q squared -stat for heteroskedasticity

Date: 08/02/10 Time: 08:40

Sample: 2004 2009

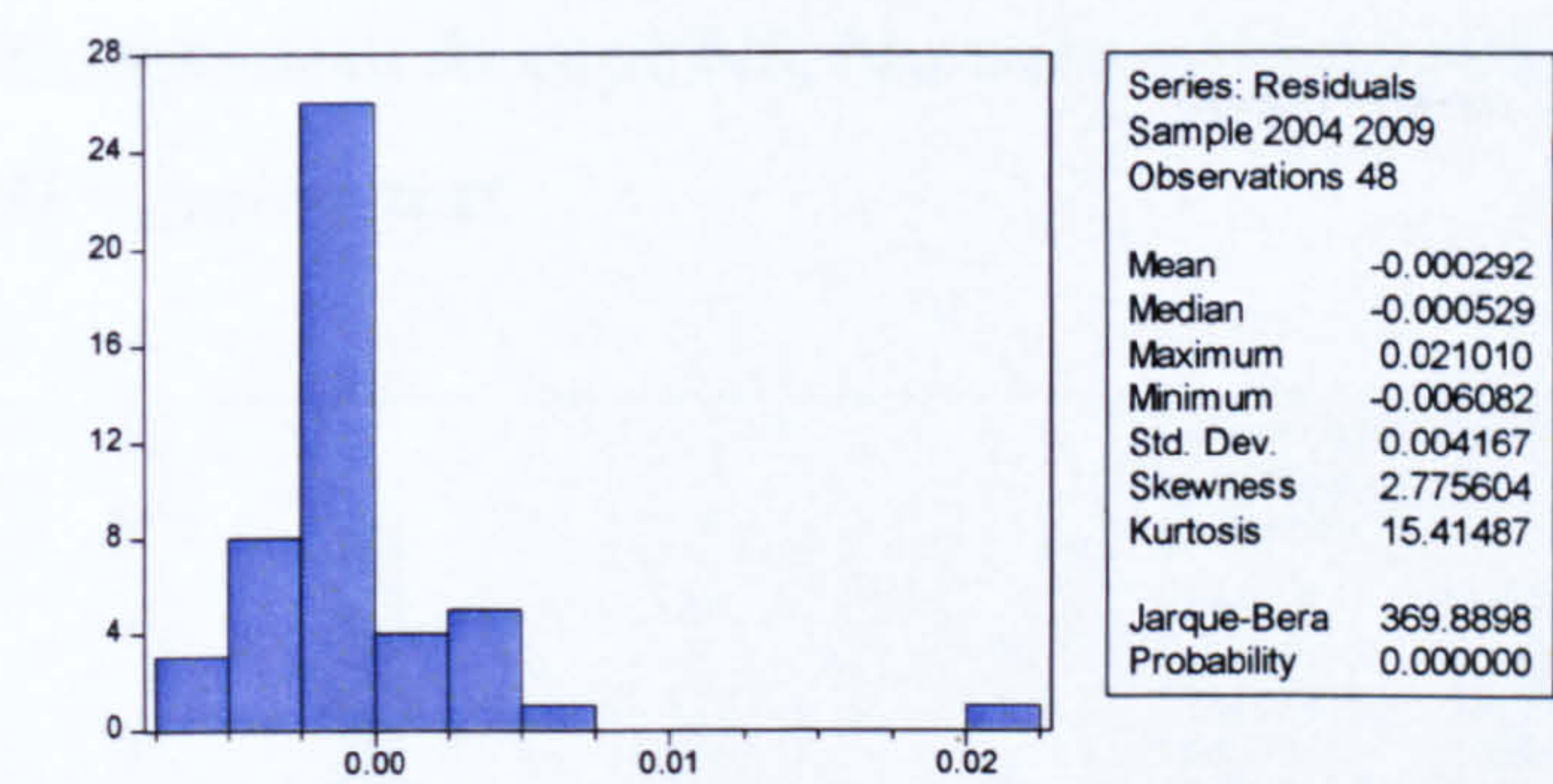
Included observations: 48



Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
. .	. .	1	-0.038	-0.038	0.0736	0.786
. .	. .	2	0.064	0.063	0.2866	0.866
. .	. .	3	0.025	0.030	0.3193	0.956
. .	. .	4	0.054	0.052	0.4788	0.976
. .	. .	5	0.002	0.003	0.4790	0.993

Conclusion: Accept H0, No heteroskedasticity

Normality test



Conclusion: Reject H0, residuals are not normally distributed

Model 6 control variable: RULELAW(-1)

Correlogram Q-stat for serial correlation

Date: 08/02/10 Time: 08:40  
Sample: 2004 2009  
Included observations: 48

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
.* .	.* .	1	-0.114	-0.114	0.6604	0.416
.* .	.* .	2	-0.136	-0.151	1.6291	0.443
. *.	. *.	3	0.133	0.102	2.5753	0.462
** .	** .	4	-0.213	-0.214	5.0449	0.283
. .	. .	5	-0.011	-0.025	5.0520	0.410

Conclusion: Accept H0, no serial correlation



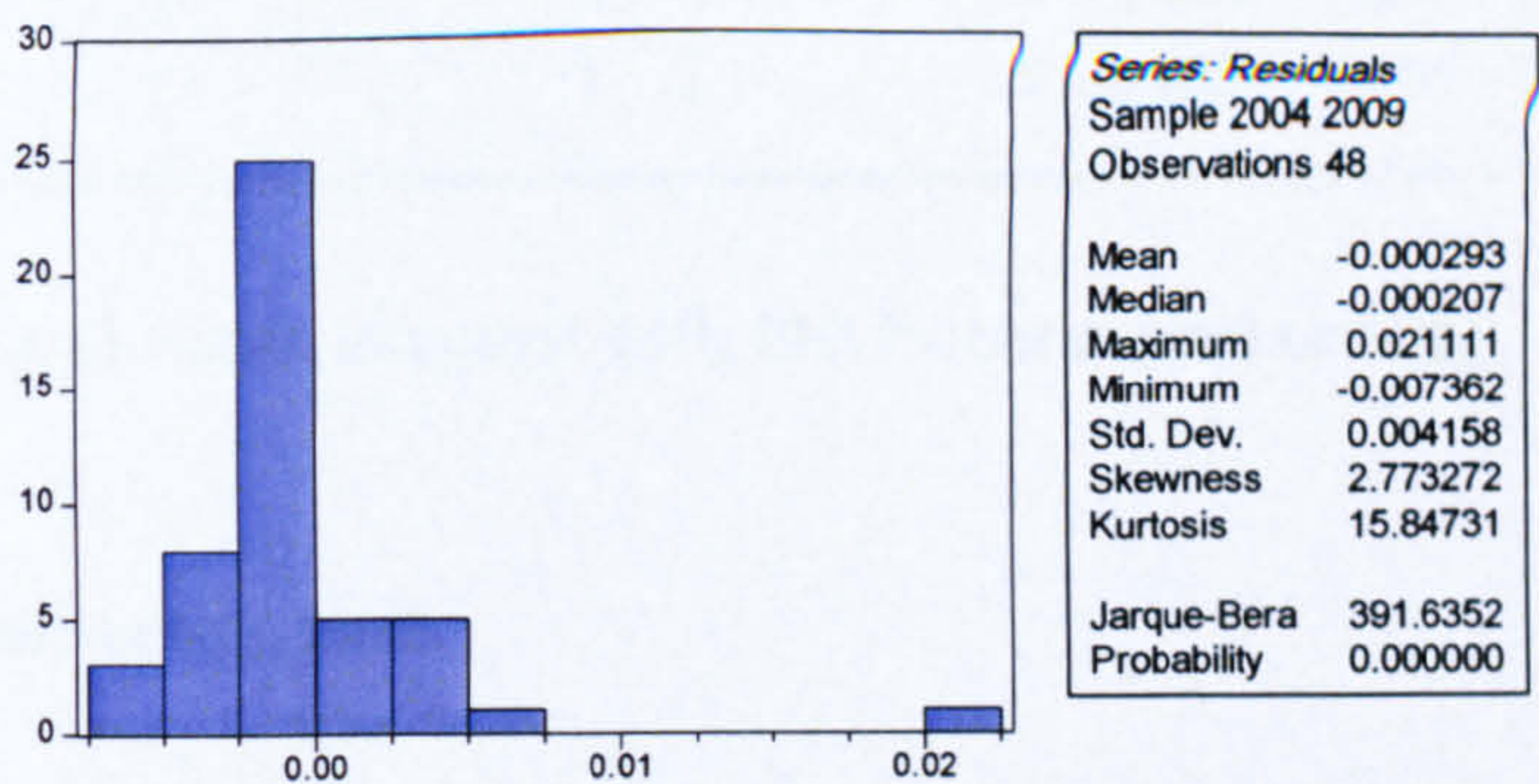
Correlogram Q squared -stat for heteroskedasticity

Date: 08/02/10 Time: 08:41  
Sample: 2004 2009  
Included observations: 48

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
. .	. .	1	-0.035	-0.035	0.0611	0.805
. .	. .	2	0.051	0.050	0.1960	0.907
. .	. .	3	-0.005	-0.002	0.1973	0.978
. * .	. * .	4	0.094	0.091	0.6743	0.954
. .	. .	5	0.001	0.008	0.6744	0.984

Conclusion: Accept H0, No heteroskedasticity

Normality test



Conclusion: Reject H0, residuals are not normally distributed

Model 7 control variable: VACCOUNT(-1)

Correlogram Q-stat for serial correlation

Date: 08/02/10 Time: 08:42  
Sample: 2004 2009  
Included observations: 48

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
.* .	.* .	1	-0.167	-0.167	1.4215	0.233
.* .	.* .	2	-0.154	-0.187	2.6558	0.265
. * .	. * .	3	0.199	0.146	4.7671	0.190



. *   .	. *   .	4	-0.179	-0.158	6.5237	0.163
.   .	.   .	5	-0.003	-0.001	6.5242	0.259

Conclusion: Accept H0, no serial correlation

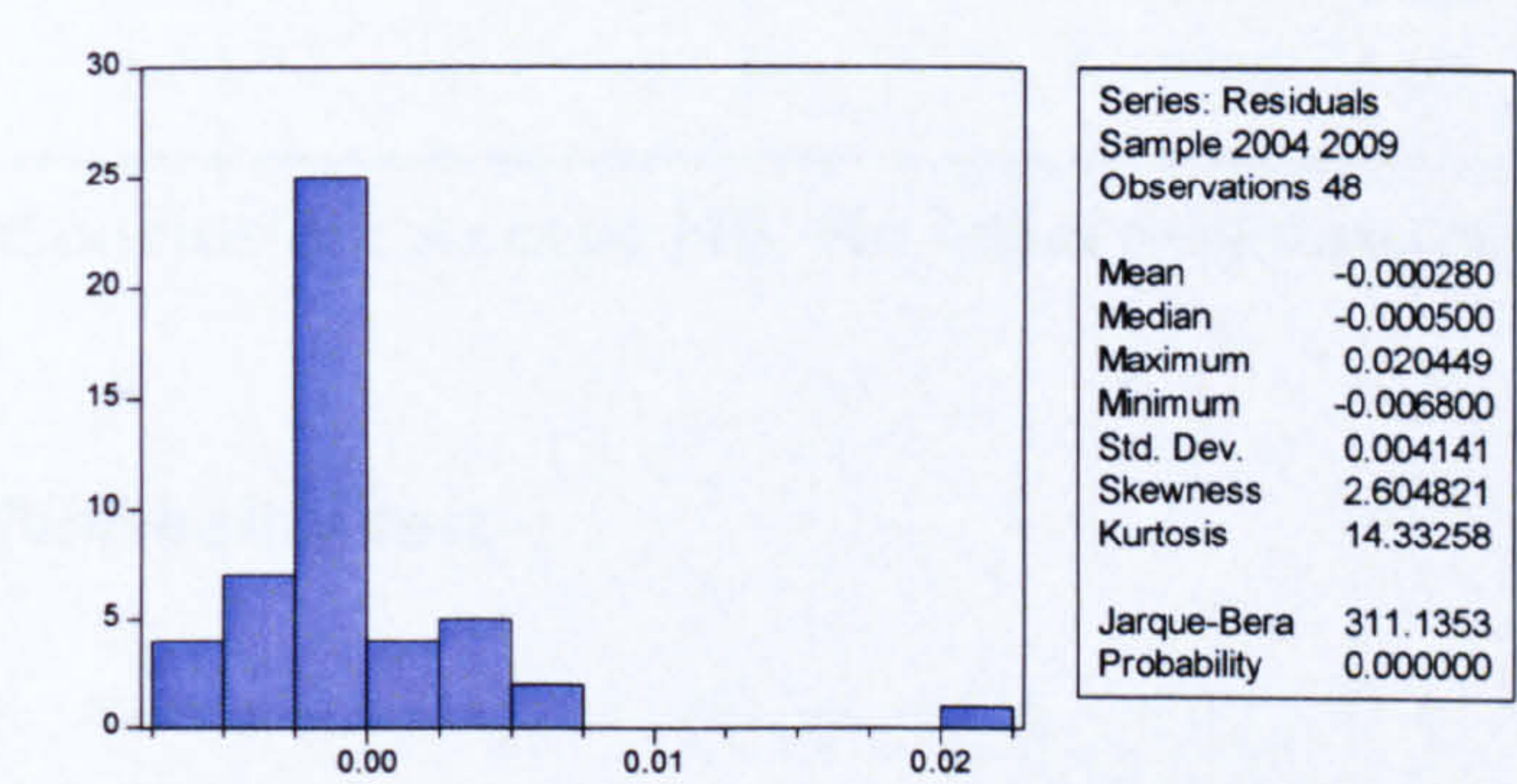
### Correlogram Q squared -stat for heteroskedasticity

Date: 08/02/10 Time: 08:42  
Sample: 2004 2009  
Included observations: 48

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
.   .	.   .	1	-0.018	-0.018	0.0168	0.897
.   .	.   .	2	0.050	0.050	0.1485	0.928
.   .	.   .	3	0.059	0.060	0.3312	0.954
.   .	.   .	4	0.061	0.061	0.5344	0.970
.   .	.   .	5	0.003	-0.001	0.5348	0.991

Conclusion: Accept H0, No heteroskedasticity

### Normality test



Conclusion: Reject H0, residuals are not normally distributed

### Model 8 control variable: INVFREEDOM(-1)

#### Correlogram Q-stat for serial correlation



Date: 08/02/10 Time: 08:42  
Sample: 2004 2009  
Included observations: 48

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
. *   .	. *   .	1	-0.131	-0.131	0.8792	0.348
. *   .	. *   .	2	-0.155	-0.175	2.1270	0.345
.   *	.   *	3	0.163	0.122	3.5466	0.315
. *   .	. *   .	4	-0.178	-0.176	5.2825	0.260
.   .	.   .	5	-0.007	-0.005	5.2849	0.382

Conclusion: Accept H0, no serial correlation

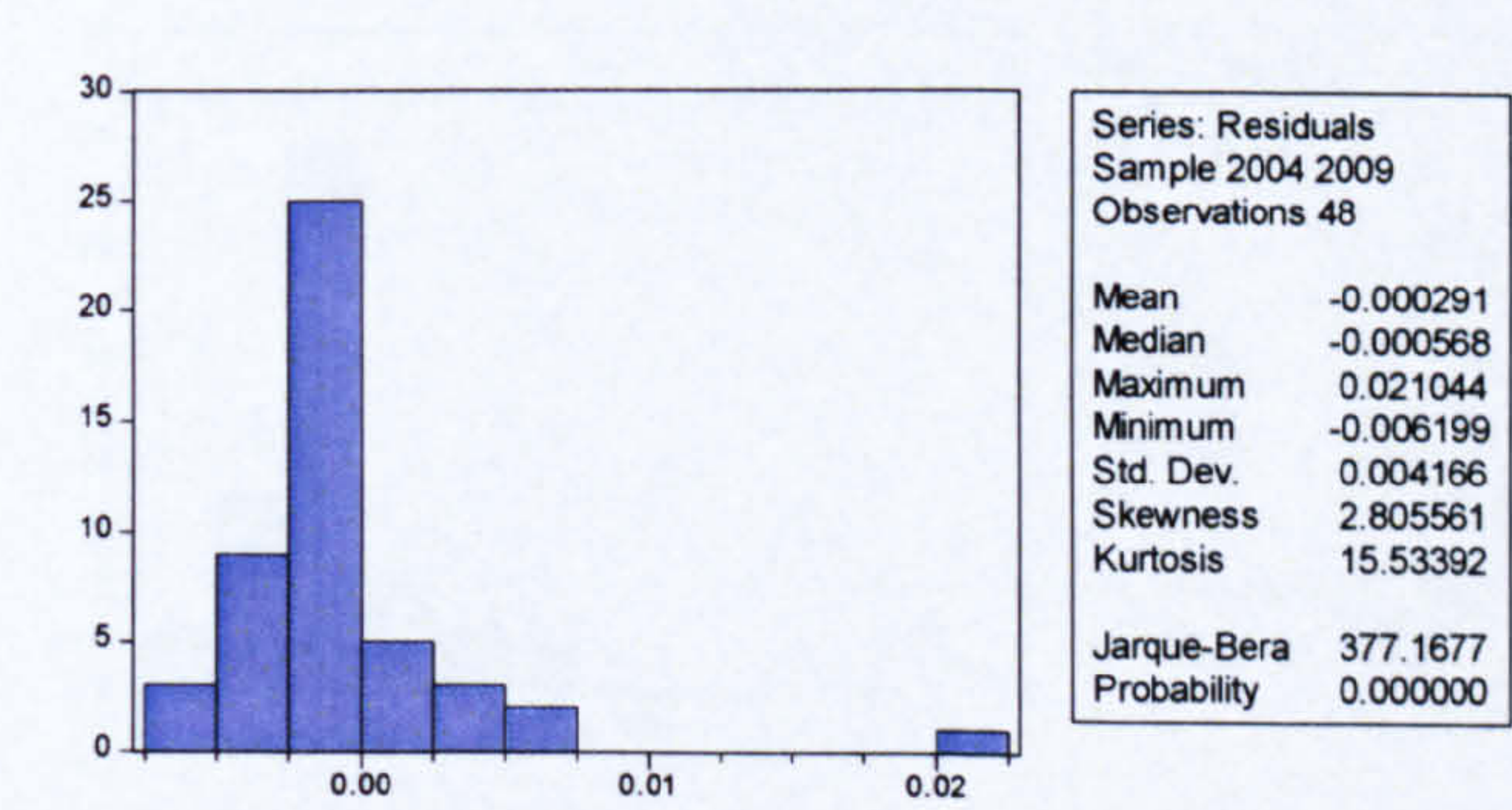
Correlogram Q squared -stat for heteroskedasticity

Date: 08/02/10 Time: 08:43  
Sample: 2004 2009  
Included observations: 48

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
.   .	.   .	1	-0.036	-0.036	0.0678	0.795
.   .	.   .	2	0.062	0.061	0.2701	0.874
.   .	.   .	3	0.023	0.028	0.2988	0.960
.   .	.   .	4	0.057	0.055	0.4769	0.976
.   .	.   .	5	0.002	0.003	0.4772	0.993

Conclusion: Accept H0, No heteroskedasticity

Normality test





Conclusion: Reject H0, residuals are not normally distributed

Model 9 control variable: ΔPROPERTYRIGHTS

Correlogram Q-stat for serial correlation

Date: 08/02/10 Time: 08:43  
Sample: 2004 2009  
Included observations: 48

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
. *   .	. *   .	1	-0.117	-0.117	0.7013	0.402
. *   .	. **   .	2	-0.192	-0.208	2.6184	0.270
.   * .	.   * .	3	0.176	0.132	4.2686	0.234
. *   .	. *   .	4	-0.179	-0.194	6.0106	0.198
.   .	.   .	5	-0.009	0.015	6.0148	0.305

Conclusion: Accept H0, no serial correlation

Correlogram Q squared -stat for heteroskedasticity

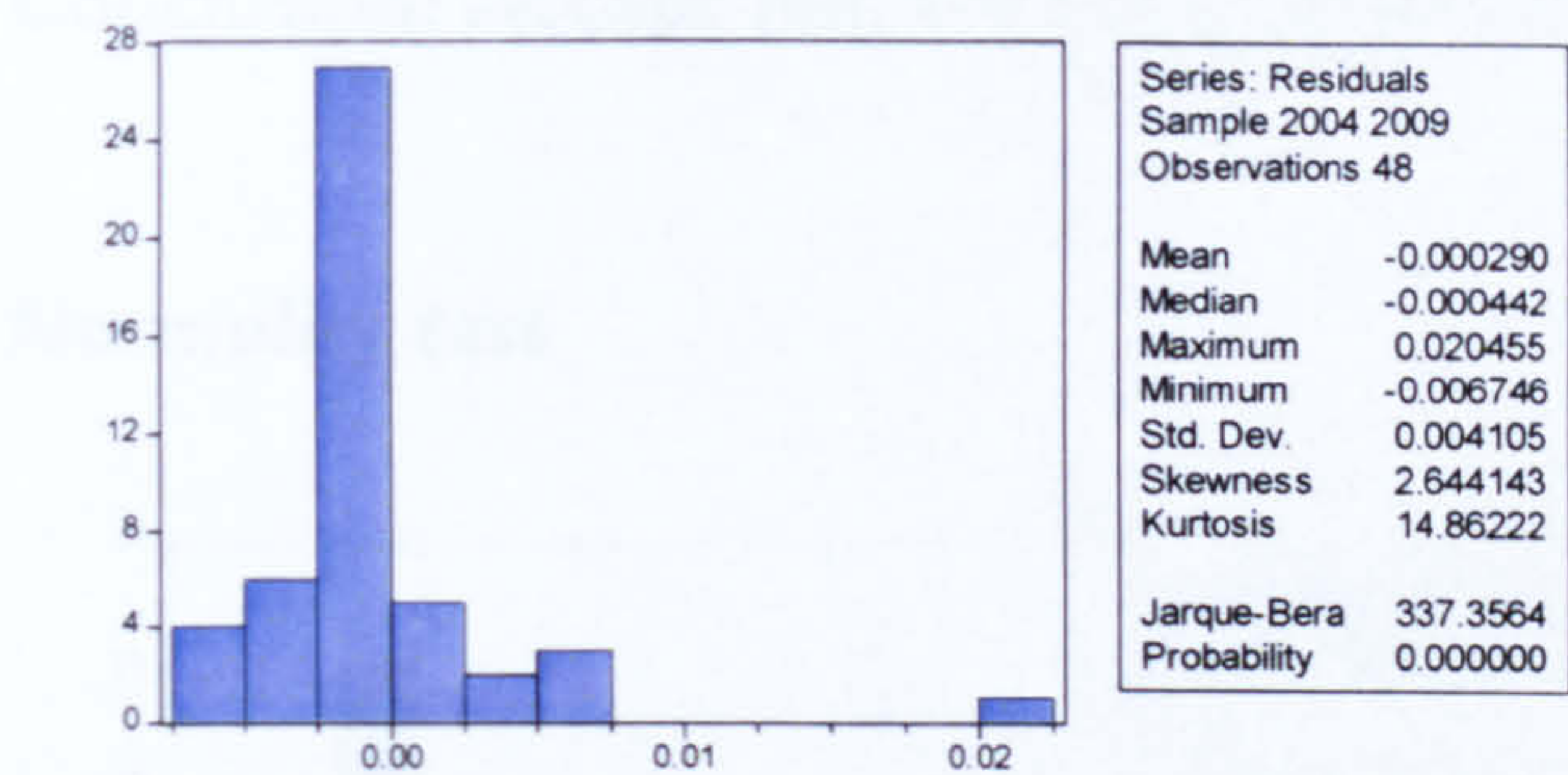
Date: 08/02/10 Time: 08:43  
Sample: 2004 2009  
Included observations: 48

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
.   .	.   .	1	-0.030	-0.030	0.0451	0.832
.   * .	.   * .	2	0.089	0.088	0.4597	0.795
.   .	.   .	3	0.039	0.045	0.5414	0.910
.   .	.   .	4	0.052	0.047	0.6873	0.953
.   .	.   .	5	0.004	-0.000	0.6882	0.984

Conclusion: Accept H0, No heteroskedasticity

Normality test





Conclusion: Reject H0, residuals are not normally distributed

Model 10 control variable: PROTECTINVESTOR(-1)

Correlogram Q-stat for serial correlation

Date: 08/02/10 Time: 08:44  
Sample: 2004 2009  
Included observations: 48

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
. *   .	. *   .	1	-0.143	-0.143	1.0373	0.308
. *   .	. *   .	2	-0.167	-0.191	2.4922	0.288
.   * .	.   * .	3	0.183	0.135	4.2757	0.233
. *   .	. *   .	4	-0.160	-0.154	5.6730	0.225
.   .	.   .	5	-0.007	0.007	5.6754	0.339

Conclusion: Accept H0, no serial correlation

Correlogram Q squared -stat for heteroskedasticity

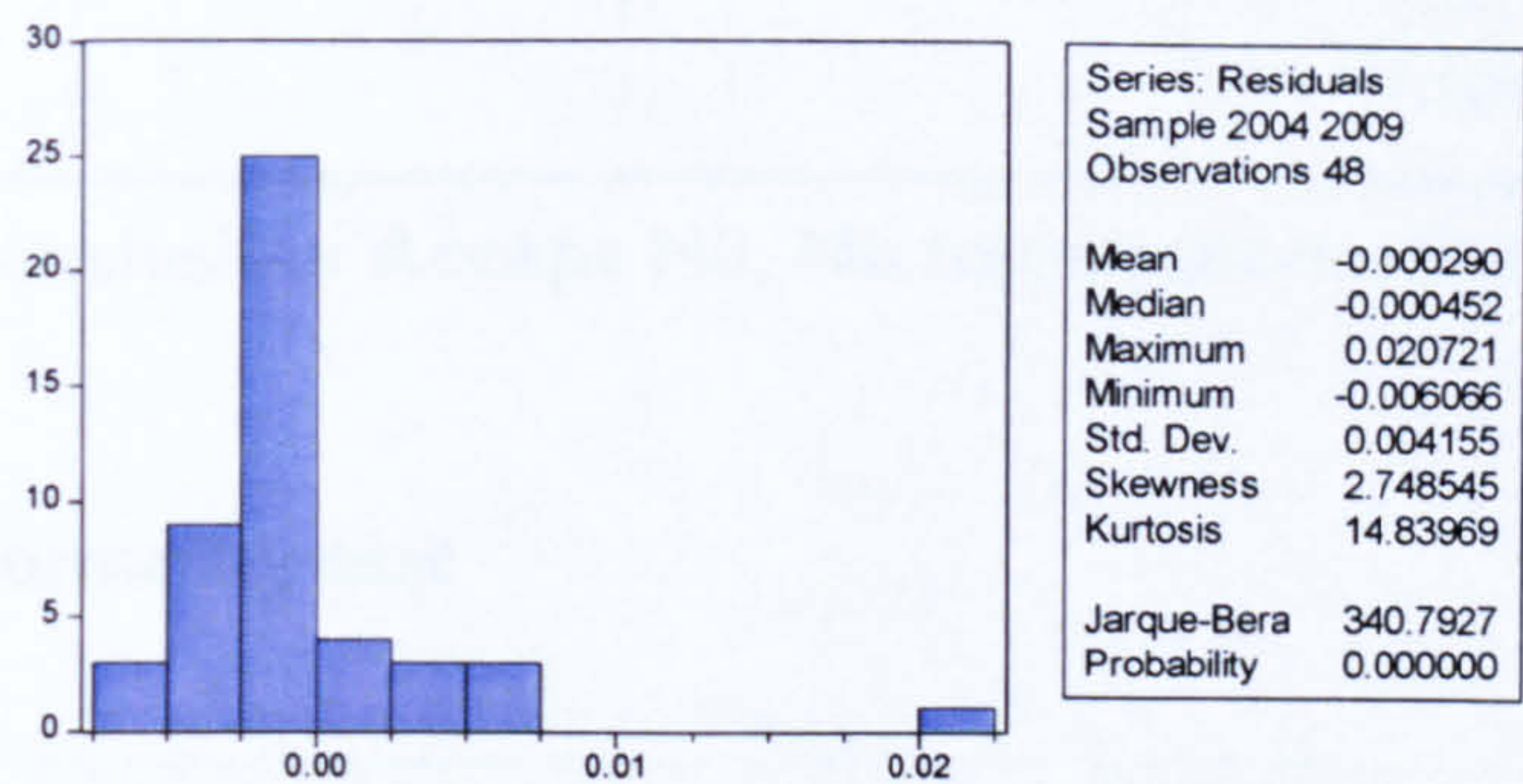
Date: 08/02/10 Time: 08:44  
Sample: 2004 2009  
Included observations: 48

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
.   .	.   .	1	-0.026	-0.026	0.0358	0.850
.   .	.   .	2	0.066	0.065	0.2635	0.877
.   .	.   .	3	0.043	0.047	0.3629	0.948
.   .	.   .	4	0.040	0.038	0.4496	0.978
.   .	.   .	5	0.003	-0.001	0.4500	0.994



Conclusion: Accept H0, No heteroskedasticity

Normality test



Conclusion: Reject H0, residuals are not normally distributed

Model II control variable: REIT(-1)

Correlogram Q-stat for serial correlation

Date: 08/02/10 Time: 08:45  
Sample: 2004 2009  
Included observations: 48

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
. *   .	. *   .	1	-0.189	-0.189	1.8283	0.176
. *   .	. **   .	2	-0.167	-0.210	3.2817	0.194
.   * .	.   * .	3	0.210	0.143	5.6383	0.131
. *   .	. *   .	4	-0.167	-0.142	7.1610	0.128
.   .	.   .	5	-0.016	-0.013	7.1759	0.208

Conclusion: Accept H0, no serial correlation

Correlogram Q squared -stat for heteroskedasticity

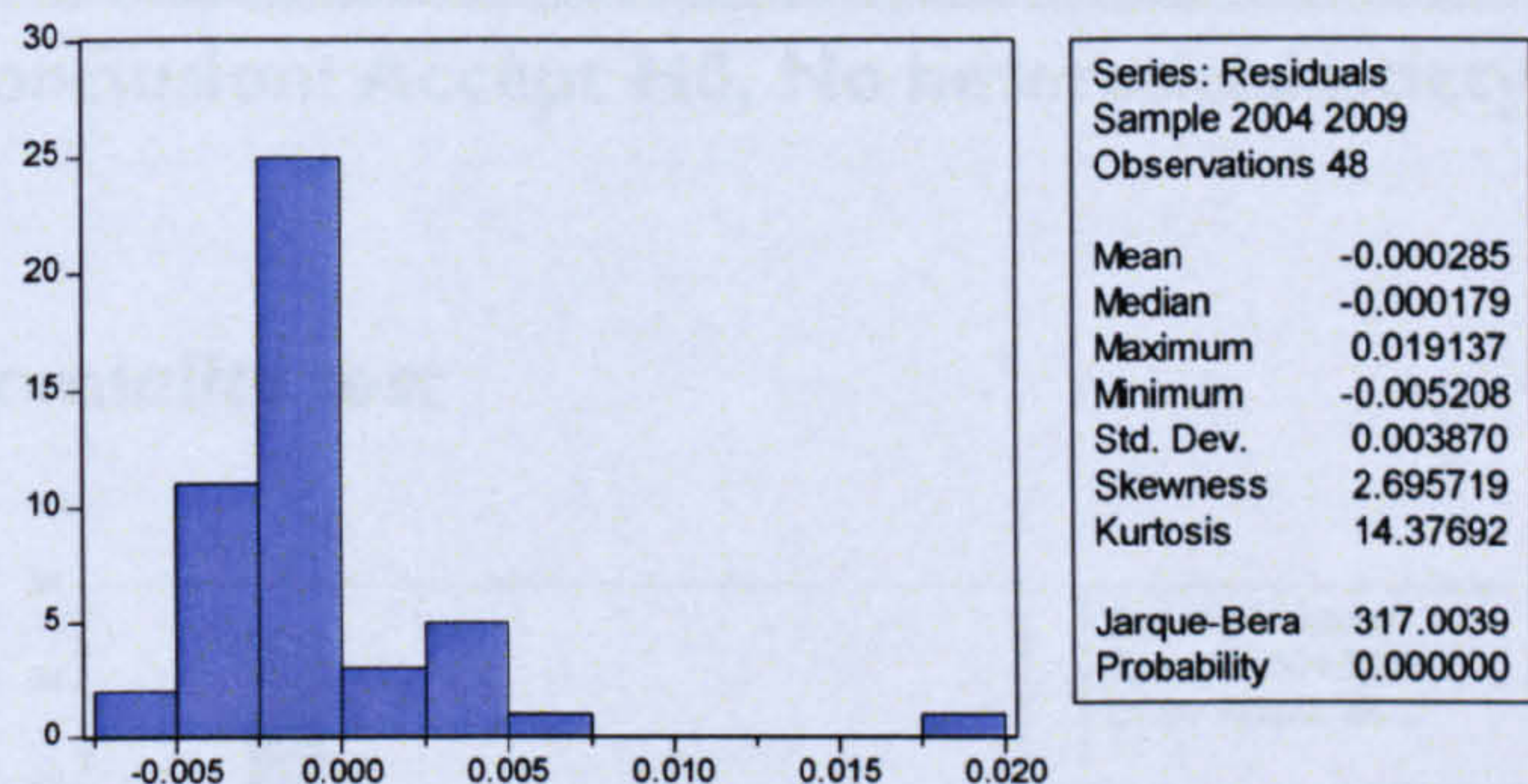
Date: 08/02/10 Time: 08:45  
Sample: 2004 2009  
Included observations: 48



Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
. .	. .	1	0.014	0.014	0.0094	0.923
. .	. .	2	0.051	0.050	0.1433	0.931
. .	. .	3	0.060	0.059	0.3354	0.953
. .	. .	4	0.039	0.036	0.4199	0.981
. .	. .	5	0.004	-0.003	0.4206	0.995

Conclusion: Accept H0, No heteroskedasticity

### Normality test



Conclusion: Reject H0, residuals are not normally distributed

## Model 12 control variable: $\Delta$ RETRANSP

### Correlogram Q-stat for serial correlation

Date: 08/02/10 Time: 08:46

Sample: 2004 2009

Included observations: 48

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
.* .	.* .	1	-0.150	-0.150	1.1552	0.282
.* .	.* .	2	-0.155	-0.181	2.4035	0.301
. *.	. *.	3	0.168	0.120	3.9173	0.271
.* .	.* .	4	-0.177	-0.169	5.6313	0.228
. .	. .	5	-0.010	-0.015	5.6369	0.343

Conclusion: Accept H0, no serial correlation



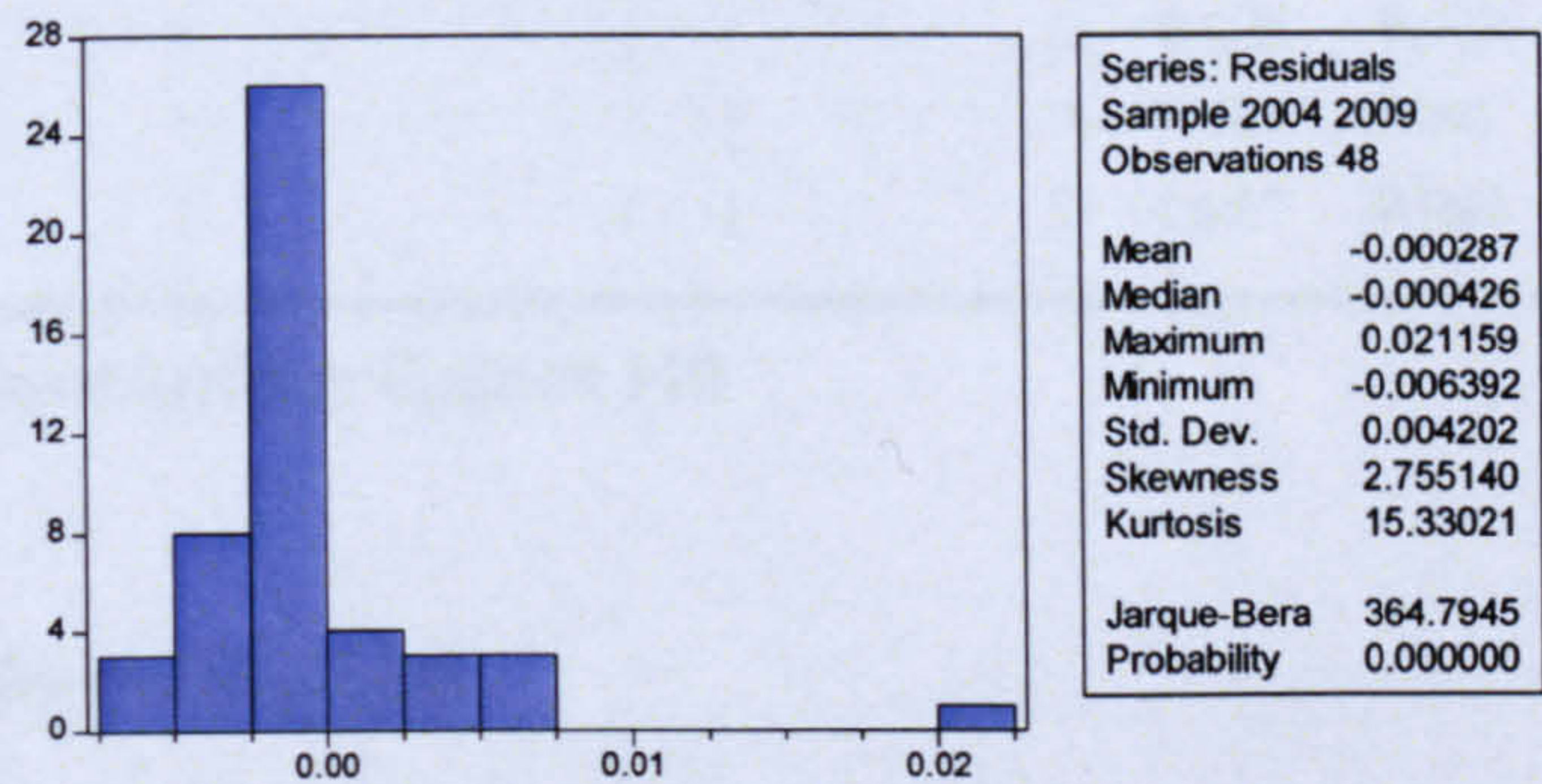
Correlogram Q squared -stat for heteroskedasticity

Date: 08/02/10 Time: 08:46  
Sample: 2004 2009  
Included observations: 48

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
. .	. .	1	-0.024	-0.024	0.0291	0.864
. .	. .	2	0.067	0.066	0.2618	0.877
. .	. .	3	0.026	0.029	0.2982	0.960
. .	. .	4	0.058	0.055	0.4798	0.975
. .	. .	5	0.002	0.002	0.4802	0.993

Conclusion: Accept H0, No heteroskedasticity

Normality test



Conclusion: Reject H0, residuals are not normally distributed

8.7.2 TESTS FOR ASSUMPTION VALIDITY OF ESTIMATED MODELS FOR HOTEL FDI

Model I (base model)

Correlogram Q-stat for serial correlation

Date: 08/02/10 Time: 14:30  
Sample: 2004 2009  
Included observations: 48

Autocorrelation	Partial Correlation	AC	PAC	Q-Stat	Prob



. *   .	. *   .	1	-0.106	-0.106	0.5709	0.450
.   .	.   .	2	0.069	0.059	0.8227	0.663
.   .	.   *	3	0.069	0.084	1.0791	0.782
.   .	.   .	4	0.020	0.032	1.1016	0.894
.   .	.   .	5	-0.004	-0.009	1.1023	0.954

Conclusion: Accept H0, no serial correlation

### Correlogram Q squared -stat for heteroskedasticity

Date: 08/02/10 Time: 14:31

Sample: 2004 2009

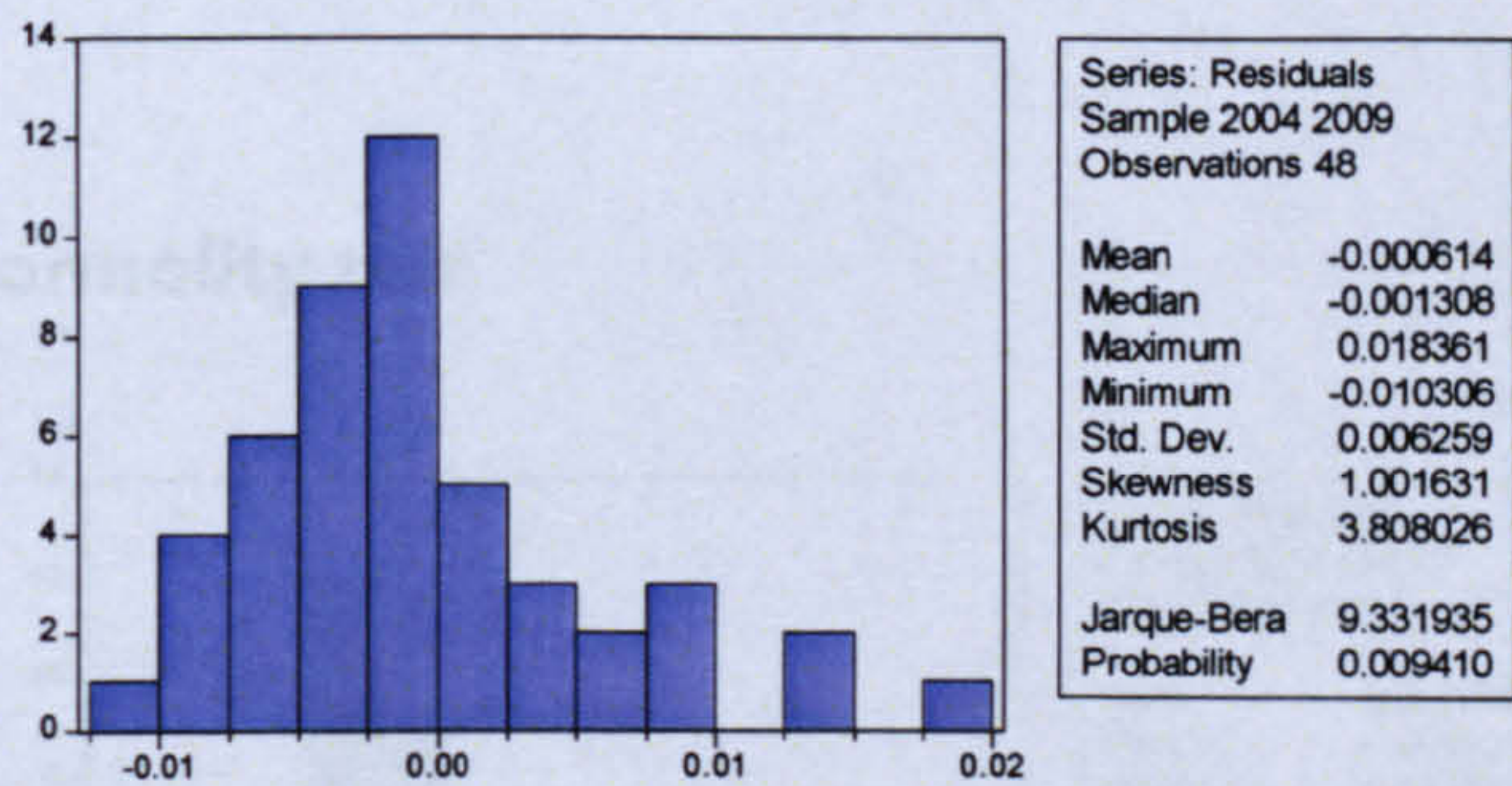
Included observations: 48

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
.   ***	.   ***	1	0.397	0.397	8.0404	0.005
.   *	.   .	2	0.151	-0.008	9.2237	0.010
.   .	.   .	3	0.026	-0.037	9.2585	0.026
.   .	.   .	4	0.037	0.049	9.3340	0.053
.   .	.   .	5	0.007	-0.023	9.3366	0.096

Conclusion: Reject H0

### Normality test

Conclusion: Reject H0



Conclusion: Reject H0, residuals are not normally distributed

### Model 2: Control variable: CORRUP(-1)

#### Correlogram Q-stat for serial correlation



Date: 08/02/10 Time: 14:31  
Sample: 2004 2009  
Included observations: 48

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
. *   .	. *   .	1	-0.132	-0.132	0.8882	0.346
.   .	.   .	2	0.048	0.031	1.0072	0.604
.   .	.   *	3	0.064	0.075	1.2242	0.747
.   .	.   .	4	0.019	0.036	1.2443	0.871
.   .	.   .	5	0.005	0.007	1.2459	0.940

Conclusion: Accept H0, no serial correlation

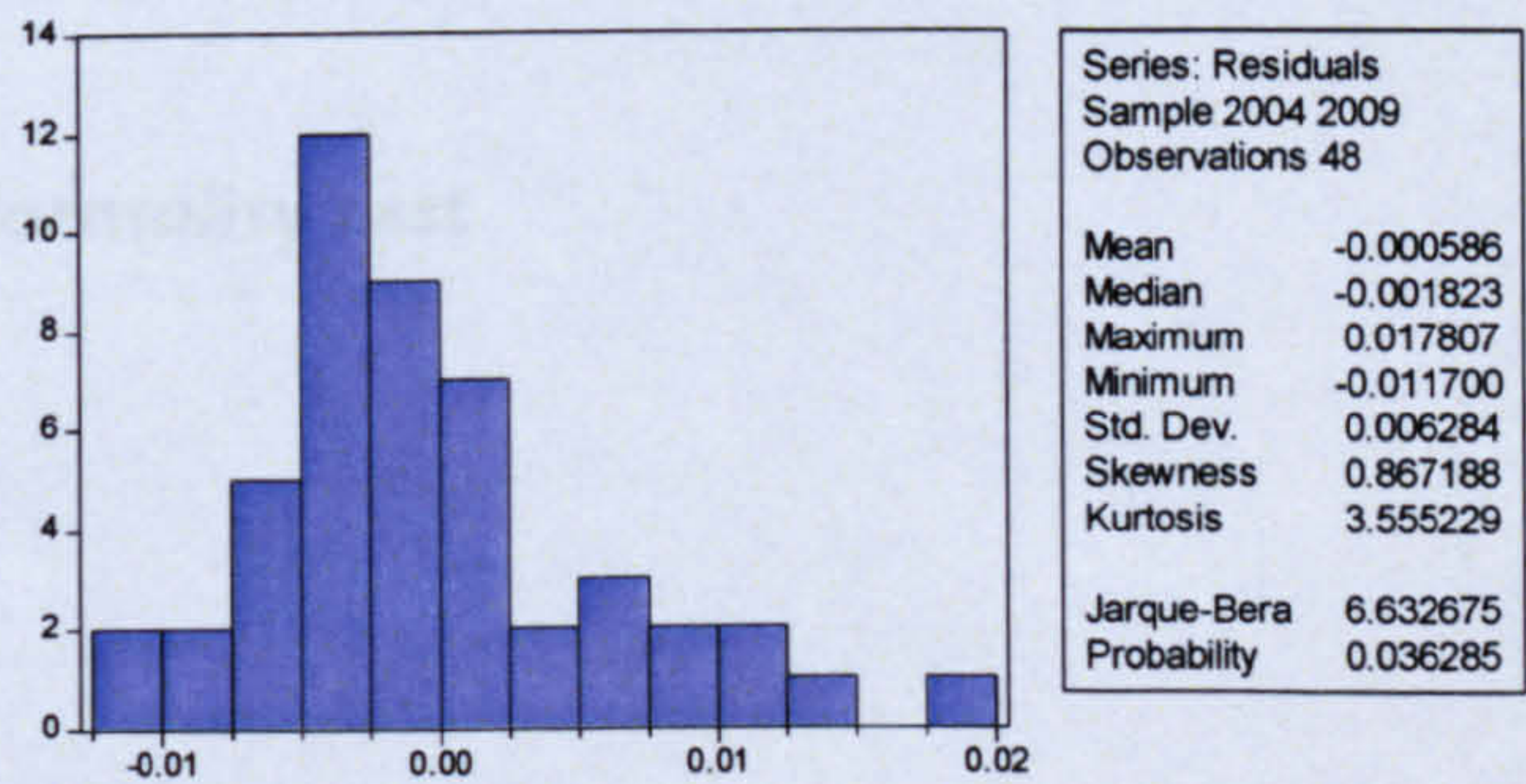
Correlogram Q squared -stat for heteroskedasticity

Date: 08/02/10 Time: 14:32  
Sample: 2004 2009  
Included observations: 48

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
.   ***	.   ***	1	0.372	0.372	7.0597	0.008
.   *	.   .	2	0.179	0.047	8.7247	0.013
.   *	.   .	3	0.077	-0.004	9.0449	0.029
.   .	.   .	4	0.044	0.011	9.1508	0.057
.   .	.   .	5	0.014	-0.010	9.1613	0.103

Conclusion: Reject H0

Normality test



Conclusion: Reject H0, residuals are not normally distributed



Model 3: Control variable: GOVEFFECT(-1)

Correlogram Q-stat for serial correlation

Date: 08/02/10 Time: 14:32

Sample: 2004 2009

Included observations: 48

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
.*.	.*.	1	-0.112	-0.112	0.6360	0.425
. .	. .	2	0.071	0.059	0.8997	0.638
. .	. .	3	0.028	0.043	0.9424	0.815
. .	. .	4	0.015	0.019	0.9545	0.917
. .	. .	5	0.007	0.005	0.9569	0.966

Conclusion: Accept H0, no serial correlation

Correlogram Q squared -stat for heteroskedasticity

Date: 08/02/10 Time: 14:32

Sample: 2004 2009

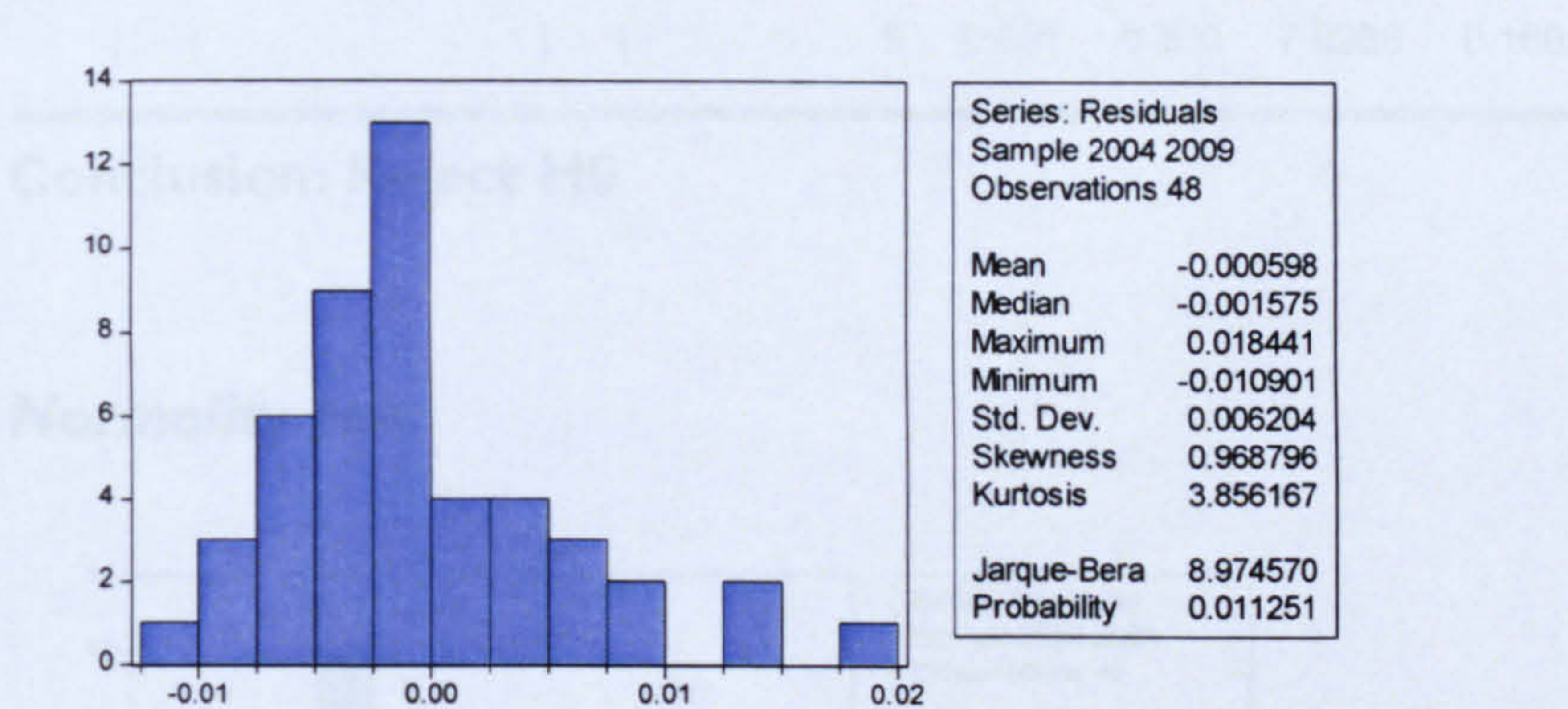
Included observations: 48

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
. ***	. ***	1	0.391	0.391	7.7974	0.005
. *	. .	2	0.177	0.029	9.4296	0.009
. .	.*.	3	0.002	-0.090	9.4298	0.024
. .	. *	4	0.060	0.099	9.6254	0.047
. .	. .	5	-0.005	-0.053	9.6266	0.087

Conclusion: Reject H0

Normality test





**Conclusion: Reject H0, residuals are not normally distributed**

## Model 4: Control variable: POLITIC(-1)

### Correlogram Q-stat for serial correlation

Date: 08/02/10 Time: 14:33

Sample: 2004 2009

Included observations: 48

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
. *   .	. *   .	1	-0.120	-0.120	0.7354	0.391
.   .	.   .	2	0.054	0.040	0.8888	0.641
.   .	.   .	3	0.046	0.058	1.0033	0.800
.   .	.   .	4	-0.000	0.010	1.0033	0.909
.   .	.   .	5	-0.015	-0.020	1.0166	0.961

**Conclusion: Accept H0, no serial correlation**

### Correlogram Q squared -stat for heteroskedasticity

Date: 08/02/10 Time: 14:33

Sample: 2004 2009

Included observations: 48

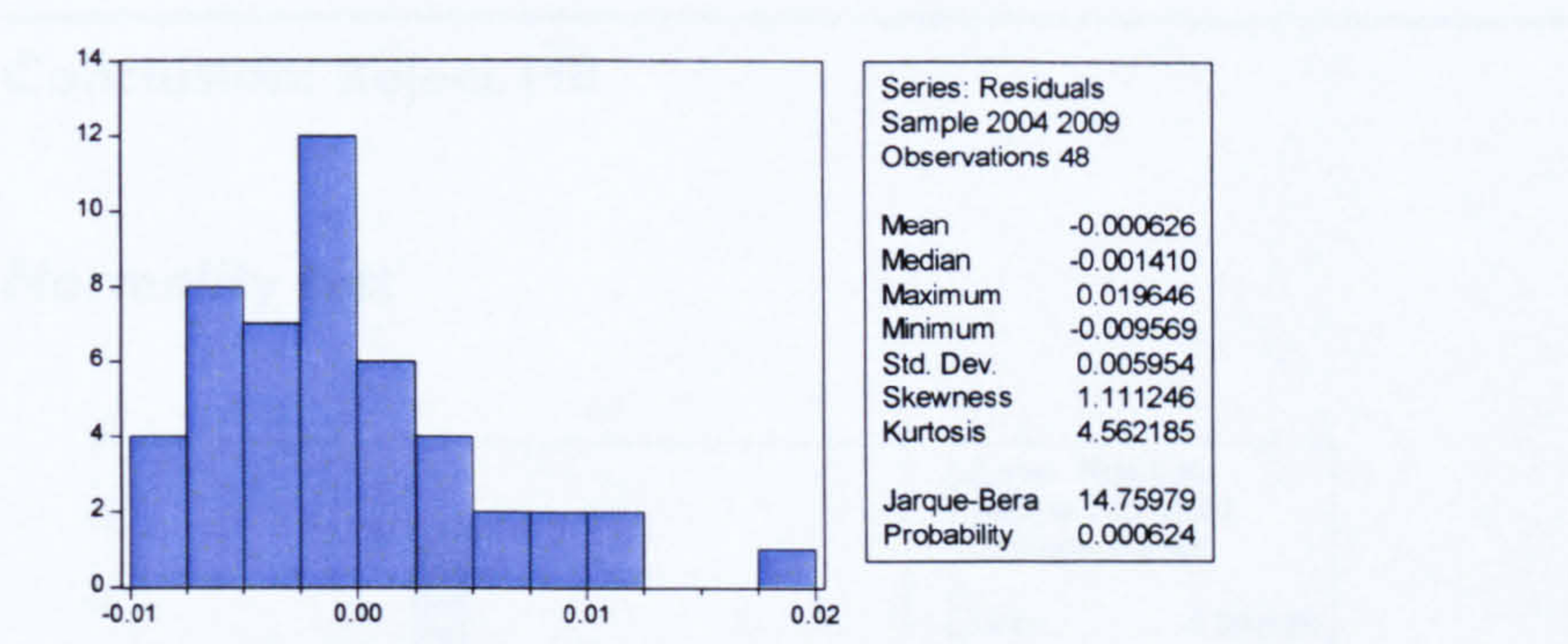
Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
.   ***	.   ***	1	0.353	0.353	6.3671	0.012
.   *	.   .	2	0.172	0.054	7.9162	0.019
.   .	. *   .	3	0.004	-0.084	7.9169	0.048
.   .	.   .	4	0.015	0.033	7.9285	0.094



. .	. .	5	0.001	0.000	7.9286	0.160
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**Conclusion: Reject H0**

**Normality test**



**Conclusion: Reject H0, residuals are not normally distributed**

**Model 5: Control variable: PROTECTINVESTOR(-1)**

**Correlogram Q-stat for serial correlation**

Date: 08/02/10 Time: 14:34  
Sample: 2004 2009  
Included observations: 48

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
.*. .	.* .	1	-0.130	-0.130	0.8680	0.352
. .	.* .	2	-0.053	-0.071	1.0135	0.602
. .	. .	3	0.045	0.029	1.1203	0.772
. .	. .	4	-0.052	-0.047	1.2695	0.867
. .	. .	5	0.021	0.013	1.2948	0.935

**Conclusion: Accept H0, no serial correlation**

**Correlogram Q squared -stat for heteroskedasticity**

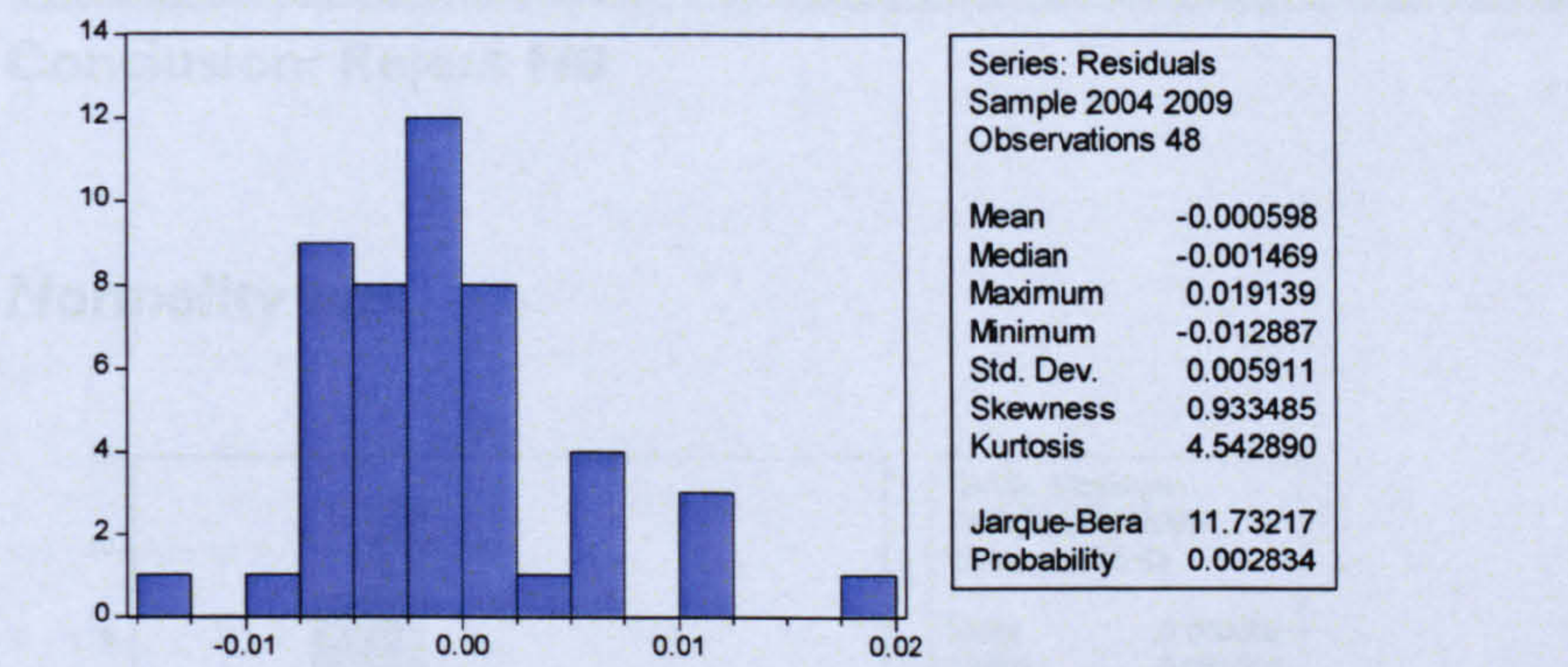
Date: 08/02/10 Time: 14:34  
Sample: 2004 2009  
Included observations: 48



Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
.  **	.  **	1	0.263	0.263	3.5218	0.061
.  **	.  *	2	0.241	0.185	6.5553	0.038
.  .	.  .	3	0.050	-0.056	6.6889	0.083
.  .	.  .	4	-0.003	-0.052	6.6894	0.153
.  .	.  .	5	0.025	0.045	6.7254	0.242

Conclusion: Reject H0

### Normality test



Conclusion: Reject H0, residuals are not normally distributed

### Model 6: Control variable: REGQUALT(-1)

#### Correlogram Q-stat for serial correlation

Date: 08/02/10 Time: 14:34

Sample: 2004 2009

Included observations: 48

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
. *  .	. *  .	1	-0.123	-0.123	0.7772	0.378
.   .	.   .	2	0.069	0.054	1.0233	0.600
.   .	.  * .	3	0.070	0.086	1.2862	0.732
.   .	.   .	4	0.024	0.040	1.3188	0.858
.   .	.   .	5	-0.002	-0.004	1.3189	0.933

Conclusion: Accept H0, no serial correlation



Correlogram Q squared -stat for heteroskedasticity

Date: 08/02/10 Time: 14:34

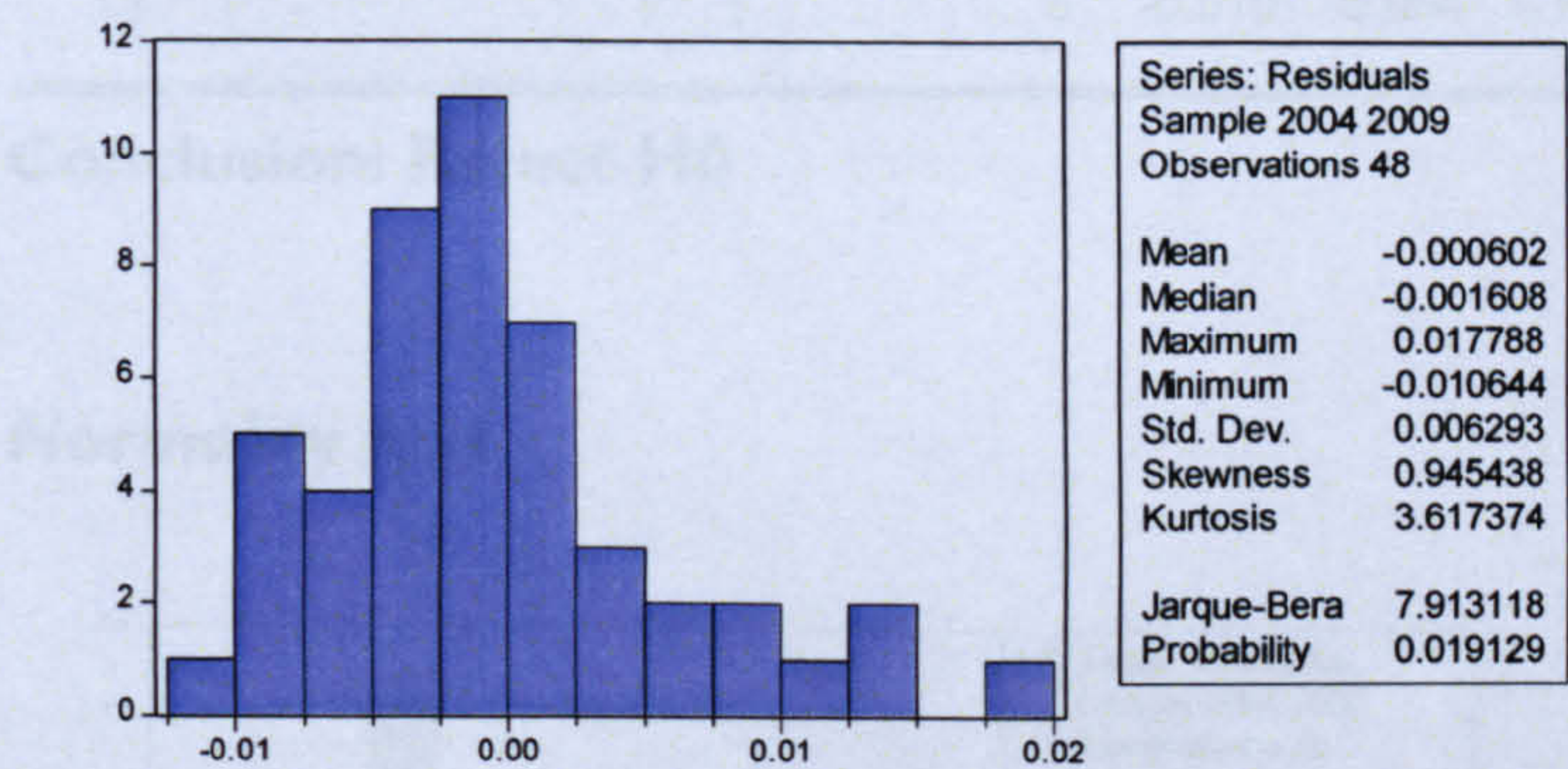
Sample: 2004 2009

Included observations: 48

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
.  ***	.  ***	1	0.399	0.399	8.1114	0.004
.  * .	.   .	2	0.156	-0.003	9.3858	0.009
.   .	.   .	3	0.036	-0.030	9.4546	0.024
.   .	.   .	4	0.049	0.054	9.5843	0.048
.   .	.   .	5	0.007	-0.032	9.5867	0.088

Conclusion: Reject H0

Normality test



Conclusion: Reject H0, residuals are not normally distributed

Model 7: Control variable: RULELAW(-1)

Correlogram Q-stat for serial correlation

Date: 08/02/10 Time: 14:35

Sample: 2004 2009

Included observations: 48

Autocorrelation	Partial Correlation	AC	PAC	Q-Stat	Prob	
. *   .	. *   .	1	-0.110	-0.110	0.6213	0.431
.   .	.   .	2	0.054	0.042	0.7720	0.680



.   .	.   .	3	0.047	0.058	0.8895	0.828
.   .	.   .	4	0.029	0.039	0.9367	0.919
.   .	.   .	5	0.004	0.006	0.9375	0.967

Conclusion: Accept H0, no serial correlation

### Correlogram Q squared -stat for heteroskedasticity

Date: 08/02/10 Time: 14:35

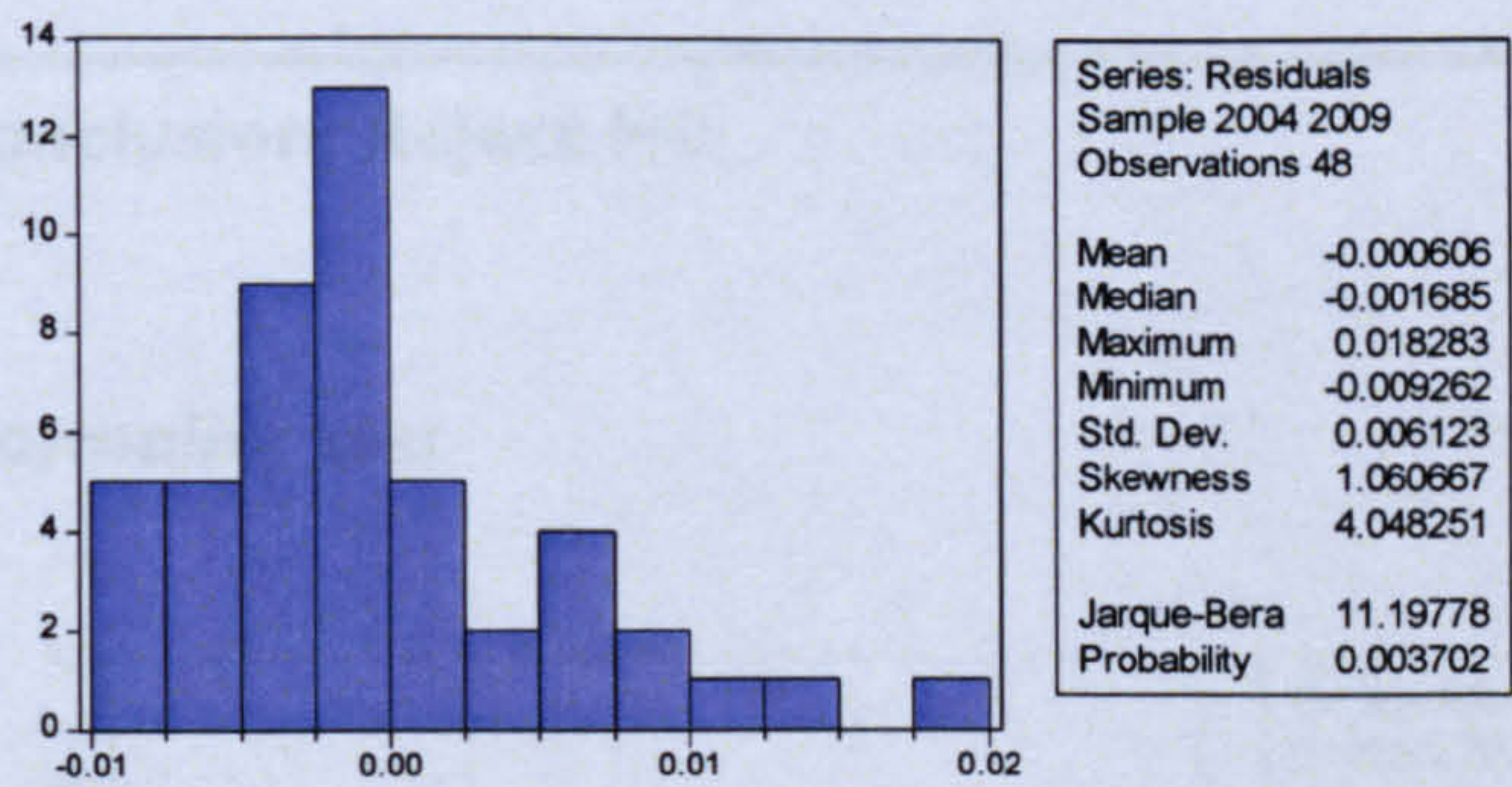
Sample: 2004 2009

Included observations: 48

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
.   **	.   **	1	0.335	0.335	5.7386	0.017
.   *	.   .	2	0.103	-0.010	6.2975	0.043
.   .	.   .	3	-0.021	-0.060	6.3216	0.097
.   .	.   *	4	0.064	0.102	6.5428	0.162
.   .	.   .	5	-0.010	-0.064	6.5487	0.256

Conclusion: Reject H0

### Normality test



Conclusion: Reject H0, residuals are not normally distributed

### Model 8: Control variable: VACCOUNT(-1)

#### Correlogram Q-stat for serial correlation

Date: 08/02/10 Time: 14:36



Sample: 2004 2009  
Included observations: 48

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
. *   .	. *   .	1	-0.129	-0.129	0.8459	0.358
.   .	.   .	2	-0.010	-0.027	0.8507	0.654
.   .	.   .	3	0.049	0.045	0.9784	0.806
.   .	.   .	4	-0.027	-0.015	1.0182	0.907
.   .	.   .	5	0.012	0.008	1.0256	0.960

Conclusion: Accept H0, no serial correlation

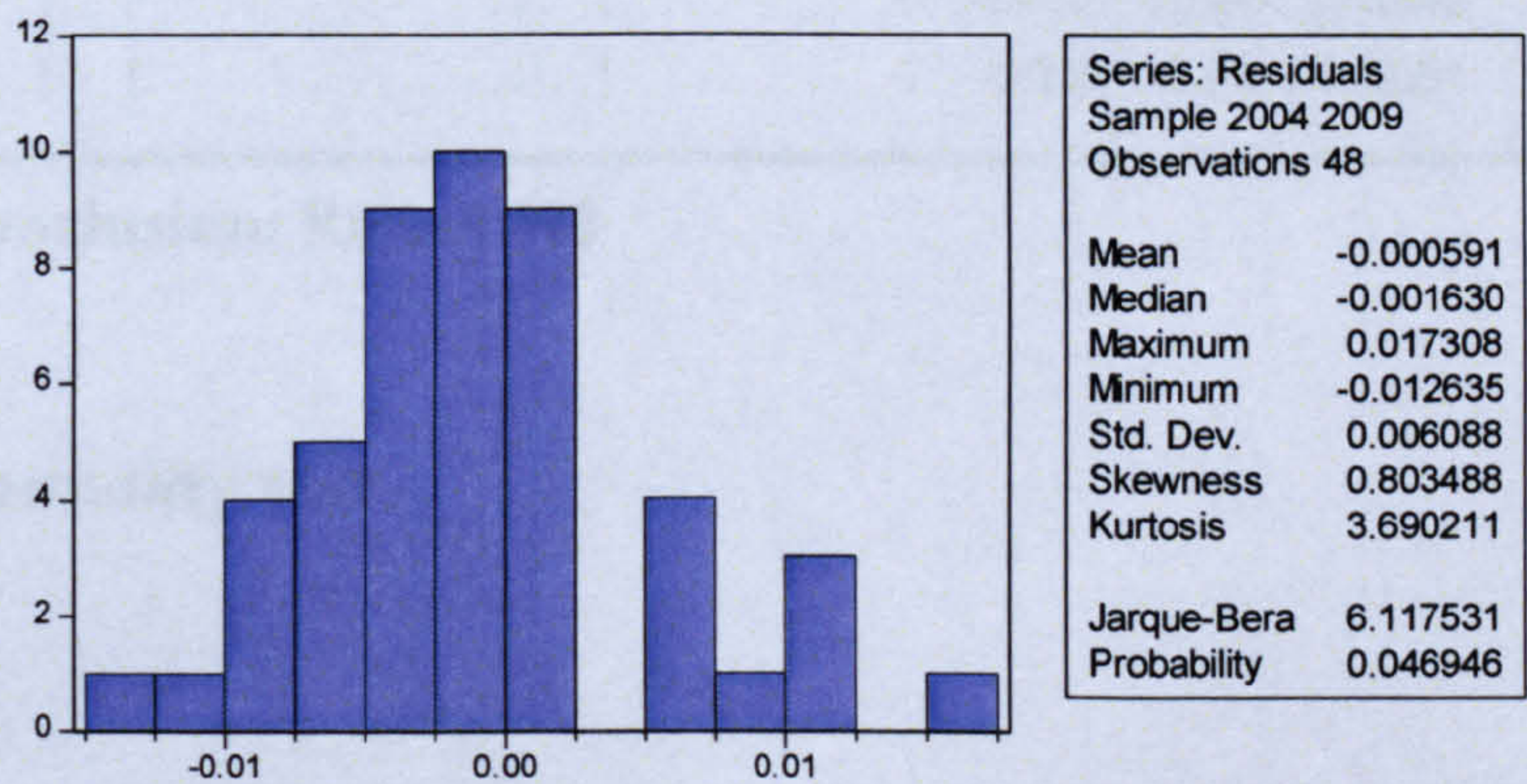
Correlogram Q squared -stat for heteroskedasticity

Date: 08/02/10 Time: 14:36  
Sample: 2004 2009  
Included observations: 48

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
.   ***	.   ***	1	0.411	0.411	8.6140	0.003
.   *	.   .	2	0.202	0.040	10.749	0.005
.   .	.   .	3	0.042	-0.065	10.844	0.013
.   .	.   .	4	0.009	0.007	10.848	0.028
.   .	.   .	5	0.011	0.019	10.854	0.054

Conclusion: Reject H0

Normality test





Conclusion: Reject H0, residuals are not normally distributed

Model 9: Control variable: INVFREEDOM (-I)

Correlogram Q-stat for serial correlation

Date: 08/02/10 Time: 14:37  
Sample: 2004 2009  
Included observations: 48

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
. *   .	. *   .	1	-0.167	-0.167	1.4288	0.232
.   .	.   .	2	0.034	0.006	1.4901	0.475
.   .	.   .	3	0.043	0.052	1.5907	0.661
.   .	.   .	4	0.024	0.040	1.6211	0.805
.   .	.   .	5	0.013	0.021	1.6301	0.898

Conclusion: Accept H0, no serial correlation

Correlogram Q squared -stat for heteroskedasticity

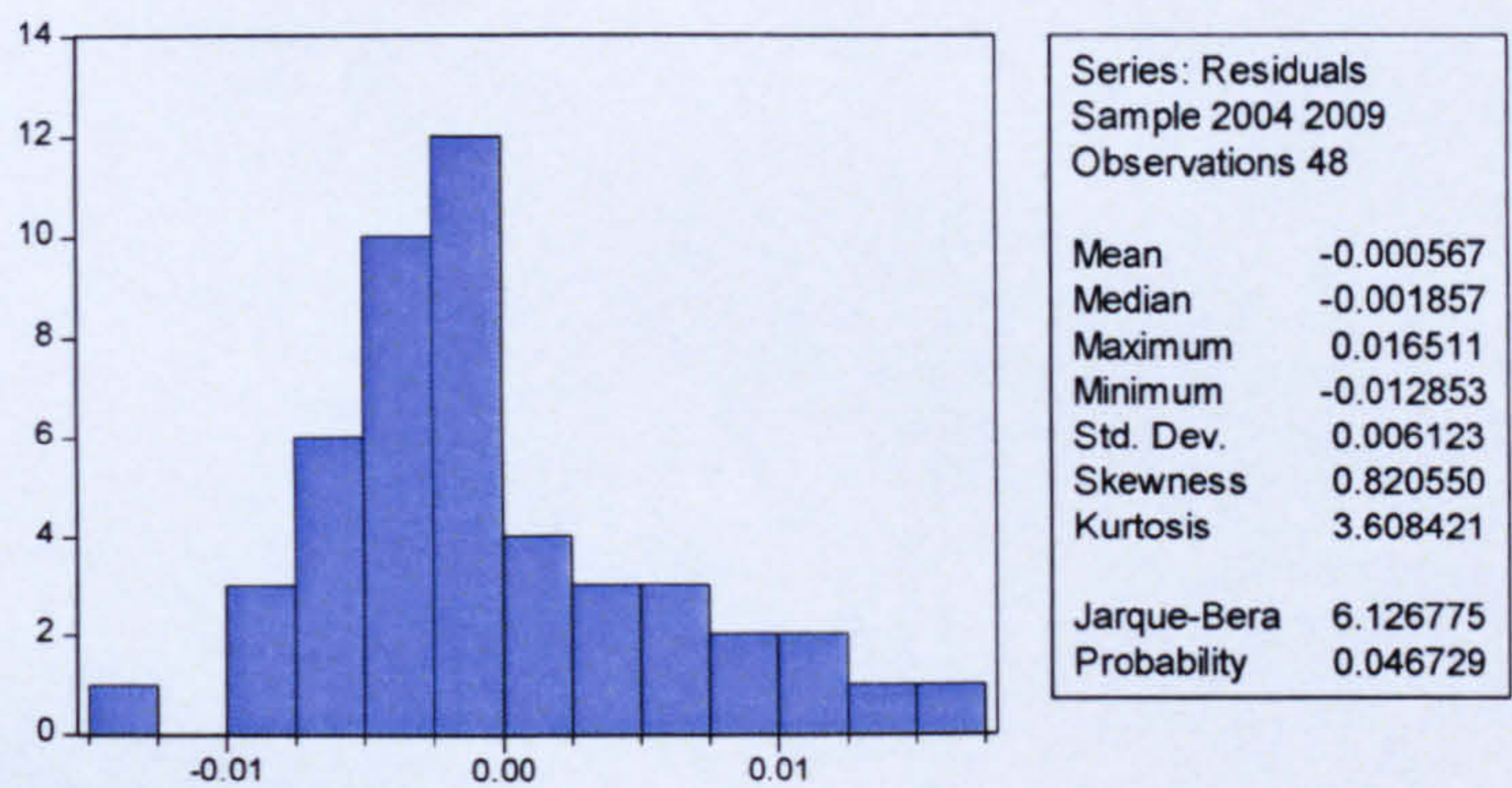
Date: 08/02/10 Time: 14:37  
Sample: 2004 2009  
Included observations: 48

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
.   **	.   **	1	0.317	0.317	5.1301	0.024
.   *	.   *	2	0.209	0.121	7.4118	0.025
.   .	. *   .	3	0.031	-0.074	7.4644	0.058
.   .	.   .	4	0.033	0.020	7.5249	0.111
.   .	.   .	5	-0.002	-0.006	7.5251	0.184

Conclusion: Reject H0

Normality test





**Conclusion: Reject H0, residuals are not normally distributed**