

Factors favoring Greece's inward foreign direct investment in the aftermath of the global financial crisis: An exploratory survey

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Abstract

Greece has suffered the worst from the global financial crisis that was triggered in the second half of the previous decade. Despite the completion of the economic adjustment program in the third quarter of 2018 the rate of recovery in Greece is still weak. The liquidity constraints in the Greek economy imply that the investment shock which will accelerate its recovery rate will be outcome of investment inflows by privatizations and/or other opportunities arising to foreign investors due to the devaluation of the assets in Greece caused by the crisis. However, the level of foreign direct investment (FDI) attracted by the Greek economy has always been well below the European Union average. This paper investigates the factors favoring inward FDI in Greece after the crisis. A survey is made by the use of a questionnaire for the collection of primary data on the activity of multinationals in Greece and non-parametric methods are used for investigating the attractiveness of the Greek market and the decision to invest.

Keywords: economic crisis; FDI; Greece; multinationals.

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Επιχειρησιακό Πρόγραμμα
Ανάπτυξη Ανθρώπινου Δυναμικού,
Εκπαίδευση και Διά Βίου Μάθηση
Με τη συγχρηματοδότηση της Ελλάδας και της Ευρωπαϊκής Ένωσης



1. INTRODUCTION

The late global financial and economic (henceforth) crisis that was triggered in 2007 had devastating consequences for the European Union (EU). Although the impact was not uniform, the three interlocked facets of the crisis (banking, sovereign debt and economic) had a negative effect on the economic performance of all EU states. The crisis admittedly ended in the first half of 2010s, but the speed of economic recovery in the EU and the euro area has been less than satisfactory and full recovery remains still in question (Vlachos and Bitzenis, 2018). Although recovery in terms of gross domestic product (GDP) has been accelerating across the EU, investment recovery has been at a much slower pace due to differences in financing conditions for firms and the deleveraging process across the EU (European Investment Bank, 2017).

Greece has borne the brunt of the crisis (for a discussion see Vlachos, 2013), with the economy sinking into depression, the banks requiring three rounds of recapitalization, and the public sector three (bailouts) programs of economic adjustment. The capital controls (imposed in mid-2015) did not allow the effects of the crisis to deteriorate. GDP fell from 217.4 million euro in 2007 (economic activity started to decline after this year) to 162.2 million euro in 2017 (both in 2005 based chain linked volumes), and investment and consumption expenditures decreased significantly (Eurostat database). The decline of GDP led approximately one-third of the Greek population to live in a situation at risk of poverty and/or social exclusion (see OECD, 2016, p. 17), and increased the number of households facing material deprivation (UNICEF, 2016).

Figure 1 depicts the experience of economic depression by presenting key macroeconomic indicators of the performance of the Greek economy, with values for the 2000-2017/2018 period (depending on latest data available). Figure 1 indicates that the revival of economic activity is still very small in terms of pre-crisis growth rates and insufficient to recover all losses in the short-term. The devastating consequences of the crisis are reflected in the lost volumes of investment (fixed gross capital formation) and the unprecedentedly high unemployment rates. Greece experiences the highest unemployment rates in the EU and both, long and very long-term unemployment rates remained significantly high in 2017. A positive implication derived from Figure 1 (part C) is that the twin deficits have been reduced. On the one hand, the external balance of goods and services (a major cause for Greece's current account deficit) has been improved. Imports of goods and services decreased significantly, mainly due to the effects of the loss of income and decreasing consumption expenditure. On the other hand, the fiscal balance has improved significantly, and the net lending position may well be the outcome of economic adjustment.

Insert Figure 1 here

Figure 2 presents the impact of the crisis on the gross value added of several industries in Greece. The tertiary sector has been traditionally generating the most of total gross value added and for 2017 it reached 80 percent of total gross value added. Notable contributions in 2017 total gross value added were those of "real estate activities" (21 percent), "public administration and defence, and compulsory social security" (11.1 percent), "wholesale and retail trade and repairs" (8.9 percent), "manufacturing" (8.5 percent). Only the gross values added of "agriculture, forestry and fishing" and "real estate activities" were greater in 2017 than the respective values in the year before recession (YBR). In addition, the "public administration and

defence, and compulsory social security” and “accommodation and food service activities” were also approaching full recovery in 2017 with gross values added over 90 percent of the respective values in the YBR. Greece’s locational attractiveness as a tourist destination (and the political instability of competitors such as Turkey) has led to outstanding performances in terms of endurance and growth amid economic depression. The total contribution of travel and tourism was 19.7 percent of GDP in 2017, with a direct effect on the performance of “accommodation and food service activities”, “transportation and storage”, “arts, entertainment and recreation” (World Travel and Tourism Council, 2018). Although economic depression diminished the interest in construction activities, it stirred the interest in real estate (opportunities arising from devalued assets with locational advantages). The reduction of country risk with the completion of the economic adjustment program creates a lot of expectations for further growth in these industries and moreover, in “construction” and “real estate activities” (whose performance is usually related). In addition, the privatization programs of the Hellenic Republic Asset Development Fund on energy, transportation and infrastructure, are also expected to accelerate the growth of “construction”, “mining and quarrying”, and “transportation and storage”.

Insert Figure 2 here

Although the macroeconomic indicators in Figures 1 and 2 reveal that recovery in Greece is still generally weak, there is optimism that:

- it will strengthen through the privatization programs mentioned above,
- and it will not be fragile following the completion of the economic adjustment program (as long as it leads to the reduction of country risk and investment grade rating).

However, the reforms needed to boost the country’s competitiveness have not yet been materialized. For example, according to the Ease of Doing Business Index of the World Bank, the Greek economy ranked on the 67th place out of 190 economies in 2018 (International Bank for Reconstruction and Development, 2018, p. 4), achieving the lowest scores in the Eurozone. Such performance ratios/indices reflect the competitiveness of an economy and can be linked with foreign direct investment (FDI) activity: empirical research reveals that the World Bank’s Ease of Doing Business indices can explain an economy’s performance as a host for FDI (Jayasuriya, 2011; Corcoran and Gillanders, 2015).

The expectations for the initiation of a strong recovery phase following the completion of the economic adjustment program in the third quarter of 2018 will be met through new investments, and in particular from inflows of FDI due to the impact of the crisis on Greece’s financial sector and domestic liquidity (and in particular through fire-sale FDI according to theoretical considerations). On the one hand, fiscal distress has stalled or postponed public funds targeted at investment projects and on the other hand, there are difficulties in the mobilization of Greek funds due to low returns, credit squeeze, declining savings, nonperforming loans, and dwindling soft financing (PwC, 2017). Attracting FDI will not be an easy task even if country risk will be lower. Greece’s lack of competitiveness requires from policy makers to improve access to finance, tackle bureaucracy, and increase incentives to firms for upgrading their operations and for innovation.

This paper aims to investigate the factors favoring inward FDI in Greece after the crisis. To fulfill this aim, a survey is made by the use of a questionnaire for the collection of primary data on the activity of multinationals in Greece. The novelty of

this research lies in the assessment of the attractiveness of the Greek economy to foreign investors through their own reflections on the country's shortcomings and opportunities. This is done through the analysis of post-crisis dated primary data on multinationals or subsidiaries that have already taken the decision to invest in Greece. The findings will provide orientations for policy makers to build on the advantages of the Greek economy in their effort to improve its competitiveness.

The rest of the paper is organized as follows. The second section presents Greece's inward FDI trends, and reviews studies on the factors determining FDI before and after the crisis, and studies on the determinants of Greece's inward FDI. The third section presents the survey research methodology and the method adopted to analyze the primary collected data. The fourth section presents and discusses the results. The fifth section discusses policy implications for the Greek government and for managers of multinationals who wish to invest in Greece. Finally, the sixth section puts forward some conclusions and policy orientations.

2. BACKGROUND

To address the concerns about the EU investment rate being below its pre-crisis average and slowly recovering, a report was published by the European Commission (2017). The report analyzes the main barriers and drivers to investment in Europe and highlights the regulatory framework, financial conditions, human capital and knowledge stocks, direct and indirect public intervention, and macroeconomic conditions as critical factors which differentiate across EU member states and shape the drivers and barriers to investment in tangible and intangible assets.

Considering the devastating consequences and the late exit of the Greek economy from the crisis, similar concerns about Greece's recovery rates are even greater. This section presents Greece's inward FDI trends, briefly reviews the studies investigating the factors determining FDI before and after the crisis, and reviews the studies exploring inward FDI in Greece.

2.1 Greece's inward FDI trends

Table 1 presents the inward FDI position of Greece and the rest of EU states. The EU₂₈ average is slightly over the Eurozone average indicating that the EU-only member states attract (on average) greater quantities of FDI. Greece's inward FDI position as a percentage of GDP has been the lowest in both the Eurozone and the EU₂₈ for all years depicted in Table 3 (from 2004 when Greece hosted the Olympic Games to 2017, the year before the completion of the economic adjustment program). Table 3 indicates that from 2014 onwards, several fluctuations ranging from 9.1 to 16.7 percent of GDP took place until 2014. Greece's inward FDI started to follow an upward trend from 2015 onwards, approaching its 14-year-period peak of 16.7 percent of GDP in 2017. This rise in trend occurred mainly due to the privatization schemes of the Hellenic Republic Asset Development Fund. Greece is one of the five Eurozone states (the other being Belgium, Finland, Germany and Slovakia) that have not reached the inward FDI levels of 2007 (four EU-only member states have also not reached that level). Under the consideration that only Greece has recently got out of economic depression, and has just completed the economic adjustment program, inward FDI levels should go nowhere but up (if competitiveness is also improved and the country will continue to recover).

Insert Table 1 here

Table 2 presents the inward FDI position broken down by industry of economic activity in Greece reported for 2016 (latest data available). The Greek tertiary sector has been attracting most of the country's inward FDI for the last two decades, and in 2016 it reached 47.4 percent of total inward FDI. Its decline below half of total inward FDI has been the outcome of divestments in "financial and insurance activities", whose inward FDI position was negative in 2016 and accounted for over 1/6 of total Greece's inward FDI. "Manufacturing", "wholesale and retail trade and repairs", "information and communication", and "electricity, gas, etc." were the industries with more than 10 percent of total inward FDI in 2016, and altogether accounted for 83.5 percent of total FDI activity.

The expectations for growth and improvements in attractiveness of Greek industries following the completion of the economic adjustment program and the privatization schemes are expected to positively influence the growth of inward FDI per industry. For example, if expectations for growth materialize, several of the industries mentioned in the previous section (of which only "electricity, gas, etc." is stated to perform well in terms of inward FDI), whose performance will improve, will also be more attractive to foreign investors. In addition, the abolishment of capital controls by early 2019 and the progress in tackling nonperforming loans would also increase the competitiveness of "financial and insurance activities" industry which suffers from great disinvestments.

Insert Table 2 here

2.2 A brief survey on FDI determinants: Studies before and after the crisis

The theories of FDI are surveyed by Faeth (2009) who categorizes the literature of FDI determinants into 9 theoretical models and argues that empirical studies indicate the importance of these determinants in the real world. These theoretical models are (major FDI determinants in brackets): early approaches (where market size, market growth, maintaining market share, and dissatisfaction with existing market arrangements were the main determinants of FDI); neoclassical trade theory (differences in capital returns); ownership advantages (R&D and advertising expenditure, managerial resources, technology, capital intensity, labor skills, firm size, scale economies and experience); market size, market growth and trade barriers without being related to any theoretical framework; ownership-location-internalization framework (ownership advantages, market size and characteristics, factor costs, transport costs, protection and other factors including regime type, infrastructure, property rights and industrial disputes); horizontal/proximity-concentration FDI (market size, transport costs and trade barriers increased FDI, while factor endowments are not always relevant) and vertical/factor-proportions FDI (large markets and factor endowment differences encourage the establishment of vertical MNEs.); knowledge-capital model (similarities in market size, factor endowments and transport costs determine horizontal FDI, while differences in relative factor endowments determine vertical FDI); FDI and risk diversification models (market-based risk, exchange rate and interest rate); policy variables (fiscal and financial investment incentives have a significant but lesser effect on FDI than non-policy variables, e.g. a tax policy cannot compensate for a negative investment climate).

Bénassy-Quéré et al. (2007) indicate that the quality of institutions is also important for attracting FDI and that two strands of literature on institutions and FDI have been developed: the study of the impact of source/host institutions on FDI, and the institutional distance between the source and host countries on FDI. Bénassy-Quéré et al. (2007) re-visit the impact of institutional quality on bilateral FDI and find that bureaucracy, corruption, information, banking sector and legal institutions are important determinants of inward FDI, and that although no general result applies to outward FDI, the increase of institutional distance tends to reduce bilateral FDI.

Bitzenis (2003) and Bitzenis and Papadimitriou (2011) argue that there is no dominant theory and that the main aspects of each theory comprise what they term as the Universal Model of theories determining FDI. The Universal Model can be considered as less eclectic and more encompassing than Dunning's (2001) eclectic paradigm, and outlines the motives for FDI according to their content and categorizes them under the umbrellas of: market seekers, market seekers from a strategic point of view, factor seekers, efficiency seekers, locational seekers, exploitation of ownership advantages, financial aspects hunters, political reasons, and overcoming imperfections.

With regard to the factors determining cross-border mergers and acquisitions (M&As), Xie et al. (2017) review over 250 studies that examine the country-specific determinants of cross-border M&As and distinguish between seven strands of research: macroeconomic and financial markets environment, institutional and regulatory environment, political environment and corruption, tax and the taxation environment, accounting standards and valuation guidelines, cultural environment, and geographical environment. Their review suggests that better the host country's institutional laws with regard to financial markets, taxation and corporate governance, then higher the number of inward acquisitions. It emphasizes that geopolitical distance, regulatory distance, and cultural distance between developed and developing economies are more likely to be moderated by the target country's market size, natural resources base, and weak institutional laws, especially corporate tax and capital gains tax.

Erel et al. (2012) analyze a sample of 56,978 cross-border M&As covering several countries between 1990 and 2007 and find that certain features of the host-country in terms of geographical proximity and the quality of accounting disclosure and links with the home-country in terms of bilateral trade, increase the likelihood of cross-border M&As between two countries. They also indicate that valuation appears to play a role, where firms in countries whose stock market has increased in value, whose currency has recently appreciated, and that have a relatively high market-to-book value tend to be acquirers, while firms from weaker-performing economies tend to be targets.

Dikova and Sahib (2013) examine a sample of 1,223 cross-border M&As in several countries during the 2009-2010 period, and find that the effect of cultural distance on cross-border M&As performance is contingent on the level of acquisition experience of the acquirer. Their findings suggest that acquirers benefit from accessing unique foreign assets in culturally different target firms at higher levels of acquisition experience.

Dikova et al. (2010) examine 2,389 announced cross-border M&As in the international business service industry over the 1981-2001 period and find that differences in national formal and informal institutions explain part of the variation in the likelihood that an announced cross-border M&As deal will be completed, as well

as the duration of the deal-making. They also indicate that organizational learning moderates the effects of institutional distance.

Alimov (2015) examine 53,583 cross-border M&As in 28 countries over the 1991-2009 period and finds that countries which tighten employment regulations (that govern firms' hiring and firing decisions) attract more foreign acquirers (especially those from countries with relatively more flexible labor regulations). The findings are pronounced in host-countries sectors where firms with relatively high productivity and skill have their profitability and valuation decreased from pro-labor reforms and in that sense they become to foreign bidders who associate their acquisition with greater deal synergies and productivity gains.

With regard to recent studies of the factors determining FDI in the EU, Villaverde and Maza (2015) investigate the determinants of FDI in the 260 EU NUTS2 regions between 2000 and 2006. Their findings suggest that economic potential (labor productivity, GDP per capita, wages, air and multimodal accessibility, and market potential in terms of GDP multiplied with the inverse distance between regions), labor market characteristics (activity/employment/unemployment rates), technological progress (R&D investment, R&D personnel, high technology sector, and human capital) and competitiveness (openness degree and manufacturing share) exert a significant impact on FDI location patterns. In contrast, their findings suggest that market size and labor regulation (labor market regulations and the inverse of labor law rigidity and tax wedge measured at national level) do not seem to play any noteworthy role.

Canton and Solera (2016) investigate the determinants of greenfield FDI flows in EU member states using sectoral data on bilateral greenfield FDI flows for the 2003-2014 period and employ a Heckman selection model, distinguishing between the extensive (the decision whether to invest or not) and intensive (the size of the investment project) margin of the investment decision. Their main interest is to investigate whether regulatory barriers and other aspects of the business environment in the host economies have a detrimental impact on greenfield FDI. The indicators for the intensity of product market regulation mainly matter for the intensive margin, the costs of contract enforcement matter for both the internal and external margin, and the paying taxes indicator mainly matters for the external margin. The results point at sizeable negative impacts of regulation on FDI flows. For example, a 1 point increase in the product market regulation indicator measuring protection of incumbents would be associated with a 13% reduction in greenfield FDI flows.

With regard to the impact of the crisis on FDI, Poulsen and Hofbauer (2011) compare the FDI recession caused by the late crisis with FDI responses to past economic crises and indicate that the last FDI recession has been greater in magnitude than all the other recessions caused by global economic downturns since the 1970s. The authors also asserted that recovery would be slower too.

Kahouli and Maktouf (2015) test the determinants of FDI between 14 investment partners and 39 host countries during the period 1990-2011 and evaluate the impact of the recent economic crisis on FDI. Their results for the static models determining FDI suggested that the global economic crisis had no effect on the stocks of FDI. The authors assert that there was strong confidence of foreign investors in the economic recovery of the host country in the context of the economic crisis in 2007. In addition, their results suggested that regional trade agreements led to an increase in FDI to the member countries. Their results for the dynamic models determining FDI suggested that the crisis had encouraged FDI inflows and perhaps contributed to the rapid recovery of the host and home countries against the economic recession. The authors

assert that this could be attributed to the large number of projects approved by the EU and NAFTA, which are long-term commitments. In addition, their results suggested that the adhesion of partners who invest in the EU and NAFTA has a significant influence on FDI in the host countries.

The impact of the crisis should be also considered under the “fire-sale FDI” hypothesis, where countries affected by a crisis attract foreign buyers by selling assets at a discount. Several studies have provided evidence for the hypothesis to be true during the late and previous global and regional crises.

In the case of cross-border M&As in East Asian economies Aguiar and Gopinath (2005) develop a sample for the 1986-2001 period, and find that liquidity played a significant and sizable role in explaining the dramatic increase in foreign acquisition activity and the consequent continued inflow of FDI during the Asian crisis. They also find no consistent evidence of liquidity-based acquisitions in non-crisis economies and in acquisitions by other domestic firms in crisis economies.

Ang and Mauck (2011) examine data about M&As of distressed non-financial target firms (those experiencing negative net income in the year prior to the acquisition) between 1977 and 2008. They find that distressed non-financial firms in crisis periods receive a 30% higher offer premium than distressed non-financial firms in normal periods, and a 34% higher premium than non-distressed non-financial firms in crisis periods. Although fire-sale targets appear to be acquired at a fire-sale discount, return results suggest that this discount is only in the mind of the acquirers (the market does not share managements’ view of a discount).

Reddy et al. (2014) examine data in 26 countries for the 1991-2010 period, and find that the 2007-2008 global financial crisis has depressed both sale and purchase transactions throughout the world economy during 2008-2009 (with many countries reporting a negative trend in 2009). They also find that it took two years to shore up international M&A deals and that after the crisis period, emerging market countries have taken advantage of the attractive asset prices in developed countries and increased their foreign acquisitions.

Weitzel et al. (2014) examine data in 27 EU countries from 1999 to 2012 and detect a decline in cross-border activity during the crisis, which had only a limited effect on M&As into crisis countries. For countries with higher default risk and lower economic demand in the crisis, their results are consistent with the fire-sale hypothesis. For countries with lower domestic credit, their results are in conflict with the notion of fire-sales (premiums are lower in crisis countries but do not drop further amid the crisis). Weitzel et al. (2014) find that acquirers come from countries with easier access to capital in the form of high market-to-book ratios and higher currency appreciation, and that they invest in target countries with less domestic credit.

Rao and Reddy (2015) adopt the methodology of Reddy et al. (2014) to further examine the impact of the 2007-2008 global financial crisis on cross-border M&As in 13 subcontinents, 3 sectors and 21 industries. They document that emerging market are found to be exciting in attracting FDI from developed and other developing markets whilst focusing deeply on fiscal deregulation and policy amendments, particularly during post-crisis.

Alquist et al. (2016) use a data set of M&As in 16 emerging markets (Asia, Latin America and South Africa) between the years 1990 and 2007 and find that foreign acquisitions are more common during crises, when the liquidity motive (acquisitions by a foreign firm relax the target's credit constraint) dominates the synergistic motive (acquisitions exploit operational synergies between the target and the acquirer).

2.3 Review of studies exploring inward FDI in Greece

Table 3 presents the studies on the factors determining Greece's inward FDI. Three issues concerning their data and methods of analysis are the following. Firstly, only one of these studies, Bitzenis et al. (2007), reaches a conclusion through the analysis of firm-level data. Secondly, except from Bitzenis et al. (2007), Petrakou (2013) and Vogiatzoglou and Tsekeris (2016), the rest of the studies in Table 5 are country-level analyses and as such, aggregation bias is likely to be present (for a discussion on aggregation bias see Naughton et al., 2016). Thirdly, the difference between a) the decision to invest (or not) and b) how much, if deciding to invest, is not explored by the studies in Table 3. This difference is considered very important in the analysis of factors determining the direction of FDI, particularly by studies based on FDI flows (for example, see Razin et al., 2008; Eicher et al., 2012).

The studies in Table 3 aim to reveal the importance of the factors determining Greece's inward FDI and in the process of doing so, they do not seem to follow a specific theoretical concept. They are empirical approaches and their models of analysis combine elements of several theoretical concepts. Petrakou (2013) reviews several approaches before developing a model to analyze the factors that affect FDI location in the Greek regions. Pantelidis and Paneta (2016) make references to the micro- and macroeconomic factors determining FDI in the host country and develop a representative model. Filippaios (2006), Pantelidis and Nikolopoulos (2008), and Leitao (2010), refer to Dunning's (2001) eclectic paradigm in the search for an eclectic and overall conceptual/theoretical framework in order to construct a model explaining Greece's inward FDI on the basis of its location advantages. Vogiatzoglou and Tsekeris (2016) also refer to Dunning's (2001) eclectic paradigm in order to determine the drivers of inward FDI in Greek manufacturing industry. Bitzenis et al. (2007) adopt the universal model of theories explaining FDI activity (Bitzenis, 2003) to identify the motives for FDI in Greece.

Despite the attempt of previous studies (Table 5) to adopt a holistic yet eclectic approach in order to investigate as much of the literature determinants as possible, none but Bitzenis et al. (2007) explore institutional variables. Bitzenis et al. (2007) explores the significance of cultural and political variables along other determinants of FDI in Greece.

Finally, with regard to the findings of the studies in Table 5, market size and market growth, economies of scale, productivity, human capital, sunk costs degree of openness, political and economic stability, and links with neighboring states are the most important factors driving Greece's inward FDI activity.

Insert Table 3 here

3. METHODOLOGY

This section describes the survey research methodology and the method adopted to analyze the primary collected data.

3.1 Research methodology

This paper aims to investigate the factors favoring FDI in Greece after the crisis. The successful completion of the late economic adjustment program in the third quarter of 2018 could become the starting point of the post-crisis era of the Greek economy. The

enormous loss of investment and GDP caused by the crisis requires for immediate flows of productive investment in order to secure sustainable recovery. As such, the levels of inward FDI need to improve and accommodating policy reforms should be towards improving the business environment and ultimately, transforming the Greek economy into an attractive location for FDI.

To fulfill this aim, a survey is made by the use of a questionnaire for the collection of primary data on the activity of multinationals in Greece. The construction of the questionnaire is based on three elements.

- Firstly, the perspectives and the theoretical backgrounds of previous studies on drivers and barriers to Greece's FDI attractiveness based on the analysis of primary data (Bitzenis et al., 2007; 2009). The experience from past surveys (Bitzenis et al., 2007; 2009) is materialized as the blueprint of the questionnaire for this study.
- Secondly, the theoretical considerations of the universal model of FDI activity (Bitzenis and Papadimitriou, 2011). Previous questionnaires (Bitzenis et al., 2007; 2009) were based on an earlier version of the universal model (Bitzenis, 2003). The questionnaire used in this study is based on the revised version of the universal model (Bitzenis and Papadimitriou, 2011). Although the theoretical models of studies about FDI activity have differences in their specifications (Bénassy-Quéré et al., 2007; Faeth, 2009), the respective empirical literature (Blonigen, 2005; Eicher et al., 2012, Blonigen and Piger, 2014) seems to agree on the set of covariates that may be included. This form of consensus that the inclusion of covariates depend on the intensive and extensive margins of FDI and thus may be different across time and space, has led to an argument in favor of a universal model of FDI activity (Bitzenis, 2003; Bitzenis and Papadimitriou, 2011).
- Thirdly, emphasis is given on the factors affecting FDI analyzed by the European Commission (2017) report (all factors are explored by the questionnaire used in this study).

The questionnaires were aimed towards top management personnel of multinationals or their subsidiaries operating in Greece. The questionnaires include questions about the nature, performance, and goals of multinationals/subsidiaries and questions about the factors favoring and discouraging FDI in Greece. The questionnaires are available in English and Greek (see Appendix for English – the survey was administered in both languages). The factors ratings are according to a 5-point Likert-type scale, where 1 denotes not important, 3 means indifference, and 5 indicates that the factor is very important. Accordingly, a factor with a rating that is greater than 3 is considered to be of certain significance in favoring the activity of multinationals in Greece.

The sample has been determined on a quota basis. The selection of cases is not random and is based on the identification of specific characteristics in order to increase representativeness. This is achieved through the inclusion of multinationals or their subsidiaries from different types of industries, their volume of investments, and the number of their employees. Information about the biggest (in terms of investment size and number of employees) foreign investors provided by a specialist management advisory services organization. 140 cases have been contacted by members of the research team by phone and email and the questionnaires were filled online via an exclusive link provided.

3.2 Method and data

The cases of the survey data are matched according to the following order (depending on the characteristics of the cases):

- industry (economic activity), or
- size in terms of either level of capital invested or persons employed.

The Wilcoxon signed-rank test is a reliable option for exploratory surveys (for example see Bitzenis and Vlachos, 2018) and is used in this study for investigating the survey data regarding differences between the attractiveness of the Greek economy to matched pairs of multinationals or their subsidiaries serving the Greek market (group G), establishing an export base (group X), and focusing on both (group XG). The Friedman test precedes the Wilcoxon signed-rank test because it compares the mean ranks between the related groups and indicates if they differed (then the Wilcoxon signed-rank tests on the different combinations of related groups indicates where the differences actually occur).

The questionnaire has been completed by 62 multinationals or their subsidiaries in Greece during the second and the third semesters of 2018. The response rate of 44.3 percent is above the average response rate for studies that utilized data collected from organizations (for example see Baruch and Holtom, 2008). Table 4 presents descriptive statistics for the total sample and per group of multinationals or their subsidiaries. A mean score which is greater than 3.00 indicates that the respondents are not indifferent and that the particular advantage of the Greek economy (FDI determinant) is of certain significance (if it is equal to or greater than 3.50 then this advantage is closer to being important).

10 out of 27 potential advantages appear to be of significance in determining inward FDI for the total sample: expected economic growth, geographical proximity to EU, links of Greece to other neighboring countries, cultural similarities/closeness, availability of skilled workers, availability of labor force, low cost of skilled labor, favorable business climate, political stability, and macroeconomic stability. Four of these advantages (expected economic growth, geographical proximity to EU, links of Greece to other neighboring countries, and cultural similarities/closeness) have modal values equal to or greater than 4.00. This indicates that a greater number of interviewees consider them to be important than the other 6 potential advantages. Nevertheless, none of these factors has a mean score greater than 4 and some mean scores are marginally over from indicating that the interviewees are being indifferent. The small significance of the advantages implied by the mean scores is a sign of the Greece's systematic inability to attract significant amounts of FDI.

7 out of 27 potential advantages appear to be of significance in determining inward FDI for the group of multinationals or their subsidiaries (giving priority to) serving the Greek market (group G): expected economic growth, favorable business climate, links of Greece to other neighboring countries, macroeconomic stability, availability of skilled workers, geographical proximity to EU, and political stability. Also, none of these factors has a mean score greater than 4. 6 out of 27 potential advantages are important to some of the investors of group G (mode ≥ 4.00): firstly, expected economic growth, links of Greece to other neighboring countries, favorable business climate, and secondly, availability of skilled workers, macroeconomic stability, and market size.

7 out of 27 potential advantages appear to be of significance in determining inward FDI for the group of multinationals or their subsidiaries (giving priority to) establishing an export base (group X): geographical proximity to EU, cultural

similarities/closeness, availability of labor force, availability of skilled workers, expected economic growth, low cost of skilled labor, and links of Greece to other neighboring countries. Greece's geographical proximity to EU has a mean score equal to 4.00. 4 out of 27 potential advantages are important to some of the investors of group X (mode ≥ 4.00): firstly, geographical proximity to EU and links of Greece to other neighboring countries, and secondly, cultural similarities/closeness and availability of skilled workers.

18 out of 27 potential advantages appear to be of significance in determining inward FDI for the group of multinationals or their subsidiaries not giving a priority either to serving the Greek market or establishing an export base (group XG). Those with a mean value which is greater than 3.50 are cultural similarities/closeness, geographical proximity to EU, and links of Greece to other neighboring countries. Again, none of these factors has a mean score greater than (or equal to) 4.00. 4 out of 27 potential advantages are important to some of the investors of group XG (mode ≥ 4.00): geographical proximity to EU, cultural similarities/closeness, links of Greece to other neighboring countries, low cost of skilled labor, and market population growth.

Insert Table 4 here

4. RESULTS

This section presents and discusses the results.

4.1 Friedman test

A Friedman test is carried out to see if there are differences in the factors determining inward FDI between groups of multinationals or their subsidiaries (G, X, XG). The cases between groups are match according to the criteria discussed in the previous section and N in Table 5 represents the total number of matched cases. The Friedman test is carried out for the 10 factors whose mean score is calculated from the total sample and is greater than 3.00. Table 5 indicates that with the use of statistical significance up to the 10 percent level, there are differences between groups G, X and XG for 3 out of 10 factors. There is a statistically significant difference in favorable business climate, $\chi^2(2) = 8.73$ ($p = 0.01$), and median scores for groups G, X and XG are 2.50 (1.00 to 4.25), 1.50 (1.00 to 2.25) and 4.00 (3.00 to 4.25), respectively. There is a statistically significant difference in geographical proximity to EU, $\chi^2(2) = 6.05$ ($p = 0.05$), and median scores for groups G, X and XG are 3.00 (2.00 to 4.00), 5.00 (3.00 to 5.00) and 3.00 (2.00 to 4.00), respectively. There is a statistically significant difference in cultural similarities/closeness, $\chi^2(2) = 5.07$ ($p = 0.08$), and median scores for groups G, X and XG are 3.00 (2.00 to 4.00), 5.00 (3.00 to 5.00) and 3.00 (2.00 to 4.00), respectively.

Insert Table 5 here

4.2 Wilcoxon signed-rank tests

To examine where the differences actually occur, separate Wilcoxon signed-rank tests on the different combinations of related groups are performed. Table 6 presents the ranks on the different combinations of groups G, X, and XG. N represents the number of differences between the matched cases with regard to the advantages of favorable

business climate, geographical proximity to EU, and cultural similarities/closeness. The Bonferroni correction results in significance levels set at $p < 0.017$ ($= 0.05/3$) and $p < 0.033$ ($= 0.10/3$). According to the Bonferroni-adjusted levels of significance, the Wilcoxon signed-rank test statistics in Table 6 indicate that

- cultural similarities/closeness is more important to group XG with a statistically significant difference to group X ($Z = -2.977$, $p = 0.003 < 0.017$) at the 5 percent level.
- favorable business climate is more important to group XG with a statistically significant difference to group X ($Z = -2.339$, $p = 0.019 < 0.033$) at the 10 percent level.
- geographical proximity to EU is more important to group X with a statistically significant difference to group G ($Z = -2.135$, $p = 0.032 < 0.033$) at the 10 percent level.

Insert Table 6 here

To sum up on the findings: the mean score ratings indicate that foreign investors do not consider that the Greek economy has important advantages. The mode values indicate that some foreign investors consider as important advantages of the Greek economy, firstly, the geographical proximity of Greece to EU and the links of Greece to other neighboring countries and secondary, Greece's cultural similarities/closeness and expected economic growth. By looking into the market orientation of foreign investors, Greece's geographical proximity to EU is more important to the group of multinationals or their subsidiaries establishing an export base. In addition, Greece's cultural similarities/closeness to the host country is more important to the group of multinationals or their subsidiaries not giving a priority either to serving the Greek market or establishing an export base.

With the respect to the findings of past research, the mean score ratings (of the total sample and across groups) reveal that advantages which were found to be important are still leading the race of the factors contributing to the attractiveness of the Greek economy (in particular, expected economic growth, geographical proximity to EU, links with neighboring countries, cultural similarities/closeness, and availability of labor force).

The findings indicate that Greece's systematic inability to attract significant amounts of FDI has met with the lack of confidence in the recovery of the economy. The lack of important advantages (in terms of mean score ratings) may be perceived as hysteresis of the factors shaping the attractiveness of the Greek economy to foreign investors. This issue is also portrayed by the ratings of the Greek economy in international competitiveness indices. As such, policy officials should proceed with reforms aiming to strengthen the confidence in Greek institutions and promote political and financial stability, in order to increase the competitiveness of the Greek economy and improve its attractiveness to foreign investors. Actions towards this direction would be to

- resolve the funding problems of the current credit squeeze, through the active management of nonperforming loans (PwC, 2017).
- adopt a stable tax system and to lower firm tax compliance costs, which are of considerable size (Stamatopoulos et al., 2017).
- reduce the size of the shadow economy by increasing the low levels of both, citizens' and firms' tax morale (Vlachos and Bitzenis, 2016; Bitzenis and Vlachos, 2018).

5. POLICY IMPLICATIONS

The results discussed in the previous section indicate that Greece's systematic inability to attract significant amounts of FDI is rooted in the factors that damage its competitiveness. The lack of confidence in shaping a business environment that will accelerate the recovery rates of the economy is not unrelated with the failure of foreign investors to see important advantages and opportunities in Greece. The poor performance of Greece's indicators of doing business relates to the findings of Canton and Solera (2016) about the sizeable negative impacts of regulation on inward FDI.

In support of this implication is also the fact that neither the urgency of the revenue targets of the privatization programs of the Hellenic Republic Asset Development Fund on energy, transportation and infrastructure, nor the severe liquidity crisis, which forced the Greek government to adopt capital controls and maintain them to date (even if the Greek crisis officially ended with the completion of the economic adjustment program in the third quarter of 2018) have led to any or (if any) a significant amount of fire-sale FDI, as Table 1 indicates. The lack of fire-sales FDI in Greece also relates to the findings of Weitzel et al. (2014) that premiums are lower in crisis countries but do not drop further amid the crisis. An example for the Greek case may be the relaxation of liquidity constraints from tax amnesties, long tax installment periods and other laws and rules allowing debtors with longer time horizons to pay for their obligations.

The only fundamental reform during economic adjustment was the deregulation of the labor market and has not managed to accelerate the recovery rates of the economy to date. The Greek governments have to look into policy reforms that will reshape the economy able to compete with economies such as Bulgaria whose close geographical proximity is a threat due to their lower unit costs and tax rates, and economies such as Cyprus whose culture match attracts investors due to lower tax rates. Greece's locational attractiveness in the tertiary and the primary (as of late) sectors will be boosted only by a policy which has to be as strong as was the shock caused by the crisis on income, domestic demand and investment expenditure.

Firstly, subsidies should stop and all new proposals of economically viable investment projects should be rewarded in terms of income tax. The reward would be a lower income tax rate as much as the fiscal space allows. Since the lower income tax rate would be only for greenfields, the size of tax revenue would probably be positively affected. Other positive benefits would be on employment rates and the sum of social security revenues from greenfields and supporting firms. The aim is to attract greenfield investment on condition that all expenditures (or a certain percentage) concern purchases of new goods.

Secondly, subsidies to investors should be only about infrastructure projects either physical or digital. The second will contribute to the reduction of bureaucratic procedures and their automation. The subsidies should occur by EU funds and should not burden the government budget.

Thirdly, the privatization programs must be completed to start the rebalance of the economy to higher value added services and products and signal to international strategic investors to consider the Greek firms, which not only survived the worst crisis, but also improved their own competitiveness.

Fourthly, choose the optimum solution without further delays for clearing the banking system from non-performing loans and the market from zombie-firms. In the first case regulatory capital will be released and the banks will resume lending to the economy.

In the second case assets will be released back to the productive economy, and trading liquidity will improve.

Finally, adopting a stable tax system over a long-term horizon, stop the practice of tax amnesties and long tax installment periods, and gradually lowering the compliance costs will inevitably increase compliance and tax revenues, and gradually reduce the size of uncollected taxes. As more firms comply and employ fewer resources for their tax compliance, they will dedicate resources to productive practices.

6. CONCLUSIONS

The EU investment and employment recovery from the global financial and economic crisis of late 2000s has not been following a satisfactory pace. Investment recovery in Greece, who borne the brunt of the crisis, is still a puzzle. Greece's efforts towards a creditless recovery require an investment shock, which is extremely difficult to occur from domestic capital under current conditions. As such, the systematic inability of Greece to attract significant amounts of FDI becomes crucial in the country's efforts to bridge the investment gap caused by economic depression.

This study investigates the factors favoring FDI in Greece after the crisis and the findings provide policy orientations to improve the attractiveness of the Greek economy to foreign investors. The findings come from the analysis of primary data (collected from a questionnaire aimed at top management personnel of multinationals or their subsidiaries operating in Greece) on the activity of multinationals in Greece. Compared to previous research on the factors determining Greece's inward FDI, the analysis of primary data reflects the crisis and post-crisis business and economic conditions in Greece.

According to the mean score ratings, the findings for the total sample indicate that there are not any advantages perceived as important (≥ 4.00) and only expected economic growth and geographical proximity to the EU have mean scores (≥ 3.50) close to being important. The mean scores may be perceived as a sign of the Greece's systematic inability to attract significant amounts of FDI. When analyzing the perceived advantages according to the market orientation of the multinationals, the picture changes. Only expected economic growth is close to being important to multinationals or their subsidiaries (giving priority to) serving the Greek market. Cultural similarities/closeness and availability of labor force are close to being important and geographical proximity to EU is important to multinationals or their subsidiaries (giving priority to) establishing an export base. Links of Greece to other neighboring countries, cultural similarities/closeness and geographical proximity to EU are close to being important to multinationals or their subsidiaries not giving a priority either to serving the Greek market or establishing an export base. However, non-parametric tests reveal that only cultural similarities/closeness, favorable business climate, and geographical proximity to EU have a statistically significance difference between groups of multinationals.

The findings of this study indicate that the key factors stressed by previous research to contribute to the attractiveness of the Greek economy have lost in strength through the experience of economic depression. It is important that Greece introduces consistent policies that promote investment in order to facilitate economic growth. On the one hand, the advantages of the Greek economy should be strengthened through policies that favor entrepreneurial activity (motives that counter the ease of doing business vis-à-vis its neighboring countries). On the other hand, the disadvantages of the Greek economy should be reduced by policies that aim to strengthen the confidence in

institutions, resolve the issue of nonperforming loans, and develop a stable tax system.

An issue of concern and limitation with our study is that the views of the local managers do not necessarily reflect the views of the mother company when deciding to invest. An idea for future research is to develop a comparable sample with data from multinationals that considered Greece as an option but at the end opted out in pursuing the investment.

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APPENDIX

Questionnaire on factors favoring and discouraging FDI in Greece

- Name of company or subsidiary in Greece.
- Name of parent company (if applicable).
- Nationality/origin of parent company (if applicable).
- Company's main sector of activity.
- No. of persons the foreign company/subsidiary employs in Greece.
- When was the foreign company/subsidiary established in Greece (Year)?

Please indicate the percentage of participation of the parent company in the company/subsidiary/affiliate equity capital (if applicable).

Which particular mode(s) of entry your company used when first entered the Greek market?

Please indicate the total volume of invested capital up today (initial invested capital; loans; cash or reinvested earnings) in Euros.

Indicate the initial invested amount (the amount of your initial investment).

Please indicate the location of your investment in Greece.

Is your company/subsidiary planning new and further investments in Greece? If yes, please indicate the location of your investment (0 if not).

To what extent do you utilize investment incentives of the Greek Government? (1 Not used, 5 Very much used)

What was the approximate Annual Turnover (Sales) and Total Assets Balance Sheet of your company/subsidiary/affiliate in Greece in the previous financial year? (Annual Turnover, Euro million)

What was the approximate Annual Turnover (Sales) and Total Assets Balance Sheet of your company/subsidiary/affiliate in Greece in the previous financial year? (Total Assets Balance Sheet, Euro million)

What percentage of your output was exported during the previous financial year?

Please indicate to what extent you consider serving the following market(s) from Greece (scale: Importance for your firm, 1 Not at All Important, 5 Very Important):

- Serve the local Greek market only.
- Establish (create) an export base in order to serve our home country.
- Establish (create) an export base in order to serve other neighbor (or third) Asian/African countries.
- Establish (create) an export base in order to serve other neighbor (or third) European Union countries.

To what extent is the company/subsidiary/affiliate in Greece important to other divisional units of your Group concerning (if applicable): [Not at all, To some extent, Very important]

- The sales volume.
- The information about market activities.
- Maintain important relations with other corporate units.

Please indicate how important are the following investment barriers/obstacles for you to choose Greece as an investment location (scale: Importance for your firm – 1 Not at All Important, 5 Very Important).

- Bureaucracy
- Corruptive / Criminal practices
- Lack of transparency
- Low credit rating of the country
- Lack of entrepreneurship
- Lack of managerial skills
- Uncertain or imprecise property rights
- Political instability
- Cultural consideration constraints
- Blackmarket / Informal economy
- Business mentality of local people
- Unstable legal framework
- Negative attitude to foreign investors

- Lack of enforcement of the laws
- Technological backwardness
- Macroeconomic instability
- Low per capita income
- Social Instability
- Low labor productivity
- Exchange rate volatility
- Preferences of locals to buy from local companies
- Undervalued/overvalued local currency
- Negative attitude of people towards privatization]
- Excessive taxation
- Underdeveloped business infrastructure
- High Value Added Tax (VAT)
- Lack of infrastructure (telecoms, roads, networks, internet, etc.)
- Slow pace / progress in the transition to EU
- Lack of financial resources
- High crime rate (also high economic crime)
- Lack of raw materials
- Custom tariffs
- Repatriation of profits
- Problems in co-operation with locals (problematic joint ventures)
- Increasing inflation]
- Increase of limitations on the imports
- Saturation of the Greek market
- High level of unitization
- Other (please specify text below): Other (please specify text here)

Advantages of the Greek market (1 Not at All Important, 5 Very Important):

- Geographical proximity to EU
- Cultural similarities /closeness
- Links of Greece to other neighboring countries
- Existence of natural / raw resources
- Inexpensive land
- Climate
- Expected economic growth
- Political stability
- Macroeconomic stability
- Favorable business climate
- High consumer purchasing power (high per capita income)
- Unexploited market, unsatisfied local demand
- Market size
- Lack of local competition
- Market population growth
- Lack of western investment interest in Greece
- Potential for export activity
- Potential for big infrastructure investments
- Low cost of skilled labor
- Low cost of unskilled labor]

- Availability of natural resources
- Easiness of exploiting natural resources
- Sophisticated level of local technological infrastructure
- Pace of innovative breakthroughs in the Greek market
- Availability of labor force
- Availability of skilled workers
- Cheaper imports
- Other (please specify text below - space for no answer)

Your company's ownership advantages (1 Not at All Important, 5 Very Important):

- High profit margins
- Strong brand name in home country
- Economies of scale
- Economies of scope
- Competitive pressures in home country
- Multinational experiences
- Ability of following the clients
- Ability of following the suppliers
- Ability in shaping competition
- High level of global presence
- Exploiting Know-how and expertise
- Existing business links – Past trade experience
- Risk diversification
- Avoidance of trade barriers
- Assets acquisition
- Other (please specify text below):

Incentives offered by the Greek government (1 Not at All Important, 5 Very Important):

- Special privatization offers (in low prices)
- Tax incentives
- Investment incentives
- Government stability
- Enforcement of the laws
- Stable legal framework
- Deregulated legislative framework
- Low taxation rates
- Double-taxation avoidance, bilateral treaties, lower tariffs, elimination of quotas
- Low level of unitization
- repatriation of profits
- Other (please specify text below):

Overall, please indicate your level of satisfaction regarding the market size of Greece? (Very dissatisfied, Dissatisfied, Unsure, Satisfied, Very satisfied)

What is your opinion regarding the level of shadow economy / non-registered activity in Greece as a percentage of GDP?

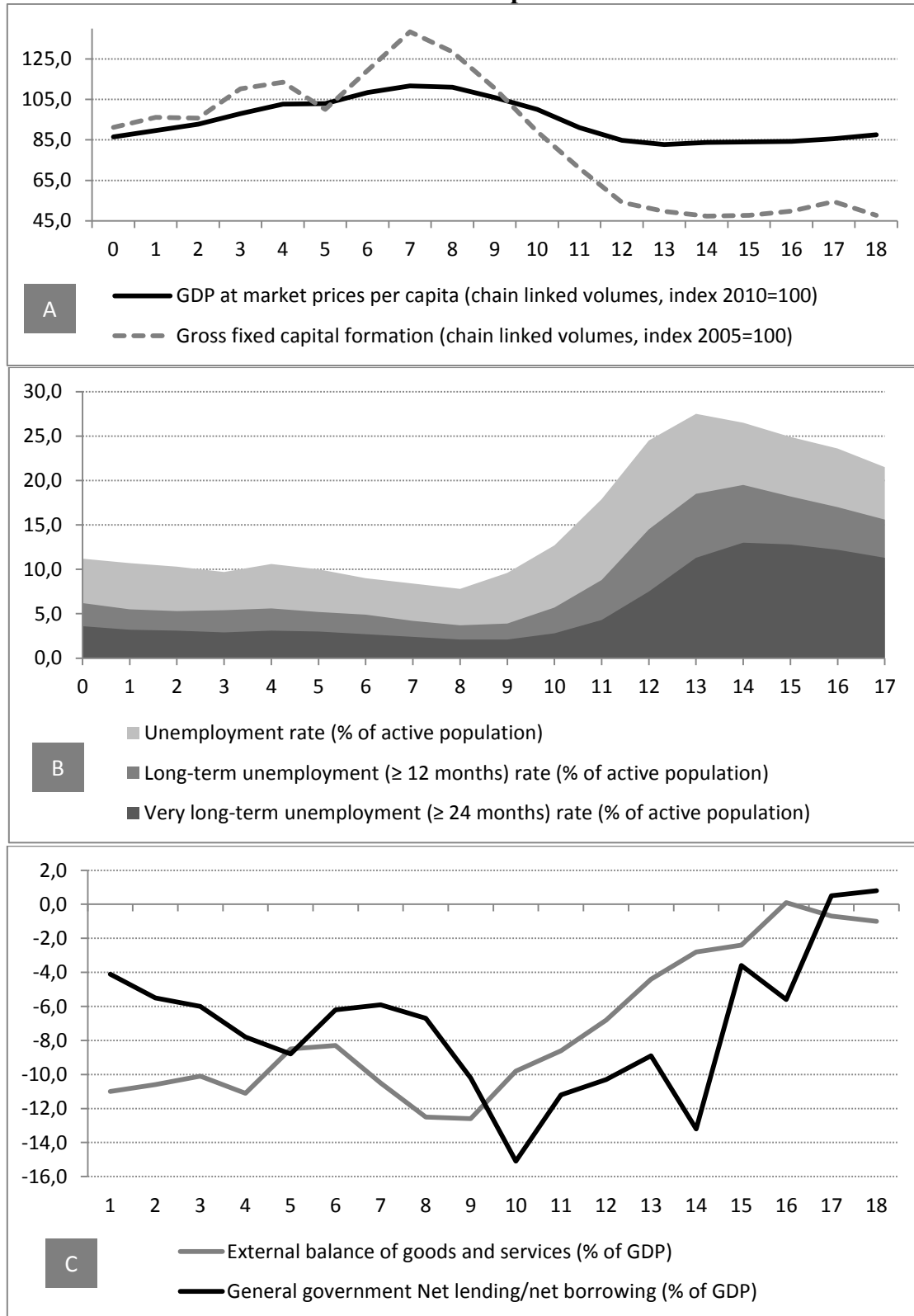
What is your opinion regarding the level of corporate taxation rates in Greece?

What is your opinion regarding the level of taxation ethics in the country?

What is your opinion regarding the percentage of undeclared / informal employment in your sector of activity?

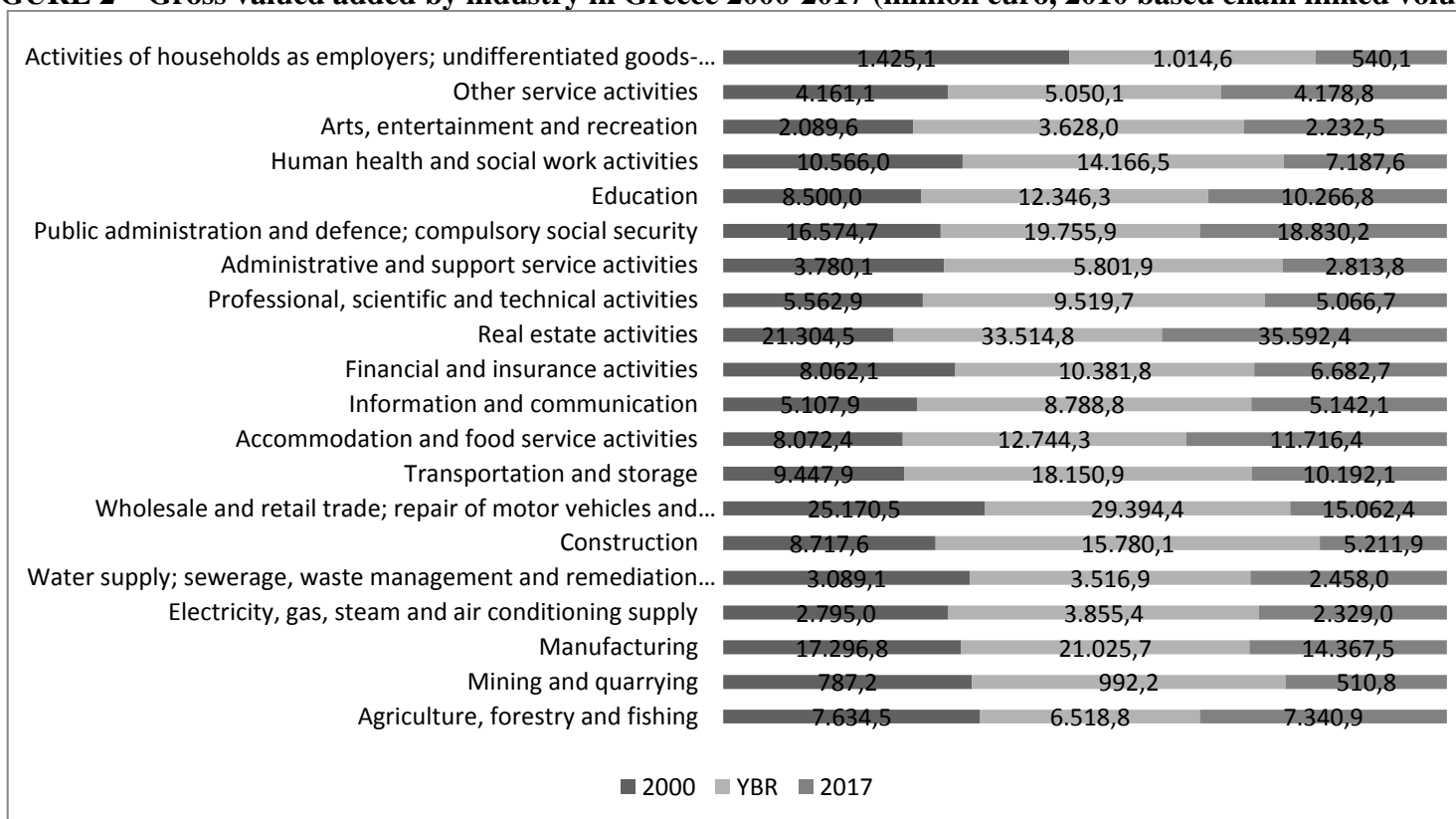
Based on your experience from your country of origin what is the level of corruption (e.g. “under the table” payments, bribes) when your competitors deal / interact with public sector organizations? (1 very low- 7 very high)

FIGURE 1 – Greece: economic performance 2000-2018



Source: Eurostat database

FIGURE 2 – Gross valued added by industry in Greece 2000-2017 (million euro, 2010 based chain linked volumes)



Note: YBR = Year before recession.

Source: Eurostat database

TABLE 1 – EU inward FDI positions (GDP percentage)

State/Year	2004	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Austria	23.5	41.0	33.9	42.3	41.0	35.4	40.2	41.6	39.8	41.5	37.9	44.7
Belgium	-	171.9	164.7	199.7	180.6	178.9	103.0	106.2	104.7	121.2	106.9	114.8
Cyprus	49.1	75.6	646.7	717.9	775.0	647.7	879.7	883.9	770.0	1,022.7	998.5	1,061.2
Estonia	83.3	70.5	63.9	80.6	79.7	70.6	82.2	87.8	79.7	83.6	83.0	89.3
Finland	29.2	35.9	29.4	33.9	35.0	32.6	37.6	32.9	33.7	35.1	33.9	34.1
France	19.0	23.4	19.2	24.0	23.8	24.4	25.3	27.0	24.5	28.2	28.5	33.7
Germany	25.8	27.7	21.0	28.2	28.0	26.6	30.4	25.8	22.1	23.0	22.6	25.3
Greece	11.8	16.7	10.8	12.8	11.7	10.1	10.1	10.8	9.1	12.3	13.1	16.2
Ireland	107.1	75.5	68.5	105.8	128.7	121.5	169.9	170.8	161.2	305.6	276.5	263.7
Italy	12.9	17.1	13.7	16.7	15.4	15.6	18.1	17.1	16.4	18.6	18.7	21.3
Latvia	31.5	35.6	31.8	44.4	46.0	42.5	48.1	52.6	48.0	54.6	51.4	56.9
Lithuania	28.2	37.1	26.7	35.4	36.1	32.8	37.2	37.8	31.9	35.4	34.3	37.3
Luxembourg	219.5	270.0	224.0	335.3	323.7	376.2	292.4	284.9	376.2	366.0	355.9	289.4
Malta	281.1	1,409.2	1,304.1	1,468.1	1,484.7	1,537.5	1,798.3	1,811.6	1,545.3	1,607.4	1,546.8	1,666.5
Netherlands	79.9	91.4	69.1	75.3	70.3	68.3	80.0	89.9	84.8	97.5	107.1	118.2
Portugal	37.7	49.8	40.3	48.5	48.3	42.4	52.9	55.3	52.4	59.2	56.9	66.1
Slovakia	65.5	62.0	52.2	59.1	56.2	52.9	59.0	58.9	49.3	52.6	48.7	54.3
Slovenia	20.9	22.7	21.5	22.4	22.2	22.4	26.3	25.5	24.8	29.4	30.5	32.9
Spain	38.1	39.6	36.0	42.2	43.9	42.3	48.3	46.7	43.4	45.4	44.7	49.1
<i>Eurozone aver.</i>	<i>29.5</i>	<i>39.7</i>	<i>34.4</i>	<i>42.4</i>	<i>41.8</i>	<i>40.8</i>	<i>42.7</i>	<i>42.3</i>	<i>39.7</i>	<i>47.9</i>	<i>47.1</i>	<i>51.3</i>
Bulgaria	38.9	85.4	81.0	94.9	88.9	79.6	90.2	90.2	83.0	85.1	78.2	84.1
Czech Republic	48.1	59.5	48.1	61.2	62.1	52.9	65.8	64.0	58.5	62.4	62.4	70.9
Croatia	26.8	69.4	39.5	52.6	52.7	45.2	52.4	51.4	50.3	52.5	53.9	61.0
Denmark	28.5	33.7	28.5	31.8	29.9	28.5	29.9	27.3	27.1	30.8	31.9	33.2
Hungary	59.2	68.3	55.7	75.7	69.4	60.6	81.4	80.3	71.1	69.0	64.0	66.9
Poland	33.0	38.3	27.8	38.1	39.1	31.1	39.8	44.3	38.8	39.0	39.5	44.7
Romania	26.9	35.9	31.1	42.0	40.9	37.5	44.5	43.2	36.6	39.5	39.6	42.0
Sweden	52.3	60.9	54.9	78.3	72.2	63.5	70.3	68.5	56.4	62.6	58.5	62.3
United Kingdom	27.5	36.6	31.5	43.1	43.8	44.2	54.1	55.2	52.3	48.8	55.7	59.7
<i>EU₂₈ aver.</i>	<i>30.2</i>	<i>40.2</i>	<i>34.7</i>	<i>43.8</i>	<i>43.3</i>	<i>41.8</i>	<i>45.8</i>	<i>45.6</i>	<i>42.6</i>	<i>48.3</i>	<i>48.7</i>	<i>52.8</i>

Source: UNCTAD data center

TABLE 2 – Greece’s inward FDI positions by industries in 2016 (percentage of total)

Industry	Net inward FDI position
All FDI activities (euro million)	23,883.60
Agriculture, forestry and fishing	1.03
Mining and quarrying	4.96
Manufacturing	32.69
Electricity, gas, steam and air conditioning supply	11.76
Water supply; sewerage, waste management and remediation activities	0.14
Construction	1.67
Wholesale and retail trade; repair of motor vehicles and motorcycles	22.64
Transportation and storage	4.90
Accommodation and food service activities	2.64
Information and communication	16.42
Financial and insurance activities	-17.60
Real estate activities	9.44
Professional, scientific and technical activities	1.17
Administrative and support service activities	2.52
Public administration; activities of households and of extraterritorial organisations	0.01
Education	0.00
Human health and social work activities	0.31
Arts, entertainment and recreation	4.96
Other service activities	0.03

Notes: (a) FDI positions represent the value of the stock of direct investments held at the end of the reference period (typically year or quarter). The change in direct investment positions from one period to the next is equal to the value of financial transactions recorded during the period plus other changes in prices, exchange rates, and volume.

(b) Net Inward FDI = Liabilities – Assets (reverse investments). Liabilities: investments by foreign parents in resident affiliates plus investments (mostly loans) by foreign fellow enterprises in resident fellows, where those fellows are ultimately controlled by a non-resident parent. Assets (reverse investments): investments (mostly loans) by resident affiliates in their foreign parents and by resident fellow enterprises in foreign fellows, where those fellows are ultimately controlled by a non-resident parent.

Source: OECD.Stat

TABLE 3 – Studies on the factors determining FDI in Greece

Authors, dependent variable and data set	Results
Filippaios (2006). Inward FDI position per industry from 15 source states over the period 1996-2001 (fixed effects model).	Host GDP, industry productivity of fixed capital, EU origin (not periphery) of the investor, all have a positive impact on Greece's industry inward FDI position.
Bitzenis et al. (2007). The decision of 52 multinationals to invest in Greece during the period 1995-2003 (cross-tabulation analysis).	The top 10 motives for FDI in Greece are prospects for market growth, political stability, economic stability, market size, social stability, 2004 Olympiad, links with neighboring states, international pressures, establishing an export base, and economies of scale.
Pantelidis and Nikolopoulos (2008). Inward FDI for the period 1976-2004 (OLS analysis of quarterly data).	Market size, technological capabilities, human capital, and economic activity, all have a positive impact on Greece's inward FDI.
Leitao (2010). FDI flows during the period 1998-2007 (panel data analysis).	Previous FDI, market size, openness and inflation, all have a positive effect on inward FDI.
Petrakou (2013). FDI stock per capita in 10 industries of 25 Greek prefectures (NUTS level 3 regions) for 2008, employing stock data from 2004 (cross-section GLS analysis).	GDP per capita as a proxy for a region's level of development, population potential index as a proxy for regional market size, gravity index as a proxy for the region's central or peripheral position in the national economic space, share of population with tertiary education as a proxy for human capital, revealed comparative advantage index as a proxy for the degree of industry specialization of each region in terms of employment, spatial clustering indicator, are all found to be statistically significant and have a positive effect on FDI.
Pantelidis and Paneta (2016). Inward FDI for the period 1982-2013 (OLS analysis of quarterly data).	Gross national income, exchange rate and openness of the economy are all positively associated with FDI.
Vogiatzoglou and Tsekeris (2016). Inward FDI stock for 14 manufacturing industries during the period 2001-2012 (panel data analysis).	Industry value added as a proxy for industry size, industry's R&D intensity, wage cost, labor productivity, economies of scale, industry's raw materials intensity, industry's energy intensity, revenue from outsourcing intensity, all have a positive effect on inward FDI.

Notes: Only significant estimates indicated in the results.

TABLE 4 – Descriptive statistics

Advantages of the Greek market / Statistics	Total			Group G			Group X			Group XG		
	Mean	Mode	S.D.	Mean	Mode	S.D.	Mean	Mode	S.D.	Mean	Mode	S.D.
Expected economic growth	3.57	4.00	1.19	3.81	5.00	1.25	3.36	3.00	1.37	3.36	3.00	0.93
Geographical proximity to EU	3.48	5.00	1.32	3.11	3.00	1.37	4.00	5.00	1.28	3.70	3.00	1.12
Links of Greece to other neighboring countries	3.35	5.00	1.40	3.22	5.00	1.52	3.09	5.00	1.44	3.64	4.00	1.15
Cultural similarities/closeness	3.28	4.00	1.21	2.67	1.00	1.33	3.82	4.00	0.94	3.80	4.00	0.68
Availability of skilled workers	3.19	3.00	1.07	3.12	4.00	1.19	3.45	3.00	0.99	3.15	3.00	0.91
Availability of labor force	3.13	3.00	1.09	2.85	3.00	1.13	3.60	4.00	1.02	3.25	3.00	0.94
Low cost of skilled labor	3.09	3.00	1.24	2.85	3.00	1.26	3.18	3.00	1.19	3.37	4.00	1.18
Favorable business climate	3.05	3.00	1.38	3.22	5.00	1.47	1.80	1.00	0.98	3.41	3.00	1.07
Political stability	3.05	3.00	1.32	3.07	1.00	1.49	2.45	3.00	1.08	3.32	3.00	1.10
Macroeconomic stability	3.03	3.00	1.33	3.15	4.00	1.41	2.20	3.00	1.08	3.27	3.00	1.17
Unexploited market, unsatisfied local demand	2.95	3.00	1.29	2.96	3.00	1.32	2.55	3.00	1.08	3.15	2.00	1.31
Climate	2.83	1.00	1.54	2.56	1.00	1.62	2.82	1.00	1.64	3.18	3.00	1.30
Market size	2.80	2.00	1.26	2.79	4.00	1.21	2.09	3.00	0.79	3.20	2.00	1.36
High per capita income	2.75	2.00	1.33	2.65	1.00	1.33	2.20	1.00	1.17	3.14	2.00	1.28
Lack of local competition	2.71	3.00	1.30	2.67	2.00	1.22	1.91	1.00	0.90	3.20	3.00	1.36
Market population growth	2.63	1.00	1.43	2.56	1.00	1.47	1.70	1.00	1.00	3.20	4.00	1.29
Sophisticated level of local technological infrastructure	2.60	3.00	1.14	2.70	1.00	1.27	2.30	1.00	1.35	2.60	3.00	0.73
Potential for big infrastructure investments	2.57	1.00	1.37	2.23	1.00	1.34	2.30	1.00	1.49	3.15	2.00	1.15
Lack of western investment interest in Greece	2.54	1.00	1.31	2.46	1.00	1.34	2.36	1.00	1.37	2.75	2.00	1.22
Pace of innovative breakthroughs in the Greek market	2.53	2.00	1.14	2.69	3.00	1.26	1.91	1.00	0.79	2.65	2.00	1.01
Low cost of unskilled labor	2.49	1.00	1.39	2.22	1.00	1.37	2.10	1.00	1.14	3.05	2.00	1.36
Potential for export activity	2.47	1.00	1.35	1.96	1.00	1.22	2.90	1.00	1.58	2.90	2.00	1.15
Cheaper imports	2.18	1.00	1.19	1.92	1.00	1.07	2.20	1.00	1.17	2.53	1.00	1.27
Availability of natural resources	2.04	1.00	1.24	1.72	1.00	1.18	2.00	1.00	0.95	2.47	2.00	1.31
Existence of natural/raw resources	1.95	1.00	1.11	1.63	1.00	1.09	1.82	1.00	1.03	2.43	3.00	1.00
Easiness of exploiting natural resources	1.95	1.00	1.11	1.67	1.00	1.02	1.90	1.00	1.04	2.35	2.00	1.15
Inexpensive land	1.90	1.00	0.99	1.52	1.00	0.79	2.09	2.00	1.24	2.29	3.00	0.88

Notes: Advantages listed from greater to lower mean of total group. S.D. is standard deviation. Group G: Multinationals or their subsidiaries (giving priority to) serving the Greek market. Group X: Multinationals or their subsidiaries (giving priority to) establishing an export base. Group XG: Multinationals or their subsidiaries not giving a priority either to serving the Greek market or establishing an export base.

TABLE 5 – Friedman test descriptive statistics and results

Advantages / Groups / Statistics	N	Mean	S.D.	Percentiles			Mean Rank	Friedman Test Statistics		
				25th	50th	75th		Chi-square	df	
Expected economic growth	G	11	3.45	1.51	2.00	4.00	5.00	2.18	Chi-square	1.08
	X	11	3.36	1.43	3.00	3.00	5.00	2.05	df	2.00
	XG	11	3.36	1.03	3.00	3.00	4.00	1.77	Asymp. Sig.	0.58
Geographical proximity to EU	G	11	3.09	1.45	2.00	3.00	4.00	1.82	Chi-square	6.05
	X	11	4.00	1.34	3.00	5.00	5.00	2.55	df	2.00
	XG	11	3.00	1.10	2.00	3.00	4.00	1.64	Asymp. Sig.	0.05
Links of Greece to other neighboring countries	G	11	3.45	1.51	2.00	4.00	5.00	2.27	Chi-square	1.56
	X	11	3.09	1.51	2.00	3.00	5.00	1.82	df	2.00
	XG	11	3.18	1.17	3.00	4.00	4.00	1.91	Asymp. Sig.	0.46
Cultural similarities /closeness	G	10	2.40	1.35	1.00	2.50	4.00	1.50	Chi-square	5.07
	X	10	4.00	0.82	3.00	4.00	5.00	2.30	df	2.00
	XG	10	3.70	0.48	3.00	4.00	4.00	2.20	Asymp. Sig.	0.08
Availability of skilled workers	G	9	3.33	1.32	2.00	4.00	4.00	1.94	Chi-square	1.94
	X	9	3.67	1.00	3.00	4.00	4.50	2.33	df	2.00
	XG	9	3.11	0.78	2.50	3.00	4.00	1.72	Asymp. Sig.	0.38
Availability of labor force	G	8	3.00	1.07	2.25	3.00	4.00	1.81	Chi-square	4.35
	X	8	3.88	0.99	3.25	4.00	4.75	2.56	df	2.00
	XG	8	2.88	0.99	2.25	3.00	3.75	1.63	Asymp. Sig.	0.11
Low cost of skilled labor	G	9	3.00	1.66	1.00	3.00	4.50	1.83	Chi-square	0.48
	X	9	3.00	1.32	2.00	3.00	4.00	2.06	df	2.00
	XG	9	3.44	1.13	2.50	3.00	4.50	2.11	Asymp. Sig.	0.79
Favorable business climate	G	10	2.70	1.57	1.00	2.50	4.25	2.00	Chi-square	8.73
	X	10	1.80	1.03	1.00	1.50	2.25	1.40	df	2.00
	XG	10	3.70	0.95	3.00	4.00	4.25	2.60	Asymp. Sig.	0.01
Political stability	G	11	2.82	1.66	1.00	3.00	4.00	1.95	Chi-square	1.59
	X	11	2.45	1.13	1.00	3.00	3.00	1.77	df	2.00
	XG	11	3.45	1.21	3.00	4.00	4.00	2.27	Asymp. Sig.	0.45
Macroeconomic stability	G	10	2.90	1.60	1.00	3.00	4.25	1.95	Chi-square	3.08
	X	10	2.20	1.14	1.00	2.50	3.00	1.65	df	2.00
	XG	10	3.50	1.35	2.75	3.50	5.00	2.40	Asymp. Sig.	0.21

Notes: S.D. is standard deviation.

TABLE 6 – Wilcoxon signed-rank tests results

	Ranks	N	Mean Rank	Test statistics	
<i>Favorable business climate</i>					
X - G	Negative	5	3.00	Z	-2.121 ^a
	Positive	0	0.00	Asymp. Sig.	0.034
	Ties	5			
XG - G	Negative	8	9.75	Z	-0.330 ^b
	Positive	10	9.30	Asymp. Sig.	0.741
	Ties	3			
XG - X	Negative	1	3.00	Z	-2.339 ^b
	Positive	8	5.25	Asymp. Sig.	0.019
	Ties	1			
<i>Geographical proximity to EU</i>					
X - G	Negative	1	3.50	Z	-2.135 ^b
	Positive	7	4.64	Asymp. Sig.	0.032
	Ties	3			
XG - G	Negative	6	7.17	Z	-1.603 ^b
	Positive	11	10.00	Asymp. Sig.	0.109
	Ties	6			
XG - X	Negative	8	5.44	Z	-1.658 ^a
	Positive	2	5.75	Asymp. Sig.	0.097
	Ties	1			
<i>Cultural similarities/closeness</i>					
X - G	Negative	3	3.50	Z	-1.748 ^b
	Positive	7	6.36	Asymp. Sig.	0.081
	Ties	1			
XG - G	Negative	2	5.50	Z	-2.977 ^b
	Positive	14	8.93	Asymp. Sig.	0.003
	Ties	3			
XG - X	Negative	3	3.67	Z	-0.966 ^a
	Positive	2	2.00	Asymp. Sig.	0.334
	Ties	5			

Notes: S.D. is standard deviation. The values of the test statistics are rounded to the third decimal due to the Bonferroni correction which is also rounded to the third decimal.

(a) based on positive ranks. (b) based on negative ranks.