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## THE EFFECT OF REGULATORY QUALITY ON FOREIGN DIRECT INVESTMENT ABSORPTION IN SELECTED COUNTRIES GROUP

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### ABSTRACT

Foreign investment, specifically foreign direct investment (FDI), has found a special status in many countries around the world. The third world countries, including developed and developing countries make extensive efforts to lead these financial resources toward their own countries. Among the most important tasks done by countries for absorbing foreign investment resources is to provide the conditions and pave the ground for investment and doing economic activities in a secure and safe environment, to amend the related regulations, and to facilitate the process of executing the investment projects and other similar tasks. On this basis, the present research is principally aimed to investigate and study the effect of regulatory quality on foreign direct investment in the group of selected countries with medium level of income. The results obtained from model estimation using fixed effects method and generalized momentums method (GMM) during 2002-2013 period show that the regulatory quality has a positive and significant effect on absorption of foreign direct investment in the group of selected countries with medium-level income. Those countries which have successfully provide the conditions and pave the regulatory ground for investment, have been successful in absorbing the foreign investment too.

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### INTRODUCTION

Foreign direct investment (FDI) is one of the main manifestations of globalization. Today, the economists and governments have a general consensus on the importance of foreign investment. From their viewpoint, this issue is regarded as a driving force for creating a vast range of economic changes. Foreign investment can be an instrument for achieving economic growth and development. Many countries, specifically the developing countries which have less cash flow and less economic facilities and resources, seek to absorb foreign capitals in order to implement their economic plans and to achieve economic-industrial growth; hence, foreign investment has got extensive political and economic dimensions. One of the barriers of foreign direct investment absorption is presence of some regulatory obstacles and lack of

appropriate executive policies, which have caused reduction of foreign investment. Therefore, the present dissertation is aimed to study the effect of regulatory quality on foreign direct investment absorption in the medium-level-income countries group. On this basis, in this chapter of dissertation we present some general sections of the research including objectives, question, hypothesis, statistical society, statistical resources, and methodology of the research. FDI is one of the most important factors of economic growth and development in host countries and has had an increasing trend in recent decades. Distinguishing the factors which affect the foreign direct investment absorption can be helpful for policy-making in those countries which haven't made good use of it. Before 1990s, the general public viewpoint in the developing countries was that the multinational and foreign investment companies seek to dominate these countries and plunder their

resources. But the experiences of successful developing countries and the economic failure of countries which had blocked foreign direct investment entry changed the view toward these investments and thus the developing countries tried to absorb this kind of investment; besides, the foreign investment companies, as a consequence of fast growth of technology and increase of innovation costs and merge of the global economy, changed their behavioral pattern and proceed investment with technology transferring approach. By entering the host country, the foreign direct investment, in addition to financing the educational projects and increasing the human force productivity and investing, results in acceleration of the procedure of technology improvement and upgrading, reduction of unemployment, increase of quality and standards of domestic commodities, expansion of trading with other countries, and consequently, increase of the total production of the host country. If the conditions which guarantee the investment in developing countries are provided, then the international investors will have more tendencies to participate in such markets. One of the main factors which impede absorption of foreign investment in developing countries is the negative belief and presupposition about foreign capital. This kind of presupposition, especially in the third world countries, is influenced by thinking of those individuals who prefer the governmental economy to the free economy. This kind of thought makes it difficult to establish the rules and regulations of investment. In developing countries, presence of monopolies and authorities cast its shadow on the political and economic decisions (Asiedu and Lien, 2011).

Over the last decade, there have been fruitful efforts in the role of FDI in miscellaneous markets. Pierpont *et al* examined the influence of democracy and property rights on foreign direct investment (FDI), using data from 54 developing and transitional countries, between 1986 and 1997 (Pierpont, 2007). Quazi sought to fill that void by using the economic freedom index, published since 1995 by The Heritage Foundation/Wall Street Journal, as a proxy for domestic investment climate for a sample of seven East Asian countries over the 1995–2000 period. Quazi found that economic freedom is a significant and robust determinant of FDI (Quazi, 2007). Adeoye used the world bank governance indicators to empirically test the relationship between macroeconomic level corporate governance and inwards FDI flows into emerging market countries, using a panel data set of 33 countries between 1997 and 2002. The key finding was that macroeconomic corporate governance has a positive and significant effect on inwards FDI flows, suggesting host country governments and authorities should shape policy in this area to maximize inwards FDI flows (Adeoye, 2007). Lim examined that how a host government's promotional effort, through the establishment of investment promotion agency (IPA), can influence FDI inflows. Lim conducted structural equation analyses with maximum-likelihood estimations focusing upon the effectiveness of investment promotion as a mediator between the host country's FDI environment and FDI inflows. The empirical results showed that the effectiveness of investment promotion, measured by IPA age, IPA's overseas staff intensity, and number of IPA staff, positively affects the attraction of FDI (Lim, 2008). Gorg *et al* used panel data for 18 OECD countries and measuring the extent of social welfare policies by the (public social expenditure)/GDP ratio. They found strong support for the conjecture that redistributive social welfare state policies are valued by multinationals as, for instance, they may signal a government's commitment to

social stability (Görg *et al.*, 2009). Poelhekke *et al* estimated panel error correction models of FDI with spatial lags for FDI and market potential. The main result was that subsoil assets boost resource FDI, but crowd out non-resource FDI (Poelhekke and van der Ploeg, 2010). Asiedu *et al* examined whether natural resources in host countries alter this relationship. They estimated a linear dynamic panel-data model using data from 112 developing countries over the period 1982–2007. They found that democracy promotes FDI if and only if the value of the share of minerals and oil in total exports is less than some critical value. They identified 90 countries where an expansion of democracy may enhance FDI and 22 countries where an increase in democratization might reduce FDI. Furthermore, they found that the effect of democracy on FDI depends on the size and not the type of natural resources (Asiedu and Lien, 2011). Cuyvers *et al* analysed the determinants of the factors that might influence inward FDI in Cambodia by referring to its economic, geographic, and political characteristics. Using exclusive unbalanced panel data sets during 1995–2005, for both approved and realized FDI for, respectively, seventeen and fifteen home countries, the estimation results show that the determinants of approved FDI and realized FDI were somewhat similar (3). Hristu-Varsakelis *et al* considered a collection of countries which attempt to maximize their corporate tax revenue, the latter being viewed as a function of FDI inflow and the Effective Average Tax Rate (EATR) which each country sets for itself. Under a model that assumed a direct influence of tax differentials on the flow of FDI, each country's decisions are naturally 'coupled' to those of others, leading to a non-cooperative game in which countries-players compete for FDI inflows by sequentially altering their tax rates. Their decisions were made via a differential equation-based model used to predict the effect of tax rate changes on a player's share of FDI inflows (Hristu-Varsakelis *et al.*, 2011). Gondor *et al* intended to argue that far from being a factor with small influence, fiscal policy was a major factor influencing Foreign Direct Investment.

Using a pooled dataset consisting of annual observations over the period 2000–2010 for 6 actual European Union countries considered "Emerging European Economies" i.e. Bulgaria, Hungary, Latvia, Lithuania, Poland and Romania, they found strong support for their conjecture which stated fiscal policies were determinants for FDI (Göndör and Nistor, 2012). Jadhav explored the role of economic, institutional and political factors in attracting FDI in BRICS (Brazil, Russia, India, China and South Africa) economy and the comparative weightage of these factors in attracting FDI. The study used panel data for a period of ten years (2000–2009) in order to examine the significant determinants of FDI in BRICS from a holistic approach. Analysis has been done using panel unit-root test, and multiple regressions. The study took into account Market Size, Trade openness, natural resources as economic determinants and Macroeconomic Stability (Inflation Rate), Political stability/No violence, Government Effectiveness, Regulatory Quality, Control of corruption, Voice and accountability, Rule of Law as potential institutional and political determinants of FDI (Jadhav, 2012). Underwood examines the substantial growth of foreign direct investment into the United States by international (i.e., non-domestic) automotive firms over the past quarter century. Global macro-environmental factors influencing this investment were examined, as are the resulting impacts on numerous stakeholders including global automotive firms, consumers,

and regional and state economies. The findings illustrated effective adaptive strategies that both automotive firms and economic development stakeholders follow in an increasingly global environment, resulting in significant economic, market, and quality-of-life benefits (Underwood, 2012). Wu *et al* analyzed the effects of FDI on income inequality and asks whether the relationship depends on absorptive capacity or not, by using a cross-sectional dataset taken from 54 countries over the period 1980–2005. They adopted the endogenous threshold regression model proposed by Hansen (2000) and Caner and Hansen (2004) and found strong evidence of a two-regime split in their sample. By contrast, their results support the perspective that FDI has little effect on income inequality in the case of countries with better absorptive capacity (Wu and Hsu, 2012). The main objectives of the paper are elaborating the theoretical fundamentals of regulatory quality and foreign direct investments, studying the procedure of regulatory quality and foreign direct investment in Iran and the group of selected countries with medium-level income and studying the theoretical relationship and the effect of regulatory quality on foreign direct investment absorption through data fusion and increasing the observations in the selected countries using various econometric instruments. This paper is organized as follows. In Section 2, the methodology adopted for problem is explained; Section 3 includes model specification; Section 4 proposes the estimation of model. Finally, conclusion is presented in Section 5.

## MATERIALS AND METHODS

The given hypothesis was tested through SPD (Static Panel Data) and DPD (Dynamic Panel Data) models and then EVIEW and EXCEL were used to analyze the obtained results. The statistical society of the research included a group of selected countries with medium-level income. It must be noted that we have chosen those countries whose statistical data related to the variables used in this research was available in the given time period of the research. The group of selected medium-level countries included Albania, Algeria, Angola, Azerbaijan, Belarus, Belize, Botswana, Brazil, Bulgaria, China, Colombia, Costa Rica, Dominica, Dominican Republic, Fiji, Gabon, Iran, Kazakhstan, Macedonia, Malaysia, Mauritania, Mexico, Panama, Paraguay, Peru, Romania, Serbia, South Africa, Thailand, and Turkey. Figure 1 depicts the procedure of regulatory quality in Iran during 2002-2013 period is presented. Examination of the procedure of regulatory quality in Iran in Figure 1 during 2002-2013 period shows that the regulatory quality in Iran has had a fluctuant procedure. The worst status (numerical value close to -2.5) and the best status (numerical value close to 2.5) of this index are related to the year 2009 and the year 2003, respectively. In Iran existence of numerous tax, customs, and commercial regulations has made it difficult for people to perceive the regulations, and thus some costs are imposed on the people and the private sector.

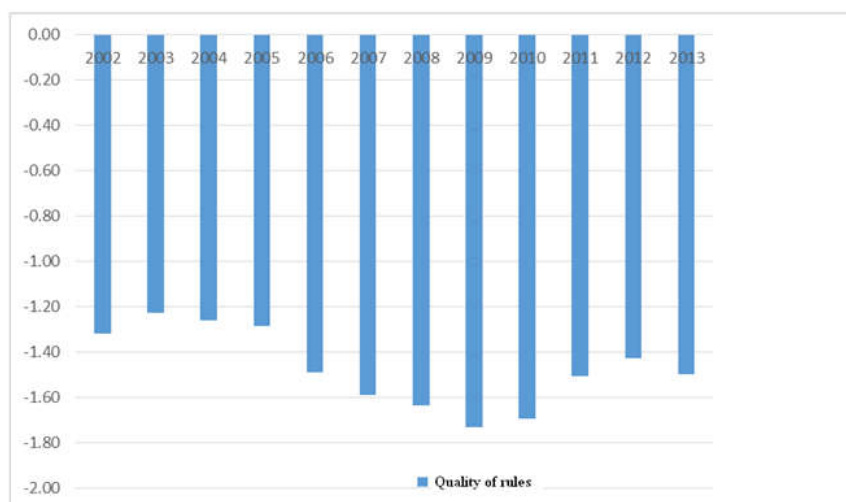


Figure 1. Procedure of regulatory quality in Iran

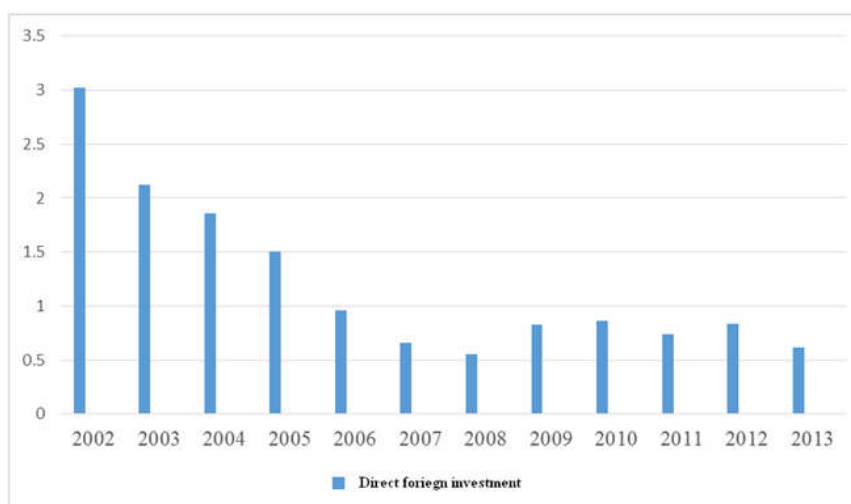


Figure 2. The procedure of foreign direct investment net inflow (% of GDP) in Iran

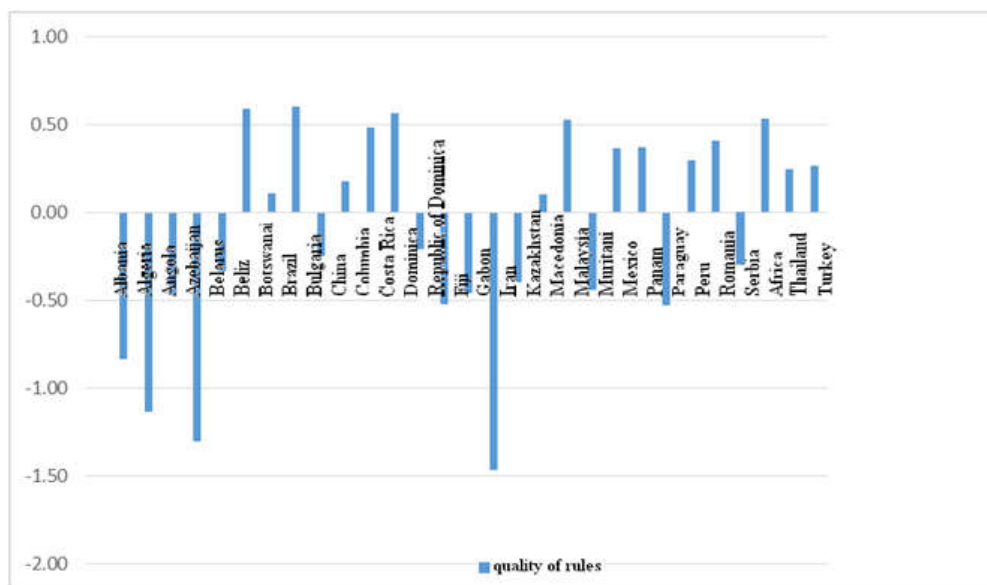


Figure 3. The procedure of average regulatory quality in the selected countries group

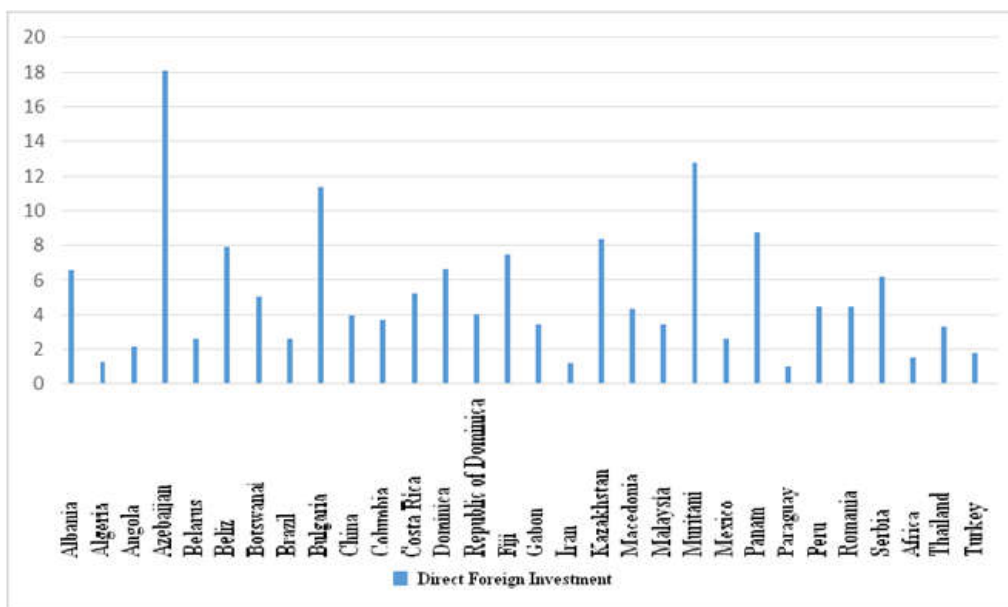


Figure 4. Procedure of average foreign direct investment in selected countries group

The increase of costs of the private sector as a consequence of regulations numerousness has resulted in the increase of inefficiency and prevalence of institutional and financial corruption and also has created some obstacles on the path of tax income absorption. Thus it seems that decreeing coordinated regulation easily perceivable for all the individuals is a crucial for the country. Figure 2 demonstrates the procedure of foreign direct investment in Iran during 2002-2013 period. Examination of the procedure of foreign direct investment in Iran during 2002-2013 period in Figure 2 shows that foreign direct investment in Iran has had a fluctuant procedure. The worst status and the best status of foreign direct investment are related to the year 2008 and the year 2002, respectively. Besides, by establishing the “Foreign Investment Promotion and Protection Act” in 1381 many of the obstacles and limitations of foreign investment absorption were removed, the range of foreign investors’ activities was expanded, new methods of investment were recognized, and a united enterprise was founded called “Foreign Investment Services Center”. In this act, in addition to financing, foreign

investment is considered as a ground for improving the productivity, transferring the technology from abroad, developing the management and skills for improving the domestic workforce’s qualitative capability, developing the exporting markets, and increasing the competitiveness of domestic products. The “Foreign Investment Promotion and Protection Act” declares no clear policy in terms of the incentive policies, especially the financial incentives. For instance, according to Article-8 of this Act, all the facilities and rights of the foreign investors are matched with the domestic capitals without clearly expressing the amount and duration of exemptions including tax exemptions and financial incentives; besides, there is no article for using the insurance services while being insured by foreign or domestic insurance companies can attract the foreign investors’ trust. Perhaps it can be said that transferring the principal capital and its interest to abroad is the only subject clearly elaborated in the Act and the manner of this transfer is perfectly expressed in the Act and its rules of procedure (regulations). By establishing this Act, it was expected that a remarkable

progress is achieved in the procedure of foreign investment in the country but, in practice, the existing obstacles and problems caused that no foreign investment absorption conformed to the planners' expectations was accomplished. Some of the most important problems and challenges, which are still present in this country, are presence of some problems related to transferring the capitals into the country through foreign banks, high level of prices which increases the risk level of the long term investment projects, lack of connection with foreign capital market, lack of primary facilities for providing the required instruments for absorbing the foreign capitals in form of an efficient and effective enterprise and lack of powerful specialized staff in the legal issues, examination, and supervision of foreign investment absorption plans. Figure 3 demonstrates the procedure of average regulatory quality in the group of selected countries during 2002-2013 period. Examination of the procedure of average regulatory quality in Figure 3 in the group of countries with medium-level income shows that Bulgaria and Iran have got the first and the last rank among the 30 selected countries in terms of the average regulatory quality. Figure 4 delineates the procedure of average foreign direct investment in the group of countries with medium-level income during 2002-2013 period. The procedure of average foreign direct investment in the group of selected countries with medium-level income during 2002-2013 shows that Azerbaijan and Paraguay have got the first and the last rank among 30 selected countries in terms of non-weighted average of foreign direct investment. Furthermore, Iran has got the 29<sup>th</sup> rank among 30 selected countries in terms of average foreign direct investment.

### Model specification

In this paper, using the studies performed by Wernick *et al* (2014) regarding different variables which affect the foreign direct investment, we have used equation (1) with some modifications in order to examine the effectiveness of regulatory quality on foreign direct investment in the group of selected medium-level-income countries (Wernick *et al.*, 2009).

$$\ln INV = \beta_0 + \beta_1 \text{Reg}_i + \beta_2 \text{GDPg}_i + \beta_3 \ln \text{Trade}_i + \beta_4 \ln \text{Tel}_i + \beta_5 \ln \text{Sch}_i + U_i \quad (1)$$

In this equation, LnINV is the logarithm of foreign direct investment, net inflows (% of GDP), Reg is the regulatory quality, GDPg is the gross domestic production growth rate, LnTrade is the logarithm of trade as the index of economy openness, LnTel is the logarithm of number of fixed telephone subscriptions (per 100 people) as the indicator of communications and information technology, Ln Sch is the logarithm of number of school enrollment, tertiary (% gross) as the indicator of human capital, U is the equation error term, and  $t, i$  indicates the country and time. Table 1 shows variables and data sources.

### Unit root test

The unit root test is one of the most common tests currently used for determining the statics of the variables. The unit root test is based on the fact that when in a self-regression process  $b=1$ , then the  $y_t$  variable will have unit root and will be non-static. In such case, in order to make the variables static, we use differencing technique  $\Delta y_t = y_t - y_{t-1}$ ; that is, differencing is used instead of the time series in the level. So if

a variable becomes static after a single differencing, then it will be accumulated of the first order. In general, if a variable becomes static after  $d$  times of differencing, it will be accumulated of  $d$  degree. In this dissertation, in order to examine the staticness or non-staticness of the variables, we have used the Panel Unit Root Test. The results of Levin, Lin and Chu test for the variables used in this dissertation are presented in Table 2. As it is seen in Table 2, according to the Levin, Lin and Chu statistic, all the variables are in the static level and thus the hypothesis-zero stating the existence of unit root is rejected. Therefore, data used in this dissertation are confirmed before the model estimation. The results of the co-integration test in Table 3 show that there is a long term relationship between the variables used in the model.

### Model estimation

In order to estimate the equation (1), first we should determine the type of estimation method for the specific type of the panel data. Thus for determining the existence (or non-existence) of the intercept separately for each country we used the  $f$ -statistic. With regard to the value of the  $f$ -statistic calculated in Table 3 with confidence level above 99%, the hypothesis-zero stating the use of OLS (ordinary least squares) method is rejected. Therefore, the bound regression (OLS) is not valid and different intercepts (random or fixed effects method) must be regarded in the model. Then we used Hausmann test for testing whether the model should be estimated through random effects method or fixed effects method. This test was performed using EVIEWS software. With regard to the  $\chi^2$  statistic obtained from calculations done for this regression in Table 3, the fixed effects method is used for model estimation whose results are presented in Table 3. In addition to estimating the model using the random and fixed estimators, the experimental model in this dissertation was estimated using the GMM (generalized momentums method) estimator relying on the dynamic panel data model. The GMM estimator has been vastly used in the recent experimental studies specifically in macro-economy and financial studies. Using this method for model estimation has numerous advantages. For instance, Loayza believes that this estimator is very suitable for removing the time series data variance (Loayza *et al.*, 2005).

The GMM estimator, by calculating the non-observed individual specific effects in the model (which is done by entering the interval dependent variable as the explanatory variable in the model), provides a better control on the endogeneity of all the explanatory variables of the model. The results of model estimation using GMM estimator in the selected medium-level-income countries are presented in Table 3. The results obtained from estimation of equation 1 in the group of selected medium-level-income countries through fixed effects method and GMM method in Table 3 show that regulatory quality has a positive and significant effect on logarithm of foreign direct investment in the selected medium-level-income countries group. Thus the hypothesis stating the positive and significant relationship between the regulatory quality and the foreign direct investment in the selected countries group cannot be rejected. Regulations such as price control, creating non-systematic and cumbersome obstacles for exporting and importing, high tax loads, stock market limitations, and founding new corporations, are some excessive regulations, for exchanges and similar cases, each

one of which can individually restrict and prevent development of foreign direct investment. By improving the regulatory quality we can reduce the market failures in various cases such as complicated bureaucracy, lack of transparency in market, and transparency of the investors' economic rights. On this basis, the government can play an outstanding role in providing the bed and paving the ground for improvement and development of foreign investment through establishing appropriate regulations for clarifying the current existing structures, equalizing the opportunities, reducing the rent-seeking costs, and also updating the regulatory discipline. This means that the government's ability to compile, formulate, and implement the regulations and policies which facilitate the permission, promotion, and development of the private sector, has positive effect on the foreign direct investment.

Gross domestic production growth rate has a positive and significant effect on the logarithm of foreign direct investment in the selected medium-level-income countries group. The gross domestic production indicates the size of domestic market of a country. Thus, the more gross domestic production of the host countries, the bigger the size of their domestic markets and, consequently, the bigger the effects of the investments. Also, in theoretical fundamentals terms, the increase of the gross domestic production results in the increase of income and, consequently, the increase of domestic demand. And if domestic production cannot respond the increase of demand, then importation will increase. Logarithm of trade as the economy openness index has a positive and significant effect on foreign direct investment in the selected medium-level-income countries group.

**Table 1. Definition of variables and data sources**

Variable	Definition	Source
Ln INV	Logarithm of foreign direct investment	WDI 4
Reg	Regulatory quality	WGI 5
GDPg	Gross domestic production growth rate	WDI
Ln Trade	Logarithm of economy openness degree	WDI
Ln Tel	Logarithm of number of fixed telephone subscriptions (per 100 people) as the indicator of communications and information technology	WDI
Ln Sch	Logarithm of number of school enrolment, tertiary (%gross) as the indicator of human capital	WDI

**Table 2. Examination of staticness and non-staticness of variables in the selected countries group**

Variable	Unit root test	t-statistic ( $P - \nabla$ value)	Result
LnINV	Levin, Lin & Chu	-7.82130 (0.0000)	Static -I(0)
REG	Levin, Lin & Chu	-5.91370 (0.0000)	Static -I(0)
GDPG	Levin, Lin & Chu	-10.0471 (0.0000)	Static -I(0)
Ln Trade	Levin, Lin & Chu	-3.87697 (0.0001)	Static -I(0)
Ln Tel	Levin, Lin & Chu	-4.17868 (0.0000)	Static -I(0)
Ln Sch	Levin, Lin & Chu	-20.3176 (0.0000)	Static -I(0)

**Table 3. Results of estimating the effect of regulatory quality on foreign direct investment in the selected countries group (dependent variable: logarithm of foreign direct investment)**

Explanatory variables	Fixed effects method	Generalized momentums method
	Coefficients (t-statistic) {p-value}	Coefficients (t-statistic) {p-value}
C	-5.433251 (-5.501963) {0.0000}	-
Ln INV(-1)	-	0.118473 (5.244020) {0.0000}
Reg	0.540443 (6.81385) {0.0000}	0.700968 (9.014970) {0.0000}
GDPG	0.035232 (4.509858) {0.0000}	0.050708 (7.889471) {0.0000}
LnTrade	0.787921 (2.962494) {0.035}	0.373316 (2.807772) {0.0055}
LnTel	0.746984 (4.018243) {0.0001}	0.818710 (16.00257) {0.0000}
LnSch	0.334427 (2.955444) {0.0036}	0.207635 (1.835399) {0.0681}
R <sup>2</sup>	0.796590	-
Durbin-Watson stat	1.844509	-
F statistic	26.84682 {0.00000}	-
F-Limer test statistic	F(24.168)=4.952297 P-value=[0.000]	-
Haussman test statistic	CHISQ(5)=11.863200 P-value= [0.0367]	-
J-statistic	-	20.23704



The obtained positive relationship indicates the existence of a complementary relationship between the trade flow and the foreign direct investment. Presence of this complementary relationship in the international literature is of great importance because the expansion of the trade flows, especially through various economic merges and integrations, results in the increase of motivation and the increase of foreign direct investment level. As it is stated by new theories such as different capital return theory, Vernon production cycle theory, theory of firm, internalization theory, and Dunning theory, if trade and foreign direct investment complement each other, there will be a direct relationship between them. Logarithm of the number of fixed telephone subscriptions as the indicator of communications and information technology has a positive and significant effect on the logarithm of foreign direct investment. By increasing the cost share in the budget of the country in the information technology field, the tendency of the foreign investors for investing in the original country. Logarithm of the number of school enrolment, tertiary, as the indicator of human capital has a positive and significant effect on the logarithm of foreign direct investment. Education, as a reflection of the human force's skills, is an important factor in absorbing the foreign direct investment. Education increases the country's ability to absorb the new technologies; moreover, education can result in structural change of the foreign direct investment in the international companies from user products to technology products. In other words, presence of trained and skillful workforce in commercial organizations is very important and affects the flow of foreign direct investment. Value of the determination coefficient in the model indicates that more than 70% of the changes in the logarithm of foreign direct investment in the selected medium-level-income countries group is explained by the independent variables of the model. Saragan test statistic, which has got  $\chi^2$  distribution with freedom degrees equal to the number of over-specified limitations, rejects the hypothesis-zero that states the correlation between the residuals and the instrumental variables. Based on the results obtained from this test, the instrumental variables used in the model estimation have the required validity. Consequently, the validity of the results is confirmed for interpretation.

## Conclusion

The regulatory quality has positive and significant effect on the logarithm of foreign direct investment in the group of selected countries with medium-level income. Therefore, the hypothesis stating the positive and significant relationship between the regulatory quality and the foreign direct investment cannot be rejected. Some regulations such as price control, creating non-systematic and cumbersome obstacles in the path of importing and exporting, high tax loads, limitations in stocks market, and founding new firms and corporations, are excessive regulations, for exchange and other similar cases, each one of which can restrict and prevent the development foreign direct investment. Improving the regulatory quality can reduce the market failures such as complicated bureaucracy, lack of transparency in market, and transparency of the investors' economic rights. On this basis, the government can play a remarkable role in providing the bed and paving the ground for improvement and development of the foreign investment through decreeing appropriate regulations and through clarifying the current existing structures, equalizing the opportunities, reducing the rent-seeking costs, and also updating the legal discipline. This means that the

government's ability to compile, formulate, and implement the regulation and policies which facilitate the permission, promotion, and development of the private sector has positive effect on the foreign direct investment. The gross domestic production growth rate has positive and significant effect on the logarithm of foreign direct investment in the group of selected countries with medium-level income. The gross domestic production indicates the size of the domestic market of any country. Thus, the more the gross domestic production of the host countries, the bigger the size of the domestic markets in these countries and, consequently, the more the effectiveness of these investments. In theoretical fundamentals terms, the increase of gross domestic production results in the increase of income and, consequently, the increase of domestic demand. And if the domestic production cannot respond the increase of demand, then importation will increase. The logarithm of trade as the economy openness index has positive and significant effect on the logarithm of foreign direct investment in the group of selected countries with medium-level income. The obtained positive relationship indicates the existence of a complementary relationship between the trade flow and the foreign direct investment. Presence of this complementary relationship in the international literature is of great importance because the trade flows, especially through various economic merges and integrations, result in the increase of motivation and the increase of foreign direct investment level. As it has been stated in new theories such as different capital return theory, Vernon production cycle theory, theory of firm, internalization theory, and Dunning theory, if trade and foreign direct investment complement each other, then there will be a direct relationship between these two variables.

The logarithm of the number of fixed telephone subscriptions as the indicator of communications and information technology has positive and significant effect on the logarithm of foreign direct investment. By increasing the cost share in the budget of the country in the information technology field, the tendency of the foreign investors for investing in the original country will increase. The logarithm of the number of high school enrolment, tertiary, as the indicator of human capital has positive and significant effect on the logarithm of foreign direct investment. Education, as a reflection of human force's skills, is an important factor in absorbing the foreign direct investment. Education increases the country's ability to absorb the new technologies; besides, education can structurally change the foreign direct investment in the international companies from user products to technology products. In other words, presence of trained and skillful workforce in modern commercial organizations is very important and affects the foreign direct investment flow. The value of determination coefficient in the model indicates that more than 70% of the changes in the logarithm of foreign direct investment in the selected countries group is explained by the independent variables of the model. The Sargan test statistic, which has got  $\chi^2$  distribution with freedom degrees equal to the number of over-specified limitations, rejects the hypothesis-zero stating the correlation between the residuals and the instrumental variables. Based on the results obtained from this test, the instrumental variables used in the model estimation have the required validity. Consequently, validity of the results is confirmed for interpretation.

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