

Evaluation of the effect of Labour Market Factors on Countries' Inflows of Foreign Direct Investment

Dovilė Ruplienė¹

Kristina Montvilaite²

Abstract: The ongoing process of globalisation has been reflected in all spheres of economical relations: countries are interchanging not only goods and services, but also factors of production. For last decades, evaluation of the factors of FDI inflows among countries have been sharing the view that the major factors include a cheap and highly skilled labour force however deeper research in this area is scarce. There is a lack of researches into the effects of labour market factors, taking the rapid rate of economic growth and growing measures of capital mobility into account.

In the article the theoretical concepts of foreign direct investment have been structured according to the level of estimation and similarities among theoretical concepts in terms of direct and indirect assessment of the labour market factors have been identified. A versatile model comprising and integrally evaluating the overall macroeconomic and specific factors affecting the labour market within legal framework as well as their impact on FDI flows in countries has been proposed. A study in case of the new EU members has been conducted, demonstrating the immediate direction of the impact of both labour costs and labour qualification. The findings of the empirical study indicating that FDI attraction is affected by both the existing level of skilled labour and public investment in skilled labour increase can be helpful in shaping public policy focused on increase in FDI flows.

Index Terms: foreign direct investment, labour costs, labour qualification.

I. INTRODUCTION

Relevance of research, scientific problem. The ongoing process of globalisation has been reflected in all spheres of economical relations: countries are interchanging not only goods and services, but also factors of the production, necessary for the production. The capital, labour resources, scientific – technical knowledge under contemporary conditions can be characterised by the high international mobility: the capital is actively invested abroad, people are migrating from one country to another searching for better work and more favourable living conditions, technologies are transferred. Foreign direct investments (further FDI) are treated as one of the most

important forms of the international migration of capital; this has affected interest in reasons of this phenomenon. Direct investments are more useful for the economics of the country than foreign investments of other types, because in such case the investor is planning the long-term activity. Direct investments give benefits from the aspect of growth of the gross product, investments to the production, reduction of unemployment; the country gains the possibility to use the contemporary technologies, knowledge and experience of the management. Attraction of FDI is especially important for the developing countries, because they often lack the capital and technologies used in developed countries. For such countries FDI are the possibility to attain the more rapid economical growth.

The issue of factors determining FDI has already been relevant for several decades; however upon the changing situation within the world economics, aspects of analysing this effect also change. After the World War II many countries didn't have enough capital for the independent assurance of the economical growth, therefore assessment of FDI was mainly linked with the increase of the economical potential of these countries. Later factors of FDI were assessed through the prism of the development of transnational corporations. The last decade of the last century was characterised by the increased flow of FDI to the developing countries, including countries of the central and Eastern Europe that had many skilled workforce during the transition period from the planned to market economics, but lacked the capital. The attraction of the countries for FDI has been actual problem for many countries in the world.

Labour market quantitative and qualitative characteristics are treated as one of the most important economical characteristics of the country determining the attractiveness of the country upon attraction of the foreign capital, because it affects costs of the production factors experienced by investors as well as the profit. Economical processes that are happening in the countries unevenly affect the state of the labour market; therefore it is important to assess differences of the labour market of countries and to define what factors of the labour market have the greatest impact on FDI in countries. Upon assessment of factors of the labour market, the labour cost is often stressed; however the labour market can also be characterised by other important characteristics – labour qualification, legal regulation of the labour market and etc. Labour cost in scientific surveys is often linked with

¹ Dovilė Ruplienė is with the Faculty of Social Sciences, Department of Economics, Siauliai University, Architektu st. 1, Lithuania

² Kristina Montvilaite is with the Faculty of Social Sciences, Department of Economics, Siauliai University, Architektu st. 1, Lithuania.

vertical FDI and the labour qualification – with horizontal; however under contemporary conditions such separation of the effect of factors becomes complicated within assessment of the effect of factors of the labour market in countries, attracting investments of both types.

Scientific problem: to identify the labour market factors that affect and the way they affect the countries' inflows of foreign direct investment.

Subject of the survey: the impact of labour market factors on inflows of foreign direct.

Aim of the survey: to compose an assessment model for the impact of labour market factors on foreign direct investment and to evaluate the effects of the given factors on foreign direct investment attracted by countries.

Tasks of the survey:

1. To disclose theoretical concepts of foreign direct investment and to summarize empirical research into the impact of the labour market factors on foreign direct investment.
2. To develop research methodology for the evaluation of the impact of labour market factors on foreign direct investment inflows following the example of new EU members.
3. To identify relevant factors affecting the labour market and to assess their impact on the inflows of foreign direct investment in the case of the new EU members.

Methods applied in the work. Upon assessment of theoretical aspects of the effect of factors of labour market on the attracted FDI, analysing the exploration level of the work problem and forming the survey methodology, scientific literature analysis was applied as well as synthesis, comparison and grouping, generalisation of results of empiric surveys.

Upon implementation of the assessment of effect of factors of the labour market on the attraction of FDI in new member states of the European Union, statistical data systematising and the comparative analysis were used as well as the relative analysis of indicators, interpolation and extrapolation of statistical dynamics' rows, hierarchic cluster analysis, regression analysis.

Limitations of the survey. Various statistical indicators may reflect the general macroeconomic situation as well as specific factors of the labour market. Only those were selected for the survey that, considering specifics of the assessed countries and aims as well as tasks of the article, enable the best revelation of the effect of factors. Joint number of statistical indicators is limited by amounts of observations used for the assessment; the number of variables included into the model is linked with matching premises for the formation of the multilayer regression model. The selection of variables of the model is based on the implemented assessment of scientific literature and empiric surveys of other authors as well as on previsions of the authors.

There is rare one-way dependability in macroeconomic phenomenon; some appropriate phenomenon, affecting some other phenomenon, is dependable on the latter. Upon

assessment of factors determining FDI, the general macroeconomic situation, price and labour qualification, state investments to the labour qualification development may be interpreted as factors of FDI; however their dependability from the FDI can also be analysed. The logics of the model is based on the attitude of the authors towards the problem of the work by applying the premise that the general macroeconomic situation and factors of the labour market affect FDI and not vice-versa.

II. THEORETICAL CONCEPTS OF FOREIGN DIRECT INVESTMENT AND THE LEVEL OF INVESTIGATION

FDI attraction factors are evaluated both macro and micro level in theoretical concepts of different return of investments, portfolio diversification, markets seeking, internationalization, eclectic approach, oligopolistic reaction. It was identified that labour market factors are attributed to the direct effect factors in theories of different return of investments, eclectic, product cycle and oligopolistic reaction. Labour force qualification as important factor is distinguished in all the theories but different aspects are emphasized: the theory of different return of investments associates labour force qualification with labour productivity, eclectic approach theory explains horizontal FDI attraction by the effect of skilled labor force and oligopolistic reaction theory this factor is referred as the most important in labour market.

The price of labour force is indicated as the most important factor for attracting FDI in the theory of different return of investments, in the theory of eclectic approach the price of labour force is indicated as factor which attracts vertical investment. Oligopolistic reaction theory, unlike the other two theories emphasizes not the national average wage, but the level of wages in different economic activities. The theory of different return of investments evaluates the legal regulation of labour market through its effect on labour force price. The low protection level of the labour market is assigned to the specific advantages of the local market in the eclectic approach theory.

After systematisation of empirical surveys on the effect of factors of the labour market on the FDI inflows, it was defined that surveys more often discover the relation between FDI inflows and labour costs, labour qualification and legal regulation of labour market. But there is a lack of surveys assessing the effect of the labour market that would be intended for countries, having neither vertical nor horizontal investments dominating within the inflow of FDI. Generalizing the results of the surveys it was settled that more often the negative relation between labour costs and FDI inflows is defined but it was found out that in surveys the labour costs and labour qualification are rarely assessed together; surveys are most often oriented towards the assessment of one of those factors. Empirical surveys of the impact of legal regulation on inflows of FDI are assessed by different aspects

therefore results of these surveys are difficult to be compared. Also there is a lack of surveys intended for the newest periods, allowing the assessment of the effect of factors of the labour market on FDI considering the changed economic conditions.

For two decades, evaluation of the factors of FDI inflows among countries have been sharing the view that the major factors of FDI include a cheap and highly skilled labour force however deeper research in this area is scarce. There is a lack of researches into the effects of labour costs and labour qualification on FDI, given the rapid rate of economic growth and growing measures of capital mobility. With the expansion of political and economic unions and convergence in factor movements of legal regulation, foreign trade and production, differences in macroeconomic indicators among countries remain notable. The question whether the macroeconomic factor effect in attracting FDI does not outweigh the impact of specific factors affecting the labour market remains open in scientific research.

Global studies the results whereof could reveal the impact of labour costs on attracting FDI among countries are generally absent from researches into the estimation of the impact of labour costs. As a rule, most studies are done at the local level of one, two or a few countries (e.g., Becker, Ekholm, Jaeckle, and Faggio, 2003; Cheng & Kwan, 2000). Research on a global scale, i.e. associated with the estimation of differences between countries with different levels of development, sizes of economy and other characteristics, can only be found among research articles wherein a lot of FDI factors are measured simultaneously, the labour market impact however being limited to the estimation of labour costs, or articles focusing on the impact of the determinants of labour costs rather than labour costs themselves (Egger & Radulescu, 2008; Hansson & Olofsson, 2011). The results of research into the impact of labour costs on attracting FDI among countries are unambiguous since, although an inverse relationship between labour costs and FDI is usually observed (e.g., Cheng & Kwan, 2000; Bevan & Estrin, 2004; Janicki & Wunnava, 2004; Muendler, 2005; Mateev, 2008), sometimes it is found that the cost of labour is relevant only for some of economic activities (Ali & Guo, 2005) or none of them (Boermans, Roelfsema, and Zhang, 2011).

Labour market regulation in terms of the impact of labour market indicators on FDI inflows for countries is subject to ongoing investigation (e.g., Nunnenkamp, 2002; Whyman & Baimbridge, 2006; Haaland & Wooton, 2007; Leibrecht & Scharler, 2007; Leibrecht & Bellak, 2009; Busse, Nunnenkamp, and Spatareanu, 2010). Researches into labour market regulation include a wide range of issues, authors propose different sectional approaches to assess the impact of labour market regulation, it is difficult to compare the results. Despite different approaches of research into the impact of labour market regulation, the majority of studies suggest that labour market regulation is inversely related to FDI (Görg, 2005; Haaland & Wooton,

2007; Leibrecht & Bellak, 2009; Dewitt, Görg, and Montana, 2009) although in some cases this relationship has not been established (Leibrecht & Scharler, 2007; Benassy-Quere, Coupet, and Mayer, 2007).

Summarizing research can be found among studies that provide the assessment of the impact of labour qualification. The impact of labour qualification on attracting FDI among countries is viewed in the horizontal or vertical perspective in most studies. Although the factors of attracting FDI are evaluated according to the type of FDI (e.g., Markusen, 2002; Barba Navaretti & Venables, 2004; Feenstra, 2004; Artige & Nicolini, 2005), these studies are typically designed for groups of countries which fit either vertical or horizontal FDI models. Aspects to the assessment of the impact of labour qualification have been found quite different: to measure the impact of skilled labour on FDI inflows, Nunnenkamp (2002), for example, used average years of education of total population; Noorbakhsh, Paloni, and Youssef (2001) approached it as the percent of people with secondary plus tertiary education in the working age population; Deichmann, Eshghi, Haughton, Sayek, Teebagy, and Topi (2003) used the number of people with higher education; Mateev (2008), Becker, Ekholm, Jaeckle, and Faggio (2005), Marin (2004), Ismail and Yussof (2003) proposed the percentage of labour force that attained tertiary education. Empirical studies that evaluate the impact of skilled labour on attracting FDI are rather ambiguous. Different authors found both direct (Nunnenkamp, 2002; Whyman & Baimbridge, 2006; Noorbakhsh, Paloni, and Youssef, 2001; Mateev, 2008) and inverse (Ismail & Yussof, 2003) effects of skilled labour on attracting FDI among countries; this relationship has not been established by some authors (Cheng & Kwan, 2000; Ismail & Yussof, 2003; Becker, Ekholm, Jaeckle, and Muendler, 2005).

Despite a large number of research papers on labour qualification, the impact of the state on the formation of skilled labour is usually defied. While assessing the impacts of total public spending (e.g., Buettner, 2002) and the costs of the improvement of the country's infrastructure (Goodspeed, Martinez-Vasquez, and Zhang, 2010), research does not answer the question of whether the state can encourage FDI by funding the target area, increase in skilled labour. The study by Iwai, Thompson, and Banerjee (2004) can be considered as perhaps a single research paper wherein the participation of the state in the skilled labour formation has been appreciated. The authors argue about the effects that investment in labour qualification and the sharing of information can have on FDI. Thus, it can be said that the effect of the public investment in skilled labour enhancement on FDI has not been studied sufficiently. The authors believe that this kind of research is essential not only to assess the impact labour qualification on FDI but also to develop policies to encourage FDI. In addition, the evaluation of the given factor, together with the skilled labour factor, can be considered the assessment of the level of the skilled labour across the country over time: the existing level of skilled

labour reflects current situation meanwhile investment in the public education, research and development activities forecasts future situation. In economic terms, the effects of investment can generally be observed after a certain period but scientific literature has not gone far enough in exploring the impact of the lagging nature of public investment in skilled labour increase.

To summarize the level of exploration of the scientific issues, it can be argued that empirical studies failed to

disclose the importance of the labour market in macro-economic context and the very labour market factors that play a role in the cases where there is neither vertical nor horizontal FDI and the extent to which the given factors operate. The effects of labour costs, labour qualification and state investment in labour qualification as well as their dependence on the volume and structure of FDI by economic sectors have not been sufficiently studied.

TABLE 1.
INDEPENDENT VARIABLES OF THE REGRESSION MODEL, ASSESSING THE EFFECT OF FACTORS OF THE LABOUR MARKET ON THE FDI INFLOWS

Factors	Measurement indicators of factors	Calculation method of indicators	Source of indicators
General macroeconomic environment	Gross domestic product per capita	Gross domestic product / number of residents	Eurostat
	Gross savings	General nation income – consumption expenses + transfer payments / gross domestic product	World Bank
	Level of economical openness	(Export + import) / gross domestic product	Calculated by the authors on the base of Eurostat
	Labour participation rate	Workforce / residents of the employable age and senior	Eurostat
Labour costs	Labour cost index	Labour costs during the year of assessment / labour costs during the base year	Eurostat
	Non-wage cost index	Non-wage cost during the year of assessment / non-wage cost during the base year	Eurostat
	Income tax rate	Income taxes paid by the person with average salary having no children / average salary	Eurostat
Labour qualification	Proportion of the population having a tertiary educational attainment	People with tertiary educational attainment / all people of an employable age and senior	Eurostat
	Index of labour productivity	(Gross domestic product during the year of assessment / number of employed people during the year of assessment) / (gross domestic product during the base year / number of employed people during the base year)	Calculated by the authors on the base of Eurostat
	Employment in knowledge-intensive service sectors	Part of employed people in knowledge-intensive service sectors / number of employed people	Eurostat
State investments in the labour qualification	Public expenditure on education compared to gross domestic product	Public expenditure on education / gross domestic product *100	Eurostat
	R&D expenditure of government sector per capita	R&D expenditure of government sector / number of residents	Eurostat
	Expenditure on public educational institutions per student compared to GDP per capita, at tertiary level of education	(Expenditure on public educational institutions / number of students) / (gross domestic product / number of residents)	Eurostat

III. THE MODEL EVALUATING FACTORS OF LABOUR MARKET EFFECTING FDI INFLOWS

It was composed the model evaluating the effect of factors of the labour market on FDI inflows into the countries. It was formed on the base of theoretical conceptions of different return of investments, eclectic approach and oligopolistic reaction. These theoretical

conception have some similarities, for example the same factors determining FDI are emphasized.

In the model government expenditure on improvement of labour skills will be evaluated together with the labour costs and skilled labour force factors and are assigned to the labour market determinants of FDI.

Econometric model was based on the principle of the gravitation model in which general macroeconomic factors are included to the variety of independent variables next to assessed factors of the labour market. The general macroeconomic situation in the econometric model is expressed as GDP per capita, savings rate and the degree of economic openness.

The labour market effect on FDI is evaluated using three factors – labour costs, labour qualification and state investment in labour qualification. One of factors of the labour market – the scope and structure of the workforce – is analysed in the survey not as the specific factor of the labour market; it is integrated into the factor, reflecting the general macroeconomic situation.

Variables of the model, reflecting factors of FDI are indicated in Table 1. The factor of labour costs is reflected by three independent variables included into the model: labour cost index, non-wage cost index and tax rate.

Labour qualification in the model is assessed by three variables – proportion of the population having a tertiary educational attainment, *employment* in *knowledge-intensive* service sectors and index of labour productivity. State investments to the labour qualification is reflected by the public expenditure on education compared to GDP, R&D expenditure of government sector per capita and expenditure on public educational institutions per student compared to GDP per capita.

Thus, the empirical research to evaluate the impact of labour market factors on attracted FDI, the econometric multiple regression model is formed, which can be expressed in the following formula:

$$FDI = \beta_0 + \beta_1 GDP + \beta_2 GR_SA + \beta_3 OPEN + \beta_4 PART + \beta_5 LAB_COST + \beta_6 NON_WAGE + \beta_7 TAX + \beta_8 TERT + \beta_9 PROD + \beta_{10} KN_INT + \beta_{11} PB_EXP + \beta_{12} R_D_EXP + \beta_{13} INST_EXP + \varepsilon_i$$

where: FDI – inflows of FDI per capita; GDP – gross domestic product per capita; GR_SA - gross savings, % of GDP; OPEN - level of economical openness; PART - labor participation rate; LAB_COST - labour cost index; NON_WAGE – non-wage cost index; TAX – tax rate; TERT - proportion of the population having a tertiary educational attainment; KN_INT - *employment* in *knowledge-intensive* service sectors; PROD – index of labour productivity; PB_EXP - public expenditure on education compared to GDP; INST_EXP - expenditure on public educational institutions per student compared to GDP per capita, at tertiary level of education; R_D_EXP - R&D expenditure of government sector per capita.

Scope of the survey. The effect of factors of the labour market to FDI inflows is based on the case of the new EU members. Countries that entered the European

Union in 2004 and 2007 are treated as new members; there are 12 such countries: Bulgaria, the Czech Republic, Cyprus, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovakia and Slovenia. Such selection of countries is linked with several reasons. Development of the European Union on the given period had the greatest scope considering all life of the European Union. Since initiation of the Union in 1957 (then this Union had a title of the European Economic Community) until 2004 the number of member states was 15 countries; whereas during the period of three years the number of member states increased by almost two times. This affected the formation of new big political and economical space that changed the attractiveness to investments in old as well as in new members. This affected possibilities of the new members to attract foreign investments. The old members of the European Union gained a right to invest in new member states avoiding double taxation, limitations of the foreign trade, different legal environment and other obstacles; whereas new members of the European Union became more attractive to the third countries because of the possibility to enter the joint market of the European Union. Decision to invest in new member states of the European Union may be linked with the geographical location, historically developed links if speaking of investments of some countries from the Eastern Europe and Asia. This is linked with the fact that the greater part of new member states of the European Union are former member of the socialistic block.

The main reason determining the common assessment of the new EU member states is the fact that they have entered the common market with free mobility of labour and capital. This process effects the decrease of differences between countries attracting FDI. Labour migration in last period also determines decrease of differences in labour costs and labour qualification. Application of the model concerning this group of countries enables to evaluate which factors of labour market and how determine inflows of FDI and estimate the importance of these factors in comparison with general macroeconomic factors. The assessed period covers 10 years from 2000 to 2009. As far as data from twelve countries is analysed, the period of such duration enables 120 observations for the formation of the regression model.

IV. EVALUATION OF THE EFFECT OF LABOUR MARKET ON FDI INFLOWS

After the formation of the econometric multiple regression model, where the effect of all ten variables is assessed (the main results of the model are presented in Table 2), it was defined that the significant effect on attracted FDI is done by the following macroeconomic indicators: gross domestic product per capita, level of economic openness. Significant effect is made by one variable of labour cost and qualification: labour cost –

labour cost index, labour qualification – index of labour productivity. It was determined that statistically significant effect on FDI is done by both variables of state investments in the labour qualification.

It was defined that the gross domestic product per capita is linked with flows of FDI by the direct dependability, i.e. together with the growing indicator FDI are likely to

grow. Level of economic openness for FDI is also linked with the direct dependability. Such link is explained by the fact that the country that is intensively participating in the international trade can usually be characterised by lower limitations of the foreign trade and the infrastructure adapted for the international trade – effectively operating channels of transportation by air, water and land ways.

TABLE 2.
RESULTS OF THE MODEL* OF THE EFFECT OF FACTORS OF THE LABOUR MARKET ON THE ATTRACTED FDI

Independent variables of the model*	Non-standardised coefficient	Level of significance	Standardised coefficient	Confidence interval with 95% probability	
				Lower boundary	Upper boundary
Constant	-2,683	,587		-12,464	7,098
GDP	,750	,000	,499	,449	1,052
GR_SA	,382	,218	,116	-,230	,995
OPEN	,673	,006	,207	,200	1,146
LAB_COST	1,227	,000	,420	,711	1,744
NON_WAGE	-1,526	,126	-,103	-3,487	,436
TERT	,155	,382	,068	-,196	,505
PROD	3,480	,000	,290	1,875	5,086
PB_EXP	,299	,488	,067	-,554	1,152
R_D_EXP	-,436	,000	-,412	-,644	-,229
INST_EXP	,705	,000	,265	,317	1,094
General characteristics of the model: R = 0,818, R² = 0,669, adjusted R² = 0,635					

*dependent variable of the model: FDI

Labour cost index with FDI is linked with the direct dependability. This opposes results of surveys by other authors (for example, Cheng, Kwan, 2000; Carstensen, Toubal, 2003; Bevan, Estrin, 2004; Janicki, Wunava, 2004; Muendler, 2005; Mateev, 2008; Becker, Ekholm, Jaeckle, Egger, Radulescu, 2008; Hansson, Olofsdotter, 2011) where the inverse dependability was determined, i.e. it was proved that the increase of labour cost reduces FDI. Reasons of such contradiction are firstly linked with differences between assessed countries. There are vertical and horizontal FDI in new member states of the European Union and in case of horizontal investments the purchasing capacity of the society is important which is directly linked with income of the workforce. Such investments often require the workforce with a higher qualification, the level of salary of which may be much higher if compared to the workers with a low qualification.

On the base of the results of the model it is possible to state that the rate of change of the labour productivity, being linked with FDI by a direct link, is the factor of attraction. It is possible to find several reasons for the formation of the link of such type. Firstly, rapid increase of the working productivity may be linked with the increase of labour qualification. The other reason may be the growth of the technological level of the country which may seem to be hardly related to the qualification of a workforce. However the growing technological level requires workers with higher qualification. Companies,

upon instalment of technologies of a higher level, increase the demand for highly qualified workers and this can change the popularity of some specialities in educational institutions of the country. Countries may invest to trainings of the staff and therefore they may change the level of labour qualification in the country; however formal educational indicators may remain unchanged.

Two variables from those reflecting state investments to the increase of labour qualification have a statistically significant effect on flows of FDI: R&D expenditure of government sector and expenditure on public educational institutions per student compared to GDP per capita. However directions of this effect differ: R&D expenditure of government sector is linked with flows of investments by inverse dependability, while expenditure on public educational institutions per student compared to GDP per capita – direct dependability. Effect of the second variable may be perceived as directly affecting qualification level of the workforce which is understood by investors as the greater possibilities to produce the product of a higher technological level, to attain the greater working productivity and to invest less to the additional training of the workforce; therefore increase of these expenses enables the higher attraction of the flow of FDI. Opposite effect of R&D expenditure of government sector may be explained thought the prism of the need of funds for the technological advance. Attraction of FDI may be linked with the lack of local financial resources, necessary for the technological advance, when only after the FDI the

adaptation to the changing world tendencies from the aspect of the technological level is possible. The foreign investor may have necessary technologies that are transferred to the company, accepting investments or may offer sufficient funds for analysis and experimental activity in the accepting company. If the R&D expenditure of government sector are high, local companies have a lower need to attract the foreign capital because of the motive of interception of technologies. Therefore the sign of beta coefficient indicating the effect of this variable is logical.

After formation of additional modifications to the econometric model, where aids of dummies served within the assessment of the effect of data belonging to separate countries and different periods on results of the model, it was defined that upon remaining variables reflecting the general macroeconomic state and factors of the labour market the data attribution to the year 2006 and to Bulgaria, Estonia and Cyprus determined the greater flow of FDI.

V. CONCLUSIONS

Factors of FDI attraction can be evaluated on both macro and micro level. After systematisation of empirical surveys on the effect of factors of the labour market on the FDI inflows, it was defined that there is a lack of surveys assessing the effect of the labour market that would be intended for countries, having neither vertical nor horizontal investments dominating within the inflow of FDI. It was found out that in surveys the labour costs and labour qualification are rarely assessed together, surveys are most often oriented towards the assessment of one of those factors. Despite a large number of research papers on labour qualification, the impact of the state on the formation of skilled labour is usually defied. The researches do not answer the question of whether the state can encourage FDI by funding the target area, increase in skilled labour.

Model evaluating labour market factors effect on FDI inflows was based on theoretical conceptions of different return of investments, eclectic approach and oligopolistic reaction. Econometric model was based on the principle of the gravitation model in which general macroeconomic factors are included to the variety of independent variables next to assessed factors of the labour market. The factors of labour costs, labour qualification and state investments to the labour qualification are reflected by three independent variables for each.

The results of the econometric multiple regression model show that the significant effect on attracted FDI is done by the following macroeconomic indicators: gross domestic product per capita, level of economic openness. Significant effect is made by one variable of labour cost and qualification: labour cost – labour cost index, labour qualification – index of labour productivity. The gross domestic product per capita, level of economic openness, labour cost index, change of the labour productivity and expenditure on public educational institutions per student compared to GDP per capita are linked with flows of FDI by the direct dependability, while R&D expenditure of government sector - inverse dependability.

REFERENCES

- Ali, S., Guo, W. (2005). *Determinant of FDI in China*. Journal of Global Business and Technology, 1(2), 21-33.
- Artige, L., Nicolini, R. (2005). *Evidence on the Determinants of Foreign Direct Investment: The Case of Three European Regions*. CREPP Working Paper No. 0607. Research Center on Public and Population Economics, HEC-Management School, University of Liège.
- Barba Navaretti, G., Venables, A.J. (2004). *Multinational Firms in the World Economy*. Princeton: Princeton University Press.
- Becker, S.O., Ekholm, K., Jaeckle, R., & Muendler, M.A. (2005). *Location Choice and Employment Decisions: A Comparison of German and Swedish Multinationals*. CESifo Working Paper No. 1374.
- Benassy – Quere, A., Coupet, M., Mayer, T. (2007). *Institutional Determinants of Foreign Direct Investment*. The World Economy 30 (5), 764-782.
- Bevan, A., & Estrin, S. (2004). *The Determinant of Foreign Direct Investment into European Transition Economies*. Journal of Comparative Economics 32 (2004), 775-787.
- Boermans, M., Roelfsema, H.J., Zhang, Y. (2011). *Regional Determinants of FDI in China: A Factor-based Approach*. Journal of Chinese Economic and Business Studies, vol. 9(1), 23-42.
- Buettner, T. (2002). *The impact of taxes and public spending on the location of FDI: evidence from FDI-flows within Europe*. ZEW Discussion Papers, No. 02-17. Centre for European Economic Research.

- Busse, M., Nunnenkamp, P., Spatareanu, M. (2010). *Foreign Direct Investment and Labor Rights: A Panel Analysis of Bilateral FDI Flows*. Rutgers University Newark Working Paper, 2010(2).
- Cheng, L., Kwan, Y.K. (2000). *What are the determinants of the location of Foreign Direct Investment?* The Chinese experience. *Journal of International Economics*, No. 51 (2000), 379-400.
- Deichmann, J., Eshghi, A., Haughton, D., Sayek, S., Teebagy, N., Topi, H. (2003). *Geography Matters: Kohonen Classification of Determinants of Foreign Direct Investment in Transition Economies*. *Journal of Business Strategies*, Vol. 20(1), 23 – 44.
- Dewitt, G., Görg, H., Montagna, C. (2009). *Should I Stay or Should I Go? Foreign Direct Investment, Employment Protection and Domestic Anchorage*. *Review of World Economics*, No. 145, 93-110.
- Egger, P., Radulescu, D.M. (2008). *Labour Taxation and Foreign Direct Investment*. CESifo Working Paper, No. 2309.
- Faggio, G. (2003). *Foreign Direct Investment and Wages in Central and Eastern Europe*. FLOWENLA Discussion Paper No. 10.
- Feenstra, R.C. (2004). *Advanced International Trade: Theory and Evidence*. Princeton: Princeton University Press.
- Goodspeed, T., Martinez-Vasquez, J., Zhang, L. (2010). *Public Policies and FDI Location: Differences between Developing and Developed Countries*. *FinanzArchiv: Public Finance Analysis*, vol. 67(2), pages 171-191, June.
- Görg, H. (2005). *Fancy a Stay at the 'Hotel California'?* The Role of Easy Entry and Exit for FDI. *Kyklos*, No. 58, 519-535.
- Haaland, J. I., Wooton, I. (2007). *Domestic Labor Market and Foreign Direct Investment*. *Review of International Economics*, No. 15(3), 462-480.
- Hansson, A., Olofsdotter, K. (2011). *Labor Taxation and FDI decisions in the European Union*. Working Paper of Lund University, Department of Economics, 2011(11).
- Ismail, R., Yussof, I. (2003). *Labour Market Competitiveness and Foreign Direct Investment: The Case Study of Malaysia, Thailand and the Philippines*. *Regional Science Journal*, 82, 384-402.
- Iwai, N., Thompson, S.R., Banerjee, P. (2004). *Foreign Direct Investment and Education in Developing Countries*. Working Paper of International Agricultural Trade and Policy Center No. 04-04. University of Florida.
- Janicki, H.P., Wunna P.V. (2004). *Determinants of Foreign Direct Investment: empirical evidence from EU accession candidates*. *Applied Economics*, 2004, 36, 505-509.
- Leibrecht, M., Bellak C. (2009). *Does the impact of employment protection legislation on FDI differ by skill-intensity of sectors? An empirical investigation*. Research paper series: Globalisation and Labour Markets. Research paper 2009/21. The University of Nottingham.
- Leibrecht, M., Scharler, J. (2007). *How Important is Employment Protection for Foreign Direct Investment Flows in Central and Eastern European Countries?* Economics working paper No. 0716, Department of Economics, Johannes Kepler University Linz.
- Marin, D. (2004). *A Nation of Poets and Thinkers' – Less So with Eastern Enlargement? Austria and Germany*. Munich Diskussion Paper 2004-6. Department of Economics University of Munich.
- Markusen, J.R. (2002). *Multinational Firms and the Theory of International Trade*. Cambridge: MIT Press.
- Mateev, M. (2008). *Determinants of Foreign Direct Investment in Central and Southeastern Europe: New Empirical Tests*, *Oxford Journal*, Fall, Volume 8, Number 1, 133-149.
- Noorbakhsh, F., Paloni, A., Youssef, A. (2001). *Human Capital and FDI Inflows to Developing Countries: New Empirical Evidence*. *World Development*, Vol 29., No. 9, 1593-1610.
- Nunnenkamp, P. (2002). *Determinant of FDI in Developing Countries: Has Globalization changed the Rules of the Game?* Kiel Institute for World Economics Working Paper No. 1122.
- Whyman, P., Baimbridge, M. (2006). *Labour Market Flexibility and Foreign Direct Investment*. The Department of Trade and Industry, URN 06/1797.