

## **COUNTRY RISK AND EFFECTS OF FOREIGN DIRECT INVESTMENT**

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**Abstract.** *This paper presents interconnection between risk and effects of foreign direct investment (FDI) on the domestic and foreign company with a special focus on the companies from the Republic of Serbia.*

*Number of environment risks significant for making investment decisions of multinational corporations is significantly increased in the globalization process. Before making decisions about foreign investment, multinational companies tend to anticipate all potential risks, which may occur in the host country.*

*Country risk, as one of the most important risks, occurs in the following two forms: risk of sovereignty and transfer/convertibility risk. Regarding the influence of country risk on the incomes of one cross-border investment, it has to be really evaluated. Numerous methods can be applied in measurement of country risk premium. The spread of potential effects, direct and indirect, from FDI is wide and affects both investors and domestic country.*

*Presented data shows Serbia's participation in total world FDI inflow during the period 2000-2007, and also Serbia's participation in comparison to the FDI inflow of some European countries and former Yugoslav republics.*

*The final part of the paper presents the relationship between risk and return on investment, as well as creating cross-border investment portfolio as an instrument for risk reducing.*

**Key Words:** *Country risk, foreign direct investment, methods of country risk premium measurement, return on investment.*

### INTRODUCTION

The 20<sup>th</sup> century is a century of great changes of the models and rules of behavior, working and living. For example, globalization is characterized by greater interconnection and dependence of the countries and their intention to create an integrated global market. A logical result of these changes is growing competition on the world market and resource monopolization. In these terms, big multinational companies take primacy on the world economic scene. However, international investment activity is more affected by the coun-

try risk. Namely, business environment changes in one country could significantly lower profitability of investment activity in it, but also reduce the asset value of the multinational company.

The intention of this paper is to point out the interconnection between country risk and effects of foreign direct investment (FDI) on the domestic and foreign company with a special focus on the companies from the Republic of Serbia.

#### ENVIRONMENT AND RISK

Generally speaking, the environment of the company is unlimited. However, a company is interested only in that part of the environment, which can have an influence on its business and to which it has to respond in order to survive. The environment complexity and dynamism depends on a number of its elements, forces that are acting in it and the type of correlation between elements and forces of the environment. So, a greater number of elements and complex correlations between elements and forces of the environment multiply possible forms and intensity of environment influence on the company and increase uncertainty. Often and rapid changes, which occur in, for the company, an unfamiliar way, also increase uncertainty in the company's environment. Daft showed the influence of environment complexity and its dynamism on the uncertainty throughout "Framework for the environment uncertainty evaluation" [1].

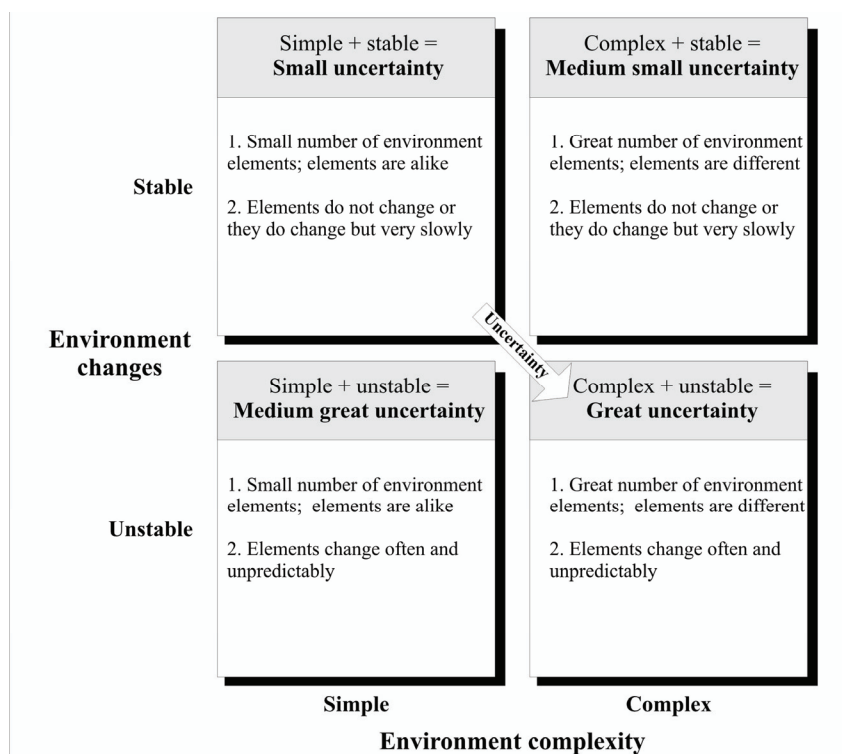


Fig. 1. Framework for the environment uncertainty evaluation

Contingency theory, resource dependency theory and transaction cost theory explain how a company can adjust to uncertainty and manage the environment in order to reduce it. From the aspect of contingency theory, the company adjusts to the environment uncertainty by increasing the number of its organizational units and the level of their differentiation, choosing organic management system, copying business models of successful companies and planning adjustments to environment changes. The aim of the company from the aspect of resource dependency theory is to reduce the dependence on the environment in supply of rare resources. The company can achieve this by developing different strategies of influence on the environment (for example, strategy for acquiring reputation, co-optation strategy, mergers and acquisitions, cartels, connecting over the third party etc.) Transaction cost theory explains when and under what conditions the company will use some of the strategies for dependence on resources managing.

The number of environment risks significant for making investment decisions of multinational corporations is not reduced, but multiplied. Before making decisions about foreign investment, multinational companies tend to anticipate all potential risks, which may occur in the host country. Apart from that, on the scale of all risks these companies are facing, standard risks are at the highest level. They present the first indicator of investment quality of one country and refer to political, macro economical and financial stability of the country. One of the best indicators is Index of Economic Freedom as weighted value of the most important macroeconomic indicators (achieved level of trade, level of taxation, level of government interventions, quality of the monetary policy etc.). According to the research of the Heritage foundation for the year 2005, Albania, Macedonia and Bulgaria were classified in a group of "partly free" economies, and Croatia, Rumania and Bosnia and Herzegovina were classified in a group of "not free" economies. All countries of South - East Europe are the lowest rated from the aspect of protection of ownership, development of legal infrastructure and level of grey economy.

Karney's research, conducted on the sample of 500 biggest multinational companies, showed that financial risk of the country presents the second significant global investment risk. Standards and Poor's, Moody's and FITCH-IBCA ones are representative indexes of financial risk. They determine general credit ability of the country to provide secure investment environment, but they also rate factors as: economic status of the country, transparency of capital flows, flows of foreign and domestic investments, level of foreign government reserves, country's ability to keep stability in the terms of political instability etc. Apart from the mentioned ones, there are many other empirical and theoretical studies which emphasize the importance of country risk of a country, where capital is invested. Because of that, this type of risk will be described in detail hereafter.

#### FORMS OF COUNTRY RISK AND METHODS FOR ITS EVALUATION

Although the term of country risk is often used in literature, there is no general agreement on what exactly is considered as country risk. Since political risk is often used as a synonym for country risk, it is necessary to differ these two terms. Country risk refers to the whole risk that an investor is dealing with, that is to say not just the risk of political changes, but the risk of strikes, rebellion, etc. During international credit crisis in the 90's, country risk is presented throughout debt-service ratio. Odxelheim emphasizes that satis-

factory approximation of country risk can be achieved by considering data on concentration, internationalization and ownership structure in one country's industry, as well as data on the level of diversification of its export [2].

Country risk, according to Longueville, occurs in the following two forms:

- Risk of sovereignty (that represents the risk of possible expropriation and profit restriction) and
- Transfer/convertibility risk (when the central bank cannot mobilize enough foreign reserves in order to convert financial funds in local currency to foreign currency).[3]

The reality showed that contagion risk has to be added to these types of risk. It is a possibility that adverse economical or political factors in one country can have an influence on other countries in the same region.

Political risk is a narrower term than country risk. It refers to the risk of unexpected specific foreign government policies in the country, where a company wants to invest, and which can result in discontinuity or decreasing investment activity and operations of the foreign company in the host country. Odxelheim connects the level of political risk with the level of debt of one country. He logically concludes that in economic-political environment, which is characterized by control of capital flow, debt signals a need for government intervention, because great debt ratio decreases free space for making political decisions.

Depending on the incidence, political risk can be classified into following types:

- Micro risk (at the company level),
- Macro risk (at the country level) – transfer risk, cultural risk and institutional risk,
- Global risk (at the global level) – risk of armed conflicts, terrorism, internet misuse, ecological risk etc.

Depending on the manner in which firms are affected, political risk can be classified into three types:

- Transfer risk, which arises from uncertainty about cross-border flows of capital, payments, know-how and the like,
- Operational risk, which is associated with uncertainty about the host country's policies affecting the local operations of multinational companies,
- Control risk, which arises from uncertainty about the host country's policy regarding ownership and control of local operations.

Although country risk affects all investors assessing investment opportunities in a foreign country, the most affected by this type of risk are the ones that invest in the transition economies. Analyses of transition process show that, it is generally developed into five fields: macroeconomic stabilization, price liberalization, trade liberalization, company reform (privatization) and development of institutional and legal framework for the establishment of market economy.[4] It is logical to expect that, the process of transition, defined in this way, is followed by making different types of political decisions. Although their aim is to direct and speed up the process of transition, they can also increase the country risk, and in that way they can influence the behavior of the factors present in the political sphere of life.

A great number of studies, from the field of corporative decision making, show that managers are, in general, risk averse. On the other side, countries in transition are interesting markets for many products and services of multinational companies. If they decide to invest with certain level of country and political risk, they will expect certain country

risk premium presented in the form of increased expected income. Favorable investment climate, according to investors from developed countries, exists in the countries with stable economy, favorable customs and cross-border trade regime for foreign investors, stable political and social situation, when the host country's government leads favorable policy regarding foreign investments and assets and profit retransfer to the foreign country, and when previous investments in the host country infrastructure development are finished. [5]

Regarding the influence of country risk on the incomes of a cross-border investment, it has to be really evaluated. [6] Numerous methods can be applied in measurement of country risk premium, which can be classified into two types: approach based on historical data and approach which evaluates country risk premium by analyzing the expected cash flow.

- **Historical risk premium** can be calculated according to returns on shares or bonds, which vary in time. Due to potential big standard deviation of risk premium caused by the lack of quality series data, this approach is practically inapplicable.
- **International CAPM model**, as a model based on analysis of the expected cash flow, considers complete market integration, so that there is only one global price of the risk. If the currency risk can be diversified, the share price of the company  $j$  can be expressed as:

$$k_j = r_f + \beta_{j,world} \times ERP_{world}$$

where  $r_f$  is expected return on non-risk security,  $\beta_{j,world}$  the beta coefficient of the company (compared to global market portfolio), and  $ERP_{world}$  is global price of non-diversified risk.

The main problem of this model is the assumption of capital market perfect integration. Unreality of this assumption is especially emphasized on the markets of the developing countries. [7]

- **The country spread model**, as one of the models from the second group of approaches, adds for each country, based on its risk level, specific default spread of risk premium determined upon US data:

$$Share\_price = non\_risk\_rate_{US} + beta \times (US\_risk\_premium) + default\_spread$$

where *non-risk rate* is US rate, *beta* is calculated comparing to local market portfolio, and *default spread* measures the difference between the state bonds denominated in dollars and US Treasury bond rate.

This model is based upon assumption that, most of the factors that influence default risk at the bonds' market (currency stability, political stability etc.), influence the shares risk as well. Therefore Damodaran [8] suggests a slightly different usage of the country spread model. In a situation where there is great volatility of bonds spread at daily basis, according to his opinion, it is better to calculate average default spread of all countries of rank below and above determined non-risk interest rate. Practice has shown that, alternative usage of credit ranks publicized by specialized institutions is also possible. The problem in the usage of this model is the assumption that ERP of a country is equal to US ERP.

Table 1. Default spread in basic points according to Moody's rating

Rating	Default spread in basic points	Rating	Default spread in basic points
Aaa	0	Ba1	200
Aa1	35	Ba2	250
Aa2	50	Ba3	300
Aa3	60	B1	350
A1	70	B2	400
A2	80	B3	450
A3	85	Caa1	600
Baa1	100	Caa2	675
Baa2	115	Caa3	750
Baa3	135		

Source: <http://pages.stern.nyu.edu/~adamodar/>

- **Model of relative standard deviation** compares investment in the shares' markets (undeveloped market to US market) and applies US ERP premium:

$$Relative\_country\_SD = (country\_SD)/(SD\_US)$$

According to calculated relative standard deviation and using risk premium at US shares market, it is possible to determine risk premium of a particular country:

$$ERP_{country} = ERP_{US} \times Relative\_country\_SD$$

Damodaran notices that the previous approach can lead to depreciated value of risk at low liquid developing market. Namely, because of low liquidity, calculated volatility (expressed in standard deviation) can be very low. Also, at partially integrated developing market ERP can be overrated because of greater market instability.

According to the available data from March 2007, total Serbia's country risk premium was 7.91%. Ranking agencies and specialized institutions, in their reports, have shown the risk increase of investments in Serbia. For example, "Dun & Bradstreet", the biggest rating agency in the world, in its report from April 2008, classifies Serbia in the group of high-risk countries with rank DB5a. According to Moody's data from March 14<sup>th</sup>, 2008, Serbia had the same rating as Ukraine and Turkey, total risk premium was 9.41% and country risk premium was 6.00%.

Table 2. Risk premiums of some countries according to Moody's rating (March 14<sup>th</sup> 2008)

Countries	Rating	Adjusted Default Sread	Total Risk Premium	Country Risk Premium
Australia, Euro zone, Finland, German, Spain, Switzerland, Great Britain, USA, Japan	Aaa	0	4.91%	0.00%
Italy, Slovenia	Aa2	50	5.66%	0.75%
Czech Republic, Estonia, Greece, Slovakia, China	A1	70	5.96%	1.05%
Hungary, Latvia, Lithuania, Poland	A2	80	6.11%	1.20%
Russia, Kazakhstan	Baa1	100	6.41%	1.50%
Bulgaria, Romania, Croatia	Baa3	135	6.94%	2.03%
Montenegro	Ba1	200	7.91%	3.00%
Serbia, Ukraine, Turkey	Ba3	300	9.41%	4.50%
Bosnia and Herzegovina	B2	400	10.91%	6.00%

Source: <http://pages.stern.nyu.edu/~adamodar/>

#### FOREIGN DIRECT INVESTMENT (FDI) AS A FACTOR OF DEVELOPMENT

From the aspect of a domestic company, FDI is one of the instruments for production stimulus, import of know-how, employment growth, infrastructure development, poverty reduction etc. From the aspect of a foreign company, the above mentioned investments can be defined as any form of capital investment in a foreign company, which enables achieving the ownership control. The operating mechanism of FDI considers establishing a subsidiary of parent firm in a foreign country, which can be investor's full ownership or partial foreign

	Spread of potential FDI effects			
	Direct		Indirect	
	Positive effects	Negative effects	Positive effects	Negative effects
<b>Quantity</b>	Capital inflow and employment growth in propulsive industries	FDI that take place through Brownfield investments can rationalize and minimize number of working places	New working places throughout linking with suppliers and buyers	Importing from domestic country or moving company to another country
<b>Quality</b>	Contributing to productivity growth	Implementing practice of cutting working places and promotions	Sharing experience and best practices among domestic companies	Lowering salaries if domestic companies decide to compete with low salaries
<b>Location</b>	New and probably better working places in the industries with great unemployment	Contributing to further development of regional centers and strengthening regional inequality	Strengthening companies' determination to migrate from regional centers	Creating local monopolies

Fig. 2. Spread of FDI potential effects

ownership. Significant variables in this aspect of FDI are financial capital flows, value of investor's accumulated capital and income flows from the investment. According to the International monetary fund, FDI is a category of cross-border investments, which represent intention of a subject from one country to achieve permanent interest in a company, with the residence in another country. Permanent interest implicates long term connection between investor and domestic company and level of investor's influence on managing the company. Level and control and managing rights do not have to be complete and absolute, but such that can allow certain influence on business politics of the company, in which capital is invested. From the previous definitions, it can be concluded that the spread of potential effects from FDI is wide and the effects are mutual.

The main argument for the previous conclusion is dynamical growth of FDI in the past years. Only during the period 2000 – 2007, the total worldwide FDI inflow amounted \$8.510.691 billion. Figure 3 shows that Serbia participated with only 0.131% of the total world FDI inflow during the mentioned period. Serbian participation in the world FDI inflow annually amounted to 0.0036% in 2000, and 0.3109% in 2006.

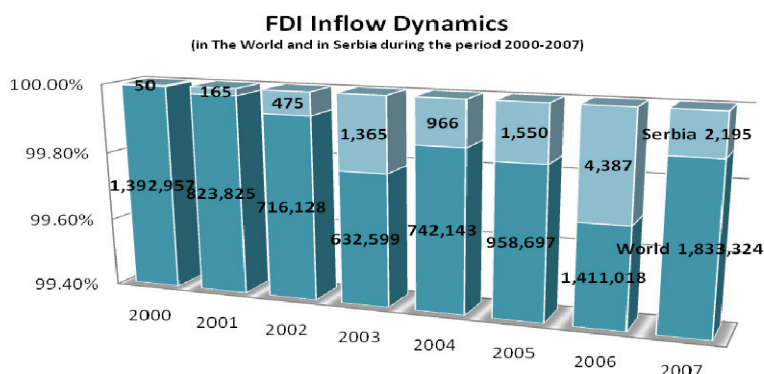


Fig. 3. FDI inflow dynamics in The World and in Serbia during the period 2000 – 2007 [9]

From the aspect of FDI inflow, Serbia lagged behind significantly, compared to the neighboring countries (Hungary, Bulgaria, Rumania). It is interesting that, during 2000 and 2001, FDI inflow in Serbia was even lower than in Albania (figure 4). Compared to the other former Yugoslav republics, different conclusion can be made. Only Croatia had

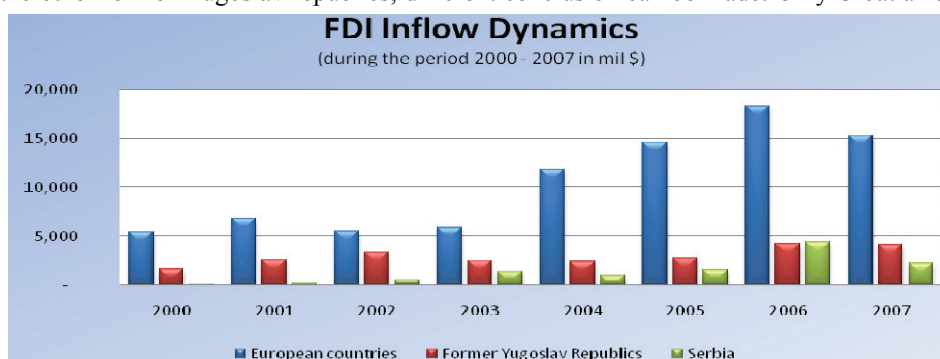


Fig. 4. FDI inflow dynamics in some European countries and Former Yugoslav Republics during the period 2000 – 2007 [10]



greater FDI inflow than Serbia during the period 2000 – 2007. Serbian participation in the total FDI inflow in the former Yugoslav republics amounted to 2.97% in 2000, and 51.08% in 2006.

Table 3. Structure of the foreign direct investment in Serbia

	Company	Country	Sector	Type of investment	Structure in %
1	Telenor	Norway	Telecommunication	Privatization	
2	Philip Morris-DIN	USA	Tobacco industry	Privatization	
3	NBG	Greece	Banking	Privatization	
4	Lukoil-Beopetrol	Russia	Oil industry	Privatization	
5	Holcim-Novi Popovac	Switzerland	Cement industry	Privatization	
6	OTP banka	Hungary	Banking	Privatization	
7	Alpha banka-Jubanka	Greece	Banking	Privatization	
8	Neochimiki-Rafin.	Greece	Energetic	Privatization	
	<b>Privatization</b>				<b>49.659%</b>
9	Mobilkom	Austria	Telecommunication	Greenfield	
10	Mercator	Slovenia	Retail	Greenfield	
11	Metro Cach&Carry	Germany	Wholesale	Greenfield	
12	OMV	Austria	Gas stations	Greenfield	
13	Droga Kolinska-Grand kafa	Slovenia	Industry	Greenfield	
14	Mercur	Slovenia	Retail	Greenfield	
15	Ball Corporation	USA	Packing	Greenfield	
16	GTC International	Holland	Real estates	Greenfield	
17	Hellenic Petroleum	Greece	Energetic	Greenfield	
18	Veropoulos	Greece	Retail	Greenfield	
19	Grawe	Austria	Insurance	Greenfield	
20	Hotel In	Greece	Tourism	Greenfield	
	<b>Greenfield</b>				<b>23.619%</b>
21	Stada	Germany	Industry	Capital market	
22	Banka Inteza-Delta	Italy	Banking	Capital market	
23	Interbrew-Apatinska pivara	Belgium	Brewery	Capital market	
24	Coca Cola	USA	Non-alcoholic drinks	Capital market	
25	Laiki bank-Centrobanka	Cyprus	Banking	Capital market	
26	General group-Delta osiguranje	Italy	Insurance	Capital market	
	<b>Capital market</b>				<b>24.395%</b>
27	U.S. Steel-Sartid	USA	Steel industry	Brownfield	
	<b>Brownfield</b>				<b>2.328%</b>
	<b>TOTAL</b>				<b>100.00%</b>

The oscillations in FDI growth trend in Serbia are a result of privatization or selling of companies and banks. According to the available data, 49.659 % of the total FDI value in Serbia is a result of privatization. Indicative data is the fact that 17 firms invested 93.70% of total FDI inflow value in Serbia. 8 out of 17 companies invested their funds throughout privatization process. Process analysis has shown that the most attractive industries and the most successful companies were privatized (telecommunication, banking sector, cement,

tobacco and oil industry). A great number of companies that haven't been privatized are in the phase of operative or deep strategic crisis. Apart from great mutual problems, these companies differ, and their differences can be classified in SWOT matrix (table 4).

The biggest FDI inflow is in the sectors of telecommunications, banking sector and cement, oil and tobacco industry.

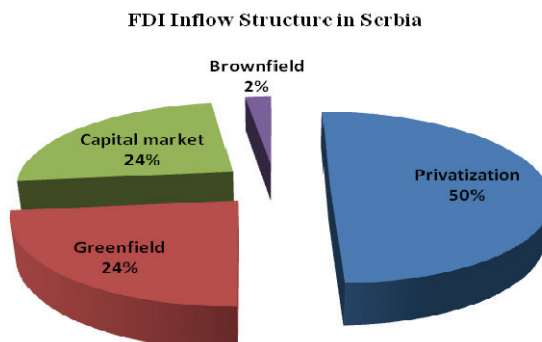


Table 4. SWOT matrix of not privatized companies in crisis

COMPANY'S STRENGTHS	COMPANY'S WEAKNESSES
<ul style="list-style-type: none"> <li>▪ Long tradition and experience</li> <li>▪ Experienced and trained workers</li> <li>▪ Great surface of available buildings</li> <li>▪ Significant production capacities</li> </ul>	<ul style="list-style-type: none"> <li>▪ High indebtedness</li> <li>▪ Obsolete equipment and technology</li> <li>▪ Surpassed production program</li> <li>▪ narrow market</li> <li>▪ great number of employees, inadequate qualification and age structure of employees</li> <li>▪ High fixed costs and non-competitiveness</li> <li>▪ Unregulated ownership</li> <li>▪ Numerous lawsuits</li> <li>▪ Constant lack of own current asset</li> <li>▪ Lack of human capital and surpassed ways of business behavior</li> </ul>
OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> <li>▪ Lowering debts throughout financial restructuring</li> <li>▪ Social programs implementation</li> <li>▪ Investments in modernizing production technologies and development throughout privatization</li> <li>▪ Possibility for sales growth on domestic and foreign market throughout privatization</li> </ul>	<ul style="list-style-type: none"> <li>▪ Competition intensifying</li> <li>▪ Liberalization of import regime</li> <li>▪ Lack of investors understanding for current situation</li> <li>▪ Inefficient court system</li> <li>▪ Political instability</li> </ul>

Government tried to prepare these companies for privatization and successful business, but its role in the process of restructuring came to financial support in a short term period.

Theory and practice emphasize that FDI should have advantage to foreign credits and portfolio investments. The main benefit of FDI compared to foreign credits is that they do not consider significant financial outflows in the future; thereby they do not affect the balance of payment and economic growth. However, it is often forgotten that this form of capital investment has its outflows as a result of profit repatriation or paying back the credits, which parent firms give to their subsidiaries. The main benefit of FDI compared to portfolio investments is that FDIs are more stable source of capital, which was proven to be true during the global economic crises (1997 – 1998, 2001 – 2002, as well as 2008). Stability of FDI inflows is a consequence of investing into the fixed assets, which represents long term intentions of the investor, since it is harder to withdraw capital invested into the fixed asset than capital invested into securities.

Cross-border acquisitions of business are a politically sensitive issue, as most countries prefer to retain local control of domestic firms. Whether or not cross-border acquisitions produce synergistic gains and how such gains are divided between acquiring and target firms are thus important issues from the perspective of shareholder welfare and public policy. If cross-border acquisitions generate synergistic gains and both the acquiring and target shareholders gain wealth at the same time, one can argue that cross-border acquisitions are mutually beneficial and thus should not be thwarted both from the national and global perspective. However, synergistic gains may or may not arise from cross-border acquisitions, depending on the motive of acquiring firms. Doukas and Travlos' study (1988) shows that shareholders of US bidders experience significant positive abnormal returns when firms expand into new industries and geographic markets. When firms already have operations in the target firm's country, US shareholders experience no significant abnormal returns. Harris and Ravenscraft (1991), on the other hand, studied shareholder wealth gains for US firms acquired by foreign firms. They concluded that US targets experience higher wealth gains when they are acquired by foreign firms than when acquired by US firms. Morck and Yeung (1992) showed that US acquiring firms with information-based intangible assets experience a significantly positive stock price reaction upon foreign acquisition. [11]

Main limitation factors and stimulus mechanisms for making decisions about foreign direct investments are:

- **Trading barriers:** Government policies often produce numerous imperfections on the international markets of goods and services. Governments can introduce tariffs, quotas and other restrictions on export and import of goods and services, which can disable their free flow over the national borders. Sometimes, governments can place a ban on international trade of some products. The aim of introducing trading barriers is income increase, protection of domestic economy etc. However, facing barriers on the export of goods to the foreign markets can influence multinational companies to move their production in order to avoid them.
- **Labor market:** Among all other markets, labor market has the most imperfections. Labor market imperfections can lead to constant difference between labor cost in different countries and significant undervaluation of the labor cost regarding labor productivity. When workers are not able to move freely because of the immigration

barriers, companies should get close to workers so they can benefit from the underestimated labor cost.

- **Internalizing intangible assets transactions:** Multinational companies often decide to invest abroad in despite of the fact that local firms have certain benefits. That means that multinational companies should have significant benefits over local firms because of the intangible asset they own. However, it is very hard to wrap up and sell intangible asset to foreigners. Besides that, it is difficult to keep and protect the rights on this asset in the development countries where the jurisdiction is incomplete. Because of that, companies assume that it is more profitable to establish business units abroad and gain profit from internalizing transactions of these assets.
- **Vertical integration:** In order to provide necessary inputs at stable prices, multinational companies can invest in those countries where inputs are available. So, multinational companies from processing industry want to possess mines and forests. They often consider it profitable to place production capacities near natural resources, because they can save money on transportation costs.
- **Product life cycle:** According to Reymond Vernon, companies decide to invest abroad in the certain phase of the product life cycle. Vernon noticed that, during the 20<sup>th</sup> century, most of the new products (computers, television sets, automobiles) were developed and lunched in the USA market. According to Vernon's product life cycle theory, when a company introduces a new product, it wants to keep production capacities in its own country close to the buyers. The demand for the new product in the first phase of its life cycle is intangible on the price and the company can charge a relatively high price for its product. At the same time, the company continuously develops its product according to the feed-back from the market in the home country. As the demand for the product occurs abroad, companies from the USA first begin to export to these countries. With continuous demand growth, companies from the USA are induced to begin production abroad. Product standardization and achieving phase of maturity in the product life cycle cause cutting expenses in order to keep competitiveness. Foreign producers, who operate in the developing countries with low production costs, start to export their products to the USA market. This problem with production costs can induce companies from the USA to build production capacities in the developing countries and export their products to the USA. In other words, foreign direct investment is very important in this case.
- **Shareholder diversification services:** If investors cannot efficiently diversify their portfolio because of barriers in international capital flows, companies can provide their shareholders with indirect diversification services throughout foreign direct investments. When a company has assets in different countries, its cash flow is internationally diversified, which benefits shareholders of that company although they do not hold foreign shares.

#### RISK AND RETURN ON INVESTMENT

Since most investors are risk averse, each increase of the risk level exposure, prompts them to demand additional return, which will compensate for the risk increase. However, the level of benefits does not have the same growth dynamics as the dynamics

of wealth. If we assume that the initial level of wealth is  $w_0$ , the level of benefits will be  $u(w_0)$ . If the wealth decreases in the amount of  $\Delta w_1 = w_0 - w_1$ , the benefits will reduce in the amount of  $\Delta u_1 = u(w_0) - u(w_1)$ . If the wealth increases in the same amount of  $\Delta w_2 = w_2 - w_0$ , the benefits will decrease in the amount of  $\Delta u_2 = u(w_2) - u(w_0)$ . When marginal benefit is decreased,  $\Delta u_1$  is always bigger than  $\Delta u_2$ .

Since investors are not interested in the risk and return of just one alternative, they invest in project portfolio. At the global market, investors combine domestic and cross-border alternatives, because that kind of portfolio carries minor risk. This assumption is proved by two-fund separation theory used in model for risk and return measurement. We will assume that investors invest in risk free alternative ( $\theta_f$ ), as well as cross-border portfolio investment alternative ( $\theta_m$ ) [12]. In that case the following stands:

$$\theta_f + \theta_m = 1 \Rightarrow \theta_f = 1 - \theta_m$$

Expected return on cross-border portfolio investment is

$$\bar{r}_p^* = \theta_f r_f + \theta_m \bar{r}_m = (1 - \theta_m) r_f + \theta_m \bar{r}_m = r_f + \theta_m (\bar{r}_m - r_f)$$

If  $\theta_m$  from the previous equation is replaced with  $\theta_m = \frac{\sigma_p^*}{\sigma_m}$ , expected return on two-fund portfolio is

$$\bar{r}_p^* = r_f + \frac{\sigma_p^*}{\sigma_m} (\bar{r}_m - r_f) = r_f + \frac{(\bar{r}_m - r_f)}{\sigma_m} \sigma_p^*$$

However, creating cross-border portfolio investment and measurement of expected return demands knowing the relations between exchange rates of domestic currency and currency of the country in which investment is made. In other words, the amount of return depends on the rate of return of the country in which investment is made, as well as on appreciation rate of foreign currency compared to national currency.

Regarding all mentioned facts, it is logical to question whether globalization and financial liberalization contribute to investment risk reduction. It is assumed that, global business environment can enable stability in the long term. Also, theoretically, it is not possible to deny positive consequences of economical globalization, regarding the fact that it enables creating and transferring of new technologies, so that it redistributes risk of investment.

## REFERENCES

1. Daft R.L., Organization Theory and Design, West Publishing Company, 1992, p. 77
2. Brigham E., Financial Risk Management, London, Guildhall University, 1994, p. 227
3. Longueville G., Les nouvelles dimensions du risk-pays, Banque N°585/1997, 1997, p.44
4. Emmett J.V., Risk Management, John Wiley & Sons, 1997, p.46
5. Van Horne J.C., Finansijsko upravljanje i politika, Mate, Zagreb, 1993, p.26
6. Detailed in: Petrovic E., Ocena i upravljanje rizikom zemlje u globalnim tokovima kapitala, Zbornik radova "Inostarani capital kao faktor razvoja zemlje u tranziciji", Ekonomski fakultet Kragujevac, 2008, p. 211-221
7. Erb, C.B., Harvey, C.R., Viskanta, T.E., Country credit risk and global portfolio selection, Journal of Portfolio Management, Winter, 1995, p.74-83; Erb, C.B., Harvey, C.R., Viskanta, T.E., Political Risk, Economic Risk, and Financial Risk, Financial Analyst Journal, Nov/Dec 1996. p. 29-46

8. Damodaran A., Country Risk and Company Exposure: Theory and Practice, Journal of Applied Finance, Vol. 13 N° 2, Fall/Winter 2003, p. 63-76
9. UNCTAD, World Investment Report 2003, New York and Geneva, p. 249; UNCTAD, World Investment Report 2005, New York and Geneva, p. 303; UNCTAD, World Investment Report 2007, New York and Geneva, p. 251; UNCTAD, World Investment Report 2008, New York and Geneva, p. 253-256; NBS Statistički bilten februar 2008., p. 52
10. SIEPA
11. Eun S. C., Resnick G. B., International Financial Management, McGraw-Hill Companies, New York, 2007
12. Blace D., Financial Market Analysis, John Willey & Sons, LTD. Chichster, 2000, p.234.

## **RIZIK ZEMLJE I EFEKTI STRANIH DIREKTNIH INVESTICIJA**

**Evica Petrović, Jelena Stanković**

*Namera ovog rada je da ukaže na međuzavisnost rizika i efekata stranih direktnih investicija (SDI) na preduzeće zemlje domaćina i strano preduzeće uz poseban osvrt na preduzeća Republike Srbije.*

*Broj rizika od značaja za donošenje investicione odluke multinacionalnih kompanija koji potiču iz okruženja je značajno povećan tokom procesa globalizacije. Multinacionalne kompanije nastoje da, pre donošenja odluke o međunarodnom investiranju, predvide sve potencijalne rizike sa kojima se mogu suočiti u zemlji domaćinu.*

*Rizik zemlje, kao jedan od najvažnijih rizika, javlja se u dve forme: rizik suverenosti i rizik transfera/konvertibilnosti. S obzirom da rizik zemlje može imati veliki uticaj na prinos koji će odbaciti jedna međunarodna investicija, on se mora realno oceniti. Za merenje premije rizika zemlje moguće je koristiti veći broj metoda. Raspon direktnih i indirektnih potencijalnih efekata stranih ulaganja je ogroman i efekti su obostrani, i na investitora i na zemlju domaćina.*

*Podaci pokazuju učešće Srbije u ukupnom svetskom prilivu SDI u periodu 2000 – 2007. kao i poređenje priliva SDI Srbije i nekih evropskih i bivših jugoslovenskih zemalja.*

*U poslednjem delu rada prikazana je međuzavisnost rizika i prinosa na investiciju, kao i kreiranje međunarodnog investicionog portfolia kao instrumenta za smanjenje rizika.*

*Ključne reči: Rizik zemlje, strane direktne investicije, metodi za merenje premije rizika zemlje, prinos na investiciju*