Chapter 17.

# FOREIGN DIRECT INVESTMENTS IN SERBIA AND FUTURE ROLE OF HUMAN CAPITAL[1]

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Abstract

*International capital flows, transfer of real and financial funds between different countries' legal entities became very intensive after WWII. Importance of foreign investments in the world market is continuously growing since. The level of foreign investments has significantly fluctuated during last few decades worldwide, which is directly correlated to business activities life cycle. Today with the world economic crisis influencing world economy, the level of foreign investments has dramatically diminished. This trend is also present in Serbian economy. This paper will show an alternative source of increasing country's attractiveness for foreign investments through increase of the value of human capital. Many authors note that multinational companies in their investments decision process start with the analysis of the availability of high level of human capital. What is the exact level of human capital (education and skills) required is the questions which have to be discussed in order to facilitate inflow of foreign capital, especially in transition countries. On of the key motivators for transition countries' wish for attracting foreign capital is the transfer of technology. Transferability of technology is directly related to host country approach to defining national development strategies and policies. We use econometric analysis of data from countries which have already gone through transition process, follow the trends of foreign investments, and divide them into mergers and acquisitions on the one side and Greenfield investments on the other side. Finally we present findings of the other authors' research on this topic, as well as the level of human capital required to boost FDI.*

*Key words: Human Capital, FDI, Education, Skills, MNC*

## 1. Foreign investments

International capital flows intensified after WWII. These flows include transfer of real and financial funds between different countries' entities, with a counter transfer being postponed for a certain period of time, with the goal of achieving economic and political goals of participants in the transfer (Unković, 1980, pp 1). Three major types of international funds flows according to Kovač (1994, pp 274) are:

- International flow of loan capital – state inflows
- Portfolio investments – capital market inflows
- Foreign direct investments

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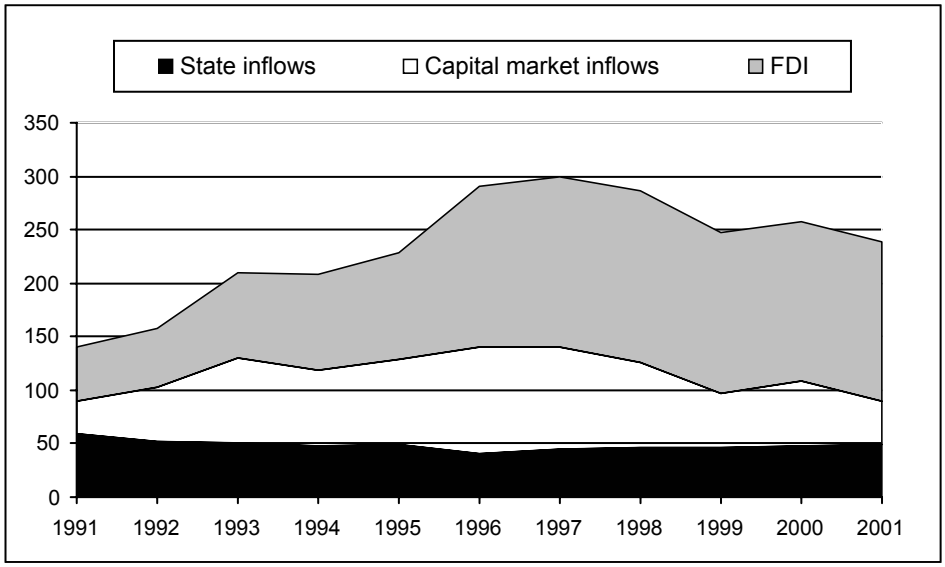
Host country economy is obtaining capital inflow from different public and private sources. Since 1990 large number of developing and transition countries has recognized foreign direct investments as a major source of financial capital inflow. Not all sources of funds have been important during time, but after 1993 foreign direct investments became major source of inflows with state and capital market inflows importance decreasing. According to Miyamoto (2003, pp 12) such a trend has been persistent until 21st century.

**Graph 1. Net capital inflow in developing countries (US$ bil.)**




*Source: Miyamoto (2003, pp 12)*

Beginning of nineties brought expansion of investment activities in developing countries. Factors which made these countries attractive for investments were rapid economic growth especially in South East Asia and Latin America; privatization programs open for foreign investors; and liberalization of FDI regimes (Unctad, 1994). FDI inflow, capital markets investment growth and renewed private loans changed the structure of global financial inflows to developing countries during nineties (Unctad, 1995).

**Table 1. FDI by groups of countries and in Serbia (billion US$)**

| | **1990** | **2000** | **2001** | **2002** | **2003** | **2004** | **2005** | **2006** | **2007** |
|---|---|---|---|---|---|---|---|---|---|
| World | 207 | 1,398 | 824 | 625 | 561 | 718 | 959 | 1211 | 1,833 |
| Developed countries | 172 | 1,135 | 600 | 443 | 361 | 404 | 611 | 941 | 1,248 |
| EU | 97 | 698.1 | 384 | 309 | 259 | 214 | 498 | 562 | 804 |
| Developing countries | 35 | 257 | 214 | 171 | 180 | 284 | 316 | 413 | 500 |
| SEE transition countries* | 4.1 | 3.7 | 4.5 | 4.2 | 8.4 | 13.4 | 15.2 | 28.9 | 30.1 |
| Serbia | 0.1 | 0.1 | 0.2 | 0.5 | 1.4 | 1.0 | 2.1 | 5.1 | 4.0 |
| ** including Bulgaria and Romania* | | | | | | | | | |

*Source: FDI Stat*

Table 1 gives data about FDI inflow by groups of countries, where we can observe significant growth in developing countries until the beginning of the century, and raise of FDI in SEE transition countries and in Serbia. After global investment crisis in 2001-2003, despite nominal growth, share of investments in developing countries started decreasing from the highest of 40% in 2004 to 27% in 2007. Without detailed analysis what caused this decrease, one may say that investors shifted towards other regions like Canada, Russia, Australia, China, Ireland and rising SEE transition countries.

Most common division of FDI is to greenfield investments on the one side and mergers and acquisitions on the other side. Establishment of new affiliations in foreign country is defined as greenfield investments, whereas takeover of existing capacities in foreign country is named M&A. Importance of M&A as a FDI tool grew after 1980, so that its share in total FDI today varies between 55% and 75%, and it is highest in developed countries.

Table 2 gives data about share of FDI, greenfield investments and M&A in groups of countries' GDP. Except for selected years, when privatization of large scale state owned companies took place, in transition countries, greenfield investments play much more important role. This is to say that share of M&A shows the stage of development of host country, which means that foreign investors see existing companies as a good and profitable investment location.

**Table 2. Total FDI, mergers and acquisitions and greenfield investments (share of GDP)**

| | | 1990 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|---|---|---|---|---|---|---|---|---|---|
| **World** | total | 0,94 | 4,39 | 2,61 | 1,90 | 1,52 | 1,73 | 2,14 | 2,91 |
| | greenfield | 0,26 | 0,80 | 0,73 | 0,78 | 0,71 | 0,81 | 0,54 | 1,09 |
| | M&A | 0,68 | 3,59 | 1,88 | 1,12 | 0,80 | 0,91 | 1,60 | 1,82 |
| **Developed Countries** | total | 0,99 | 4,60 | 2,45 | 1,73 | 1,26 | 1,26 | 1,83 | 2,68 |
| | greenfield | 0,21 | 0,24 | 0,39 | 0,47 | 0,40 | 0,27 | 0,02 | 0,61 |
| | M&A | 0,78 | 4,35 | 2,06 | 1,26 | 0,85 | 0,99 | 1,81 | 2,07 |
| **EU** | total | 1,34 | 8,25 | 4,48 | 3,31 | 2,28 | 1,63 | 3,64 | 3,87 |
| | greenfield | 0,48 | 1,14 | 1,89 | 1,08 | 1,17 | 0,27 | 0,51 | 0,90 |
| | M&A | 0,86 | 7,10 | 2,59 | 2,23 | 1,11 | 1,36 | 3,13 | 2,97 |
| **Developing countries** | total | 0,91 | 3,78 | 3,20 | 2,49 | 2,37 | 3,22 | 3,06 | 3,44 |
| | greenfield | 0,53 | 2,80 | 1,93 | 1,85 | 1,86 | 2,62 | 2,15 | 2,38 |
| | M&A | 0,38 | 0,99 | 1,27 | 0,64 | 0,51 | 0,60 | 0,91 | 1,06 |
| **SEE transition countries** | total | 0,08 | 3,99 | 5,41 | 3,81 | 5,79 | 4,09 | 5,49 | 9,61 |
| | greenfield | 0,06 | 2,53 | 4,07 | 2,51 | 4,17 | 2,47 | 3,24 | 4,84 |
| | M&A | 0,02 | 1,46 | 1,33 | 1,30 | 1,62 | 1,62 | 2,25 | 4,76 |
| **Serbia** | total | 0,08 | 0,46 | 1,19 | 2,87 | 5,97 | 3,77 | 8,32 | 14,53 |
| | greenfield | 0,08 | 0,46 | 1,19 | 1,46 | 2,31 | 3,34 | 4,07 | 3,88 |
| | M&A | 0,00 | 0,00 | 0,00 | 1,41 | 3,66 | 0,43 | 4,25 | 10,65 |

*Source: FDI Stat*

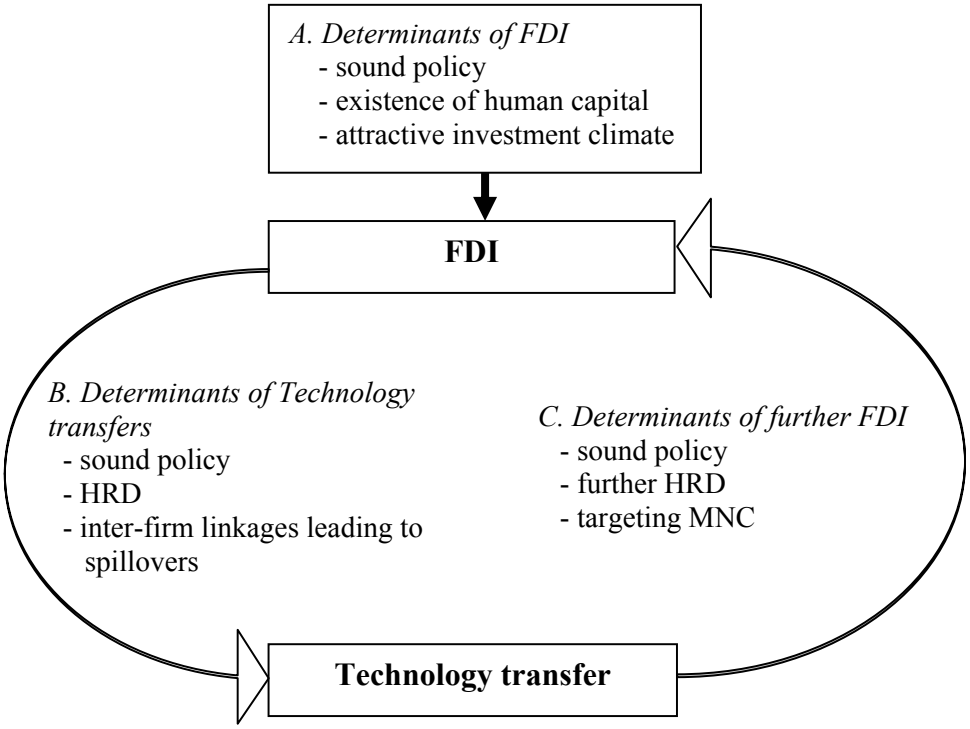
In countries like Serbia, which have completed the first phase of transition, with socially owned companies privatization completed, it is necessary to search for other ways to attract foreign investors. Foreigners are not attracted for further M&A, and high dependency of local GDP on foreign investments, taking almost 15% of GDP has to be replaced with other sources of financial inflow. Greenfield investments create good source of funding for public and private sector of host countries, in particular for complementary investments in infrastructure and development of human resources (Miyamoto, 2003, pp. 13). It is important to have viable development policy which will guarantee that funds raised from FDI will be used for increase of host country attractiveness for renewed M&A.

## 2. Human capital and foreign investments

The level of human capital had in developing countries significantly improved during the period of high inflow of FDI, mostly as a result of growing role of the state in formal education and training as well as with the policies supporting companies which invested in training. In Serbia similar polices have been adopted, so we may expect positive result similar to those in developing countries in nineties.

One of the developed countries' qualities is availability of workforce with high level of human capital. There we can raise the question of weather it is human capital triggering economics prosperity or it is vice versa. Studies which analyzed long term trends in education and economic growth in 20th century (for example Godo and Hayami, 2002 and Cohen and Soto, 2001) showed that development of human resources and economic growth incident simultaneously.

**Graph 2. The Virtuous Circle of FDI and Technology-Transfer/Spillovers**




*Source: Miyamoto (2003)*

Developing countries in the nineties achieved high economic growth by attracting high levels of FDI-s, especially from multinational companies. One may ask how developing and transition countries succeeded in attracting foreign investments. Graph 2 shows the importance of attractive investment climate and sound policy for achieving high level of foreign investments. Investment climate include availability and quality of production factors, market size, distribution costs and several social and political factors which have impact on the level of risk for business activities. Among all factors which create investment climate, most important is the level of human capital, especially for MNC which operate with the high level of value added. In modern economy the importance of human capital is increasing with production becoming knowledge oriented in high technology and services. MNC in planning their investments seek for employees with high level of knowledge and skills in engineering, technology, organizational skills and business administration.

## 3. The impact of human capital on FDI - literature review

Literature which analyses foreign investments assumes that human capital is among key factors in attracting FDI-s (Dunning 1998, Lucas 1990, Zhang and Markusen 1999).

We may divide multi-country analyses of FDI in developing countries into two groups. First group covers period between 1960 and 1980, and the other is analyzing period after 1980.

In the first group of papers written by Root & Ahmed (1979), Schneider & Frey (1985), Hanson (1996) & Narula (1996) key conclusions are that in developing countries covered by the research, with

number of countries included varying between 20 and 100, impact of human capital including literacy, school enrollment, availability of technical and professional labor has no statistical impact on the level of FDI. Such conclusions may by consistent with the fact that these authors analyzed period between 1960 and 1980, when foreign investments were concentrated on opening new markets, gathering of natural resources and above all cheap labor force. According to Dunning (2002) in that period of time availability of highly educated labor had no significant impact to investors activities.

The second group of papers with multi-country coverage includes Noorbakhsh et al (2001), UNCTAD (2002) and Nunnenkamp & Spatz (2002). They use key statistical indicators for the period after 1980. Authors proved that level of human capital and investments in human resources have significant impact on attracting FDI, and that those effects grow over time. Except for econometric preciseness, the second group of authors, unlike researches made by the first group of authors, use contemporary data on investments which bring higher value added. The fact is that most MNC which invested their capital in developing countries after 1980 have been oriented more to effectiveness and highly educated work force. Paper published by UNCTAD shows high positive correlation between the elements of human capital, like the share of students in sciences and engineering with the level of FDI in 140 developed and developing countries.

In most studies researching this field, human capital is analyzed by the level of secondary and higher education. For example Broadman & Sun (1997) and Coughlin & Segev (2000) confirmed in their researches that in China at the beginning of nineties adults' education level was key determinant for regional distribution of FDI in China.

Since the beginning of century, several international organizations initialized researches related to FDI and host countries investment climate. On of them is research named FY2001 financed by the World Bank and JBIC, which analyses world economic environment and foreign investments (JBIC, 2002). Research included questions related to investors' motivation in selecting host country for their investments, and the results showed that quality of human resources is very important factor, with availability of technical labor being most important with 39%, followed by availability of managerial labor with 38% and high-skilled labor with 32%.

To conclude literature review we can say that human capital is very important determinant for attracting FDIs, especially those which require high efficiency and skilled labor as on of the production factors.

## 4. Trends in human capital creation

Primary education is core of every human development policy. Without widespread primary education available for all population, host country is not risking in attracting only low added value investments, but it will hardly enter virtual circle shown in graph 2. This happened to many countries in Africa. Experiences of developing countries which steadily invested in primary education show very positive results in increase of FDI. For that reason the program "Education for everyone" on the conference in Thailand in 1990, was initialized by UNESCO, UNICEF, UNDP, World Bank and representatives of 155 governments and over 150 non-governmental organizations. This initiative influenced on increase of donations for primary education, stimulating governments of developing countries to increase the level of education. Serbia needs to generate its strategy from their positive experiences in order to deal with 1.5 million people without completed primary education.

Effective example of proactive approach is what Singapore Investment promotion Agency (IPA) has developed under title "World Class University Program". A goal of this program was to establish 10 international educational institutions in Singapore in order to support development of curricula which will satisfy market needs (Miyamoto 2003). Example f Singapore shows that even in countries which have begun their transition process 40 years ago, there is still a need to enforce strategies for human

resources development, in order to keep competitive advantage on the world market, particularly in attracting foreign investments.

Another example is Irish investment promotion and development agency (IDA) which took significant part in creation of educational policy which is synchronized with the market needs. In 1997 they established "Expert group for future skills needs" in order to identify skills and qualifications requirements in different business sectors, so they can suggest necessary activities for development of human resources (EGFSN 2008). Their another activity was development of "Education, skills and development" strategy which included research programs in higher education with the goal of promoting research, development and innovative capacity of the economy (IDA 2009).

European Union also developed a strategy named "Minimal learning platform for all" which defines knowledge and competences which will be needed on the future labor market (Carneiro 2002). Strategy includes analysis of the skills in communication, IT, self-learning capability and other personal and social skills. It is expected for this platform to cover analysis of minimal skills requirement on the future labor market which will be oriented to technology and personal development.

## 5. Conclusions

Experiences of other transition and developing countries lead us to two important conclusions. At first human resources development policy has to be based on a good primary educational system. Without good primary educational policy, educational system will continuously create non-skilled labor force which will be negative signal for foreign investors. Quality primary education creates good basis for improvement of human capital in higher education, which became highly demanded by foreign investors. Secondly human development policy has to be created in accordance with market needs. Market analysis and inclusion of foreign educational institutions closely related to high-technology industry can be effective. What countries like Singapore and Ireland have done in the past show us that educational strategies recommended by investment promotion agencies enable reform of human resources development policies so as to satisfy market needs.

At the end we can say that empirical research show that human capital is very important for attracting FDI and that country has to provide at least primary education for all adults so as to be viewed as a country potentially interesting for foreign investors. Countries which tend to attract MNC operating in high value added activities in the area of high technology has to develop high education sector in such a way to satisfy market needs. To define effective human resources development policy it is necessary for all stakeholders to cooperate, including government, economy and investment promotion agencies.

Serbian Government should adopt complementary policies and strategies of development of human resources if they want to succeed in keeping high level of foreign investments in the country.

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