Marcin Humanicki* Krzysztof Olszewski**

FOREIGN DIRECT INVESTMENT IN REAL ESTATE AND RELATED BUSINESS SERVICES: POLAND VS OECD COUNTRIES

Introduction

Foreign direct investment (FDI) has been long viewed as a desirable form of investment as it promotes economic growth through the physical capital accumulation and the transfer of knowledge and technology. Historically, FDI was flowing primarily into developed countries and that is why the Organization for Economic Cooperation and Development (OECD) was the main destination for foreign capital. The OECD countries attracted more than a half of world FDI inflows during the years 1995–2009. Since 2010 more than fifty percent of global FDI has been flowing into developing economies (e.g. China, Brazil, India, Russia, etc.). Countries from Central and Eastern Europe (CEE) also saw a large inflow of FDI during the transition period as a consequence of, inter alia, a removal of barriers to cross-border capital flows. Moreover, FDI was flowing mainly into traditional primary and manufacturing sectors as these two sectors accounted for the biggest part of the global economy. In recent times there has been a shift both in the geographical and sectoral distribution of global FDI. The service sector has started to play a bigger role in attracting foreign capital due to the growing importance of this sector in the global economy. Additionally, the nature of many services, that is limited tradability, caused the only way to serve the foreign market to be through establishing a firm abroad.

In this paper we analyse the evolution and the sectoral decomposition of inward FDI stock in Poland in the service sector over the years 1998–2012 with a particular

^{*} Narodowy Bank Polski.

^{**} Narodowy Bank Polski and Warsaw School of Economics.

The opinions presented in this paper are those of the authors and do not necessarily reflect the official position of the Narodowy Bank Polski.

emphasis on a specific sector called real estate, renting and related business activities. The motivation for such an analysis is that since the transition to a market-based economy, Poland has wanted to emerge as a service-oriented and innovative economy and the availability of a modern office space was an important factor at that time. Since 1995 Poland has attracted a large number of foreign investors from the service sector, who in general employ more office workers than investors from the manufacturing sector. Thus, a demand for offices in Poland was relatively high at that time, while there was basically no modern office space. The same applies to modern retail space, which to a large degree was also constructed by foreign investors and is until now managed by those investors. An analysis of the office market for 5 major cities in Germany shows a strong link between employment growth and office space demand¹, and one can assume that the same relationship should hold for Poland. When employment goes up, firms need to lease more space and office rents rise. An analysis of the 16 voivodeships in Poland² finds a strong relation between economic growth and the level of innovations. When one looks at the distribution of office space in various voivodeships, one can observe that those innovative ones have also a large stock of modern office space. This relationship should be studied in more detail, especially in order to determine the causal relationship between those two facts, but this is beyond the scope of this paper.

We want to see how much Poland differs from the other OECD countries in terms of FDI flows to the service sector. To this aim we divide the OECD into two reference groups: emerging market economies from Central and Eastern Europe (the Czech Republic, Hungary, Slovakia) and advanced economies (France, Germany, the United Kingdom, the United States). Finally, we calculate a synthetic measure of FDI attractiveness for Poland and selected OECD countries from these two aforementioned groups. We use a simple benchmarking tool designed by the United Nations Conference on Trade and Development (UNCTAD) called Inward FDI Performance Index. The analysis shown in this paper will serve as a background for further research regarding the growth effects of FDI in the real estate sector in Poland.

¹ M. Voigtländer, *Office Market and Labour Market–The Case of Germany* (No. eres2010-068), European Real Estate Society (ERES), 2010.

² A. Majka and D. Jankowska, *Innovative Endeavors and Economic Development from the Regional Perspective*, "Barometr Regionalny" 2017, vol. 15(3), pp. 29–39.

2. Literature review

We present a brief literature review which focuses on the inflow of foreign direct into the real estate sector. A study for the OECD countries³ shows that FDI inflow follows strongly its past realization, moreover, depends on the market size, gross capital formation and openness to trade. Also unit labour costs and the level of schooling, as well as taxation and institutional factors have a strong impact on the FDI inflow. It is also important to understand why investors decide to engage in real estate abroad and the study of determinants of the US investment in real estate abroad⁴ gives us good insights. The authors found that FDI in the real estate sector abroad grows when the US financial wealth, foreign financial liabilities and the foreign current account balance grow. They also found a positive relationship between the US outward investment in real estate and US outward FDI in manufacturing and banking, which allows us to conclude that these foreign activities are closely related and quite often go hand in hand.

Foreign investors' activity in the CEE countries was important for these countries, because after the transition to the market economy their capital stock was insufficient and foreign investors helped to create the capital stock quite quickly⁵. The investment in the CEE countries was very attractive for foreign investors, because there was so much need for investment and also relatively little competition, at least in comparison to their home countries.

While there is a rich literature about the determinants of total FDI or about FDI in manufacturing, there is much less analysis about specific sub-sectors of the service sector. As concerns FDI flows in real estate, a study⁶ for 47 countries over the 2000 to 2009 period finds that economic growth, demographics and the urbanization processes are strong determinants. However, administrative burdens, instability of the political system and opaque legal systems have a very strong negative effect on investors' decisions. As concerns Poland the preparation for the European Union accession

³ A. Bénassy-Quéré, M. Coupet and T. Mayer, *Institutional determinants of foreign direct investment*, "The World Economy" 2007, vol. 30(5), pp. 764–782.

⁴ F. Moshirian and T. Pham, *Determinants of US investment in real estate abroad*, "Journal of Multinational Financial Management", 2000, vol. 10(1), pp. 63–72.

⁵ M. Neuhaus, *The Determinants of FDI-What Can the Transition Countries Do to Attract FDI?*, "The Impact of FDI on Economic Growth: An Analysis for the Transition Countries of Central and Eastern Europe" 2006, pp. 141–151.

⁶ K. Lieser and A.P. Groh, *The determinants of international commercial real estate investment*, "The Journal of Real Estate Finance and Economics" 2014, vol. 48(4), pp. 611–659.

improved the development of the entire property market⁷. Also FDI in the real estate sector in Poland started to grow when the transparency of the market improved⁸.

There is a strong positive link between economic growth and construction growth, which was found on the basis of an meta-analysis of papers published in the past 40 years⁹. A cointegration analysis for developed countries¹⁰ indicates strong mutual relationships between infrastructure investments and economic growth, and also a strong cointegration between infrastructure investment and housing construction. They also observe that non-residential construction, which is to a very large degree commercial construction leads to short-term and long-term GDP growth.

Especially for developing countries the creation of commercial property is a very important step in the economic transition process. A milestone in the evolution of post-socialistic states to market economies was the urbanization process and the gradual relocation of institutions and important companies from capital cities to other cities¹¹. The transition of the residential and commercial real estate in Budapest sector have undergone changes in three steps¹². The first was the initial one, called the vacuum. The government was not able to catch up with the changing reality and investors tried to gain the most from the privatization. In the second step (the early 1990 s) the government started to create a legal system and made strategic decisions on how the cities should develop in the future. Finally, in the late 1990s the government started far-reaching plans and used public-private partnerships that helped to shape the city. A very important determinant for foreign investor activity in the commercial market in Warsaw, Prague and Budapest was a good cooperation with the local governments and also the subjective perception of the market risk¹³.

There are a few studies which focus on FDI and the development of commercial property, especially in the CEE countries. One that is worth mentioning is a study which finds a strong relation between total FDI inflows and the construction of office

⁷ E. Kucharska-Stasiak and G. Matysiak, *The transition of the Polish real estate market within a Central and Eastern European context*, 2004.

⁸ K. Czechowska, *Level of Foreign Direct Investments and Transparency of Polish and Global Real Estate Market*, "Real Estate Management and Valuation" 2013, vol. 21(2), pp. 22–28.

⁹ D.T. Giang and L.S. Pheng, *Role of construction in economic development: Review of key concepts in the past 40 years*, "Habitat International" 2011, vol. 35(1), pp. 118–125.

¹⁰ M. Wilhelmsson and R. Wigren, *The robustness of the causal and economic relationship between construction flows and economic growth: evidence from Western Europe*, "Applied Economics" 2011, vol. 43(7), pp. 891–900.

S. Tsenkova, *Beyond transitions: Understanding urban change in post-socialist cities*, in: "The urban mosaic of post-socialist Europe" 2006, Physica-Verlag HD, pp. 21–50.

¹² I. Tosics, *Spatial restructuring in post-socialist Budapest*, in: "The Urban Mosaic of Post-Socialist Europe" 2006, Physica-Verlag HD, pp. 131–150.

¹³ A. Parsa, S. McGreal and R. Keivani, *Globalisation of real estate markets and urban development in Central Europe*, "Economic and Social Research Council" 2000.

space in Warsaw, Budapest and Prague¹⁴. While in Budapest and Prague office construction follows FDI inflows, in Warsaw the two are contemporaneous. The Warsaw market is very well-developed and it seems that office developers anticipate the demand that will increase in the near future and start new construction when the economy grows. A similar analysis for the 16 voivodeships in Poland found that office and retail space construction anticipates economic growth¹⁵.

3. Analysis of the data

We analyse the data on inward FDI position from the online OECD International Direct Investment Statistics database¹⁶, compiled according to the 3rd edition of the OECD Benchmark definition of FDI (called BD3). This database provides both long time series and the sectoral decomposition of FDI according to the International Standard Industrial Classification of All Economic Activities (Revision 3)¹⁷. We are aware that BD3 is the previous international standard covering data only up to 2013 and the new 4th edition of the OECD Benchmark Definition of FDI (called BD4) is now available, but unfortunately FDI series complied with BD4 are relatively short (from 2005) and with many breaks. Moreover, the new standard for FDI statistics does not provide comparable sectoral data for many OECD countries, even for advanced economies. Therefore, we decide to employ the possible longest and comparable FDI series as we want to give an insight into the structure of FDI flows in real estate, renting and related business activities.

Data for Poland and selected OECD countries representing both emerging markets from Central and Eastern Europe (the Czech Republic, Hungary, Slovakia) and advanced economies (France, Germany, the United Kingdom, the United States) is expressed as a percentage to GDP, which is a standard approach in international comparisons. The analysis starts with the total FDI, moves to the manufacturing and service sector and finally focuses on FDI in so-called *real estate*, *renting and business activities* (legal, accounting, auditing, tax, market research and public opinion polling, etc.). We do not analyze the real estate itself as many OECD countries only

¹⁴ S. Laposa and C. Lizieri, *Real estate capital flows and transitional economies, the* article presented at the "American Real Estate Society Meeting in Santa Fe", NM 13–16 April 2005.

¹⁵ J. Łaszek, R. Leszczyński and K. Olszewski. *The Development of Residential and Commercial Real Estate, and Economic Development in Polish Voivodships,* "Barometr Regionalny", 2017, vol. 15(2).

¹⁶ http://www.oecd.org/corporate/mne/statistics.htm

¹⁷ Detailed breakdown and explanations are available on the United Nations Statistics Division's website.

report data for this broad category. The value of commercial property is not only the building, but also the whole business that the building generates. Therefore, it is appropriate to analyse the aggregate FDI when we want analyse the activity of foreign investors in the real estate sector.

Historically, the OECD has been analysed in terms of international cross-border capital flows due to the fact that this group of countries received more than half of total FDI worldwide. In recent years there has been a shift in the global distribution of FDI and emerging market economies and developing countries has become the main destination for foreign capital (Figure 1). Moreover, the sectoral decomposition of global FDI has changed. The share of services in total FDI inflows has increased, while the share of manufacturing decreased. It was mainly due to a removal of barriers to free capital movement in many emerging market economies and developing countries. Moreover, the nature of the services, that is the limited tradability across borders, caused transnational corporations to decide to expand their activity abroad and set up a company in the host country to serve the foreign market. Poland has followed this path and that is why the current sectoral structure of inward FDI looks similar to that of the OECD countries.

(a) Flows (b) Stocks 100% 100% 80% 80% 60% 60% 40% 40% 20% 20% 1998 2001 2007 2010 1998 2001 2004 2007 2010 2013 2016 1995 OECD ■ Non-OECD OECD ■ Non-OECD

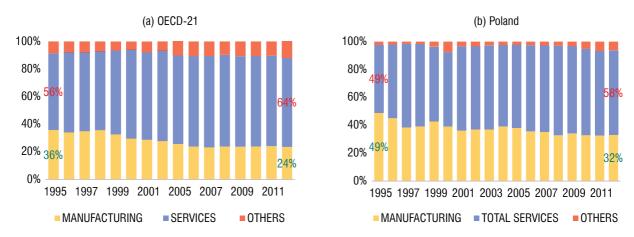
Figure 1. Geographical distribution of global inward FDI

Note: data presented according to FDI Benchmark Definition 3rd *edition* Source: OECD International Direct Investment Statistics (database).

Poland had initially, in 1998, a relatively low inward FDI stock compared to the Czech Republic and Hungary, but higher than in Slovakia (Figure 3). Hungary began to attract FDI much earlier and started with a FDI stock that was over 40% of GDP, while Poland had an initial stock accounting for less than 20%. At the end of 2012 the FDI stock in Poland was around 50% of GDP, while the other OECD—CEE countries reached even higher levels. The lowest value of inward FDI relative

to GDP in Poland results, *inter alia*, from the fact that is the largest country in the CEE region. The OECD countries had on average inward FDI stock that accounted for around 30% of their GDP. There are also differences among highly developed countries, as the figures for the UK, Germany and the US are 60%, 30% and 20%, respectively. On average for the OECD and also for all analysed individual countries the lion's share of FDI is located in the service sector. Only a small fraction can be found in the manufacturing sector.

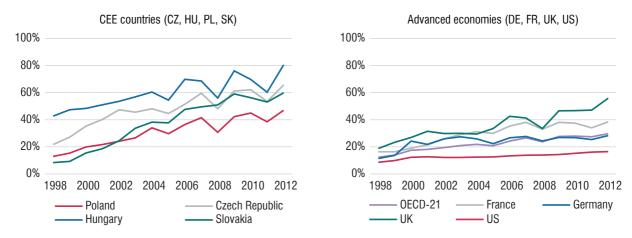
Figure 2. Sectoral decomposition of inward FDI stock (% of total FDI)



Note: data presented according to FDI Benchmark Definition 3 rd edition

Source: OECD International Direct Investment Statistics (database).

Figure 3. Inward FDI stock in selected OECD countries (% of GDP)

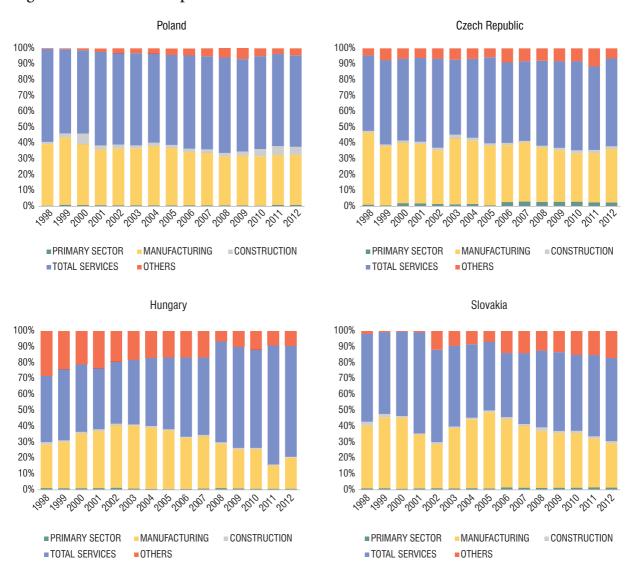


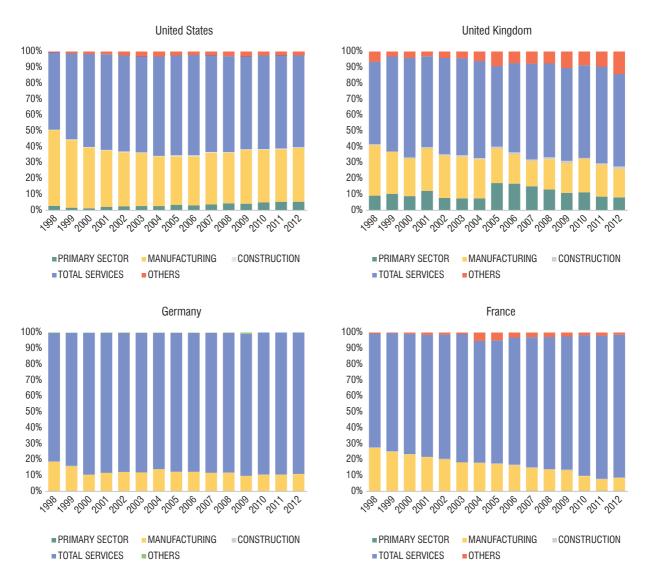
Note: data presented according to FDI Benchmark Definition 3 rd edition Source: OECD International Direct Investment Statistics (database).

The decomposition of the FDI stock into the main economic categories primary sector, manufacturing, construction, total services and others allows us to assess

which economic profile a country has chosen. In the short run the donor country is the main decision maker and allocates its capital where it sees the biggest profit. But in the long run it is the mission of the host country to change its law and economic conditions to attract that form of FDI which will help the host country develop in the future. In Poland and the remaining CEE countries FDI in total services accounts for more than 50% of the whole FDI stock at the end of 2012. In Hungary and Slovakia the FDI stock called as others accounts for around 10% of the whole stock. It is likely that some sectors of the economy are not correctly accounted for and what is left is called "others". This category has also a significant, 10% share in the FDI stock in the UK. In Germany FDI in total services accounts for nearly 90% of the whole stock.

Figure 4. Sectoral decomposition of inward FDI stock in the selected OECD countries





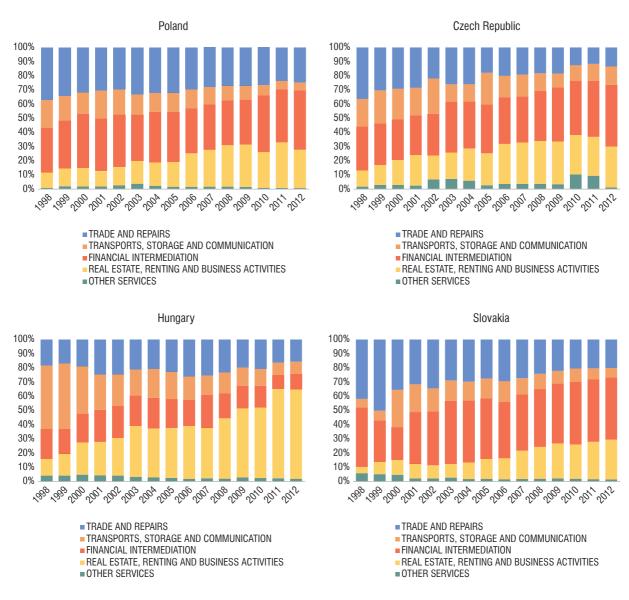
Note: data presented according to FDI Benchmark Definition 3 rd edition Source: OECD International Direct Investment Statistics (database).

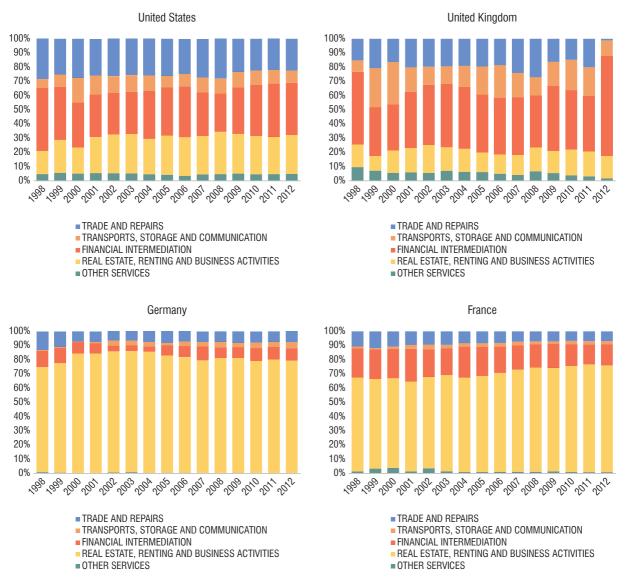
As we have determined that the service sector plays a major role in the FDI stock of all the analysed countries, we want to decompose this sector (see figure 5). The share of real estate FDI in Poland at the end of 2012 accounts for around 20% of the FDI stock in the service sector, a figure that can be also observed for the Czech Republic and Slovakia. Interestingly, in Hungary this sub-sector is on a continuous rise and the related FDI stock was close to 40% of the stock in the whole service sector. In Germany, the stock of FDI in real estate and related activities accounts for nearly the whole FDI stock in the service sector, while FDI in the manufacturing sector is negligible. In the US the stock of real estate and related FDI is as low as in Poland, and it is even smaller in the UK, where the financial services sector attracts the majority of FDI in the service sector.

Poland, the Czech Republic and Slovakia show a similar picture in the remaining sub-sectors of the service sector. FDI in financial intermediation has a relatively stable share, while the FDI stock in transportation and trade and repairs loses its significance. The decomposition of the service sector FDI stock in Hungary is similar to the one in Germany and France.

One can infer that Poland, the Czech Republic and Slovakia show a similar pattern to the Anglo-Saxon countries, while Hungary has a similar pattern to the core EU countries. The reason for such a pattern should be studied in another paper.

Figure 5. Sectoral decomposition of inward FDI in the services in the selected OECD countries





Note: data presented according to FDI Benchmark Definition 3 rd edition Source: OECD International Direct Investment Statistics (database).

4. A synthetic measure of FDI performance for Poland and other OECD countries

So far we have analysed the decomposition of total FDI and the service sector FDI in Poland and other OECD countries, both emerging market economies from the CEE region and selected advanced economies. In this section we want to find out how attractive Poland is for FDI inflows. For this exercise we use a tool designed by the United Nations Conference on Trade and Development (UNCTAD), which is called the *Inward FDI Performance Index*. This index is defined as follows:

$$\frac{\mathrm{FDI_{i}/GDP_{i}}}{\mathrm{FDI_{OECD}/GDP_{OECD}}} = \frac{\mathrm{FDI_{i}/FDI_{OECD}}}{\mathrm{GDP_{i}/GDP_{OECD}}}$$

where:

 FDI_i – inward FDI stock at current prices in country i

FDI_{OECD} - inward FDI stock at current prices in the OECD countries

 GDP_i – Gross Domestic Product at current prices of country i

GDP_{OECD} - Gross Domestic Product at current prices of the OECD countries

A benchmark value of the index is 1, which means that the countries' share in global FDI inflows is equal to its share in the global GDP. Countries that have a value higher than 1 attract more FDI than could be expected relative to their size measured by GDP. It should be underlined that high scores could reflect a transition to a market economy, massive privatizations or the end of political or economic crises. Countries with low values of the index receive less FDI than would be expected on the basis of their size. The reasons behind this could be different. For example, some very large economies attract large amounts of FDI, albeit low in relation to GDP (the United States). Beside this, some economies have traditionally been closed to FDI (like Japan) and therefore, have low value below one. In other cases the low value of the index may be simply a sign of weak or lacking competitiveness.

Looking at the performance index for the total FDI inflow we find out that Poland and Slovakia started with the value of 1 in the late 1990s and then slowly improved their performance. However, while Slovakia reached quite fast the value of 2, Poland did not get more than 1.5. Maybe this results from the fact that Poland's economy is driven mostly by domestic demand. Slovakia and its neighbors, the Czech Republic and Hungary have a much larger share of foreign trade and this can explain why they attract so much FDI in comparison to their GDP. Interestingly, the inward performance index for the total FDI inflow for Germany and France is continuously around 1, which means that they attract more or less the same proportion of the world FDI as their share in the global GDP is. The UK performs a little better and has an index that fluctuates between 1.5 and 2. The US, on the other hand, has FDI performance index which is below 1, and their share in global FDI inflows accounts only for 50% of their share of GDP in the global GDP. One can infer from this figure that the US economy is less open to FDI inflows than other advanced OECD countries.

Poland and the remaining CEE countries have attracted FDI especially in manufacturing, which was an important step in the transition of the socialistic economy to the market economy. Also in case of total services the transition countries became attractive, which is a good sign. However, real estate, renting and business activities were not that attractive initially and only after the outbreak of the global financial crisis our CEE countries became more attractive. Most likely the foreign investors were attracted by the reasonably high rates of returns, which were the result of rather low salaries for highly educated and skilled workers.

Poland Czech Republic 5.0 5,0 4,0 4,0 3,0 3,0 2,0 1,0 0,0 0.0 1998 2000 2002 2004 2008 2010 2012 2002 2004 2006 2008 Manufacturing Manufacturing Real estate, renting and business activities Real estate, renting and business activities Total services Total services Total FDI Total FDI Slovakia Hungary 5,0 5,0 4.0 4,0 3,0 3,0 2,0 2,0 1,0 0,0 1998 2002 2004 2006 2008 2010 2012 1998 2000 2002 2004 2006 2008 2010 2012 Manufacturing Manufacturing Real estate, renting and business activities Real estate, renting and business activities Total services Total services Total FDI Total FDI

Figure 6. Inward FDI Performance Index for Poland and other CEE countries

Source: the authors' own calculations based on the OECD data.

It is quite interesting to observe that Germany and France have a quite opposite situation, i.e. they were very attractive for real estate, renting and business activities, while unattractive for simple manufacturing. German and French blue-collar workers are too expensive, while their white-collar workers and the surrounding good institutions have a very positive effect on FDI in those sectors. Moreover, the US and UK show quite a surprising picture. The US are unattractive in general, which can be the result of its policy to be rather an FDI exporter than an FDI importer. The UK is attractive in the manufacturing sector and in the service sector in total, but it is unattractive as concerns real estate and related activities.

Again, we can conclude that there are significant differences among the seemingly similar countries, which means that one needs to be a little more skeptical when interpreting the results about the total FDI flows or stocks. While the total value gives a picture about the general amount of foreign investment, it is insufficient to understand the details of a given economy.

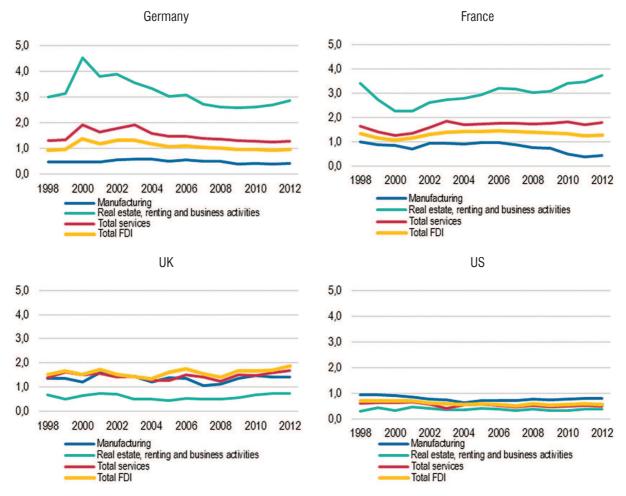


Figure 7. Inward FDI Performance Index for selected advanced economies

Source: the authors' own calculations based on the OECD data.

5. Conclusion

Our main research purpose is to analyse the FDI stock in the real estate sector in Poland in comparison to other CEE neighbours and developed OECD countries. We find out that Poland has a similar sectoral decomposition of the FDI stock as the Czech Republic and Slovakia, and interestingly, these shares are very similar to those

found in the UK and the US. However, Hungary shows for the analysed period a continuous and strong growth of the real estate sector FDI, which makes it look very similar to Germany and France around 2012.

One finding which came as a by-product of our research is the fact that the FDI composition in Germany is similar to that in France, but it is completely different from that in the UK and the US. Usually, those highly developed countries are treated as quite similar, but when one investigates segments of the economy, stark differences can be observed. One should be therefore careful when interpreting previous studies which base on aggregate results.

The analysis of the attractiveness of Poland for FDI inflows shows that as concerns FDI flows in general, it performs worse than the Czech Republic and Slovakia, maybe because a large part of its GDP is driven by a domestic demand, which means less space for imports and exports. However, Poland is very attractive for investment in the manufacturing sector, while its attractiveness for investment in real estate and related services is growing only slowly. As those sectors are growing and will be most likely important drivers of the economy, the government should make Poland more attractive for those investments.

Our findings open new questions for further research. One interesting question is to find the determinants of FDI in the real estate sector and related activities in OECD countries. Also, the economic effect such investment has on the host country economy should be analysed.

Foreign Direct Investment in Real Estate and Related Business Services: Poland vs OECD Countries

Poland has experienced a relatively large inflow of foreign direct investment (FDI) in the last two decades. FDI has been flowing mainly into services and manufacturing similarly to the trend observed in global capital movement. Within the services, the financial intermediation played the biggest role in terms of attracting FDI, but real estate and related business activities (legal, accounting, auditing, tax, marketing, etc.) also saw a high inflow of foreign capital. The paper analyzes the evolution of inward FDI stock in Poland over the period 1998–2012 with a particular emphasis on real estate and related business activities. It also discusses how Poland differs in terms of sectoral decomposition in the services of inward FDI stock from other Organization for Economic Cooperation and Development (OECD) countries representing both Central and Eastern Europe (CEE)

and advanced economies. Finally, the paper answers the question how Poland is performing relative to other OECD members in terms of FDI attractiveness.

Keywords: foreign direct investment, real estate, Central and Eastern Europe, OECD

References

- 1. Bénassy-Quéré A., Coupet M., and Mayer T., *Institutional determinants of foreign direct investment*, "The World Economy" 2007, vol. 30(5), pp. 764–782.
- 2. Czechowska K., *Level of Foreign Direct Investments and Transparency of Polish and Global Real Estate Market*, "Real Estate Management and Valuation" 2013, vol. 21(2), pp. 22–28.
- 3. Giang D.T. and Pheng L.S., *Role of construction in economic development: Review of key concepts in the past 40 years*, "Habitat International" 2011, vol. 35(1), pp. 118–125.
- 4. Kucharska-Stasiak E. and Matysiak G. *The transition of the Polish real estate market within a Central and Eastern European context*, 2004.
- 5. Laposa S. and Lizieri C., *Real estate capital flows and transitional economies*, the article presented at the "American Real Estate Society Meeting in Santa Fe", NM 13–16 April 2005.
- 6. Łaszek J., Leszczyński R. and Olszewski K., *The Development of Residential and Commercial Real Estate, and Economic Development in Polish Voivodships*, "Barometr Regionalny", 2017, vol. 15(2).
- 7. Lieser K., and Groh A.P., *The determinants of international commercial real estate investment*, "The Journal of Real Estate Finance and Economics" 2014, vol. 48(4), pp. 611–659.
- 8. Majka A. and Jankowska D., *Innovative Endeavors and Economic Development from the Regional Perspective*, "Barometr Regionalny" 2017, vol. 15(3), pp. 29–39.
- 9. Moshirian F. and Pham, T., *Determinants of US investment in real estate abroad*, "Journal of Multinational Financial Management" 2000, vol. 10(1), pp. 63–72.
- 10. Neuhaus M., *The Determinants of FDI-What Can the Transition Countries Do to Attract FDI?*, "The Impact of FDI on Economic Growth: An Analysis for the Transition Countries of Central and Eastern Europe" 2006, pp. 141–151.
- 11. Parsa A., McGreal S. and Keivani R., *Globalisation of real estate markets and urban development in Central Europe*, "Economic and Social Research Council" 2000.
- 12. Tosics I., *Spatial restructuring in post-socialist Budapest*, in: "The Urban Mosaic of Post-Socialist Europe" 2006, Physica-Verlag HD, pp. 131–150.
- 13. Tsenkova S., *Beyond transitions: Understanding urban change in post-socialist cities*, in: "The urban mosaic of post-socialist Europe" 2006, Physica-Verlag HD, pp. 21–50.

- 14. Voigtländer M., *Office Market and Labour Market–The Case of Germany* (No. eres2010-068), European Real Estate Society (ERES), 2010.
- 15. Wilhelmsson M. and Wigren R., *The robustness of the causal and economic relation-ship between construction flows and economic growth: evidence from Western Europe*, "Applied Economics" 2011, vol. 43(7), pp. 891–900.