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Inward FDI-Related Challenges to Poland's Further Economic Progress*

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During the process of transition, Poland has achieved considerable economic progress, which may be at risk in the future, as Poland might face the middle-income trap. FDI (foreign direct investment) has become a significant part of the Polish economy and has contributed to the progress, but it is also a source of challenges. Countries compete for better types of FDI and to keep winning, Poland needs to improve the investment climate. In a longer perspective, Poland will lose comparative advantage, relying on cheap human resources. To avoid the middle-income trap, it should upgrade its capabilities and resources to meet future needs of MNEs (multinational enterprises) and to encourage them to undertake FDI at higher levels of sophistication and productivity than at present. Otherwise, there is a risk that part of FDI might relocate to other countries. To deal with these challenges, Poland should formulate consistent FDI policy.

Keywords: FDI (foreign direct investment), Poland, host country FDI determinants, FDI policy

In 2014, Poland celebrated in the presence of many heads of states and governments three anniversaries: 10 years of the membership of the European Union (EU), 15 years of NATO (North Atlantic Treaty Organization) membership, and 25 years of freedom, building democracy and the transition from a centrally planned to a market economy. Poland's achievements have been praised, though more often by outsiders than by Poles themselves. According to President Obama, who attended celebrations, the strength of free markets and the results of hard reforms have brought Poland "living standards that previous generations of Poles could only imagine"[1]. *The Economist*, in a special report on Poland has declared, after a paper by a Polish author (Piątkowski, 2013) that "Poland just had the best 25 years in half a millennium", and that it is enjoying "a second golden age" (*The Economist*, 2014a, p. 13).

At the same time, there have been several reports, Polish and international, alerting that the economic model, Poland has relied on, is losing or will soon lose the potential for generating further economic progress. In two reports, Hausner and his team have argued that if Poland does not intensify "creative innovation", it will face middle-income trap, preventing it from catching up with more advanced countries (Hausner, 2013a; Hausner, 2013b). The authors of McKinsey report (McKinsey & Company, 2015) have considered two

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[1] Remarks by President Obama at 25th Anniversary of Freedom Day, Castle Square, Warsaw, Poland, June 4, 2014. Retrieved from http://www.whitehouse.gov/the-press-office/2014/06/04.

scenarios for economic growth till 2025: "business as usual", with an annual growth of GDP (gross domestic product) of 2.6%, and "aspirational" (4%). The former is akin to middle-income trap. The central message from the analysis is that if Poland wants to narrow further the income gap to the Western part of Europe, it needs to reduce the productivity gap across sectors and industries. A study by the World Bank (2014a) draws attention to low savings and investment in Poland predicting that if this continues, Polish economy will lose steam. Another report has focused on socio-cultural aspects and conditions for further economic and social progress (Żakowski, 2015).

Common characteristics of these reports are that they do not pay attention to the present and future role of a large sector of foreign firms in the Polish economy. At best, they acknowledge in general terms the contribution of FDI (foreign direct investment) to capital and technological advancement of the country in combination with Polish cheap human resources, and postulate further attraction of FDI. At worst, they do not notice that foreign firms have become part and parcel of Polish economic life, have contributed significantly to its progress and that their future behavior will affect the economy for good or bad. The latter reports seem to consider that there is no difference between local and foreign firms in performance and behavior, creating the impression that FDI and its contributions can be taken for granted. Policy recommendations of both types of reports—those paying some attention to FDI and those ignoring it, typically concern enterprises in general or Polish enterprises.

The objective of the paper is, first, to take stock of the importance of foreign firms in the Polish economy and their key contributions to the country's economic progress. Second, it is to identify and examine FDI-related challenges, to consider a question how well is Poland prepared to face these challenges, and to make suggestions about how to deal with them. The central message of the paper is that given a significant role of foreign firms in the Polish economy and their behavioral patterns, FDI is also associated with risks and should be added to the catalogue of future challenges facing Poland.

The Significance of FDI to the Polish Economy

With time, foreign firms undertaking FDI in Poland have become an increasing and significant part of the Polish economy. In 2012, numbering close to 26,000 units, or only 1.5% of all firms, they accounted for disproportionately large shares of all firms' activities: for close to 18% of employment, one third of sales and over half of total investment. Foreign-owned firms are an important source of employment for Polish workers: They employed about 1.6 million Poles in 2012 (Central Statistical Office [CSO], 2013a; CSO, 2013b). Firms' performance comparison, which follows in the next section, concerns units with 10 or more employees. In 2012, there were such 8,613 foreign firms, accounting for between 30% (of employment) and 40% (of sales) of all firms' indicators in this size class (but only for 16% of their number). Shares of investment, equity capital, and total assets were between these two ranges. From the beginning of the transition process until around 2004, all these shares were increasing from close to zero levels, but levelled off after that: Since 2004, apparently, foreign and domestic firms have expanded their activities at a similar, quite elevated pace, given Poland's relatively rapid rate of economic growth. The only exception includes the share in employment, which has continued to grow (it was 22% in 2002).

Except for extractive industries and agriculture, where FDI is negligible, foreign firms spread out all over

the economy, though with varying intensity. Generating (in 2012) 42% of value added[2] of all firms with 10 or more workers, they are much more important in telecommunications, where they account for 75% of value added, retail trading, and manufacturing (both with 55%). Other service industries where foreign firms exceed average share of value added of all firms include software programming, R&D (research and development) services, and activities of headquarters[3]. In manufacturing, these firms have come to play even more important roles, accounting for the above average share in manufacturing (55%) in several industries and dominating quite a few: tobacco (98%), transport vehicles (88%), beverages (81%), electrical appliances and electronics (67%), pharmaceuticals (60%), paper industry (59%), transport equipment and other non-metal products (57%), and rubber and plastics (56%).

The Contribution of Foreign Firms to Poland's Economic Progress

The essence of the Polish economic progress has been fast economic growth, one of the fastest among Poland's peers, the transition countries of Central and Eastern Europe (CEE). Over the past 25 years, Poland's total GDP doubled in real terms, while in the second Slovakia, it increased by 70%, and much less in other countries. Poland made also the longest leap in terms of narrowing the gap between its GDP per person (at purchasing power parity) and that of the EU-15 average: from 32% to 60% now, closing the gap to Hungary and nearing the Czech Republic (McKinsey & Company, 2015, p. 11), both much richer than Poland at the beginning of transformation. A key factor in narrowing the income gap has been strong labour productivity growth (Organization for Economic Co-operation and Development [OECD], 2015, p. 263). Only since 2004, Poland closed the productivity gap with the EU-15 average by 27%, reaching the level of 67% of the average labour productivity of the Western part of the EU (McKinsey & Company, 2015, p. 13), slightly above the 60% level of GDP per person.

Having assumed since several years significant roles across many industries, shown in the previous section, foreign firms contributed greatly to narrowing Poland's productivity gap. At the beginning of the 21st century, labour productivity of foreign affiliates over local firms, measured by value added per worker, was more than two times higher than that of domestic firms. By 2012, the productivity advantage of foreign affiliates narrowed to 50% in the case of all firms, and to 72% in the case of manufacturing firms with 10 or more employees (see Figure 1). But catching up by local firms took place during the period of rapid productivity growth in both types of firms and in the entire economy between 2000 and 2012 (see Table 1). This means that productivity growth of local firms is not hampered by foreign firms, a claim sometimes made in the literature on FDI spillovers. Detailed examination of productivity in foreign and local firms in 12 service and 17 manufacturing industries, not shown here because of the lack of space, reveals that the average productivity advantage of foreign firms does not result from their concentration in high-productivity industries. In 2012, labour productivity in foreign firms was higher across all goods and service industries but one (textiles).

As noted before, Poland's economy has been characterized by a low rate of savings, which decreased from 20% of GDP in 1995 to 14.8% in 2004 and fluctuated later on, till 2012, between 14.5% and 18.5% of GDP. This places Poland low, not only among its peers from CEE, but also among most OECD (Organization for

[2] Data on value added and remuneration in foreign and local firms used in the paper are not publicly available and were obtained from the Central Statistical Office.

[3] In banking, which is not considered here, foreign banks account for 70% of total assets of all banks (source: EBRD Banking Survey).

Economic Co-operation and Development) countries. The average rate of investment of 20% between 2001 and 2012 (also low by international standards) was possible owing to an inflow of foreign savings amounting annually to between 2% and 6% of GDP. Before 2008, the current account deficit was almost entirely financed with inflows of FDI, which have, however, weakened during the crisis and were replaced in a significant part with short-term loans and deposits via the banking sector in 2008, and later on with portfolio investment and EU-related funds (World Bank, 2014a, pp. 13-17). In 2014, as will be shown below, FDI inflows recovered. This shows that FDI inflows enabled Poland to achieve a higher rate of investment (and, presumably, a higher rate of economic growth) than would be possible, if investment relied only on low national savings. This also underlines the importance of attracting a steady FDI inflow in the future, which will be discussed later, as one of FDI-related challenges.

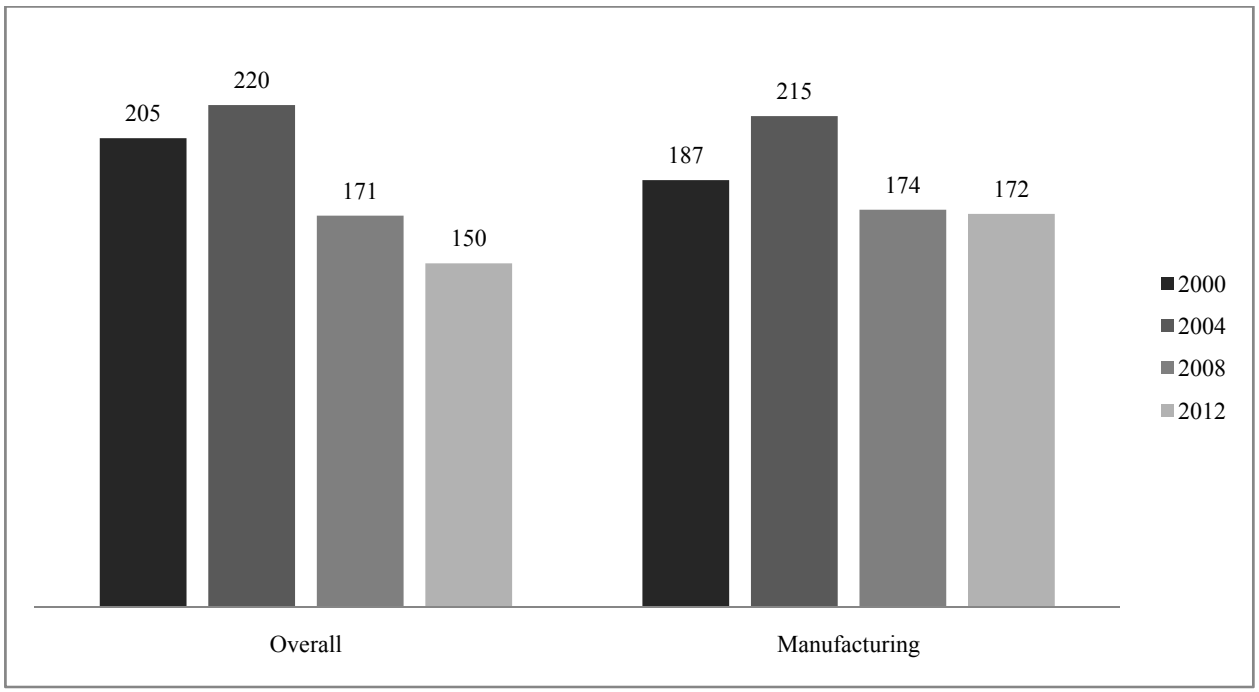

Figure 1. Poland: labour productivity advantage of foreign affiliates over local firms (with 10 employees or more), 2000, 2004, 2008, and 2012 (%) (local firms = 100). Source: the author's own calculations based on data obtained from CSO.

Table 1

Annual Labour Productivity Growth in Foreign Affiliates and Local Firms[a] in Poland Between 2000 and 2012 and Overall 2001-2013

	All activities	Manufacturing
Foreign affiliates	4.6	8.2
Local firms	7.3	9
Memorandum: overall labour productivity growth (2001-2013)		
Business sector	Total	Manufacturing
3.4	3.3	7.8

Notes. Value added deflators were taken from Eurostat and overall productivity from OECD Stat; [a] foreign affiliates and local firms with 10 or more employees. Sources: The author's own calculations for foreign affiliates and local firms, based on value added and employment data obtained from CSO.

On other important measures, foreign-owned firms have also consistently shown superior operating characteristics compared with domestically-owned firms, thus contributing to the modernization of industries, increasing economic efficiency, raising welfare, and advancing the economy. Key indicators of foreign firms' operations in comparison with domestic ones are presented in Figure 2, which shows that:

(1) Foreign firms pay significantly higher wages: 30% higher annual salary than local firms in the economy (2012) and 51% higher average monthly gross salary in the private industry (2011);

(2) Foreign affiliates exhibit much higher export orientation than domestic firms: The share of exports in revenues of the former was 29% in 2012 versus 8% for the latter. Export propensity of foreign affiliates has increased (in 2000, it was 16.2%) while that of domestic firms has remained fairly stagnant (in 2000, it was 6.2%). Export propensity of foreign manufacturing affiliates is much higher: In 2012, at 54%, it was twice as high as that of local firms. Consequently, FDI has been a driving force of Polish exports, accounting since 2004 for over half of Poland's total exports of goods and services;

(3) FDI has improved the composition of manufacturing production and goods exports, shifting both toward medium-high and high technology goods (though mainly to the former). In 2012, the share of these goods in the sales of foreign firms was 45% versus 20% in the sales of domestic firms. In exports, these shares were, respectively, 55% and 33%.

Foreign firms have also been instrumental in shifting the composition of the services sector toward knowledge-based business services. In less than a decade, Poland has emerged into an important destination for FDI in these services in Europe. By the early 2014, Poland was host to 470 business service centers (compared with 87 in 2004) belonging to 325 foreign investors, mainly from Western Europe and the United States. Investors include dozens of world-renowned TNCs (transnational companies) from the Fortune Global 500 list. The centers employ 128,000 people (compared with 15,000 in 2004), more than 90% of whom hold tertiary-education degrees. After good experiences with an initial operation, an increasing number of investors has multiplied their investments (e.g., IBM from one to four centers) and upgraded operations in 92% of the centers, introducing more advanced processes. One quarter of the centers, 113 out of 470, are R&D centers (compared with 30 in 2005). Two thirds of the centers employ expatriate managers, but only in 7% of them expatriates form the majority of the managerial personnel. Services are delivered in 40 languages. Since the onset of the financial crisis in 2008 until the early 2014, employment at the centers has grown at an impressive annual rate of 28%, providing much desired jobs for Polish university graduates. By 2016, the centers are expected to reach 150,000 employees in a careful scenario and 170,000 in an optimistic one (The Association of Business Service Leaders [ABSL], 2014, p. 11).

Poland's chief handicap, and one of the key obstacles to further economic progress is its weak innovativeness, placing it fourth from the end among 27 EU members on innovation performance (European Commission, 2014, p. 5). Poland spends little on R&D—in the public sector 0.56% of its GDP (compared with the EU's average of 0.75% in 2012) and in the business sector, only 0.33% of GDP (compared with the EU's average of 1.3%), underlying weak innovation effort of enterprises (European Commission, 2014, pp. 83-84). The handicap would be, however, even greater without foreign firms, which shows also in this area superior characteristics compared with domestically-owned firms: Foreign firms spend 11% more on innovation and 42% more on R&D than local firms. In 2012, in manufacturing, 30% of foreign firms introduced at least one process or product innovation compared with only 16% of Polish firms. In services, these shares were, respectively, 18% and 12% (see Figure 2).

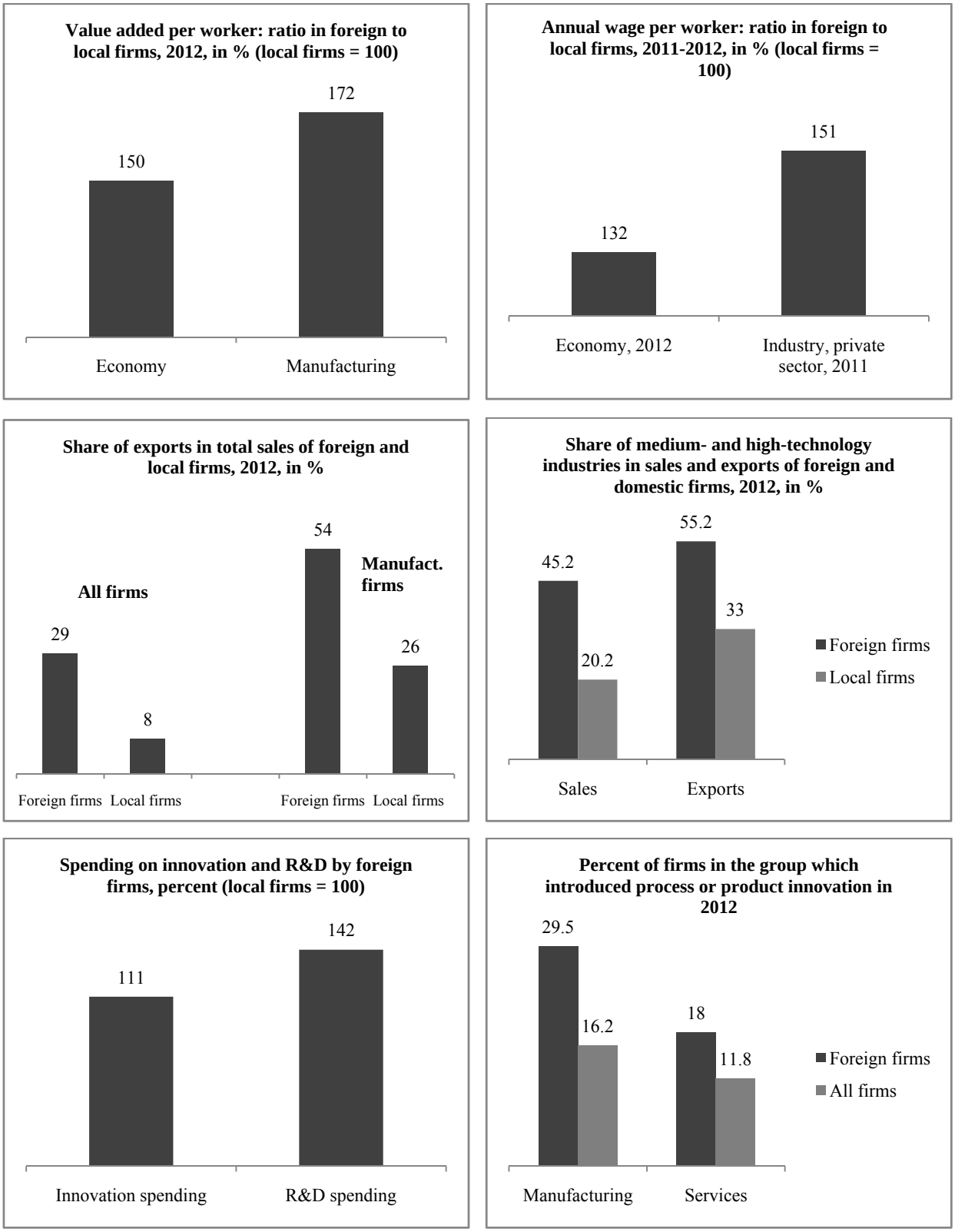

Figure 2. Performance of foreign and local firms in Poland (2012), various indicators. Sources: CSO (2012; 2013a; 2013b); Główny Urząd Statystyczny (GUS) (2013); and Chojna (2013). Data on value added and compensation of workers were obtained from the CSO.

FDI in Poland has also affected locally-owned firms—competitors, customers, and suppliers of foreign firms—through spillovers, that is indirect impacts, which occur as a result of competitive pressures (mobilizing able local competitors to increase their efficiency or eliminating weaker ones from the market), labour mobility (workers leaving foreign firms may apply what they learnt in domestic firms), cooperation among foreign affiliates, local suppliers, and customers, stimulating technology and knowledge spillovers to vertically linked firms and service providers (foreign firms often assist such local firms). In addition, proximity between foreign and local firms may lead to learning and improvements in the latter through personal contacts, observation and imitation of good practices, and technologies of foreign firms. While the conclusions of the world literature on the higher productivity of foreign-owned firms in both developed and developing countries have been "close to unanimous" (Lipsey, 2002, p. 40; Crespo & Fontoura, 2007, p. 410), "Evidence on spillovers of superior foreign productivity to domestically-owned firms is mixed" (Lipsey, 2002, p. 50; Crespo & Fontoura, 2007, p. 411).

Initial research on spillovers in Poland, undertaken in the 1990s, typically based on descriptive evidence, provided examples of both positive and negative spillovers. More recent research, using econometric techniques (Bijsterbosch & Kolasa, 2009; Hagemajer & Kolasa, 2008; Kolasa, 2007) as well as that based on questionnaires (Gorynia, Bartosik-Purgat, Jankowska, & Owczarek, 2006; Karaszewski, 2004; Kuzel, 2007; Umiński, 2002) indicate that, on balance, positive spillovers prevail, especially in the case of competitors (horizontal spillovers) and suppliers (backward vertical spillovers). These findings may be surprising, especially in the light of the fact that absorptive capacity of local enterprises, measured by their R&D effort, has been consistently found in the literature to be a key factor determining positive spillovers (e.g., Narula & Martin, 2003, p. 23), and R&D effort of Polish enterprises, highlighted above, is rather weak. But it is weak *vis a vis* advanced countries of the EU, but not necessarily when compared with that of developing countries, for which studies often found no spillover effects or negative ones. Besides, since the beginning of its transformation, Poland has done well as regards the concept of absorptive capacity at the macroeconomic level, which is associated with the level of development of a particular country, and specifically its human capital stock (Crespo & Fontoura, 2007, p. 413), and in more general terms, with the level of local capabilities (Lall, 2000, p. 13). When FDI started coming, Poland was at the middle-level of development with significant industrial sector, its human capital stock was fairly developed and has improved greatly with the progress of transformation. Technical industrial capabilities also existed, while managerial ones have gradually emerged with the progress of transition. This has provided fertile ground for learning from foreign firms in local enterprises, which survived competitive pressures (many did not) or have not been taken over by foreign firms. As noted earlier, many Polish industries are heavily populated by foreign firms, a factor, which also facilitates spillovers. And many Polish firms have become suppliers to TNCs and are often assisted by them in meeting their stringent requirements.

Inward FDI-Related Challenges to Further Economic Progress

As noted in the introduction, Poland is facing a number of challenges, which, if not dealt with successfully, may threaten it to be caught in the middle-income trap (Hausner, 2013a; Hausner, 2013b; Pokrywka, 2015). Key challenges include low rates of savings and investment, ageing population and low fertility rate (which will result some time from now in a shrinking labour force), large emigration of young people (not seeing a chance for good life in their own country), bloated and bureaucratic public sector (hampering, among others, the business climate), low productivity of Polish firms, and, as mentioned earlier, weak innovation (Piątkowski,

2013, pp. 27-28; *The Economist*, 2014a, pp. 6-8). One could add inefficient agriculture, accounting for only 3.4% of GDP, but for 12.4% of employment. With 39% of people living in rural areas and constituting a significant political constituency, agriculture is not easy to reform. Another burden to the economy is the coal mining sector, fueling almost entire electricity production, but populated by non-competitive state-owned mines, requiring heavy subsidies. Energy sector also lags behind. As noted in McKinsey's report, "To secure supplies, promote environmental sustainability, and (most importantly) keep prices at levels competitive with the European Union, the Polish energy sector needs to close its 48% productivity gap with the EU-15" (McKinsey & Company, 2015, p. 5).

There are also risks associated with FDI. As foreign firms form a substantial part of the Polish economy, what they will do and how they will behave, cannot remain without a significant impact on the economic future of the country. In the author's view, risks are of three kinds. Firstly, Poland may lag behind its competitors, mainly from CEE, in attracting new FDI, depriving its economy of much needed foreign financing of investment and associated benefits, or at least reducing them. A second risk is that FDI Poland attracted and will attract, will not get upgraded and will stay at the current level of productivity and sophistication. If so, thirdly, part of FDI, notably the most valuable export-oriented FDI, might relocate to other countries.

Winning Competition for Inward FDI

Maintaining a steady and possibly increasing inflow of FDI is important for a number of reasons. As mentioned earlier, Polish savings and investment rates are low and FDI is needed to keep them at higher desired levels, permitting faster GDP growth. In addition, foreign affiliates, after many years of investing, started increasingly transferring profits abroad and a net contribution of FDI inflows to a net inflow of foreign savings has diminished. During the years of weak inflows, repatriated profits exceed the inflows. In 2013, for example, inflows were $2.9 billion while dividends withdrawals $10.4 billion (Narodowy Bank Polski [NBP], 2015). The only way to compensate for this is to attract elevated levels of inflows, especially those of export-platform FDI, which generates trade surplus. Steady and increasing inflow of FDI should not, however, be taken for granted. Countries compete for FDI and those that wish to win this competition need to stand out among competitors on key host country FDI determinants. The author will examine Poland's future chances in this regard in the light of its past performance in attracting FDI (and underlying factors) and comparing Poland's performance with that of its peers, 10 new EU members from CEE, which most often compete with each other and with Poland for new FDI projects.

Except for the early years of transition, Poland has been the largest host country to FDI among its main competitors, 10 countries of CEE. Within three out of four sub-periods of the period 1990-2014, except for the first one (1990-1995), it attracted the largest annual average inflows (see Figure 3). On an annual basis, Poland received the largest FDI inflows in the region in 15 out of 25 years of transition (see Table 2). It has also accumulated the largest stock of FDI—245 billions of dollars in 2014, with the Czech Republic next ($122 billion) and Hungary the third ($98 billion), both quite far behind Poland. Inflows into all peer countries grew until 2007 and fell in all of them during the financial crisis, except into Hungary, measured as annual averages during 2002-2007 and 2008-2014. Recently, on an annual basis, in 2012, inflows into Poland amounted to $7 billion, while those into Hungary were over $14 billion and those into the Czech Republic were $8 billion. In 2013, on the first release of FDI data according to old standards of FDI data collection, Poland registered, for the first time ever, negative inflows of $-6 billion, raising questions about the attractiveness of Poland to FDI.

Data were revised later on, based on new standards of FDI data reporting, but inflows remained negligible. At a closer look, however, they were rather a reflection of statistical artefact than of weakening inflows of productive capital into Poland (Box 1). In 2014, Poland returned to a leading position among peers, attracting close to $14 billion of FDI, reported on a liability basis, compared with $6 billion in the Czech Republic and $4 billion in Hungary (see Table 2).

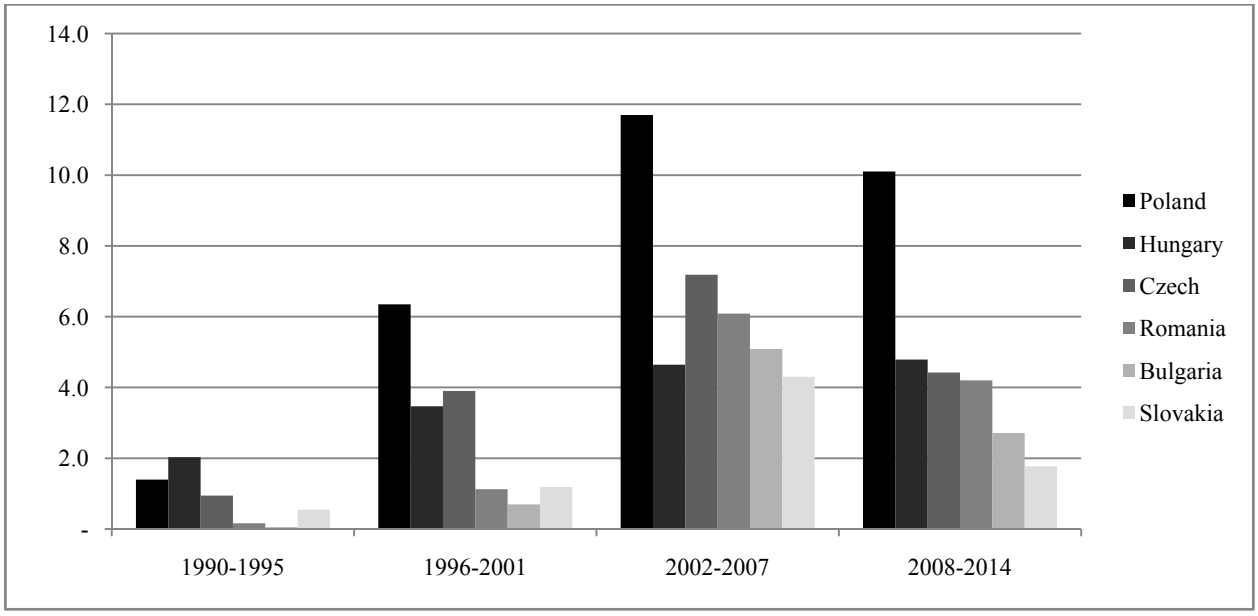

Figure 3. Annual average FDI inflows into six largest new EU members from CEE (1990-2014, billions of dollars). Source: UNCTAD FDI/TNC Data Base.

Box 1. The New Standard of FDI Data Reporting

Since 2014, many countries, including Poland, started compiling, and since 2015 publishing, FDI statistics, included in Balance of Payments (BOP) and International Investment Position (IIP) according to a new standard, recommended by OECD (2008) and IMF (International Monetary Fund) (2009), so-called BMD4 and BPM6. According to an old standard, data were presented on a directional basis, as inflows and inward stock of FDI in a reporting country (as host to FDI) and outflows and outward FDI stock from this country (as home for FDI). According to the new one, they are collected in both series—BOP and IIP, on an asset/liabilities basis (A/L), that is transactions and positions of both inward and outward investors, which give rise to assets and liabilities from the perspective of the reporting country. Converting assets and liabilities to a new directional FDI basis (which is explained in both manuals) requires shifting transactions and positions between A/L accounts and directional accounts of IFDI (Inward Foreign Direct Investment) and OFDI (Outward Foreign Direct Investment). This is rather complicated and requires detailed reporting of all FDI-related transactions, which many countries applying the new standard do not do. Best practice would be to publish simultaneously A/L and new directional FDI data, but many countries, including Poland, have not yet done it. A/L BOP and IIP data are published timely, as before, on a monthly, quarterly and annual basis, while new directional FDI data are published with a delay. National Bank of Poland (NBP) published electronically directional FDI data for 2013 in March 2015 (NBP, 2015). If one wishes to have new data for 2014, one has to rely on A/L reporting as a proxy for FDI. In the case of Poland, the two series do not differ much for inward FDI flows and follow similar trends. The author has used data from United Nations Conference on Trade and Development (UNCTAD) FDI/TNC Data Base, because they are in dollars and are useful for comparisons of Poland with peer countries (see also UNCTAD, 2015, p. A3). But for 2013 and 2014, they are, for Poland, on an A/L basis. Till 2012, UNCTAD and NBP new directional FDI inflows data, the author has obtained from the bank, are almost identical. For 2013, the author has replaced A/L numbers with NBP new directional data on inflows. Thus, he used 2014 inward flows and stock data on an A/L basis as NBP has not yet published them on a directional basis. They do not, however, alter conclusions he has drawn from data analysis.

Table 2

FDI Inflows Into New EU Members From CEE (1990-2014, Billions of Dollars)

Country	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Bulgaria	0.00	0.06	0.04	0.04	0.11	0.09	0.11	0.65	0.68	0.92	1.02	0.81	0.92	2.09	3.40	3.92	7.80	12.39	9.86	3.39	1.52	1.85	1.47	1.92	1.71
Croatia	0.00	0.00	0.01	0.12	0.11	0.10	0.49	0.58	0.94	1.43	0.99	1.01	0.96	1.79	1.27	1.79	3.29	4.59	5.30	3.08	1.13	1.68	1.45	0.96	3.45
Czech Rep.	0.07	0.52	1.00	0.65	0.87	2.56	1.43	1.30	3.72	6.33	4.99	5.64	8.48	2.10	4.97	11.65	5.46	10.44	6.45	2.93	6.14	2.32	7.98	3.64	5.91
Estonia	0.00	0.00	0.08	0.16	0.21	0.19	0.15	0.27	0.58	0.30	0.39	0.54	0.29	0.93	0.96	2.80	1.33	2.31	1.83	1.84	1.02	0.97	1.57	0.55	0.98
Hungary	0.55	1.47	1.48	2.44	1.14	5.10	3.30	4.17	3.33	3.31	2.76	3.94	2.99	2.14	4.27	7.71	6.82	3.95	6.33	2.00	2.19	6.30	14.37	3.10	4.04
Latvia	0.00	0.00	0.03	0.04	0.21	0.18	0.38	0.52	0.36	0.35	0.33	0.11	0.21	0.28	0.61	0.71	1.66	2.32	1.26	0.09	0.38	1.45	1.11	0.90	0.47
Lithuania	0.00	0.00	0.01	0.03	0.03	0.07	0.15	0.35	0.93	0.49	0.38	0.45	0.72	0.18	0.77	1.03	1,82	2.02	1.96	-0.01	0.80	1.45	0.70	0.47	0.22
Poland	0.09	0.36	0.68	1.72	1.88	3.66	4.50	4.91	6.40	7.27	9.45	5.58	4.03	3.98	12.44	9.72	18.38	21.64	13.86	11.89	12.80	18.26	7.12	2.93	13.88
Romania	0.00	0.04	0.08	0.09	0.34	0.42	0.26	1.22	2.03	1.03	1.06	1.16	1.14	2.20	6.44	6.15	10.86	9.73	13.49	4.67	3.04	2.36	3.20	3.60	3.23
Slovakia	0.09	0.08	0.10	0.18	0.26	2.59	0.37	0.23	0.93	0.63	2.72	2.27	5.86	2.98	4.03	3.11	5.80	4.02	4.87	-0.01	1.77	3.49	2.98	0.59	0.48
Slovenia	0.00	0.06	0.11	0.11	0.12	0.15	0.18	0.33	0.22	0.11	0.13	0.36	1.57	0.27	0.68	0.56	0.71	0.76	1.22	-0.48	0.11	1.09	0.34	-0.14	1.56

Notes. The largest inflows each year are marked grey; source: UNCTAD FDI/TNC Data Base.

The introduction of the new standard has created some confusion, which is best illustrated, using Polish FDI inflows data in 2013 as an example. In the early 2014, NBP published, on the basis of an old directional standard, inflows data for 2013 showing—six billion negative inflows, the first time ever in Poland. UNCTAD repeated these data in World Investment Report 2014 (UNCTAD, 2014, p. 205). Some journalists in Poland raised alarm that Poland was no longer attractive to FDI. Representing UNCTAD at the WIR (World Investment Report) launching in Warsaw, to calm the situation, the author recalculated 2013 inflows. He removed so-called transit capital, associated with the activities of special purpose entities (SPEs). Such capital neither creates jobs nor productive capacity. It is motivated by tax considerations. In 2013, there were large withdrawals of equity by SPEs, amounting to 7.1 billion dollars, reported in NBP notes on quarterly and monthly BOP. They were subtracted from the inflows of "productive" capital. The removal of transit capital resulted in positive inflows, amounting to $1.1 billion. But in 2013, there were other large transactions of a purely financial nature, which had no consequences for the "real economy" in terms of reducing productive assets of foreign investors, but also reduced the inflows of "productive" capital. One was the sale of minority shares of foreign banks to foreign portfolio investors ($2.8 billion) and another withdrawal of part of the equity capital by a foreign financial holding ($2.4 billion). If these transactions are removed from the account of FDI inflows, the result is $6.2 billion of inflow of "genuine" FDI. The author verified the result with data on greenfield FDI and jobs created in greenfield projects (both concerning FDI projects announced in 2013) published by E&Y. They confirmed relatively good FDI performance of Poland. As regards the value of announced greenfield projects, Poland was the fifth in Europe, after the United Kingdom, Spain, Germany, France, and Romania (UNCTAD, 2014, p. 220). As regards the announced number of jobs, it was the third, only after the United Kingdom and France (Ernst & Young, 2014, p. 17).

Subsequently, NBP published FDI data on the basis of A/L, which showed 12 millions of dollars of liabilities in 2013. And finally, in May 2015, it provided FDI inflows calculated according to the new directional standard, amounting to $2.93 billion. These inflows should be without transit capital, as recommended by IMF and OECD. But they are still lower than the author's estimate of the "productive" capital inflow of $6.2 billion. It is most likely so because the two other financial transactions, he mentioned above, remained in the reported inflows. The new NBP directional data indeed show large withdrawals of equity of nearly $8 billion in "financial and insurance activities" (NBP, 2015, p. 50). This would mean that the new standard is a step forward in the direction of better reflecting FDI flows associated with production, but is not ideal and will never be in the world of complicated financial transactions.

What explains Poland's lead as the largest host country among peer countries from the CEE region?

Some key factors are similar across peer countries. As regards export-oriented FDI, peer countries are members of the EU and have equal access to the EU market. They all have investment promotion agencies and there are no indications that these agencies differ much in quality and performance. Peer country should not be able to offer greater incentives to investors than its competitors, because the level of permissible incentives is capped by the EU rules on state aid. There are differences in labour costs per hour among peers. In 2014, the costs in Estonia and Slovakia (9.7-9.8 euro per hour) were more than 2.5 times higher than in the cheapest Bulgaria (3.8 euro), and over two times higher than in Romania. But differences between the remaining countries are not large: Costs vary from 6.4-6.5 euro in Lithuania and Latvia to 9.4 euro in the Czech Republic, with Poland (8.4 euro) and Hungary (7.3 euro) in-between (see Figure 4). Such differences in labour costs are not decisive in explaining the size of FDI countries receive. If they were, countries with the lowest cost—in this case Bulgaria and Romania—should be the largest host countries, which is not the case. What matters for investment in Europe are labour costs differences between Western and Eastern parts of Europe, which together with free market access—have been over the years a key factor in attracting export-platform from the former and third countries to the latter. In 2014, for example, Polish labour costs stood at slightly over one fourth of the German one.

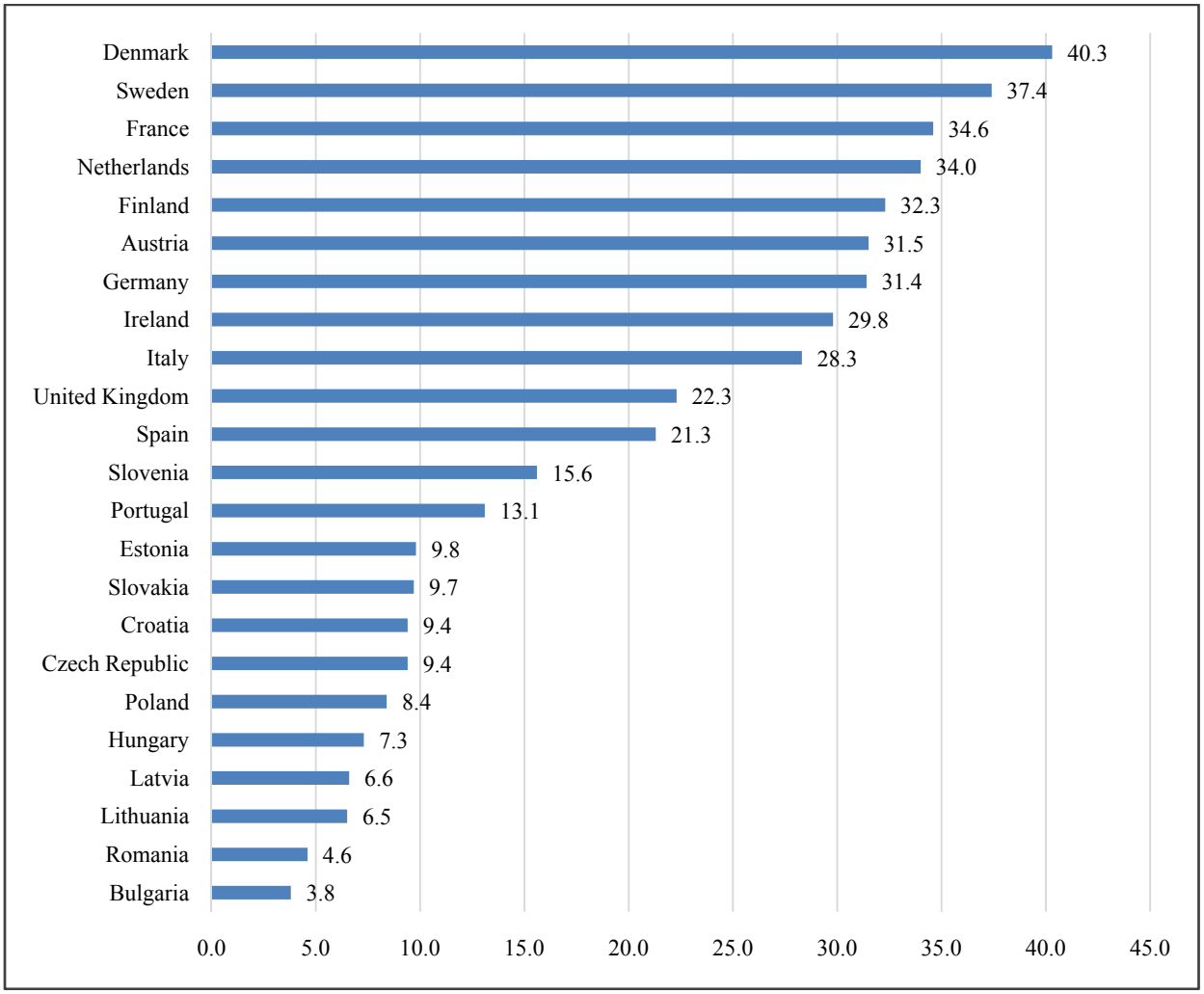

Figure 4. Hourly labour cost in EU countries (2014, euro). Source: Eurostat.

To examine other FDI competitiveness factors underlying FDI performance of 10 countries under consideration, the author has derived the country scores for these factors from global and other reports and related websites. These factors include the quality of infrastructure, government efficiency, the quality of public institutions, international logistics index, the quality of human resources, labour market flexibility, domestic market size, and business sophistication. The author has added to these World Bank's indices on the ease of doing business. Some of these indices are equally relevant to foreign and domestic firms, while some mainly to the latter. Changes of indices reflect countries' attitudes to reforming business environment and improving the investment climate. Most indicators include a general category and its sub-components. For example, the quality of education (serving as a proxy for assessing the quality of human resources) includes the general quality of education as well as the quality of math and science education, management schools and higher education and training. Altogether these indicators, except for the market size, inform about the investment climate of countries, encompassing a range of factors that foreign investors take into account—in addition to economic variables such as the market size, costs and access to international markets—when making investment decisions.

Table 3

Poland's Rank Among CEE-10 on Host Country's FDI Determinants (2014) [Rank 1 (Best) to 10 (Worst)]

World Economic Forum Indicators 2015			
Government efficiency	**5**	**Infrastructure**	**7**
Burden of government regulation	7	Roads	7
Efficiency of legal framework in challenging regulations	5	Railroads	8
Transparency of government policymaking	8	Ports	6-7
Quality of human capital		Air transportation	7
Quality of education	8	Electricity supply	6-7
Quality of the education system	7	Mobile telephony	3
Quality of math and science education	6	Fixed-line telephony	10
Quality of management schools	8	**Domestic market size**	**1**
Higher education and training	5	**Business sophistication**	**6**
Labour market flexibility	**6**	Local supplier quality	7
Hiring and firing practices	6	State of cluster development	8
Flexibility of wage determination	4	Production process sophistication	5
Redundancy costs, weeks of salary	7	**Public institutions**	**3**
International Logistics Index 2014			
Overall	1-3		
Customs	2	Tracking & tracing	3
Infrastructure	7	Timeliness	1-3
International shipments	2	Logistics quality & competence	1-3
World Bank's Ease of Doing Business 2015			
Relevant for FDI		**Less FDI relevant**	
Starting a business	9	Overall	4
Construction permits	9	Resolving insolvency	2
Enforcing contracts	9	Getting credit	2-3
Paying taxes	6	Protecting minority investors	3
Registering property	6		
Getting electricity	4		
Trading across borders	4		

Notes. The bolded parts refer to data sources and to general categories, which are followed by sub-categories. Sources: the author's calculations based on: The Global Competitiveness Index Historical Dataset 2005-2014, World Economic Forum, http://reports.weforum.org/global-competitiveness-report-2014-2015; World Bank Logistics Performance Index, http://lpi.worldbank.org; World Bank Doing Business, http://www.doingbusiness.org/data/distance-to-frontier.

An analytical table, showing Poland's ranking among 10 countries on various indicators (see Table 3), reveals that Poland does not stand out on any of the FDI competitiveness factors except for one: domestic market size. Moreover, on most measures, except for the international logistics index, it is placed in average or low positions among its peers, in the middle or the second half of the ranking lists. It means that the main reason why Poland receives the largest amount of FDI is that for market-seeking investment its large market has accommodated a larger number of foreign companies than its smaller peers: a larger number of mobile telecommunications firms, retail trading companies, foreign banks, food-processing firms, and so on. In the case of efficiency-seeking investment, it means that Poland's size translates into greater availability of land for industrial investors, office space for service investors, and employable people for all investors. For example, according to Eurostat, Poland accounts for over 50% of all tertiary graduates of the 10 new EU members. In

practical terms, this means that when MNEs (multinational enterprises) invest in business services centres, which as indicated earlier, have boomed during recent years, in Poland, they face a choice of recruiting new staff from over 600,000 tertiary graduates each year, compared with over 100,000 in the Czech Republic and to over 11,000 in small Estonia (source: Eurostat). Even though Poland does not score highly on the quality of education, there should be no problem with finding best talent in a large pool of university graduates.

Thus, Poland's investment climate is at best average but in reality below average, compared with its peers. The distribution of Poland's scores on 45 examined variables indicates the latter: There is the greatest number of "average" scores (14) with the balance evenly distributed between "good" and "below average" (11 each), and "very good" and "bad" (respectively 5 and 4, see Figure 5). But at a closer look, "very good" category includes, apart from the market size, indicators that do not matter much for foreign investors (resolving insolvency and getting credit) while "bad" category includes variables, which do matter (starting a business, construction permits and enforcing contracts). In addition, a number of important host country's FDI determinants is placed in "below average" category: infrastructure, in particular roads and railways, most indicators of the quality of human capital as well as the burden of government regulation and transparency of policy making (a frequent complaint of foreign investors) and cluster development (see Table 3). A relatively good position in international logistics and trading across borders (important for export-platform investment) continues to be hampered by improving, but still weak transport infrastructure. Energy infrastructure is average or good [according to World Economic Forum (WEF)'s and World Bank's "Getting Electricity" indicators], but breaks in energy supply during the hot summer of 2015 may be symptomatic of future problems.

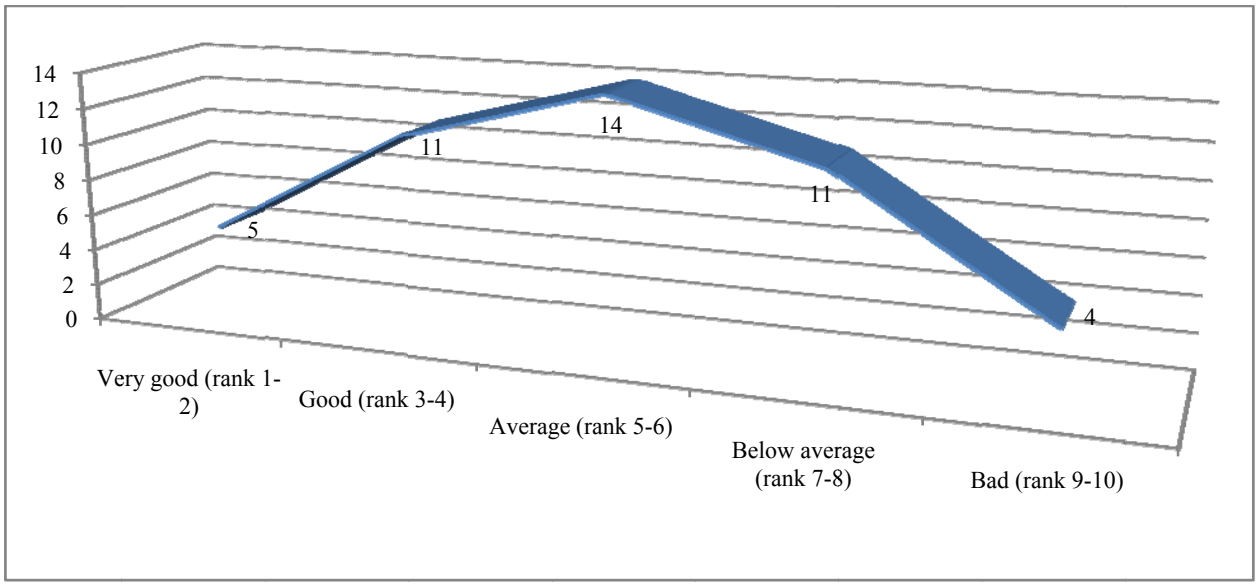

Figure 5. Poland's 45 IFDI determinants ranked from "very good" to "bad" based on rank among CEE-10 (2014, number). Source: the author's calculations based on: The Global Competitiveness Index Historical Dataset 2005-2014, World Economic Forum, http://reports.weforum.org/global-competitiveness-report-2014-2015; World Bank Logistics Performance Index, http://lpi.worldbank.org; World Bank Doing Business, http://www.doingbusiness.org/data/ distance-to-frontier.

Weaknesses of the investment climate explain why Poland not only loses the position of the largest host country among peers in terms of the absolute FDI size, when we relate FDI stock or inflows to the size of each country, but also becomes a rather weak FDI performer (see Figure 6). In 2014, on three measures of relative FDI performance—per capita stock and inflows during 2008-2014 and the ratio of stock to GDP—Poland has

been consistently fourth from the end among 10 peer countries with indicators below the averages of CEE-10. Its four most immediate competitors, Hungary, Czech Republic and Slovakia, with whom Poland competes for every large export-oriented project are clearly ahead of Poland on all three indicators.

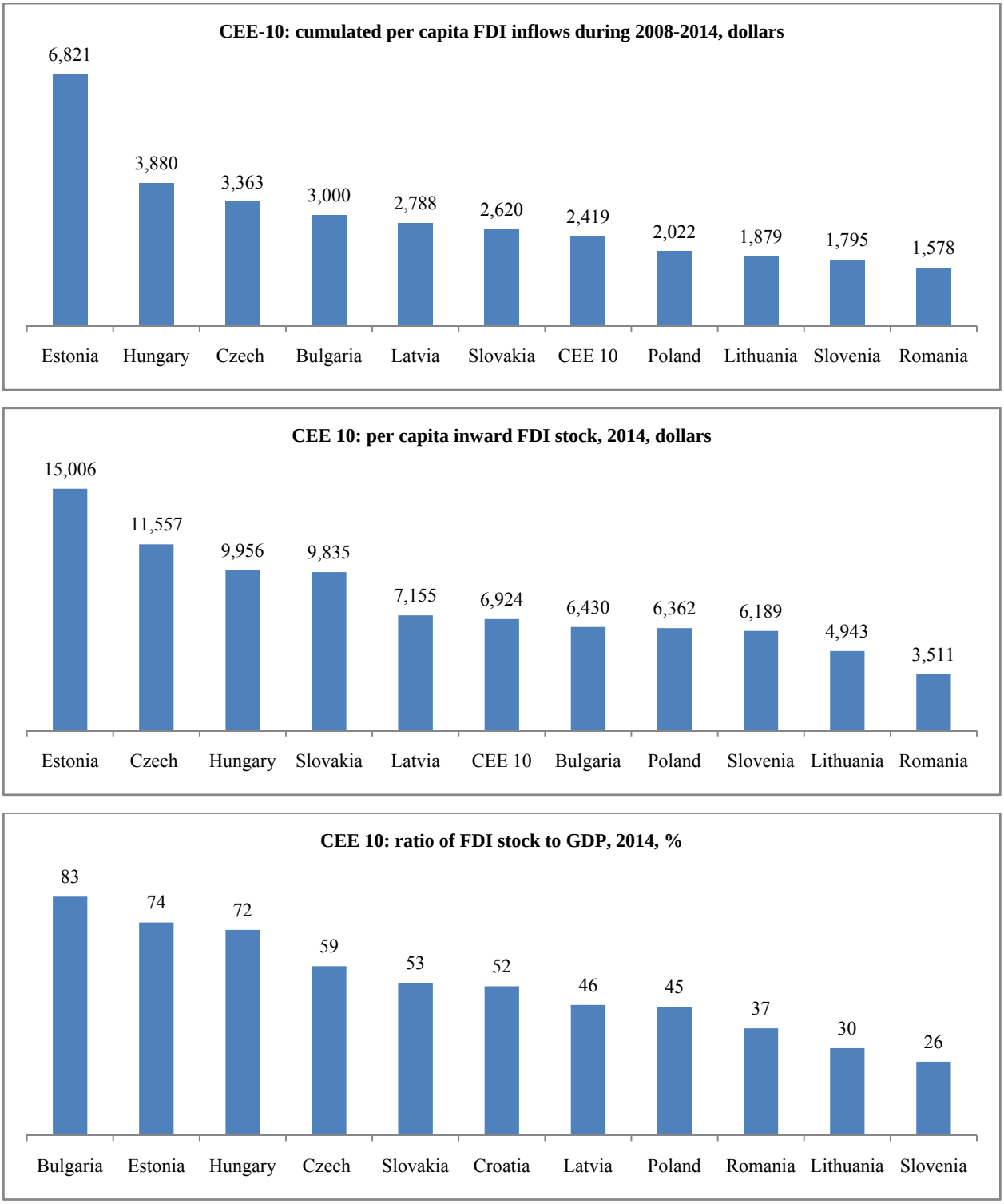

Figure 6. CEE-10: relative FDI performance. Source: the author's calculations based on UNCTD FDI/TNC Data Base.

This suggests that Poland still has unexploited FDI potential and the room for more FDI above levels achieved so far. Let us briefly examine where this potential might be. There is economic potential for FDI in the primary sector (quite fertile agricultural land, coal, copper and yet unexplored shale gas deposits), but so far, FDI in this sector has been very small and most likely, it will remain so in the near future. Foreign ownership of agricultural land raises sensitivities and this will not change. Coal sector is dominated by inefficient state-owned companies, a number of them on the edge of bankruptcy and no government has dared to privatize them, not to say to sell them to foreign investors. Instead, recent government is pressing state-owned energy companies to take over ailing coal mines[4]. Copper sector is dominated by a state-owned giant—KGHM, although foreign firms have undertaken some exploration activities[5]. High expectations surrounding shale gas deposits discovered a couple of years ago—and, eventually large foreign investments in exploration, drilling and extraction of gas—have evaporated as all big international companies attracted to Poland withdrew, one by one, from exploration and further drilling[6]. Thus, in spite of FDI potential in the primary sector, Poland has never actively sought foreign investors for political or social reasons and a preference for local ownership of assets. Shale gas has been an exception, but it has not materialized.

This leaves secondary and tertiary sectors, that is, manufacturing and services. Further FDI potential differs for market-seeking and export-oriented goods and services. Most large and small locally-oriented service industries (except for energy generation and distribution, air and railway transportation, dominated by state-controlled companies) are already quite populated and sometimes dominated by foreign firms. Examples include banking and other financial services, retail and wholesale trading, fixed-line and mobile telecommunications, logistics, real estate, road transportation, hotels, to name a few. Most FDI in manufacturing is strongly export-oriented, as indicated earlier. But foreign affiliates in a number of industries sell much more in the local market than in foreign markets. If we take over 50% of total sales in the domestic market as a cut-off point for domestic market orientation, then beverages (93%) and food industry (63%), wood (62%) and paper (52%) products, chemicals and pharmaceuticals and metals (66%) and "other non-metal" (70%) products emerge as quite strongly locally-oriented. At the same time, these industries are also quite saturated with foreign firms: In 2012, foreign affiliates' share of all firms'[7] value added ranged from over 80% in the beverages industry to 40%-44% in food, pharmaceuticals, and wood industries, with other industries falling in-between. In locally market-oriented services and goods industries, foreign affiliates compete with local companies and among themselves. As local markets in these industries grow, they create potential for further FDI in the form of sequential investment (that is, of investment by existing foreign affiliates), but it is limited by the growth of the Polish market: The faster the growth, the greater the potential. Massive new entries of new foreign investors are rather unlikely, but takeovers of local by foreign companies are possible.

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[4] Barbara Oksińska, *Zarząd PGE do wymiany, jeśli nie uratuje Kompanii, Rzeczpospolita. Ekonomia & Rynek*, August 18, 2015.

[5] An example includes a Canadian company MiedziCopper, looking for new deposits of copper in Poland. The company is in dispute with KGHM over a most promising concession (Roguski, Adam, *Kanadyjczycy wierzą w polską miedź, Rzeczpospolita. Ekonomia & Rynek*, June 12, 2015).

[6] They include, among others, ExxonMobil, Marathon Oil, Talisman Energy, Eni, Canadian International Oil, Chevron and finally, in 2015, ConocoPhilips. As a result, out of 113 concessions for exploration issued during the period 2007-2012, only 51 have remained active in 2015, out of which half operated by Polish state-owned oil and gas companies and the balance by small international firms (*Andrzej Kublik, Gdzie ten gaz? Gazeta Wyborcza*, February 9, 2015; and Tomasz Furman, *Ostatni globalny gracz wycofuje się z łupków, Rzeczpospolita. Ekonomia & Rynek*, June 8, 2015).

[7] Data concern firms with 10 or more employees.

In export-oriented services (mainly business services) and goods (most manufacturing industries not mentioned above, including cars, automotive components, electronic and electrical appliances, machinery and equipment and furniture), a key factor determining further FDI potential is the growth of export markets, and predominantly that of markets in Western Europe, where most of Polish exports go. Stagnation of these markets (especially in the euro zone) during the global financial crisis has adversely affected FDI by European MNEs and consequently, FDI by Europe and in Europe, including into CEE members of the EU. EU MNEs invest mainly in Europe. In 2013, nearly 80% of FDI stock of European MNEs was located in Europe[8]. But in the same year, annual outward FDI flows by the EU were merely only one-fifth of the pre-crisis 2007 level, as were annual inflows of FDI[9]. Assuming that one day, the euro zone overcomes the crisis and economies and markets of the Western part of the EU will resume pre-crisis growth, potential for FDI oriented to those markets in countries like Poland is great, much greater than for market-seeking FDI in Poland. The market is very big: EU GDP amounted to 18 billion dollars in 2013. If it grows by 3% a year, it generates some 230 billions of dollars of import demand, which is the size of total annual Polish exports[10]. Thus, potential for greater export-oriented FDI is there, but at the same competition for such FDI is the fiercest: All low-cost countries with free access to the EU market make efforts to attract export-oriented foreign affiliates. Poland, given its rather average investment climate is not yet well-positioned to win this competition and to face the first FDI-related challenge to its further economic progress.

Productivity Challenge and the Risk of FDI Relocation

There is no doubt, as shown earlier that FDI has been instrumental in supporting and accelerating Polish economic progress, owing to superior characteristics of foreign firms over local firms, in particular in terms of much higher productivity of foreign firms measured by value added per worker. Increasing productivity is a key to increasing income and narrowing the income gap with better-off countries. Poland's situation is not exceptional: In all peer countries as well as in Western countries of the EU, such as Germany and Sweden, foreign affiliates (in this case, majority-owned foreign affiliates—MOFAs) exhibit higher productivity than domestic firms in the entire business economy and in manufacturing, although with varying degrees (see Figures 7A and 7C). But even if productivity of foreign firms is higher than that of local firms, it significantly lags—both in Poland and its peer countries—behind that of foreign affiliates in the Western part of the EU, with which Poland wishes to catch up economically. Figure 7 shows, in addition, value added per worker of MOFAs in CEE-10 and in Germany and Sweden in 2012. MOFAs in all CEE-10 countries are considerably behind the average productivity of MOFAs in Germany and Sweden and the difference is greater than two times, even for the best CEE-10 performers, which are, in the following order, Slovenia, Hungary, Czech Republic, and Poland in the case of both all MOFAs and MOFAs in manufacturing (see Figures 7E and 7F).

[8] Source: IMF, Coordinated Direct Investment Survey. Data extracted April 14, 2015 from IMF Data Warehouse.
[9] Source: the author's own calculations based on UNCTAD FDI/TNC Data Base.
[10] The author's calculations based on GDP and trade data from the World Bank and OECD.

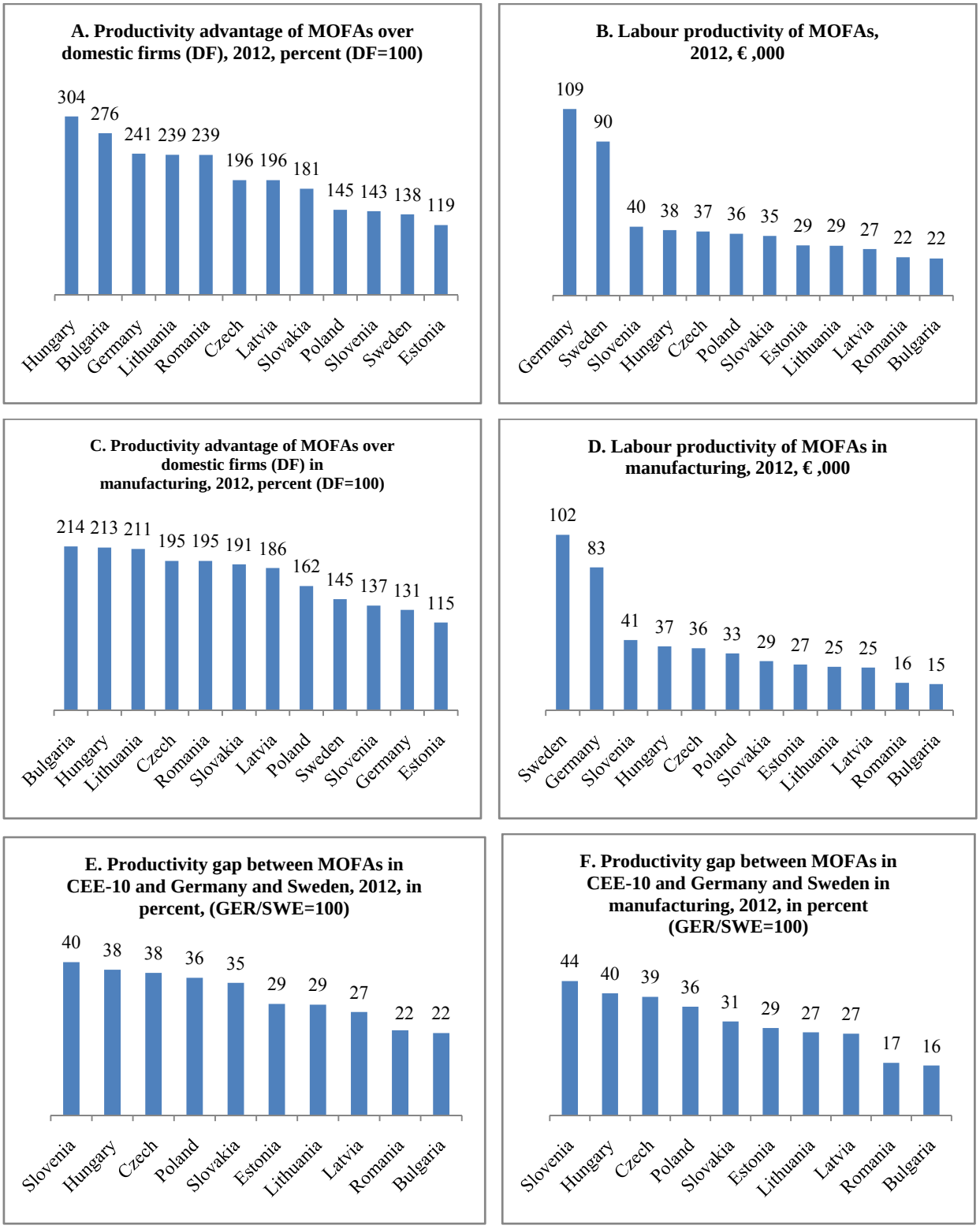


Figure 7. Productivity advantage of MOFAs over domestic firms (in %), labour productivity of MOFAs (in € ,000) and the productivity gap between MOFAs in CEE-10 and the average of MOFAs in Germany and Sweden (in %). Source: the author's calculations based on Eurostat SBS statistics.

Among the top four peers, the productivity gap distance of all MOFAs to the average of Germany and Sweden (GER/SWE) does not differ much. The leader Slovenia achieved 40% of GER/SWE productivity in 2012 and Poland 36%, with Czech Republic and Hungary in-between (38%, see Figure 7E). In manufacturing, the difference among four countries is bigger: The indicator in Slovenia equals to 44% and in Poland to 36%, which translates into 20% productivity lag of MOFAs in Poland *vis a vis* MOFAs in Slovenia. The lag is smaller in comparison to MOFAs in the Czech Republic and Hungary: around 10% (see Figure 7F). One can conclude from this that both in Poland and in peer countries, overcoming the middle-income trap requires not only increasing the productivity of local enterprises through, e.g., creative innovation and other means (as Polish studies postulate), but also bringing foreign affiliates—existing and those which will come in the future—up to higher levels of productivity: in the example given above, to German and Swedish levels of productivity. But this is in the case of Poland and other CEE-countries, a formidable challenge, different from that concerning purely domestic firms. The reason is that foreign firms, if not satisfied with productivity levels because of, for instance, increasing labour or other costs, can leave the host country and relocate assets to another one, offering more competitive conditions.

This leads us to the third challenge. Export-platform FDI is footloose: It does not have to be rooted in a host country forever and cannot be taken for granted, as it moves from a country to a country in search of lower costs, notably lower labour costs, and more favourable conditions of doing business. Making investment decisions, foreign investors typically choose among many locations. At the same time, it is very valuable type of FDI for host countries, including for Poland. As exporting investors have to withstand global competition, it is characterized more often than not by state-of-the art technology and export externalities accruing to host countries (Moran, 2011, pp. 53-54, p. 98). Poland has attracted significant amounts of such FDI. As shown earlier, its manufacturing FDI is strongly export-oriented, as is its booming FDI in business services, catering mainly to customers in Western Europe (ABSL, 2014, p. 20). This FDI is based, at least partly, on cheap labour force (though also, and increasingly so, on educated competitive human resources). When this advantage erodes in some time to come, foreign investors might relocate to other countries (for example, to Ukraine, if it manages to stabilize its economy and politics) or even back to the home country as part of so-called reshoring. There is an increasing number of cases of manufacturing and services operations returning to, or undertaken in the United States due to rising wage costs in developing countries, weak dollar, technological advances, and falling energy costs—all improving United States' manufacturing competitiveness (UNCTAD, 2013, p. 26).

Divestment—withdrawal of foreign affiliates from host countries—may take the form of complete closure, asset sales, and relocation to other countries or back to home country. It takes place all the time. For example, during 2000-2010, divestments by MNEs constituted 40% of France's gross FDI equity outflows, 43% of those of the United States, and 31% of those of Japan (UNCTAD, 2013, p. 26). Only Japan provides data on the share of relocation and reshoring in total divestments by MNEs. It is substantial. Between 2004 and 2011, the number of affiliates closed annually in host countries varied between some 400 and close to 700: Depending on a year, between 50% and 62% of discontinued affiliates were relocated back to Japan or to other host countries (UNCTAD, 2013, p. 28).

Data on relocation from the perspective of host countries are scarce. FDI history provides examples of footloose FDI, moving between countries. Several decades ago, the process of FDI relocation from East Asian newly-industrialized economies (Hong Kong, the Republic of Korea, Taiwan, and Singapore) to other countries, and then further on, was captured by the flying-geese-paradigm, conceptualized by Japanese scholars (UNCTAD,

1995, pp. 228-265). Recently, facing rising wages in China, MNEs shift operations to cheaper locations in Asia (*The Economist*, 2014b, p. 7). In another example, Ireland, which by the late 1990s, owing to FDI, became a major European location for computer hardware production, accounting for 1/3rd of personal computers sold in Europe, experienced a sharp decline of the industry at the beginning of the 21st century, as production relocated to China and to CEE. Between 2000 and 2004, the hardware computer industry lost 1/3rd of the jobs (Barry & Van Egeraat, 2008, p. 38). In 2009, a Dell factory was closed in Limerick (Ireland) and relocated to Łódź (Poland). One day, it might be relocated elsewhere, together with other factories and service centres.

So the threat of relocation is always there, but as regards Poland, it is not immediate. Poland's cost advantage over Western Europe is still large and it will take many years before it begins to erode, if we can judge from the Irish experience. In 2000, when employment in the Irish production of computers and electronic components reached the peak (and fell in subsequent years), hourly compensation costs in US dollars in Ireland's manufacturing were 63% of the United States level and 73% of the Euro Area level. They were clearly increasing and soon reached the parity—in 2003 with Euro Area, and in 2006 with the United Sates. In 2012, Poland's hourly compensation costs in US dollars in manufacturing were only 20% of those in Euro Area and 23% of the United Sates' costs[11].

And, to be sure, most of FDI will stay, as it is in services and manufacturing oriented to the local market. This includes services such as utilities, trading, transportation, logistics, real estate and most financial services, and manufacturing industries such as food, beverages and tobacco, the majority of metal, paper and wood industries and a couple of others. By a rough estimate, these industries account for some 3/4 of IFDI stock, out of which over 60% is in non-tradable services, and the balance in manufacturing. Foreign firms in these industries compete with one another and/or with local companies, having access to similar local resources and facing similar local costs. Given technological and managerial superiority of foreign companies, and the support of parent companies, their motivation to supply the Polish market from abroad (limited only to tradable goods) should not be strong. The more so that proximity to local consumers plays a role in some of these industries (e.g., in the food industry). The balance of some 1/5th of FDI, which might be potentially affected, and including export-oriented manufacturing and business services, is not large, but as mentioned above, it is very valuable in terms of exports, technological sophistication, and skill content.

Policy Responses to FDI Challenges

Poland, as well as its peers from CEE-10, faces three types of challenges related to FDI. One is immediate and relates to the need of winning competition with other countries for FDI at the current level of sophistication and productivity, based on static competitive advantages, which are broadly similar among peers and rely mainly on cheap and increasingly skilled human resources. Another challenge is medium- or perhaps even long-term, but dealing with it is also much more difficult and of a long-term nature, as it involves upgrading of local capabilities and resources—technological, human and infrastructure—and preparing them for the future needs of MNEs, as Poland will gradually be losing its current comparative advantage. In the language of trade economics, Poland (as well as its peers) should use the time and funds—own and from the EU—it has, to build dynamic comparative advantages, which will encourage current and future foreign affiliates in Poland to get upgraded and to undertake activities at much higher levels of sophistication and productivity. If Poland fails on the second challenge, foreign sector will become a burden in overcoming the middle-income trap. The third

[11] Source: US Bureau of Labour Statistics, International Labour Comparisons, August 2013.

challenge will occur and most valuable export-oriented FDI might stagnate and relocate to other countries. If it succeeds, FDI can become a factor contributing to resolving the middle-income trap. Examples of Ireland and Singapore indicate that the latter is possible with the participation of FDI. Both countries, relying heavily on FDI, have passed the middle income threshold and since many years have been safely placed among high-income countries.

Poland's starting point is not very encouraging and many things have to change if Poland is to deal successfully with FDI-related challenges. The section on FDI performance has revealed that Poland's key attraction to current FDI is its size, while other host country FDI determinants are either similar to those of its peers (access to EU market, FDI promotion, incentives and international logistics except for infrastructure) or below their average. "Below average" or "bad" indicators provide a list of areas for policy action and improvement. Infrastructure is improving. During the 2007-2013, largely with the assistance of EU funds, Poland has built new highways and regional airports, upgraded the old ones and started upgrading its maritime ports. Modernization of railways is to take place during 2014-2020 EU financial perspective. But infrastructure is improving, too, in peer countries and Poland is merely catching up with the best performers. As regards administrative and regulatory factors, the list of problem areas identified earlier corresponds to weaknesses indicated by foreign investors in Poland in annual surveys of the investment climate and barriers to FDI, sponsored by the Polish investment promotion agency (Polish Information and Foreign Investment Agency [PAIiIZ], 2014a; PAIiIZ, 2014b). Categories receiving low or average scores from foreign investors, are the same since years and include, apart from infrastructure (except for telecom infrastructure), starting a business (only over 1/4 of respondents considered it as good or very good in 2014), cooperation with central administration (33%) and clarity and coherence of laws and regulations, which traditionally receives the lowest scores (with only 19% of investors satisfied). As regards specific laws, tax regulations and procedures are evaluated as bad by half of respondents, with public procurement and construction laws and procedures following, with, respectively, 25% and 20% of bad scores. Problematic for many investors is also the judicial system and procedures for obtaining licenses (PAIiIZ, 2014a). These weaknesses correspond to those identified in the section on FDI performance, based on the WEF and World Bank's indicators on the ease of doing business such as government efficiency, starting a business, construction permits, or paying taxes.

While the improvements of infrastructure take time and money (and infrastructure is improving, as noted earlier, although not as fast as it could), improvements of the investment climate on soft institutional measures, listed in the preceding paragraph, face a barrier of ambivalence and inconsistency on the part of administration and policy makers as regards policy toward FDI. Declarations and intentions are not followed by actions and actions are often inconsistent and difficult to understand. A declared objective of two programmes of spending the EU Cohesion Funds during 2007-2013 was the improvement of Poland's investment attractiveness. But no plan of action followed and, as a result, the investment climate in Poland has barely improved (Zimny, 2014, p. 142). Below average investment climate contrasts with the mission of the Polish Ministry of the Economy, which since several years has been prominently displayed on its website: "creation of Europe's best business conditions"[12]. But again, one would have a great difficulty with finding a programme of action indicating how this mission, lasting several years, has been implemented.

One should not be misled by Poland's advancement in the World Bank's rankings of the ease of doing

[12] Retrieved from http://www.mg.gov.pl/.

business—from 55th position in 2012 to 32nd position in 2015—as an indication of better climate for FDI. Advancement resulted from a series of small steps, mainly in areas, which are not very relevant for FDI, including "resolving insolvency", "getting credit" (which has little to do with the ease of obtaining credit) and "protecting minority investors". There were some also improvements in areas relevant for FDI: "starting a business", "construction permits", "enforcing contracts", and "paying taxes"[13]. But they were so minor that Poland remained among CEE-10 countries in very low positions in these categories: ninth in the first three and sixth in the fourth category. Besides, other countries are reforming, too, and even significant improvements are not enough to advance relative to competitors. For example, as regards construction permits, Poland made quite an impressive leap forward and reduced the number of days needed to obtain the permit from 356 to 212 and the number of procedures from 24 to 19. But at the same time, Lithuania, the CEE-10 leader in this regard, cut the number of days from 149 to 91 and kept the number of procedures at 11. To implement the ministry's mission, Poland would have to catch up with Denmark, which issues the permit within 64 days after only seven procedures. The story is similar as regards starting a business and paying taxes, two weaknesses repeatedly pointed to by foreign investors in Poland (see Figure 8).

A number of recent examples testify further to FDI policy ambivalence.

Strengthening industrial clusters in a high-tech, high-value industry. Clusters, as students of international business know, serve attracting FDI and increasing benefits from investment. Therefore, successive Polish governments have promoted clusters through top-down actions, supported by the EU funds. Polish clusters are still weak, but one of the most promising has been formed in the south-eastern part of Poland in a high-tech industry—aviation. It encompasses all ingredients of a successful cluster: higher education establishments teaching courses and doing research in the area of aviation, vocational school and several local and foreign companies, including two producers of helicopters. There is promising cooperation between aviation cluster's participants. Yet in 2015, the government, making a decision on buying combat helicopters for the army, instead of strengthening an already existing cluster, chose another foreign company, not yet present in Poland, and a location for an eventual new factory some 250 kilometers away from the aviation cluster. Both helicopter producers in the aviation cluster have announced job cuts further to government decision. A chance to strengthen the cluster in a high-tech, high-value added industry has lost to military-political considerations.

Attracting high value-added (HVA) foreign investors. Also recently, Poland has lost to Slovakia competition for a Jaguar factory by an Indian MNE Tata. Investment is to be worth 1.5 billion euro and create 6,000 direct jobs. True reasons behind Tata's decision to choose Slovakia over Poland may never be known and one has to rely on media accounts of the negotiations. Allegedly, according to the Polish chief negotiator, Slovakia offered Tata a large investment incentive, which the Polish Government did not consider worthy to override in terms of cost benefit analysis. Poland was ready to offer 350 million Polish zlotys of subsidy[14], which is an equivalent of some 85 million euro. According to the author's calculations, based on the EU rules of state aid to large investment projects, Slovak's subsidy could not exceed 105 million euro, assuming that qualifying costs of Tata's investment, that is costs qualifying for a subsidy, which are normally lower than the total cost of investment, will be one billion euro. If that is correct, the difference between what Slovakia could

[13] A brief description of Polish reforms is available from http://www.doingbusiness.org/reforms/overview/economy/poland. Accessed August 26, 2015.

[14] Puls Biznesu. *Jaguar jednak na Słowacji*. August 11, 2015, http://www.pb.pl/4250541,86963,jaguar-jednak-na-slowacji, accesed August 20, 2015.

offer and what Poland offered is not very big. There were also other suggestions of Polish neglect during negotiations in the press. Attracting HVA investors is a way to upgrade FDI stock in host countries. All investment promotion agencies in Europe claim that they try to attract HVA FDI, whatever it means. There is no doubt that Jaguar, a premium car, is a HVA product. Considering that Jaguar is not worthy a (slightly) increased subsidy, chief negotiator missed the chance to upgrade FDI in Poland and to strengthen an automotive cluster in south-western Poland. Polish record in attracting car factories is rather poor. During the past 12 years or so, Poland lost competition in eight cases to Slovakia, Czech Republic, and Hungary, including the rivalry for premium cars—Mercedes and Audi, won by Hungary, when it was on the edge of the financial crisis. Poland has won only once—a Volkswagen pick-up Caddy. As a result, Poland's production of cars went down from one million cars annually some 10 years ago to 570,000 in 2014 and the country lost its leading position as a car producer to the Czech Republic and Slovakia[15].

Saving the flagship national airline LOT. Since many years, small national air transportation companies in Europe have gone through difficult times, facing deregulation of air transportation and increasing competition from low-cost airlines, big national companies of a couple of West European countries and competitive airlines of emerging economies such as Turkey, Singapore, Qatar, and United Arab Emirates. Several disappeared or were taken over by big industry players. LOT Polish Airlines, a state-controlled company, was a couple of times on the edge of bankruptcy, but has somehow survived: The last time in 2013, owing to government subsidy (not the first one) worth 527 million zlotys. The European Commission approved the subsidy under the condition that the airline be restructured and returned to profitability. Under new management, LOT showed in 2014 an operating profit, for the first time since 2007. In 2015, the management accomplished the final task, agreed with the government: It found a serious foreign investor, an American fund Indigo Partners, a shareholder of airlines such Wizz Air and Mexican Volaris, and carried out negotiations aimed at a takeover of LOT by Indigo. The fund agreed, among others, to maintain the LOT brand, keep the hub and headquarters of the airline in Warsaw and invest considerable amounts of money to support LOT's future. Just before signing a letter of intention the government, however, backed off, facing parliamentary elections in the fall and fearing that the sale of "a national jewel" might adversely affect its chances in upcoming elections[16]. LOT's future became again uncertain, as sound FDI policy felt victim to political considerations.

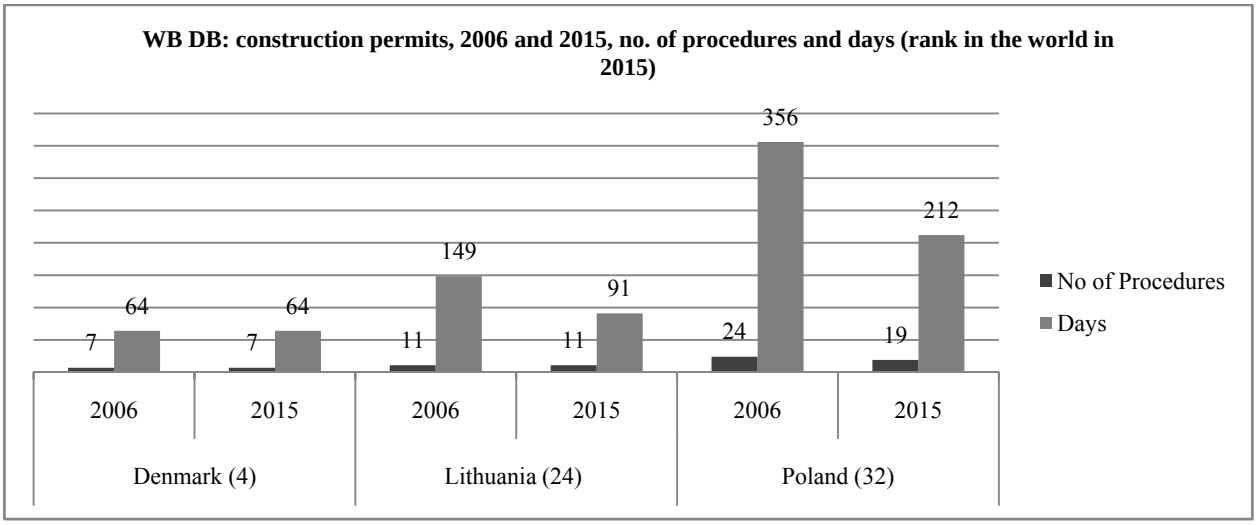
Poland faces also a difficult start in dealing with long-term FDI-related challenges of upgrading FDI through developing dynamic capabilities in the area of technology and skills. Figure 9 shows basic indicators for future innovation and technological capabilities in CEE-10 countries and in Germany, Singapore (on some available indicators), and Ireland, such as R&D expenditures as percent of GDP and per capita, R&D personnel per 1,000 of total employment, patent applications to the European Patent Office (EPO) and employment in high- and medium-high technology manufacturing as percent of total employment. Table 4 presents indicators of technological readiness and innovation for CEE-10, based on WEF survey published in the latest 2015 edition of the Global Competitiveness Indicators. Poland does not fare well on any of the measures, except for quantitative indicators from WEF, pertaining to the availability of scientists and engineers and the capacity for innovation, where it is ranked third and fourth among CEE-10. But on the quality of research institutions and

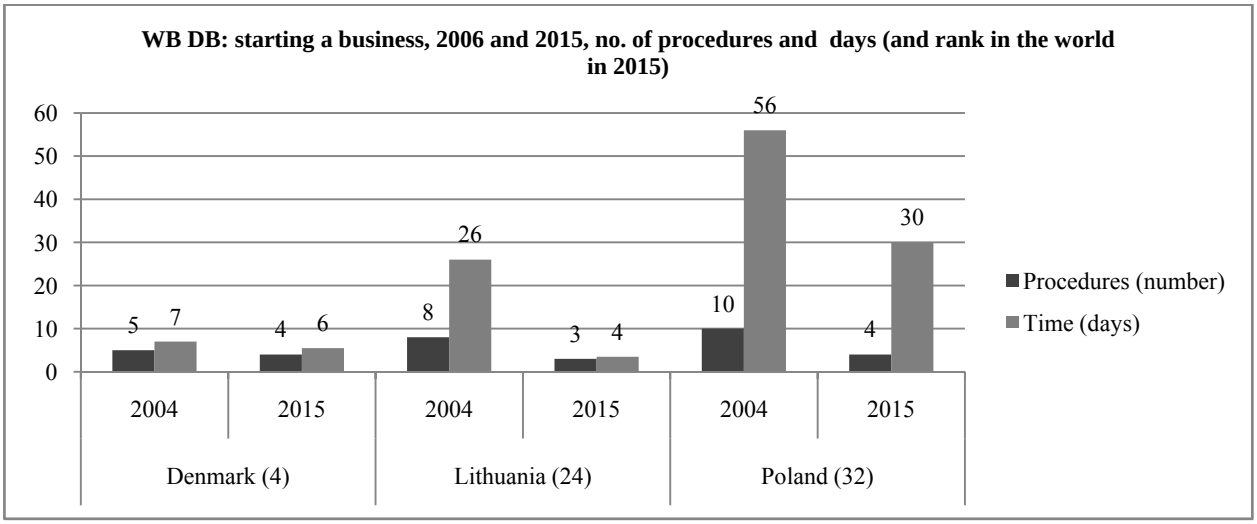
[15] Kublik, A. *Jaguar woli Słowację, Gazeta Wyborcza*, August 12, 2015; and A. Kublik, *Jaguar dla Polski? Z brytyjskiego szrotu, Gazeta Wyborcza*, August 14-16, 2015.
[16] Baj, L. *LOT odlatuje w siną dal, Gazeta Wyborcza*, August 22-23, 2015; and Walewska D. *Dokąd poleci LOT bez Sebastiana Miłosza, Rzeczpospolita*, August 19, 2015.

university-business collaboration in R&D, it is eighth among 10 countries and on three indicators for technological readiness, it occupies positions between seventh (ICT use) and 10th (firm-level technology absorption). A similar picture emerges from hard data contained in the figure. At best, Poland is in the middle (on the number of patent applications to the EPO) or close to the middle (on employment in high- and medium-technology industries) of the considered group of countries. On other measures, it is placed firmly in the group of low performers. The inclusion of Germany, Ireland, and Singapore in comparisons allows to assess how far are countries of CEE-10 from technological frontier countries (Germany) and two countries, which successfully used FDI to promote economic progress (Ireland and Singapore). Only Slovenia stands a comparison with the three countries on several indicators, and on two—R&D personnel and the share of R&D in total R&D, undertaken by business—it does better than frontier countries (see Figure 9). Therefore, perhaps not surprisingly, in Slovenia foreign affiliates exhibit the highest productivity among foreign affiliates in CEE-10, and their productivity gap to foreign affiliates in Sweden and Germany is the smallest, although still quite large in absolute terms (see Figure 7).

As regards skills and the quality of education, they were assessed earlier when discussing host country determinants. By average measures, Poland does not fare well, which indicates the room for further improvement and policy action. But there is an exception and, perhaps, a pocket of excellence in this average picture. It is foreign business services sector, which, as indicated earlier in the section on FDI contributions, has boomed during the crisis, growing by 20% annually in terms of employment. According to the McKinsey study, the sector has the potential to grow further and reach 450,000 to 600,000 jobs by 2025 (McKinsey & Company, 2015, p. 6). Key conditions for the growth of the sector have been: decent telecommunications infrastructure, growing supply of modern office space in Polish cities (with significant involvement of foreign investors), legal code meeting the requirements of the services centres' clients in Western Europe and the United States, cultural proximity to client countries and, in the case of Western Europe, the same time zone. But the key competitive advantage has been the growing pool of talent—graduates of Polish universities—with lower costs than in Western Europe and the United States and adequate quality.

What matters in the context of education and the quality of human resources is that 2/3rd of the foreign sector's expansion is due to sequential investment of firms already established in Poland and that these firms "are expanding their services toward more advanced processes, moving up the value and adding knowledge-based processes, and also bringing new functions into their scope (for instance, Marketing Supply Chain, Legal) to provide multi-functional business support" (ABSL, 2014, p. 51). As noted earlier, one quarter of the centres is R&D units. Apparently, tertiary education meets the growing skill requirements of foreign investors, if they are expanding rapidly and adding more sophisticated tasks and processes. The author explained it earlier by Poland's size: Universities produce a great number of graduates and foreign companies offering attractive jobs choose the best talent from among the graduates and further train them in-house. Apparently, size is also a source of competitive advantages. But there is more to it. While, on average, business-university cooperation is rather weak, foreign services centres cooperate closely with Polish universities in the area of education. For example, in IT services, which is the largest sub-sector accounting for 30% of the centres, 78% of firms cooperate with universities and half of them organize education projects and training for students (ABSL, 2015, p. 37). Firms' objective to ensure prospective employee recruitment produces an important externality: matching skills acquired by students at universities with more demanding requirements of foreign firms for skills.





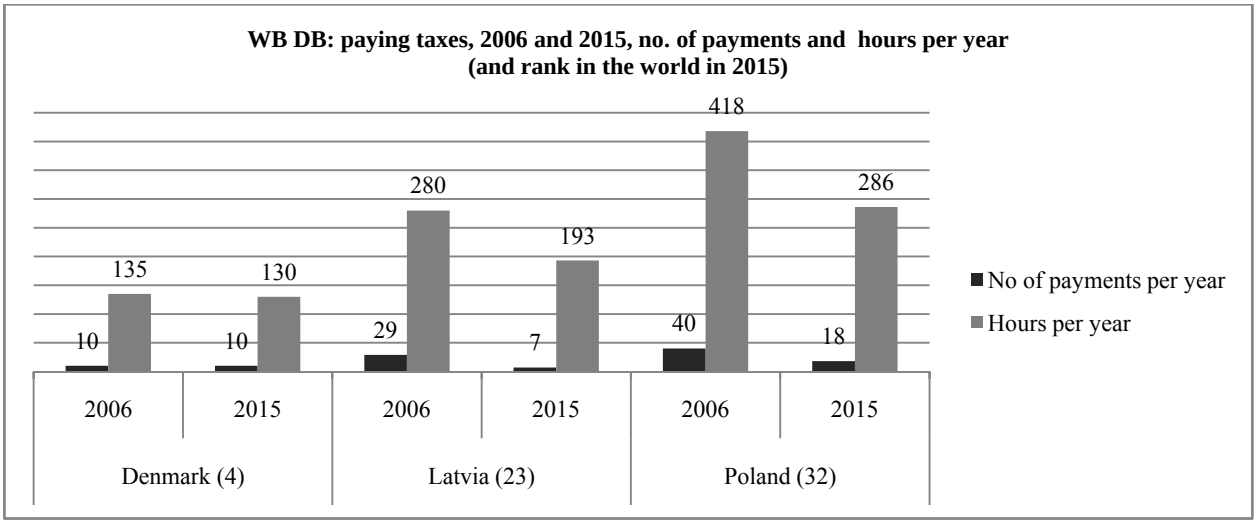


Figure 8. World Bank's Doing Business indicators on construction permits, starting a business and paying taxes (2006 and 2015). Source: World Bank Doing Business 2015.

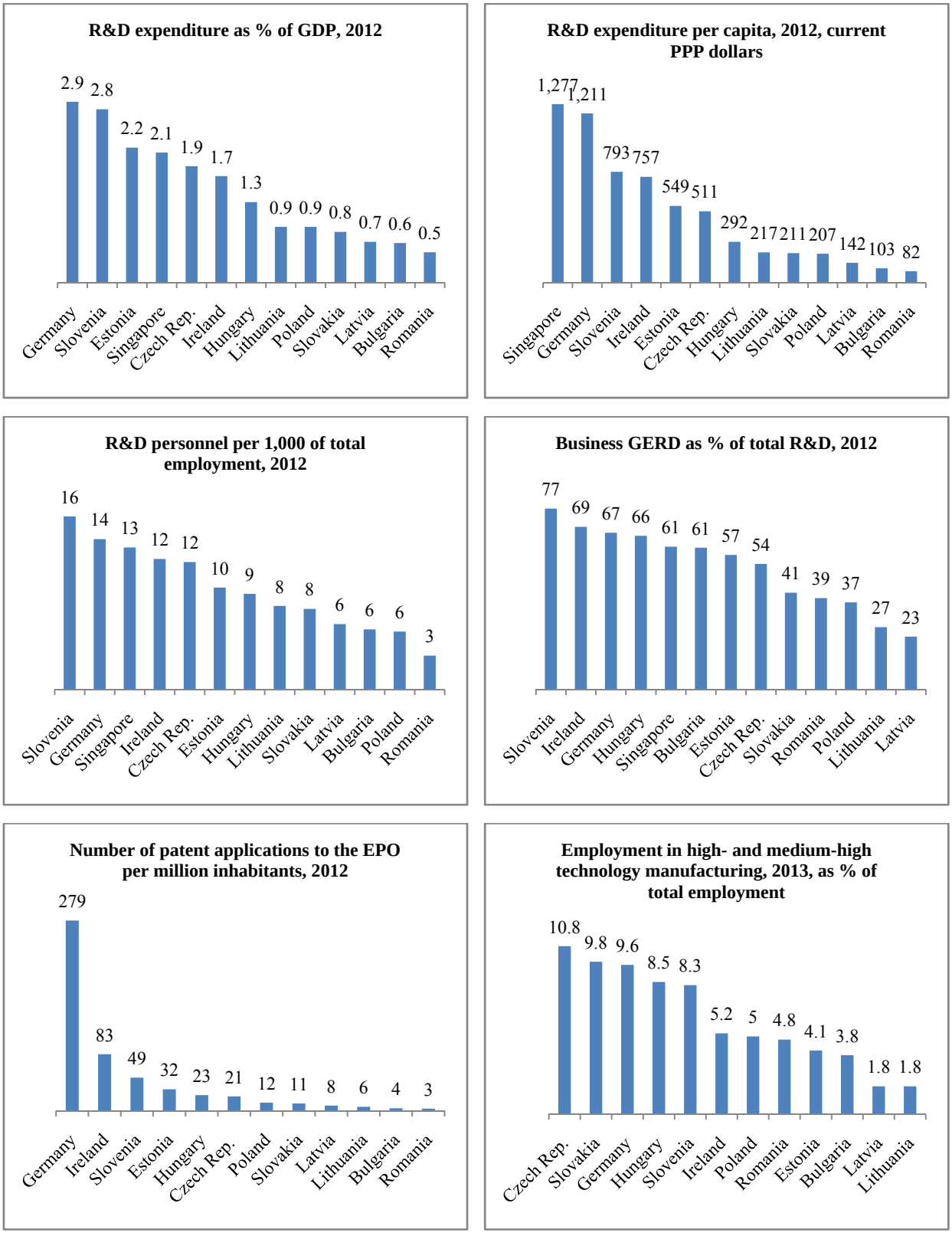


Figure 9. Basic indicators for future innovation and technological capabilities (CEE-10, Germany, Ireland, and Singapore). Source: UNESCO (United Nations Educational, Scientific, and Cultural Organization) and Eurostat.

Table 4

Technological Readiness of 10 CEE Countries, 2014, Values 1-7 (Best), Unless Otherwise Indicated, and Poland's Rank Among CEE-10

A. Value 1-7 (best)	Bulgaria	Czech Rep.	Estonia	Hungary	Latvia	Lithuania	Poland	Romania	Slovakia	Slovenia	Poland's rank among 10
Technological readiness	4.7	5.0	5.3	4.4	5.1	5.4	4.5	4.5	4.4	5.0	8
Availability of latest technologies	4.4	5.2	5.8	5.3	5.7	5.7	4.5	4.6	5.2	5.5	9
Firm-level technology absorption	4.4	5.0	5.4	4.7	5.0	5.4	4.2	4.4	4.8	4.9	10
Technological adoption	4.4	5.0	5.4	5.1	5.2	5.5	4.4	4.6	5.1	4.8	9
ICT use	5.1	4.9	5.1	3.8	5.1	5.2	4.5	4.4	3.7	5.3	7
Innovation	2.9	3.7	4.0	3.5	3.3	3.6	3.3	3.3	3.2	3.6	8
Capacity for innovation	3.3	4.6	4.5	3.0	3.6	4.3	3.8	3.7	3.5	3.7	4
Quality of scientific research institutions	3.5	4.5	5.0	5.1	4.2	4.8	3.9	4.0	3.9	4.7	8
Company spending on R&D	2.8	3.7	3.6	2.9	3.1	3.1	2.8	3.1	3.1	3.1	9
University-industry collaboration in R&D	3.0	4.0	4.4	4.3	3.7	4.6	3.5	3.6	3.4	4.0	8
Availability of scientists and engineers	3.6	4.2	3.5	4.2	3.5	4.1	4.2	4.0	4.0	3.9	3
PCT patents, applications/million pop.	5	16	33	25	9	6	7	2	9	63	7

Note. Source: The Global Competitiveness Index Historical Data Set, 2004-2014 World Economic Forum.

So far, the sector serves as a positive example of FDI upgrading, developing dynamic capabilities in the area of skills and necessary infrastructure (luckily the sector does not rely on transportation infrastructure) and structural transformation of the services sector. Government's involvement has been limited to granting incentives to larger (but not all) projects (modern business services are on the list of priority sectors for investment promotion, supported by PAIiIZ). But the process is not yet finished. The next step would be the acquisition and spreading of the most advanced services such as support to investment funds, big data analysis or most sophisticated IT services. Its implementation will depend on the ability of Polish universities to generate talent for such services. The final test will be passed when the productivity gap between foreign affiliates in Poland and those in Western Europe will significantly diminish. At present, the gap is smaller than in the case of all foreign affiliates but still quite large. In 2011, in NACE (European Classification of Economic Activities) "professional, scientific and technical activities" and "computer programming, consultancy and related activities", two industries closest to the profile of the services centres, MOFAs in Poland achieved 46%-47% of the average productivity of MOFAs in Germany and Sweden (Eurostat, SBS statistics). For all MOFAs, the level was 36%, and for manufacturing MOFAs, it was 33% (see Figure 7).

Conclusions

During the transition from a planned to a market-based economy, Poland has achieved considerable economic progress. Uninterrupted economic growth for the past 20 years, fueled by increasing labour productivity, has diminished the gap in per capita GDP between Poland and better-off countries of Western Europe, though not yet closed it. Poland has attained living standards never seen before. FDI has gradually become a significant part of the Polish economy, contributing to its advancement. FDI has raised the productivity of the entire economy, improving its technological content and facilitating Poland's integration with the global economy. Yet further progress should not be taken for granted as, according to experts, Polish and international, the country might face, sooner or later, the middle-income trap, that is, inability to further reduce the income gap. Challenges facing Poland, identified by experts, are many, but FDI is not among them.

Yet, inward FDI poses also a number of challenges, which have to be taken into account if Poland wishes to avoid the middle-income trap. Foreign firms' sector has become so important that future behavior of existing and new foreign firms cannot remain without serious consequences for the entire economy and individual services and goods industries. The first challenge is to ensure steady and possibly larger inflows of FDI than during the crisis, to supplement low domestic savings and investment, counter increased transfer of profits abroad by foreign affiliates and maintain the level of other benefits from FDI such as increased productivity, which is significantly higher in foreign affiliates than in domestic firms. Yet increased FDI should not be taken for granted as countries compete for FDI. To win competition, a country needs to stand out among competitors on key host country FDI determinants. Poland, although the largest host country among its peers and main competitors—new EU members from CEE—in absolute terms, performs poorly, when FDI is related to the size of the economy: Poland receives less FDI than most of its peers in relation to GDP or per capita. It does not win competition for current FDI, because it does not stand out on key components of its investment climate except for its size. Most other FDI determinants are at best average, and several are among the worst in the region. Poland has potential for attracting more FDI, but the greatest potential is in export-platform investment, for which competition is particularly intense. To increase its chances in competition, Poland has to improve its investment climate.

The second challenge is that, although foreign firms in Poland are more productive than local firms, they lag in productivity not only behind foreign firms in the Western part of Europe, but in manufacturing also behind foreign firms operating in leading peer countries of CEE. The third challenge concerns future erosion of Poland's locational and comparative advantages, based on cheap, though increasingly educated human resources. When this happens, sometime in the future, highly valuable export-oriented FDI may relocate to other countries. Overcoming the middle-income trap, both in Poland and in peer countries, requires not only increasing the productivity of local enterprises through, for example, encouraging innovation and other means, but also bringing foreign affiliates up to higher levels of productivity. Foreign firms, in distinction from most local firms, if not satisfied with productivity levels because of, for instance, increasing labour or other costs, can leave a host country and relocate assets to another one, offering more competitive conditions.

To raise its FDI competitive position, Poland needs to deal with the weaknesses of its investment climate. "Below average" or "bad" indicators of the climate identified on the basis of global indicators of competitiveness provide a list of areas for policy action. They correspond with shortcomings, indicated since years by foreign investors in Poland in annual surveys of the investment climate, sponsored by the investment promotion agency. But the function of policy advocacy—one of the most effective functions of investment promotion—does not exist in Poland, the results of the surveys are shelved and the investment climate remains as it was before, average or below average on key indicators, while the competitors move ahead. Polish FDI policy is characterized by ambivalence and inconsistency, as witnessed additionally by neglected chances, all very recent, to upgrade the most promising Polish cluster in the aviation industry, to attract a high-value investor into automotive industry or to ensure a better future for an ailing national airline. This should change, if Poland is to deal successfully with FDI-related challenges.

Poland is in equally difficult position as regards the remaining challenges, although these are not immediate: Poland has considerable time, funds from the EU and a lot of scope for fruitful government intervention. It should use these, among others, preparing for the possibility that one day, as Poland's advantages, based on cheap semi-skilled and skilled human resources, erode, foreign export-oriented firms might leave Poland as they left other countries to invest in Poland. Preparations involve upgrading local capabilities and resources—technological, human, local enterprises and infrastructure—to future needs of MNEs so that they undertake investments at higher levels of sophistication and productivity than at present. The starting position is not easy as Poland fares poorly on key indicators of technological and innovative readiness as well as the quality of education, compared with its key competitors. But as said above, there is time, there are funds: What is lacking is a vision or a plan how to deal with FDI-related challenges.

Part of the plan could be, for instance, a major improvement of Poland's position on the ease of doing business on indicators that matter for FDI, in line with the declared mission of the Ministry of the Economy, mentioned earlier, to create in Poland the best conditions to do business in Europe. It could also be strengthening and better positioning of the investment promotion agency (who knows best, what are foreign investors' problems) among government agencies, listening to the agency and considering seriously policy advocacy. Poland spent considerable funds within the EU 2007-2013 financial perspective to strengthen local enterprises, mainly SMEs. The results are meagre, and another try is being undertaken in the new perspective of 2014-2020. Why not to prepare and implement a plan of promoting linkages between MNEs in Poland and local SMEs? Many countries have such programmes. In the Polish context, the advantage would be that the risk of misspending funds on failed support could be significantly reduced. MNEs, once they agree to participate in

such a programme, on a commercial basis, typically assist local partners. The objective of the programme would be to spend funds on SMEs, which are prepared to meet the requirements to become suppliers to foreign affiliates, with MNEs acting as their tutors. Public policy should be also concerned with the future of the foreign business services sector. At present, everything goes well and service centres are booming. But what will be a situation five or 10 years from now? What will be technologies? What will be future skills to support the sector? How to develop these skills? How to implement the vision, outlined in McKinsey's report, of a sector with 600,000 jobs by 2025? These are only examples of what could be done. To address problems and challenges outlined in this paper, Poland needs FDI policy. It does not have one.

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