

# Inter-regional OFDI motives and location patterns – the case of Polish OFDI outside Europe\*

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## Abstract

Our research aims to identify the nature of the outward foreign direct investment done by Polish firms in remote markets. By exploring quantitatively and qualitatively the flows and stocks of Polish FDIs conducted outside Europe and examining the data on projects conducted by Polish firms outside Europe the authors try to diagnose the internationalisation motives and location patterns of Polish firms in distant regions. The results showed that, although marginal, the presence of Polish investors in foreign markets comes in diversified forms, ranging from pure export servicing and sales to bold greenfield projects created from scratch.

**Keywords:** OFDI, motives, location, OLI paradigm, stages of internationalisation, Poland

**JEL Code:** F20, F23, L20, M20, O50

## Introduction<sup>1</sup>

Internationalisation in the form of OFDI started in Poland only after it joined the EU. Before 2004 foreign investment abroad was negligible (Götz 2014). Despite the evidently growing tendency to invest more, a clear majority of Polish OFDI is concentrated in Europe (Wach 2012). Research on the topic of Polish investment abroad has been minimal, consisting primarily of the annual publications of the NBP (*Narodowy Bank Polski*, or Polish National Bank), the series of *World Investment Reports* by UNCTAD (United Nations Conference on Trade and Development), information from the Polish departments of Trade and Investment Promotion as well as the economic departments associated with Polish diplomatic missions abroad, plus newspaper articles and some still relatively rare scientific analyses (Barłożewski 2017; Gorynia et al. 2010; Karaszewski (ed.) 2008; Karpińska-Mizielińska, Smuga 2007; Witek Hajduk 2010; Szymura-Tyc 2014; Radło, Sass 2012; Radło 2012, Trąpczyński 2016). Most of these scholarly papers either do not differentiate a priori the destinations or are focused on FDI directed to advanced European markets. The size of Polish FDI, modest in comparison to global flows, should probably be associated with the small population of Polish TNCs/MNEs (TNC – transnational corporation;

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MNE – multinational enterprise), as they are considered as vehicles for the distribution of capital. Such a small and internally heterogeneous group of investing entities poses objective difficulties in discovering consistent patterns. The need for individualized studies, and the impossibility of discussing an “average” company, emerges even in research carried out on a massive scale, such as the study on competitiveness by the Bruegel Institute of Brussels under the auspices of the international project EFIGE (*European Firms in a Global Economy*).<sup>2</sup> In general, despite continuous progress, research into OFDI by Polish firms is still a rather uncharted area (Wąsowska, Obłój 2013; Wiliński 2013; Ciesielska 2014; Ciesielska et al. 2016; Obłój, Wąsowska 2012 a; Gorynia et al. 2010; Gorynia et al. 2015; Éltető et al. 2015; Götz 2014; Götz, Jankowska 2016; Zimny 2013). In order to classify these papers, a relatively large group of studies could be distinguished which touch upon the motives and drivers of Polish OFDI and then contrasted with investments flowing from Western European countries (Obłój, Wąsowska 2012; Radło, Ciesielska 2015; Kowalewski, Radło 2013). There is also a group of papers which touch on the consequences OFDI might have for the firms themselves and for the home economy; both very negative consequences, including major losses, as well as positive ones, contributing to productivity gains (Barłożewski 2017; Nowiński 2014; Trąpczyński 2016).

In this paper, due to limited space and according to the explicit goals among other things, no analysis is conducted into FDI by Polish firms in European countries, focusing instead only on distant destinations, though the authors believe it is necessary to see Polish distant FDIs as a logical consequence of earlier stages of foreign expansion. It is not claimed that these remote undertakings should be analysed independently, on the contrary the authors are aware that in most cases these investments follow less risky ones made in neighbouring markets. Nevertheless, for the sake of clarity in the investigation the authors decided to concentrate on this particular type of FDI. The authors have, however, drawn substantially on the results of studies on Polish FDIs made in Europe as the findings obtained shed light on expansions outside the EU.

To the best of the authors' knowledge no previous studies have focused exclusively on FDIs made by Polish firms in remote markets. Given the scarcity of data and relatively short period of foreign expansion by Polish businesses, and in light of the lack of dedicated studies on distant market internalisation, the authors see this research as a specific contribution to exploring the internationalisation Polish businesses. Due to the above-mentioned circumstances, it is rather difficult to position the investigation in relation to other studies as none of them have undertaken an analysis of similar issues.

2 Verbatim: “*Firms in our (representative) sample are very heterogeneous across and within countries and industries (hence, describing them in terms of the characteristics of the ‘average firm’ is of little practical use)*” (Altomonte/Aquilante/Ottaviano 2012).

By briefly exploring the flows and stocks of Polish FDIs conducted outside Europe and by examining the data on projects conducted by Polish firms outside Europe the authors try to identify the internationalisation patterns of Polish firms in distant regions. By doing this the authors hope to assess the importance of inter-regional distant expansion within total Polish OFDIs by drawing on the available statistics of the National Bank of Poland.

First, the authors briefly report on the motives for OFDIs indicated by J.H. Dunning, the location choices and the interdependencies among the motives and location choices, bearing in mind the distinction between sequential and initial OFDIs. Second, the analytical framework of this study is highlighted. Third, statistics on distant OFDIs by Poland are presented and reviewed with selected case studies being discussed. Then the authors try to characterize the profile of Polish OFDIs in particular world regions outside Europe.

## **Conceptual background**

This paper puts the most ambitious, risky and capital consuming form of internationalisation – outward foreign direct investment (OFDI) – under the spotlight. Theories, models and concepts as to the motives, reasons, types and patterns of OFDIs abound. Mainstream approaches (Buckley, Casson 1976; Cantwell 1989, 1994; Caves 1971; Dunnig 1998; Hymer 1976; Johanson, Wiedersheim-Paul 1975; Johanson, Vahlne 1977; Knickerbocker 1973; Markusen 2002; Vernon 1966) have been complemented by international entrepreneurship literature (McDougall, Oviatt 2003; Zahra, George 2002), a growing strand of more heterodox concepts dealing with emerging multinationals (Ozawa 1992; Gorynia, Jankowska 2007; Ping 2007; Svetličić 2003; Kalotay 2004; Gorynia et al. 2010; Witek Hajduk 2010; Rugraff 2010; Cuervo-Cazurra 2012, Gammeltoft et al. 2012; Narula 2012; Radło, Sass 2012, Jarosiński 2013, Götz 2011, 2014), and the growing popularity of a relatively new approach – the network approach (Miles, Snow 1986). To complete the broad set of theories focused on FDIs the “strategic tripod” encompassing a resource-based view, an industry-based view and an institutional theory should be mentioned (Peng et al. 2009; Helpman 2003).

Bearing in mind the diversified bundle of theoretical approaches, it would be useful to adopt a specific approach to guide the further study of the empirical data. Given the early stage of research on this topic the authors decided to frame this analysis in what they believe is the backbone for any FDI study; i.e. the J.H. Dunning OLI paradigm and fourfold classification of FDI motives. These factors and categories would guide the exploration and help the goals to be achieved, i.e. diagnose the nature of Polish inter-regional FDI ties.

### *Motives for FDI*

MNEs engage in FDIs for one of the following motives: (natural) resource-seeking; market-seeking; efficiency-seeking; and strategic asset-seeking (Dunning 1993: 60; Narula, Dunning 2000; Nachum, Zaheer 2005). The first two types of motives are characteristic of initial FDIs, the latter two usually relate to firms who continue FDI operations and are rather more characteristic for advanced economies (Dunning et al. 2008: 170). And as noted by Makino (et al. 2002) as well as Narula and Dunning (2000), resource-seeking and market-seeking motives are often the two most important motives for investing in developing countries. Firms that seek resources will invest in countries that offer scarce resources that are not available in the home market of the investor or are available but at a higher cost than from other locations (Dunning 1993; Nachum, Zaheer 2005). Market-seeking investors usually try to pre-empt rivals or avoid pre-emption by rivals' entry into the host country. These types of investors prefer to locate themselves close to customers as this improves the investors' responsiveness to host country specificity. However, in reality the motives are not mutually exclusive. MNEs can simultaneously pursue cost advantages and enjoy enlarged sales opportunities in some developing countries. However, in the event FDI is driven by motivations of strategic asset-seeking (Dunning 1998: 54) the most relevant locations will be destinations offering access to knowledge and expertise, thus such assets often upgrade the innovation performance of an MNE. With respect to technology three types of FDIs can be distinguished: technology-seeking, home-base exploiting, and home-base augmenting (UNCTAD World Investment Report 2004). Firms do not conduct foreign direct investment only when they possess unique capabilities (Cantwell 1989; Mucchielli, Mayer 2004; Peng 1995). Given their own lack of advantages, external sourcing might be a way of addressing certain imbalances (Moon, Roehl 2001). However, foreign firms face a "disadvantage of Alien Status" (Caves 1971). Thus, those who consider investments abroad must have some specific advantages that can offset the disadvantages deriving from the fact that domestic firms in the host country possess better information (Hymer 1976).

The OLI paradigm has been undergoing certain refinements. Guisinger (2001) complemented it with OLMA and added two more components: M – *mode of entry* and A – *adaptation to local environment*. Peng (1995) suggests enriching existing eclectic theory with the so-called learning option advantage. Besides exploiting advantages, FDI can also be seen as a vehicle enabling foreign innovations and knowledge abroad to be reached, and hence facilitating the learning processes. As pointed out above, firms do not conduct foreign direct investment only when they possess unique capabilities. Instead of utilizing capabilities already on hand, firms may expand abroad in search of capabilities that are not available in their home markets (Cantwell 1989). This motive has been termed "technology seeking" or "knowledge seeking". The asset augmenting approach,

originally proposed by Dunning, suggests that knowledge seeking is a different motive than traditional resource seeking, although Dunning originally classified this type of FDI as a subcategory of resource seeking investments. As he argued, investments motivated by a search for resources may also be conducted with the aim to tap into foreign technologies as well as various skills and expertise (Dunning 1993). Companies may go abroad in order to improve their home base of R&D – to augment their own assets. Chung and Alcacer (2002) also stress the role of accessing knowledge by MNEs as a way to augment their own assets.

A broad set of potential factors drawing firms to particular destinations are presented in various studies which focus on the location choices of MNEs.

### *Location choices of outward FDI*

According to Dunning's paradigm MNEs exist and grow since they have developed competitive advantages at home (O-advantages). The O-advantages are used to exploit location advantages (L-advantages) for implementing foreign direct investments (I-advantages). Thus, the OLI paradigm highlights three types of advantages – ownership (O), location (L) and internalization (I) – which firms can employ when expanding abroad. In the context of this paper the location specific (L) advantages are important. They are based on resources, networks, institutional structures and other factors characteristic of particular countries. Location-specific advantages are called country-specific advantages and as Rugman and Gestrin (1993) claimed, they are the “national factor endowments of a nation – basically the variables in its aggregate production function”. Dunning indicated a number of potential country-specific advantages: input cost advantages – e.g. low wages, availability of cheap natural resources, labour productivity, size of the market and its character, transport costs, physical distance from home market to potential host markets, and other factors in the macroeconomic environment of a firm like barriers to foreign trade, taxation structure, FDI policy as well as the intensity of rivalry related to the structure of competition which is a mezzo-level factor. Location advantages are a core component of the paradigm since the two other advantages, ownership and internalization, relate to that specific location. Ownership advantages arise from the characteristics of the home market, but also from the host market. Dunning et al. (2008) indicates the specific type of ownership advantages that relate to the host market, such as the ability to manage relationships with the institutional environment in the host country. These location specific advantages determine the two other types of advantages.

Markusen (2002) distinguished between horizontal and vertical FDIs. MNEs undertaking horizontal FDIs produce similar goods and services in different countries. They invest directly since it is difficult to get access to the market when trade costs are high. Vertical foreign investments relate to fragmentation of the

production process where each stage of the production or each stage in the value creation process can take place in different countries. Thus vertical FDIs will be motivated by differences in labour costs. Relatively recently the complex horizontal or export platform FDIs and complex vertical or vertical specialization FDIs have been distinguished. In export platform FDIs (Baltagi et al. 2007), a home country firm establishes a production plant in a location that offers benefits from better access to the labour force and lower production costs than the home country, and in this case the location works like a production platform for exports to neighbouring countries. Complex vertical models are used by firms that distribute multiple vertical activities and put them in locations offering the lowest costs (trade and/or production). Baltagi et al. (2007) argues that in this case the location advantages explaining the location patterns are embedded in the host country as well as in the neighbouring countries, and this explains the concentration of FDIs in particular regions of the world.

**Table 1: Schools of location theories**

School	Assumptions	Location's determinants	Results / outcome
Neo-classical models	Perfect competition Homogenous goods Non-increasing returns to scale	"First nature" (natural endowments)  Location is determined exogenously	Inter-industry specialization  Industry location based on comparative advantages  Spatial distribution of demand affects trade but not location of production
Models of new trade theory	Market size dependent on labour size – as labour immobile – market size is given exogenously  Increasing returns to scale  Differentiated products  Imperfect competition	"Second nature" (activity specific features – e.g. increasing returns, differentiated products)	Two layers: inter-industry specialization – industry locates where there is the best access to market and intra-industry specialization with unique, horizontally differentiated goods
New economic geography models	Production factors, firms and labour – mobile  Market size explained within models	Location is entirely endogenous	Uniformly distributed activities at starting points become unstable due to "second nature" characteristics (externalities, backward, forward linkages)  Self-reinforcing agglomeration process set economy on path towards new equilibrium  Tensions between centripetal and centrifugal forces, which ultimately determine the outcome – spatial distribution

Source: author's own elaboration on the basis of Bruelhart (2000: 3-5).

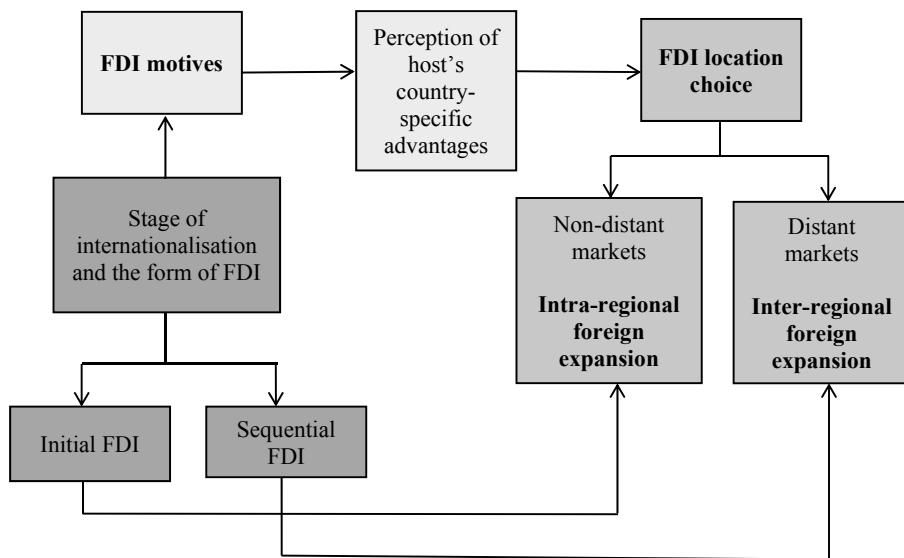
The New Economic Geography provides some more formal models and exposes the significance of agglomeration and dispersion forces to lure companies to a

location or to discourage firms from a specific destination. Proximity provides firms with positive externalities in the form of technological spill-overs luring companies to a given location; however, congestion effects in this very location, partially resulting in an increase in wages and land prices, can reduce the attractiveness of such a location. Regarding location theories Bruelhart (2000) distinguishes three schools of thought (Table 1).

The location decisions of MNEs are interdependent of the motives for entry. Firms usually answer the question *why* first; and only later *where* (Kutschker, Schmid 2008: 377). Thus, the attractiveness of a potential host location is assessed from the perspective of the motives for internationalization (Rugman, Verbeke 2009: 153–155).

## **Analytical framework of the study**

To develop the analytical framework for this study the authors referred to the OLI paradigm and the interdependencies between FDI motives and location choices. The location decisions are very much dependent on the answer *why a firm decides to establish premises abroad*. The motivation to go abroad modifies the perceptions of a host's country-specific advantages, and furthermore the location choice. According to Dunning if the key trigger to undertake FDIs is the need to get access to particular resources or markets in terms of their size, the less advanced economies will prevail; in cases where efficiency and strategic asset-seeking are relevant, advanced economies will rather be the ideal destination (Dunning 1998: 53–54). Combining these assumptions with the evolutionary pattern of internationalisation (Johanson, Wiedersheim-Paul, 1975; Hosseini, 2005) typical for many Polish firms (Barłożewski 2017; Trąpczyński 2016; Gorynia, Jankowska, 2007), it can be assumed that the involvement of Polish entities in OFDIs will reflect a preference for investing in foreign host locations starting with markets geographically and culturally not too distant, later moving on to more remote and exotic locations. The perception of the attractiveness of a particular location and thus the location choice is also very much dependent on the stage of the firms' internationalization. For companies that have just started their foreign expansion, less remote markets will be more attractive. For more mature MNEs that want to advance their foreign expansion, more remote destinations will play a role. Following the reasoning of the evolutionary pattern of internationalisation, firms that are able to switch from just exporting to FDIs have to cope with the challenge of how to choose a location for their FDIs. Therefore assumptions about the physical distance will encourage companies to focus first of all on less remote markets rather than look for more distant locations.

**Figure 1: OFDI motivations related to location choice and stage of internationalization**

Source: own study

In other words, the authors argue that the OFDI location choice is very much dependent on the stage of internationalisation and derives from the investment motivations.

In the section focused on firms from the private sector the profiles of four selected cases are briefly presented. Here, the authors combine their previous knowledge and insights gathered from earlier qualitative and grounded-theory-method based studies (Götz 2014) with the approach advanced in this paper (Figure 1). In the previous research in-depth interviews with managers from Polish firms undertaking foreign direct investments in West European markets were conducted. The analysis of the case studies presented below is extensive in character according to the approach of Ericsson and Kovalainen (2008). This means that the cases of the firms are described in order to identify a certain pattern in their behaviour. Following the classification of Yin (2003), the structure of the cases presented is comparative in nature and aims to facilitate the emergence of a theorem. Thus, with this study the authors try to complement the European perspective on Polish OFDI with a new, emerging perspective related to markets outside Europe. Combining the results of the previous study (Götz 2014) with the secondary data collected for the purpose of this study on the intra-regional OFDIs of Polish firms, and modifying the analytical framework presented in Figure 1, an attempt is made to draft a cognitive model of OFDIs specific for each firm in the study. The authors use this to represent the OFDIs embedded in the reality of

each firm studied. Thus, the structure of the model is universal, but the content is company specific. Hence the peculiarities in the investment profiles of the selected firms can be documented (Figures 2-5). This means that only empirical generalizations are justified, which is characteristic of the qualitative approach.

## **Polish OFDIs in distant locations – facts and figures**

### *Polish OFDIs flows and stocks – an inter-regional perspective*

Figures on Polish OFDI flows and stocks among geographic regions in five year period of 2010 to 2014 reflect great divergences that are difficult to present in one figure (Table 2). The analysis is limited to this particular period in order to capture the relatively recent trends which emerged after the latest economic crisis. The pre-crisis context was different for the internationalisation of businesses.

Proportionately, the continent of Europe has attracted the lion's share of Polish OFDIs. This fact explains why the direct investments flowing from Poland can be described as a distinctly intra-regional phenomenon. Polish OFDIs started only after Poland joined the EU, hence intra-regional European internationalisation clearly dominates over inter-regional expansion. The "old continent" is the most frequently chosen destination of Polish investors followed by the Americas, with the attractive North part of the USA and Canada outperforming the region of Central and South America where top three of Brazil, Mexico and Chile are the most favourable locations for Polish FDIs. Asia is the third major recipient of these investments. Some has been invested in the Near and Middle East as well as Arabian Gulf countries, though Polish investments flow mainly to other Asian countries – predominantly Hong Kong, Japan, China, Singapore, Taiwan, the Republic of South Korea, Malaysia and India. Africa attracts Polish OFDIs to a much lesser extent. Interestingly, as the northern part attracted fewer FDIs, it is the interior and southern regions of the continent which interest Polish firms, the Republic of South Africa being a leader in terms of attracting Polish FDIs. Oceania and the Polar regions are almost non-existent in the host market portfolios of Polish firms. As understood from the study conducted by IBRKiK (the Institute for Market, Consumption and Business Cycles Research) in 2014, neither is China on the radar of the Polish firms surveyed. Past hype following the state visits has vanished, as well as declarations of strengthening cooperation. More companies are intending to invest in North America, but no one plans to commence activities in Africa (Gniadek et al., 2016). To access the scale of the inter-regional OFDI operations of Polish firms it is useful to look at the share of OFDI flows directed to regions other than Europe as well as the OFDI stocks located in the Americas, Asia, Africa and Oceania. In Table 3 the strong dominance of Europe and thus the strong focus on the European region is clearly visible.

**Table 2: Polish OFDI flows and stocks in Europe and outside Europe in USD million**

Europe	Flows	Stocks
2010	6 761.6	40 837.2
2011	8 057.0	49 072.8
2012	507.9	53 543.7
2013	-1 696.8	28 678.5
2014	1 365.9	25 090.8
North and South America	Flows	Stocks
2010	290.3	2 160.7
2011	382.4	2 356.3
2012	239.7	2 311.6
2013	143.8	745.2
2014	168.3	886
Asia	Flows	Stocks
2010	35.7	1 211.9
2011	87.6	1 183.4
2012	57.3	1 248.5
2013	141	993.8
2014	124.1	978
Africa	Flows	Stocks
2010	-19.3	197.1
2011	43.8	200.7
2012	24.7	226.7
2013	65.6	229.1
2014	-51.2	196
Oceania	Flows	Stocks
2010	9.4	34.5
2011	0.8	31.7
2012	6.3	33
2013	0.2	10.4
2014	-12.1	3.7

Source: own elaboration based on NBP figures

**Table 3: The share of Polish OFDI flows and stocks in total Polish OFDI flows and stocks for particular regions**

Europe	Flows	Stocks
2010	94%	92%
2011	99%	93%
2012	71%	93%
2013	<b>-126%</b>	94%
2014	86%	92%
North and South America	Flows	Stocks
2010	4.00%	4.90%
2011	4.70%	4.50%
2012	33.50%	4.00%
2013	<b>-10.70%</b>	2.40%
2014	10.60%	3.30%
Asia	Flows	Stocks
2010	0.50%	2.70%
2011	1.10%	2.20%
2012	8.00%	2.20%
2013	<b>-10.50%</b>	3.20%
2014	7.80%	3.60%
Africa	Flows	Stocks
2010	-0.30%	0.40%
2011	0.50%	0.40%
2012	3.40%	0.40%
2013	<b>-4.90%</b>	0.70%
2014	-3.20%	0.70%
Oceania	Flows	Stocks
2010	0.10%	0.10%
2011	0.00%	0.10%
2012	0.90%	0.10%
2013	0.00%	0.00%
2014	-0.80%	0.00%

Source: own elaboration based on NBP figures

Special attention must be paid to 2013 as in this year OFDIs by Polish firms globally was negative, implying that more capital had been withdrawn than invested abroad. This process may be explained by the abandonment of failed investments, repatriating funds back home, and may be evidence of wrong decision taken in the first place. Lack of success in investing abroad as judged by

losses incurred, write offs and divestments have various reasons. Bad luck might have played a role as well as unexpected volatility and negative developments on commodity and raw materials markets which impacted oil and minerals prices, or due to the remoteness and the difficulties of influencing and supervising investments in distant locations. Notwithstanding these failures, it may be argued that this is an unavoidable consequence of being a latecomer in the internationalisation processes. The focus on Europe in the period 2010-2014, oscillating around 90%, is because it is easily accessible and rather stable. The second attractive destination for Polish OFDIs has been North and South America. In terms of flows this region experienced strong growth in 2012. The Polish OFDI stock located in both Americas in 2014 is almost equal to Asia. However, North and South America attracted more foreign direct investment in 2014 than Asia. Africa, which is high on the agenda of Polish companies' expansion plans, increased its share of total Polish OFDI stocks. Nevertheless, this stock is still quite low at less than 1%. Oceania is still less attractive from the perspective of Polish firms (Table 3).

**Table 4: Embeddedness of Polish FDIs abroad – the role of reinvested profits**

The role of reinvested profits – ratio of reinvested profits to total OFDI outflow (%)	2010	2011	2012	2013
Europe	5%	2%	55%	12%
Africa	7%	25%	-59%	-11%
North Africa	-575%	-633%	-208%	-73%
Other African countries	-16%	79%	20%	5%
The Americas	-3%	3%	116%	-13%
North America	-1%	6%	113%	-14%
Central America	0%	-34%	8%	-17%
South America	0%	-3%	2%	150%
Asia	-30%	-13%	25%	19%
Near and Middle East	3%	18%	-650%	-111%
Gulf Arabian countries	-29%	32%	-54%	-5%
Other Near and Middle East countries	4%	13%	-	92%
Other Asian countries	14%	-32%	11%	-3%
Oceania & Polar region	-2%	475%	-27%	-2350%

Source: own elaboration based on NBP figures

The available statistics break down the category of OFDIs into equity, reinvested profits, and other company loans. The authors argue that by assessing the importance of reinvested profits in total value or in relation to equity, this may capture the embeddedness of given investments and reveal how mature they are. This is, however, difficult to establish given the flows in both directions, i.e. often the

withdrawal of capital previously invested. Despite the difficulties, an attempt was made to investigate the embeddedness of Polish FDIs abroad (Table 4).

The role of reinvested profits in total flows does not seem to reveal any clear tendency in any of the regions. What stands out, however, is the high level of this calculated ratio outside Europe – in North Africa, the Near and Middle East, and Oceania. They often act as cushions or inhibitors (flows with the opposite sign), reducing the level of total outflow. Such profit withdrawals when total flows were positive were reported in 2010 in Asia, Arabian Gulf Countries, and North Africa; 2011 in North Africa, Central America, Asia, and other Asian countries; 2012 Africa, and North Africa; 2013 in Africa, North Africa, the Americas, and North America. In other cases, high ratio levels indicated the positive contribution of reinvested profits to total flows.

### *Polish OFDI flows and stocks outside Europe – a cross-country perspective*

Polish FDIs to distant markets are gradually rising each year according to data provided by the Ministry of Development, (Ministerstwo Rozwoju 2014). The list of investments in selected countries outside Europe (Turkey and Russia are deliberately left out as being more European proximate countries) encompasses FDIs in eighteen countries. Due to the patchy data on the value of the projects conducted it is impossible to draw any reliable and comprehensive conclusions as to the financial aspects of the listed ventures. Nevertheless, the dominant sector and mode of entry in each selected country can be roughly assessed, including the non-equity modes, by following the approach of UNCTAD (2011) (Table 5).

**Table 5: Polish FDI projects outside Europe – a cross country perspective (in descending order according to the number of projects)**

Country	No. of projects (up to 2014)	Sectors	Dominant mode of entry and form of doing business in the host market
USA	56	medical, extraction, biotechnology, chemical, IT, food catering, candles, processing of fish, video games, neuroscience, manufacturing, processing, automation, robotics, furniture, toys, roof windows	acquisition of shares, green-field, affiliates, subsidiaries, start-ups
Egypt	26	food, cosmetics, real estate, yachts, sports services, tourism, hotels, construction	Missing data
China	23	manufacturing, construction, real estate, services, textiles, transport, cosmetics, food, mining equipment, interior fittings, machinery, aviation, energy	Missing data

Country	No. of projects (up to 2014)	Sectors	Dominant mode of entry and form of doing business in the host market
Kaza-khstan	20	energy, agricultural equipment, mining equipment, food, chemicals, pharmaceuticals, aviation equipment, telecommunications, construction, oil and gas exploration	greenfield, acquisition of shares, wholly owned subsidiaries, joint ventures
Indonesia	10	tourism, renewable energy, meat production, food, mining industry	acquisition of shares, building own premises
India	10	hygienic equipment, dressing materials, packaging, equipment, steel constructions, air conditioning, machinery, food catering	greenfield, brownfield
Malaysia	8	IT, cosmetics, purification plants, commercial company medical equipment, real estate, delivery services	company set up according to Malaysian law, joint ventures
Republic of South Africa	7	hotels, cosmetics, mining equipment, mining, energy	franchise, representative office, acquisition of shares
Canada	7	metal mining, oil exploration, cosmetics, computer games	acquisitions, joint ventures, subsidiaries
Uzbek-istan	6	pharmaceuticals, cosmetics, renewable energy, road construction, medical equipment, animal inseminations – all different	greenfield
Japan	5	food, construction	Japanese agent / representative office
Brazil	5	vehicles, car equipment, lighting, hotels, tour operators, construction	affiliates, subsidiary, acquisition of shares
Philippines	4	IT, construction, hotels	joint ventures
South Korea	3	shipyards, pharmaceuticals, chemicals, construction	joint ventures, greenfield – wholly owned subsidiaries
Morocco	2	metal packages	acquisition of shares, greenfield
Israel	2	IT	acquisition of shares
Kirgizstan	1	medical	wholly owned subsidiary
Tajikistan	1	energy – solar collectors	acquisition of shares

Source: own elaboration based on Ministry of Development data

As this compilation is based on data provided by the companies themselves it reveals certain inconsistencies – the precision of the sector of activity ranging from simple energy or tourism, to such details as candle production or modes of entry. The same refers to the terminology of modes of entry.

Based on the available Ministry of Development data on the Polish projects carried out in selected countries, the authors have tried to identify the profile of each investment and speculated on the key aspects of these investments within particular continents and countries.

■ Africa:

- Republic of South Africa – 4 out of 7 projects registered here were in the broadly understood mining and/or energy sector and involved setting up own representative office and the acquisition of shares, clearly pointing to market seeking combined with resource seeking motives. One franchise in the cosmetic sector exemplified a clear market seeking motive, whereas two projects in tourism and/or hotels involving acquisitions implied strategic asset seeking.
- Morocco – the only two investments here by the same Polish firm were done through acquisition and a greenfield project, which might suggest a clear market seeking motive or efficiency seeking motive – cheaper production abroad.
- Egypt – numerous projects carried out representing various sectors of the economy though linked to the specificity of the host country such as tourist location; but with data on the mode of entry missing this might suggest most of the investments are market seeking or alternatively strategic asset seeking FDI.

■ Asia:

- Uzbekistan – though representing various sectors all 5 investments are greenfield projects, which implies the market seeking motivations of Polish FDIs and signify the intention to operate on local markets.
- Kazakhstan – among 20 investments carried out here, particularly frequent have been setting up company branches and/or subsidiaries in either the construction and energy sectors or the mining industry, which implies market seeking and resource seeking motives. Shares acquisitions and joint ventures in chemicals, agriculture, energy, petrochemicals and geology suggest strategic asset seeking motivations to enable better servicing of new markets or/and gain access to natural resources.
- Kirgizstan – one subsidiary of a medical company might suggest a market seeking as well as efficiency seeking FDI. Producing agricultural equipment and machinery as well as pharmaceuticals exemplifies not only the market seeking motive but also points to the competitive technology advantages of Polish companies enabling them to offer their products and services here.
- Tajikistan – share acquisitions in the energy sector are the only registered investment here which might imply a strategic asset seeking motivation.

- Malaysia – out of 8 projects, one in the IT industry by a large Polish firm involving establishing a company under Malaysian law might imply a resource seeking motive (qualified labour force), an efficiency seeking motive (enhancing the operation of the company) but also a market seeking one. The peculiarity of the remaining investments done by a “group” of private individuals involving share acquisitions in commercial companies may indicate market seeking or strategic asset seeking motives.
- South Korea – all three projects carried out in the manufacturing industry – one as a greenfield project and the others as joint ventures – might indicate the efficiency seeking and/or market seeking motives for the Polish FDIs.
- Israel – as both IT investments are conducted by acquiring shares in an Israeli firm they might be classified as strategic asset seeking FDIs.
- Japan – as all of 5 investments carried out in Japan are registered as “Japanese representatives and/or agents” they must have been motivated to increase the sale and distribution of Polish products in Japan, i.e. can be classified as market seeking FDIs.
- Indonesia – 10 Polish investments predominately in tourism clearly point to market seeking motivations. Two conducted in the mining and extraction sector done via acquisitions might on the other hand imply resource seeking and/or strategic asset seeking FDIs.
- India – 10 investments conducted as greenfield or brownfield projects in diversified sectors might suggest market seeking or efficiency motives.
- Philippines – 4 projects in IT, construction and tourism, all of them joint ventures, might imply market-seeking and efficiency seeking motives for the Polish FDIs.
- China – there is a diversity of sectors represented in the listed projects but missing information as to the mode of entry precluded reliably establishing the FDI types. Most of the investments may be market-seeking, with some also being resource seeking or perhaps strategic asset seeking.

■ America:

- USA – among all the 56 projects carried out in the United States by Polish investors particularly worth stressing are the following: start-ups and other offices set up in the IT sector (software, games, mobile application developing) motivated most likely by exploiting and exploring technology (knowledge and technology driven FDIs); toys, weapons and furniture production along with food catering and cosmetics are clearly examples of market driven FDIs; acquisitions in hotels, chemicals, oil, and the mining industry suggest strategic asset seeking in the first place and then resource seeking or/and market seeking motives. The Polish FDIs in the USA are not only striking for the sheer number of projects carried out,

but also the share of advanced knowledge based investments and the presence of many of Poland's largest companies.

- Canada – out of 7 projects, 3 were carried out via acquisitions in the exploration and mining industry, implying a clear strategic asset and resource seeking motive. Two others in food and cosmetics done by establishing branches and/or subsidiaries suggest market-seeking FDIs.
- Brazil – 1 strategic asset seeking and 4 market seeking FDIs in very diversified sectors.

In the next section, selected case studies of Polish firms who ventured into distant markets are discussed. The authors rely on second hand data: either publicly available reports and websites related to a given company, or the material collected during our previous field research.

### **Cases of Polish OFDIs in distant locations – private versus state-owned enterprises**

A study by Ciesielska (et al. 2016) revealed that Polish companies that decided on bold investment in far-away destinations are usually large, financially strong companies capable of carrying out such risky undertakings and with a distinct competitive advantage enabling them to outperform rivals and successfully settle in distant unknown locations. Companies that ventured into far-away distant unknown market are still few, though the number might rise soon. Cases of bold investments by copper and silver producer KGHM Polska Miedź SA or chemical firm Azoty along with undertakings by the oil and gas firms PGNIG and LOTOS confirm the growing importance of such remote destinations to Polish firms. Other cases of Polish remote OFDIs include Ursus, a tractor manufacturer that signed a contract in Zambia to the tune of USD 100 mln to build an assembly line – the third investment following ones in Tanzania and Ethiopia (Ptak 2017). The competitive advantage of Ursus rests on transferring know-how. The company also wins by creating many valuable jobs on site. Grupa Azoty and Asseco also invested in Africa and are even active in seven markets there, among others in Nigeria and the Republic of South Africa. The whole cohort of Polish firms involved in OFDIs is diversified, and a group of private entities can be distinguished as well as a quite active pool of state-owned enterprises (SOE). The group of ambitious private firms investing not only in Europe but in more remote locations like Asia, South and North America, Africa and Australia encompasses, among others, Comarch, Cormay, Pesa and Solaris. In the SOE group there are nine strong companies investing in exotic destinations.

Our cases have been purposefully chosen based on the scale of the investments conducted, the impact they are supposed to have on the home economy, the attention they attracted in public opinion (not always positive), and the availability of data; which includes considerable material collected by the authors of this pa-

per in earlier projects. The selected group is rather heterogeneous, but in this way also mirrors the idiosyncrasy of Polish OFDIs in general and in distant markets in particular. Our intention here is to highlight how diversified this cohort is, though relatively small and continuously growing in size, as well as show the early stages of foreign market engagement by Polish companies. The authors focus here on two private firms specialising in the rather traditional manufacturing of vehicles, two advanced high-technology companies from the IT and medical equipment sectors, as well as one SOE which, as it seems, fully deserves the title of SOMNE, i.e. state-owned multinational enterprise.

### *The private sector and foreign outward investors – Comarch, Cormay, Solaris Bus & Coach, and Pesa*

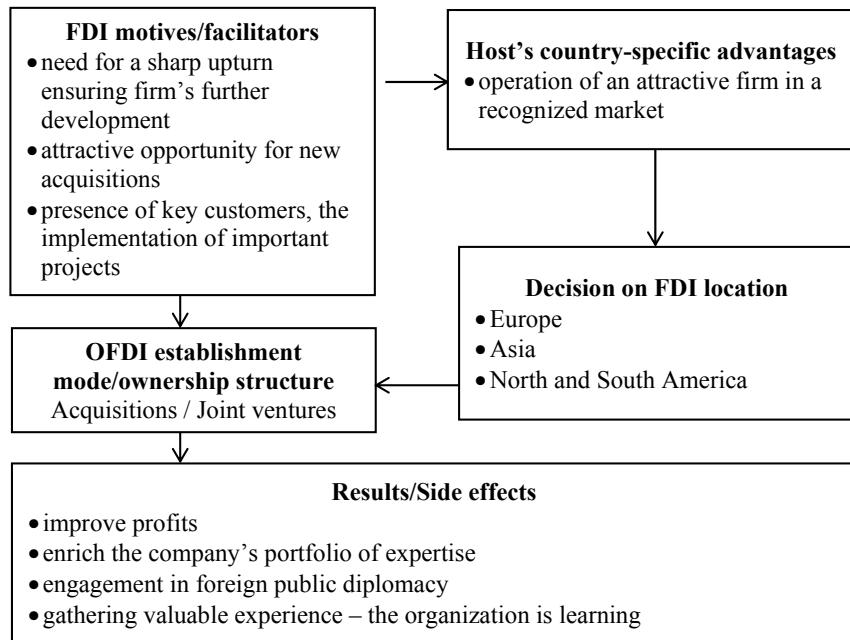
In explaining the involvement of the selected private firms in OFDIs in a broader context the authors purposefully do not present too much general data about the firms studied as this is relatively easily accessible. The authors rather try to show the interplay between the company's main motives for expansion abroad and the specificities of the host location which lead to the concrete selection of the place and impact the decision on the mode of entry. The authors also seek to complement their presentation by including the facilitators of these foreign investment moves and the ultimate impact they have for the company, along with some side-effects that emerge often quite unexpectedly. Following the approach by UNCTAD (2011) the authors purposefully include non-equity modes in our study.

#### *Comarch*

Comarch is a leading Polish IT company with around 5000 employees, and was established in 1993 with the foundation of another firm – CDN (<https://www.comarch.pl/>). It is a global software manufacturer, integrator and IT business solutions provider serving large enterprises. It operates in West European countries as well as Middle Eastern and American markets. Interest in remote places is due to the attractiveness of these locations in terms of their size. Large markets enable reaching and achieving economies of scale. However, the case of Comarch shows that FDIs in distant markets such as Brazil or Canada are the result of simply following the customers. In order to better and more professionally serve their client firms they have to be closer to them and provide more tailor-made solutions that are adjusted to local peculiarities and requirements. At the same time failures in investing abroad can prove very useful and be a lesson to learn for further initiatives. The failed investments experienced by Comarch in China and Vietnam point to the risks involved and show how tricky venturing into such culturally distant markets can be. The main obstacle preventing these FDIs was the far-reaching intrusion and intervention of local state authorities

dictating the cooperation formula and in fact forcing certain behaviours on the firm. Forced collaboration with indigenous companies was not acceptable to Comarch headquarters. The required blocking or significant reduction of Polish original activity by the host authorities and Asian partners was unacceptable. This shows that Polish companies do not forget about their home market when seeking foreign markets and more profit, showing good economic patriotism. Even these failed investments have not discouraged the firm from further internationalization but have provided a useful and valuable lesson. The Comarch OFDI profile is presented in Figure 2.

**Figure 2: Comarch OFDI involvement**



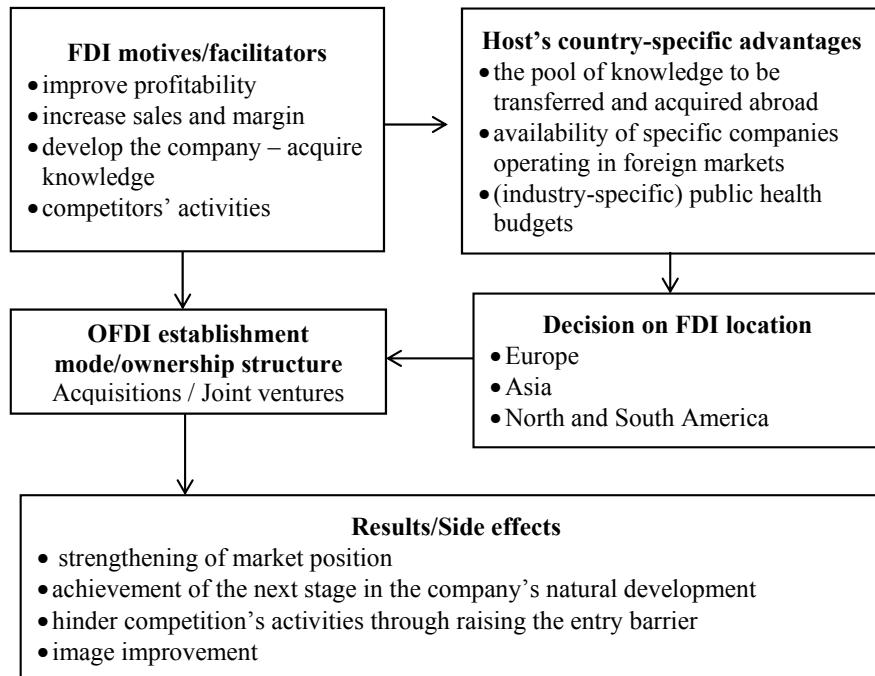
Source: own study

### *Cormay*

Cormay develops and manufactures high quality diagnostic reagents and advanced laboratory equipment ([http://cormay.pl/index.php?lang=\\_en](http://cormay.pl/index.php?lang=_en)), employing around 270 people and established in 2006. As a Polish provider of medical and diagnostic equipment as well as solutions for laboratories, Cormay collaborates a great deal with partners from the US and Japan. Interestingly, this form of co-operation shows in fact *coopetition*, as these partners are rivals in certain segments of the market. The case of Cormay represents a double strategy of simultaneous investing in advanced West European markets in order to gain access to

modern technologies while moving to the east to Asia with the aim of expanding sales and broadening its markets for goods and services. It also shows its foreign expansion is based on the acquisition of selected promising companies rather than focusing on certain markets. The company's management seeks relevant firms to cooperate with, learn from and joint forces with, rather than heading to certain locations. The acquired firms mean certain strategic advantages can be obtained. Hence, diversification of the portfolio can be achieved. The joint venture in Brazil for instance was meant to enable the locally adapted production of Cormay goods. As the Polish company was supposed to provide technology and the local partner the capital, this form of cooperation can be also labelled as (NEM) non-equity mode (UNCTAD 2011). Cormay benefits from some forms of state assistance in internationalization, like participation in fairs and economic missions. The experiences gained in contacts with Chinese investors confirm the aggressive and expansionary approach adopted by such entities; whereas investments in the mature American market offer a unique chance to gain access to modern cutting edge technologies and the possibility of learning from pioneers, leaders and experts in a given field. The model below (Figure 3) summarises the main factors and effects crucial to OFDI by Cormay.

Figure 3: Cormay OFDI involvement

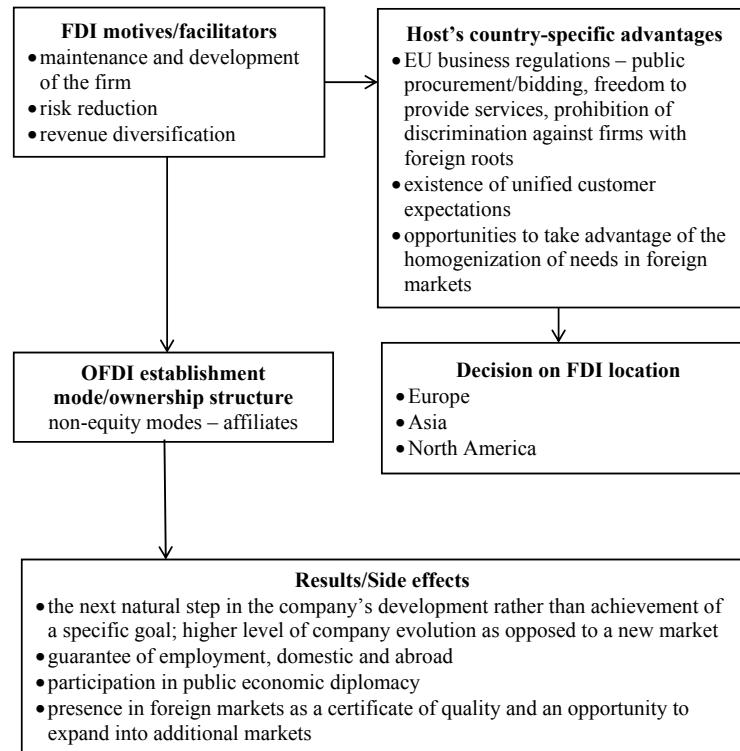


Source: own study

### Solaris Bus & Coach S.A.

Solaris – a family company – is a Polish manufacturer of trams and buses that also operates in various very remote markets such as the United Arab Emirates (<https://www.solarisbus.com/en>). Solaris Bus & Coach S.A. employs around 2500 people and was established in 1994. It is a leading European manufacturer of innovative public transportation vehicles such as buses, trolleybuses and urban rail vehicles, as well as a leader in e-mobility offering a wide range of battery buses. However, this presence encompasses mainly the later final stages of value creation and global chains – sales, marketing, after sales care. Hence, such activity fits into the MAAS model which regards manufacturing-as-a-service and relies on providing hybrid *service-goods*. Winning foreign public procurements and tenders requires high-quality, technologically advanced, yet cost competitive products adjusted to the clients' needs. Such a strategy enables the company to gain a foothold in specific and demanding markets such as the Middle East. The determinants and consequences of the Solaris OFDI strategy are summarised in figure 4.

**Figure 4: Solaris Bus & Coach S.A. OFDI involvement**

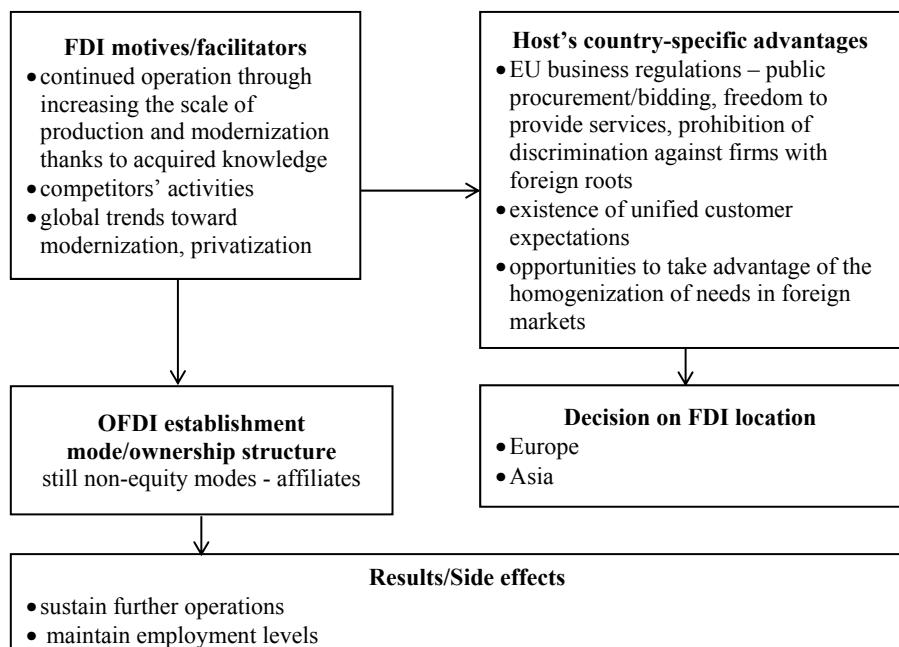


Source: own study

### Pesa

This review of Polish firms expanding abroad seems to confirm that their presence in distant markets, although increasing, is still dominated first and foremost by exports and low profile activities supporting distribution and sales ([http://www.pesa.pl/?lang=en\\_us](http://www.pesa.pl/?lang=en_us)). To further support this hypothesis the case of a tram manufacturer from Poland can be mentioned. Pesa, with around 3000 employees and a history going back to 1851 is the largest Polish manufacturer of railway vehicles; also performing modernisation, repair work and rolling stock inspections. This shows that currently the offer is a combination of pure goods and services, and this hybrid product is also provided abroad. Hence the foreign presence implies combining traditional straightforward export sales with an on-site presence and assistance to clients that takes the form of cooperation agreements. When expanding into distant risky markets companies often complain about a lack of institutional solutions, proper bilateral agreements, and partnerships which would have significantly reduced the uncertainty and improved the business conditions. Pesa's reasons for venturing abroad and the results of these steps are summarised in figure 5.

**Figure 5: Pesa OFDI involvement**



Source: own study

### *State-owned sector and foreign outward investors*

A close inspection of FDIs by a special cohort of Polish firms, namely state-owned enterprises (SOEs), reveals that their activities abroad encompass mainly European markets, though certain acquisitions have been carried in Asia and the USA. The available data on this specific group of Polish firms permits some analysis. Out of nine selected firms and their geographically dispersed subsidiaries, four were identified with affiliates outside Europe. The pool of these subsidiaries is heavily dominated by affiliates owned by a Polish copper and silver company; i.e. KGHM Polska Miedź S.A and its divisions. In total, out of 108 (one hundred eight) entities abroad, 37 are located in distant markets with as many as 31 belonging to KGHM (Table 6).

**Table 6: Synopsis of distant market OFDIs by Polish SOEs**

Company	Subsidiary	Host economy	Area of activity
Azoty	AFRIG Trade S.à r.l., a subsidiary of African Investment Group S.A.	Senegal	importing, distribution and trading with chemical products and resources, as well as storage and logistics services
Azoty Police	African Investment Group S.A	Senegal	the exploration of mineral resources and holds licenses to perform evaluation and exploration of mineral deposits
KGHM	KGHM AJAX MINING INC. Vancouver	Canada	mining of copper and gold ore
KGHM	KGHM (SHANGHAI) COPPER TRADING CO., LTD.	China	wholesale activities, import/export of copper/silicon products and chemicals, mechanical and electrical equipment, office materials, commercial consulting services
KGHM	Sugarloaf Ranches Ltd. Vancouver	Canada	agricultural activity
KGHM	0929260 B.C U.L.C. Vancouver	Canada	management or exercise of control over other companies
KGHM	KGHM INTERNATIONAL LTD. Vancouver	Canada	foundation, development management or exercise of control over other companies
KGHM	KGHM (Barbados) Holdings Ltd Barbados.	Barbados	management and exercise of control over other companies
KGHM	Quadra FNX Chile (Barbados) Ltd. Barbados	Barbados	management and exercise of control over other companies
KGHM	Quadra FNX Holdings Chile Limitada Chile	Chile	management and exercise of control over other companies
KGHM	Quadra FNX SG (Barbados) Ltd. Barbados	Barbados	management and exercise of control over other companies

Company	Subsidiary	Host economy	Area of activity
KGHM	Aguas de la Sierra Limitada Chile	Chile	ownership and exercise of water rights in Chile
KGHM	Quadra FNX FFI Ltd.	Barbados	financial activities
KGHM	Robinson Holdings (USA) Ltd. Nevada, USA	USA	technical and management services for subsidiaries in the USA
KGHM	Wendover Bulk Transhipment Company Nevada, USA	USA	shipping services for the Robinson mine
KGHM	Robinson Nevada Mining Company Nevada, USA	USA	copper ore mining, copper production and sale
KGHM	Carlota Holdings Company Arizona, USA	USA	management and exercise of control of other companies
KGHM	Carlota Copper Company Arizona, USA	USA	leaching of copper ore, copper production and sale
KGHM	FNX Mining Company Inc. Ontario, Canada	Canada	copper and nickel ore mining, copper and nickel production and sale, Victoria project development
KGHM	DMC Mining Services Ltd. Ontario, Canada	Canada	mining services contracting
KGHM	Quadra FNX Holdings Partnership British Columbia, Canada	Canada	management and exercise of control of other companies
KGHM	Raise Boring Mining Services, S.A. de C.V. Mexico	Mexico	mining services contracting
KGHM	FNX Mining Company USA Inc. USA	USA	management and exercise of control of other companies
KGHM	DMC Mining Services Corporation USA	USA	mining services contracting
KGHM	Centenario Holdings Ltd. British Virgin Islands	British Virgin Islands	management and exercise of control of other companies
KGHM	Pan de Azucar (BVI) Ltd. British Virgin Islands	British Virgin Islands	management and exercise of control of other companies
KGHM	Minera Carrizalillo Limitada Chile	Chile	management and exercise of control of other companies
KGHM	Volcanes (BVI) Ltd. British Virgin Islands	British Virgin Islands	management and exercise of control of other companies
KGHM	Mineria y Exploraciones KGHM International SpA Chile	Chile	exploration services for the Sierra Gorda project and the Franke mine
KGHM	Frankie (BVI) Ltd. British Virgin Islands	British Virgin Islands	management and exercise of control of other companies
KGHM	Sociedad Contractual Minera Franke Chile	Chile	leaching of copper ore, production and sale of copper

Company	Subsidiary	Host economy	Area of activity
KGHM	Centenario Copper (BVI) Ltd. British Virgin Islands	British Virgin Islands	financial activities
KGHM	0899196 B.C. Ltd. British Columbia, Canada	Canada	management and exercise of control of other companies
PGNiG	Polish Oil and Gas Company	Libya / The Netherlands	special-purpose company
PGNiG	Oil Tech International F.Z.E.United Arab Emirates	Unit.Arab Emirates	
PGNiG	The Operating Branch in Pakistani	Pakistan	
Lotos	Aphrodite Offshore Services N.V.	Curaçao	upstream segment – ship chartering, management of own assets, provision of sea transport

Source: own elaboration based on BvD database, 2015

A cursory analysis of these investments shows that some of them are indeed productive ones focusing on manufacturing or providing certain services; many, however, are set up just as vehicles for internal holding or group purposes. Tax optimization purposes and other management strategies seem to be the reason behind foreign establishments. Subsidiaries are set up due to tax strategies rather than with the aim of producing something or employing workers.

As has already been shown, a special place among these Polish firms is occupied by KGHM – a Polish “champion” – a silver and copper producer with more than a 30% state share operating worldwide. It is an example of a state-owned multinational firm (SOMNE) whose experience can serve as a source of valuable insights for all potential Polish multinationals with or without a state stake. Its investments abroad show that this might often be needed to “fail your way to success”.

KGHM Polska Miedź S.A. belongs to world leaders in the extraction and processing of valuable metals employing 34,000 people. It can boast a geographically diversified mining portfolio with facilities in three continents – Europe, North America and South America. Controlling over 22.7 million tonnes of copper ore resources worldwide, KGHM has risen to the position of a global mining industry leader with a portfolio including metals such as molybdenum, palladium and nickel. The company’s growth has been accompanied by the internationalisation of its operations with exporting being supported by sales affiliates in Vienna and Shanghai ([www.kghm.pl](http://www.kghm.pl)). A milestone in the process of internationalisation was the take-over of the Canadian company Quadra FNX Mining Ltd. for PLN 9.44 Billion (Świerzewski 2013) via KGHM International Ltd. This de-

cision made KGHM Polska Miedź S.A. a global company with the fourth largest copper resources worldwide and great prospects for further expansion since the Canadian company was the owner of mining sites in Sierra Gorda in Chile, Carlota in Arizona and Malmbjerg in Greenland among others. Nevertheless, to evaluate this investment a longer time perspective is needed since a slowdown in emerging markets, China in particular, has negatively impacted the whole of KGHM.

## Discussion and conclusions

By conducting an exploratory study on Polish OFDIs in remote regions the authors have contributed to the understanding of business relationships between regions. From the perspective of managers it is a big challenge, because of the great physical distance characteristic of unknown and institutionally different foreign markets (Johanson, Vahlne 1977), and the higher costs of coping with this distance in operational and strategic terms (Teece 1986). “Exotic” destinations represent an even greater challenge for firms from CEE countries, such as Poland among others, since these countries have for a long time been FDI recipients rather than providers (Karaszewski et al. 2013; Götz 2014; Götz, Jankowska 2016).

CEE countries, being post-transformation countries, sometimes recognized as advanced emerging economies, were able to create a new generation of firms that are eager to follow inter-regional internationalisation. However, this group of firms is still rather small since inter-regional internationalisation requires the liability of regional foreignness to be confronted (Asmussen, Goerzen 2013). Such “outsidership” results in additional costs related to gaining access to the networks characteristic of remote locations (Johanson, Vahlne 2009).

Drawing on the analytical framework adopted in this paper, the authors conclude that the early stages of internationalisation by Polish firms do indeed corroborate a preference for neighbouring locations and an aversion to distant risky markets. The variety of motivations for Polish companies conducting OFDIs is further reflected in the diversity of host localities.

Exploring Polish inter-regional investment ties, i.e. FDIs done outside Europe, enables the authors to draw conclusions about the relatively short history of expansion into distant markets. Tangible internationalisation in the most advanced forms of FDI did not begin until after 2004 (EU accession) and has not yet fully reached remote overseas markets. The behaviour of Polish investors has been rather erratic as bold investments coexist with impressive withdrawals and write-offs. Large FDIs are then often followed by significant disinvestments. Hence it is difficult to establish a clear pattern of Polish OFDIs in distant markets. It is noticeable that single firms are responsible for the bulk of flows to certain countries, implying high concentration as Polish OFDIs in a given market

are in fact carried out by only a few companies. Having no previous colonial relationships may be an impediment for Polish investors; hampering the striking of deals, negotiations and the establishment of closer ties, and hence impair smooth successful investments. However, it may also provide a unique opportunity to create a fresh narrative and kick-start a new era of inter-regional economic ties.

The diagnosed relevance of developed, wealthy and advanced economies among the top remote destinations for investments flowing from Poland reveals the nature of Polish OFDIs and may suggest an aversion to risk. It may constitute the main characteristic of inter-regional flows and ties, at least in the early stages of investing in remote destinations. Apparently, the identified pattern of Polish remote OFDIs is also an example of the internationalisation by emerging economies in developed ones. A preference for developed economies as destinations for remote investments confirms the common wisdom that expanding far and wide is challenging; that a higher physical distance implies higher costs and more barriers to be overcome (Ferenčíková, Hluskova 2015; Frankel, Rose 2002; Johanson, Vahlne 1977). Choosing more stable and more similar economies might be the right strategy to reduce the challenges faced. Yet the cases listed here show that it is not only emerging Polish multinationals that venture across regions, but also smaller firms (numerous investments in Egypt and the former Soviet Republics).

A cursory yet critical examination of Polish OFDIs reveals that they represent the technology and knowledge exploring motives as well as the advantage exploiting motive. This is particularly visible in investments done in advanced, mature and highly competitive markets which are the most favoured among Polish investors. Operating in the USA, Canada, and Japan certainly requires having certain distinct competitive advantages, but also offers a unique chance to tap into local, host country expertise. Therefore expansion into advanced economies enables the gaining of new capabilities like technology and branding (Luo, Tung 2007). Polish firms, though mostly focused on Europe, have invested in the USA, Canada and Japan, which are markets that are considered developed markets and are stable from the perspective of Polish entities. The operations of Polish firms in such advanced market economies (USA, Canada, Japan) may help these firms confront the liability of foreignness and reduce the feeling of “outsidership”.

Notwithstanding the marginal presence of Polish investors in the remote markets highlighted, it is a presence that consists of very diversified forms ranging from pure export servicing and sales offices to bold greenfield projects created from scratch (E&Y 2015).

Certainly, a better understanding of the subtle relationships in inter-regional investment flows would require further studies relying on in-depth interviews and

first-hand data obtained from managers and CEOs involved in internationalisation processes.

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## Produktionscontrolling im Kontext von Industrie 4.0

Auswirkung von Echtzeitdaten auf die Effektivität und Effizienz der Planungs-, Steuerungs- und Kontrollunterstützung des Produktionsmanagements

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The last few years have played host to a discussion concerning the potential of digitisation in industrial production under the term 'Industry 4.0'. The starting point of Industry 4.0 is the digitally networked factory. In this scenario, all production-relevant processes are recorded in real time. From a controlling perspective, the availability of real-time data provides new opportunities for data processing. As Industry 4.0 essentially addresses production and production processes, this especially applies to production controlling. In this context, the question arises of how real-time data affect the effectiveness and efficiency of production controlling. This study tackles this question, developing a method with which not only the effectiveness and efficiency of production controlling in general but also the effect of real-time data on the effectiveness and efficiency of production controlling in particular can be studied.



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