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## BEYOND BORDERS: NEW GLOBAL MANAGEMENT DEVELOPMENT CHALLENGES AND OPPORTUNITIES

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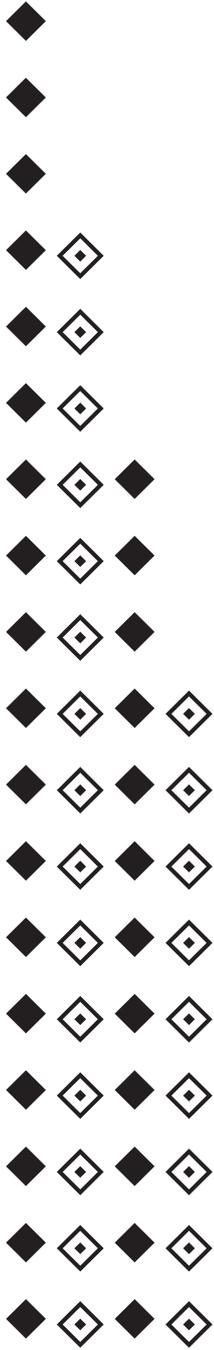
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## CONGRESS PROGRAM

July 4 -8, 2007, Maastricht School of Management  
Maastricht, The Netherlands



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# Poland's Investment Development Path and Industry Structure of FDI Inflows and Outflows

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*This study explores changes in industry composition of FDI inflows to and outflows from Poland, using the conceptual framework of J. Dunning's model of the investment development path (IDP). The data time frame used (from 1996 to 2005) allows for identification of significant changes in FDI structure as Poland moves through stage 2 of her IDP. The leading position of the manufacturing sector in both FDI inflows and outflows is replaced by services (especially financial and trade). The last section presents policy implications focused on measures designed to redress the imbalance between the still much larger inflows than outflows of FDI.*

## Introduction

The present study is a continuation of the authors' previous work on Poland's investment development path (IDP) and its geographic patterns (Gorynia, Nowak & Wolniak, 2005 and 2006). This time, the authors undertake a dynamic analysis of the sectoral and industry structure of Poland's inward and outward FDI in reference to J. Dunning's IDP model. The purpose of the study is to identify patterns of changes in that sectoral and industry structure over the period during which Poland was in stage 2 and moving towards stage 3 of her IDP, and to confront the observed patterns with the hypotheses or predictions derived from Dunning's model.

The data sets used in this study have been compiled from the database of the National Bank of Poland, which in 1997 started to collect FDI inflow and outflow information broken-down by sectors and industries (earlier only aggregate FDI information was collected by the Bank).

This in turn determined the period covered by the present study: the years from 1996 to 2005. Although the authors' previous study of Poland's IDP covered a period starting from 1990, a convenient coincidence is that, according to the said study, 1996 marks Poland's transition to stage 2 of her IDP. Thus the present study focuses on stage 2 and supplements the previously delineated overall characteristics of stage 2 with a comprehensive analysis of

the shifts in sectoral and industry composition of both inward and outward FDI.

## Literature Review

The concept of IDP was first proposed by J. Dunning in the early eighties (Dunning, 1981). Since then it has been refined and extended several times, with most significant modifications contained in Dunning (1986), and Dunning and Narula (1994, 1996 and 2002). Several other authors have made contributions to the development of this concept, including Lall (1996), and Durán and Úbeda (2001 and 2005).

According to the basic IDP proposition, the inward and outward investment position of a country is tied with its economic development. Changes in the volume and structure of FDI lead to different values in the country's net outward investment (NOI) position, defined as the difference between gross outward direct investment stock and gross inward direct investment stock. The changing NOI position passes through 5 stages intrinsically related to the country's economic development (Dunning & Narula, 2002).

Although, as Barry Goerg and McDowell (2003) note, the IDP model is largely silent on the sectoral destinations of FDI inflows and outflows (*ibid.*, p. 347), general predictions re: the shifts in sector/industry composition and nature of FDI parallel to the IDP stages can be derived from Dunning (1997) and Dunning and Narula (2002).

In stage 1, which is characterised by a low level of inward and an almost non-existence of outward FDI, inflows of FDI are directed towards labour-intensive manufacturing and the primary product sectors, such as mining and agriculture. Outward FDI is negligible or non-existent because "the O-specific advantages of domestic firms are few and far between" (Dunning & Narula, 2002, p.140). In stage 2, in which inward FDI rises substantially while outward FDI emerges at low levels, inward FDI is predicted to remain largely in natural-resource-intensive sectors. Stage 3 marks a gradual decrease in the rate of growth of inward FDI and an increase

in the rate growth of outward FDI. In this stage, the comparative advantage of labour-intensive production will deteriorate as a result of an increase in domestic wages. This, in turn, will stimulate inward FDI to flow to technology-intensive manufacturing and other industries capable of delivering higher value added locally. Stage 4 is characterised by outward FDI stock first matching and then exceeding that of inward FDI and by outward FDI growing faster than inward FDI. Finally, stage 5, which is characterised by the NOI oscillating around the zero level, attracts most of Dunning's (1997) and Dunning and Narula's (2002) attention and analysis. Indications of industry or sectoral preferences of inbound or outbound FDI are mostly concealed in assertions that stage 5 highly developed, Triad countries show a marked convergence of their economic structures and that FDI in both directions is increasingly created asset- and efficiency-seeking with greater emphasis on growth via strategic alliances as well as mergers and acquisitions.

Parallel to its conceptual development, numerous empirical studies have been undertaken to test the validity of the IDP model. The literature review reveals two main strands in these empirical studies. One strand represents multi-country studies using cross-section analysis. The other strand of studies focuses on one country's NOI position either vis-à-vis all countries of the world or countries (world regions) that represent the main destinations for FDI as well as the main source of FDI. The latter studies are longitudinal in nature (see Gorynia, Nowak and Wolniak, 2006 for a succinct review of the two strands of IDP studies).

Dunning and Narula (1996, p. 22 and 24–25) argue that a cross-sectional analysis across countries has severe limitations and can only be treated as a surrogate for longitudinal studies. As the IDP is essentially a dynamic concept, and every IDP is idiosyncratic and country specific, it can be best analysed on a country-by-country basis. This view is echoed by Durán and Úbeda (2001). They argue that "the speed and direction of movements along the various phases of IDP depend on a set of factors that influence the economic structure of a country and the type of investment it makes and receives" (ibid, p. 9). The authors of this paper were able to identify only a handful of studies that devote more than cursory attention to the evolving industrial/sectoral structure of FDI in the context of IDP. Several of them are contained in the book edited by Dunning and Narula (eds., 1996), including contributions by:

- Clegg (1996) examining the UK's IDP and looking at the country's IDP position in three industry groups;
- Graham (1996) focusing on the 5<sup>th</sup> stage of the US IDP;
- Akoorie (1996) investigating the sectoral patterns of inward and outward FDI in New Zealand;

- Calderón, Mortimore and Peres (1996) analysing the impact of FDI on the production structure of the Mexican economy;
- van Hoesel (1996) investigating Taiwan's FDI and its impact on the country's industrialisation;
- Kumar, (1996) analysing India's industrialisation, liberalisation as well as inward and outward FDI;
- Zhang and Van Den Bulcke (1996) examining the IDP of China and focusing on the changing government policy during the country's 15 years of transition to a market economy.
- Also the studies by Bellak (2001) of Austria's IDP and by Barry, Georg and McDowell (2003) of the Irish IDP contain some sectoral analysis of inbound and outbound FDI.

Summing up, the empirical studies mentioned above point to certain important shifts in sectoral and industrial composition of both inward and outward investment taking place when a country progresses from one stage of the IDP to another. However, it is evident that these shifts are far from being uniform across countries. Clearly country-specific factors (idiosyncrasies) play an important role in shaping the sectoral and industrial patterns of FDI. For example, in the case of New Zealand the historic reforms initiated by the government in 1984 led to a dramatic increase in the inflows of non-resource based FDI, particularly into the banking sector (Akoorie, 1996). Likewise,

India's and China's economic liberalisation policies induced the changing structure of inward and outward FDI (Kumar, 1996; Zhang and Van Den Bulcke, 1996). And Taiwan's dramatically changing sectoral distribution of inward and outward FDI can be linked to the country's rapid industrialisation (van Hoesel, 1996). Some studies point even to paradoxes, such as the "renaissance" of the manufacturing sector as an FDI destination in the US observed by Graham (1996, p. 91). It can therefore be argued that Dunning's predictions regarding sectoral investment patterns in relation to a country's IDP may not always find full confirmation in the referenced empirical studies.

## FDI Inflows

Since the whole period under investigation in the present study (1996–2005) has been identified in previous research as representing stage 2 of Poland's IDP, the sectoral/industry analysis of FDI inflows and outflows which follows, reflects the degree of their concurrence with that stage in J. Dunning's original IDP model.

The data breakdown of the Polish economy made by the National Bank of Poland and considered by the authors as the most reliable source creates nonetheless a certain problem relating to the terminology and level of

aggregation employed. Nominally the country's economic potential and in this case the target of FDI inflows is split into industries or more aptly industry groups which bear closer semblance to industry *branches* than to *sectors* of economic activity. However with the exception of one entry, that of "manufacturing", which does indeed represent a full fledged sector and (as the sole entry) is thus broken down into its constituent components: different industries. Such approach complicates economic analysis and drawing conclusions since the units of such analysis are of unequal content and composition and thus may be difficult to compare. This reservation then should be taken into account in interpreting the results that follow. Moreover recognizing this dilemma the category of industry branches will be used thereafter to denote the industry composition of FDI inflows to and outflows from Poland.

As shown in Tables 1 and 2, out of the ten industrial branches of the Polish economy having been the object of significant FDI inflows from abroad, i.e. having received at least 0.1% of the cumulative total FDI in 2005, only three (manufacturing, construction plus mining and quarrying) have revealed a diminishing absorption pattern in the studied time period. The greatest decrease was observed in manufacturing, from 40.4% in 1996 to 30.6% in 2005, with a marked sub-period of decline to 27.5% in 2001 and then of growth up to 31% in 2004.

Available data allow for a deeper probe into the industry components of manufacturing. The sharpest drop, from 13.3% in 1996 to 4.8% in 2005, occurred in food,

beverages and tobacco industries combined, followed by much smaller decreases in motor vehicles and transport equipment (from 7.8% in 1996 to 6.2% in 2005) and chemical and rubber products (respectively from 5.8% to 5.1%). However there was one industry pool on the rise (wood, paper, publishing and printing), starting with only a 0.2% share of the total in 1996 and reaching 3% in 2005.

Dunning (1997, p. 237) indicates that at the beginning of stage 2 FDI inflows are attracted by the manufacturing industries with advantage of foreign investors residing in technology, trademarks and managerial skills. In the case of Poland the order of importance of the said advantage was first and foremost in branding (trademarks), then in superior managerial competencies and lastly in technology, though usually not of the state of the art category. In 1996 and at the beginning of IDP stage 2 there was a clear dominance of light, relatively low technology manufacturing of mass consumer goods (food, beverages and tobacco) with an FDI value of 591.6 million USD. Then followed a 5.5 percentage point gap separating these industries from motor vehicles and transport equipment (also with a consumer, non-industrial focus), receiving 347 million USD in foreign investment. The industrial goods sector was represented by a sizable share of technology intensive chemical and rubber industries (258.9 million USD), and a minimal share for wood, paper, publishing and printing (only 40.3 million USD).

Table 1. Industry Structure of Accumulated FDI Inflows in Poland, 1996–2005, in mln USD at Current Prices

Sector/Industry	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Manufacturing, of which:	1800.4	3255.3	5522.3	7172.9	9277.1	10465.2	11930.5	14012.9	19016.3	21539.2
<i>motor vehicles and transport equipment</i>	347.0	537.2	1003.2	1294.8	1597.2	1693.7	2102.0	2844.6	3980.1	4376.8
<i>chemical and rubber products</i>	258.9	545.4	853.0	1171.6	1477.1	1665.5	2184.2	2482.1	3263.0	3579.7
<i>food, beverages and tobacco</i>	591.6	944.0	1693.3	1859.4	2270.0	2379.5	2546.3	2708.9	2910.9	3402.7
<i>wood, paper, publishing and printing</i>	40.3	278.8	457.1	724.4	1013.8	1124.3	1238.2	1340.9	2220.5	2277.3
Financial intermediation	603.2	1479.1	2539.8	4749.1	6738.8	8794.6	10462.2	11025.8	13544.3	16534.5
Trade and repairs	606.7	1029.7	1844.2	2630.4	3385.8	4198.6	5040.9	6486.1	8125.8	10567.0
Transports, communication	149.0	197.3	201.7	1931.6	5583.7	6617.2	5761.4	5589.3	8020.1	7600.1
Real estate, IT, R&D, equipment lease	156.0	395.4	609.9	879.5	1327.7	1426.3	1895.8	2523.3	3571.7	4899.0
Electricity, gas and water	4.8	3.1	32.4	73.9	426.9	714.5	1489.0	1870.5	2727.2	2942.0
Construction	47.8	67.1	159.2	160.0	317.9	434.5	499.1	430.3	609.0	686.5
Agriculture and fishing	4.4	9.3	17.9	71.7	82.7	91.7	101.6	142.8	233.5	280.0
Hotels and restaurants	2.6	-11.3	-5.5	20.0	104.6	76.2	109.7	147.7	131.9	162.4
Mining and quarrying	7.8	24.9	43.3	46.3	72.1	73.4	61.4	59.1	80.2	84.4
Other services and not allocated	1078.8	2809.1	4922.5	5010.5	5042.1	5096.4	5215.2	5502.4	5346.6	5187.0
TOTAL	4461.4	9259.0	15887.7	22745.7	32359.1	37988.6	42566.6	47790.1	61406.4	70482.0

Source: National Bank of Poland, 1997–2006.

Table 2. Industry Structure of Accumulated Percentage Shares of FDI Inflows in Poland, 1996–2005

Sector/industry	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Manufacturing, of which:	40.4	35.2	34.8	31.5	28.7	27.5	28.0	29.3	31.0	30.6
<i>motor vehicles &amp; transport equipment</i>	7.8	5.8	6.3	5.7	4.9	4.5	4.9	6.0	6.5	6.2
<i>chemical and rubber products</i>	5.8	5.9	5.3	5.2	4.6	4.4	5.2	5.1	5.3	5.1
<i>food, beverages and tobacco</i>	13.3	10.2	10.7	8.2	7.0	6.3	6.0	5.7	4.7	4.8
<i>wood, paper, publishing and printing</i>	0.2	2.4	2.4	2.8	2.8	2.6	2.7	2.6	3.4	3.0
Financial intermediation	13.5	16.0	16.0	20.9	20.8	23.2	24.6	23.1	22.1	23.5
Trade and repairs	13.6	11.1	11.6	11.6	10.5	11.1	11.8	13.6	13.2	15.0
Transports, communication	3.3	2.1	1.3	8.5	17.3	17.4	13.5	11.7	13.1	10.8
Real estate, IT, R&D, equipment lease	3.5	4.3	3.8	3.9	4.1	3.8	4.5	5.3	5.8	7.0
Electricity, gas and water	0.1	0.0	0.2	0.3	1.3	1.9	3.5	3.9	4.4	4.2
Construction	1.1	0.7	1.0	0.7	1.0	1.1	1.2	0.9	1.0	1.0
Agriculture and fishing	0.1	0.1	0.1	0.3	0.3	0.2	0.2	0.3	0.4	0.4
Hotels and restaurants	0.1	-0.1	-0.0	0.1	0.3	0.2	0.3	0.3	0.2	0.2
Mining and quarrying	0.2	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1
Other services and not allocated	24.2	30.3	31.0	22.1	15.5	13.4	12.3	11.5	8.7	7.3
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: Minus (-) sign signifies disinvestment/withdrawal of capital to investor's home country. Percentage shares may not add up to 100 because of rounding.

Source: National Bank of Poland, 1997–2006.

In 2005, at the projected ending phase of stage 2 of Poland's IDP, the industry ranking had changed radically. The motor industry became the leader with over 4.4 billion USD in FDI, followed closely by chemicals and rubber (3.6 billion USD). The overall tendency was to move towards more technology intensive manufacturing and higher value added locally which Dunning characterised as the starting profile of stage 3 FDI inflows (Dunning 1997, p. 237).

Besides manufacturing the other two declining industry branches were construction plus location bound, resource based mining and quarrying.

The FDI growth oriented inflow branches of the Polish economy were led by financial intermediation, a term which covers banking, insurance and investment services. This branch share rose by a startling 10 percentage points to reach the level of 23.5% in 2005. The next fast growth branch was transports and communication, going up from 3.3% to 10.8%, and the utilities: electricity, gas and water, rising from a mere 0.1% to 4.2% in 2005

If the three leading share branches in 2005 for inflowing FDI (i.e. financial intermediation plus trade and repairs plus transports and communication) are added up and treated as one service sector (which includes of course also other industries, such as for ex. hotels and restaurants) its cumulative share (49.3%) and FDI of over 34.7 billion USD elevates it to the most important industry sector for

FDI inflows. Its composition can be viewed as being compatible in size with that of manufacturing and thus one principal conclusion can be made that as Poland was moving through stage 2 of her IDP a visible shift occurred in the relative focus and preferences of FDI: away from hard core manufacturing and more towards a diversified service base. In the case of banking, insurance and telecoms the observed, increasing absorption of FDI was in line with Dunning's projection that foreign firms would target as strategic asset acquisitions domestic firms that have a competitive advantage on the local market. But this trend, according to Dunning was bound to happen only in stage 3 in his IDP model (Dunning 1997, p. 238–239). This then can be construed as yet another indication that Poland was at the juncture of stage 2 and 3 of her IDP, systematically acquiring more visible attributes of the latter one.

## FDI Outflows

The evolution of industry composition of FDI outflows from Poland may be derived from Table 3 and that of its relative importance from Table 4. Both show that the branch of financial intermediation recorded the highest increase in FDI outflows from Poland during the whole period under investigation, starting in nominal USD from 7 mln and

Table 3. Industry Structure of Accumulated FDI Outflows from Poland, 1996–2005, in mln USD at Current Prices

Sector/Industry	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Financial intermediation	7.0	11.8	15.0	69.0	41.1	-62.8	15.3	14.2	353.1	1941.3
Manufacturing	7.0	15.8	88.7	85.4	97.0	61.6	65.0	321.0	520.3	1409.9
<i>refined petroleum</i>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	141.1	197.6	582.7
<i>food products</i>	3.0	4.0	4.0	4.4	4.6	5.9	8.0	10.3	59.1	195.0
<i>metal and mechanical products</i>	4.0	9.8	15.1	14.0	18.0	22.5	22.2	67.9	92.0	178.8
<i>motor vehicles and transport equipment</i>	0.0	1.0	67.7	64.4	65.6	12.4	10.3	37.3	104.8	154.4
<i>textiles and apparel</i>	0.0	0.0	0.0	0.2	0.2	1.3	-0.3	18.3	39.3	53.5
<i>wood, publishing and printing</i>	0.0	0.0	0.0	0.6	1.9	7.6	14.3	-66.5	-54.0	29.7
<i>chemical, rubber and plastic products</i>	0.0	0.0	0.0	0.0	7.2	6.4	3.6	-8.6	-3.5	30.6
<i>radio, tv and communication equipment</i>	0.0	0.0	0.0	0.0	-1.0	-1.0	-1.0	68.0	-8.9	28.6
<i>office machinery and computers</i>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.8
Trade and repairs	14.9	21.8	5.1	0.3	6.7	-17.1	-36.4	-11.9	214.2	489.2
Real estate, it, R&D, equipment lease	0.0	1.0	15.6	3.8	14.6	27.2	33.9	129.7	206.6	159.0
Construction	2.0	6.8	3.7	-0.9	1.9	2.0	-8.9	-18.8	-17.7	167.0
Mining and quarrying	0.0	0.0	16.7	19.2	20.1	27.2	7.7	8.0	-1.8	10.7
Hotels and restaurants	0.0	-3.0	-3.0	-2.2	-2.0	-2.1	-2.1	-2.1	0.0	-1.5
Agriculture and fishing	0.0	0.0	0.0	-4.6	-4.6	-4.4	-4.4	-5.1	-7.0	-8.5
Electricity, gas and water	0.0	0.0	-6.3	-15.1	-15.1	-12.4	-10.8	-8.8	-7.5	-7.5
Transports, communication	2.0	-1.0	7.3	15.8	27.7	36.6	40.1	-23.2	-20.6	-30.2
Remaining, unclassified	20.0	43.5	283.2	284.3	284.6	330.6	526.1	543.0	557.1	584.8
TOTAL	52.8	96.7	425.9	455.1	472.2	386.2	625.4	946.0	1797.3	4714.2

Note: Minus (-) sign signifies disinvestment/withdrawal of capital to Poland  
Source: National Bank of Poland, 1997–2006.

going to over 1409 mln, with its cumulative market share rising 28 percentage points to 41.2% in 2005. Its strategic aims were believed to be of the market seeking and strategic asset seeking type, in line with Dunning's general predictions in stage 2 of his IDP model (Dunning, 1997).

Manufacturing was second in importance in FDI outflows, rising almost 17 percentage points in its total accumulated share and also exhibiting considerable fluctuations in this share throughout the studied time period. If its component industries are examined it appears that petroleum had the largest influence starting from 2003 with a FDI value of 141.1 million USD, being curiously absent in all the previous years and moving up to 582.7 million USD in 2005. Food products moved from a 5.6% share in 1996 to a low of 0.9% in 1998 and then fluctuating somewhat, slowly climbed back to 4.1% in 2005. The share of metal and mechanical products also declined fluctuating from 7.5% to 3.8%. Motor vehicles and transport equipment showed larger fluctuations and as the net result fell to a modest 3.3% in 2005.

Trade and repairs showed an overall declining trend from 28.2% to 10.4%, countered only by three annual periods when their share had improved. This still gave the industry a firm third place behind manufacturing in the share of FDI outflows with investment for 489.2 million USD in 2005, reflecting either the competitive advantage of low technology, labour intensive Polish service firms or the preference of such firms to use exports as the main venue of expanding into foreign markets.

Construction can be associated with Polish firms abroad as a relatively labour intensive industry and as such did not change much its share in the period under study, going down from 3.8% in 1996 to 3.5% in 2005 but at the same time going up from 2 to 167 million USD. However in between it had four years of disinvestments associated most likely with the fact that it was primarily market seeking and that the targeted foreign markets showed considerable volatility of demand.

Among the remaining industries of some significance in outward FDI were, in the material goods category, mining and quarrying and in services transports and

Table 4. Industry Structure of Accumulated Percentage Shares of FDI Outflows from Poland, 1996–2005.

Sector/industry	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Financial intermediation	13.2	12.2	3.5	15.2	8.7	-16.3	2.4	1.5	19.6	41.2
Manufacturing, of which:	13.2	16.3	20.8	18.8	20.5	15.9	10.4	33.9	28.9	29.9
<i>refined petroleum</i>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.9	11.0	12.4
<i>food products</i>	5.6	4.1	0.9	1.0	1.0	1.5	1.3	1.1	3.3	4.1
<i>metal products and mechanical products</i>	7.5	10.2	3.5	3.1	3.8	5.8	3.5	7.2	5.1	3.8
<i>motor vehicles and transport equipment</i>	0.0	1.0	15.9	14.1	13.9	3.2	1.6	3.9	5.8	3.3
<i>textiles and apparel</i>	0.0	0.0	0.0	0.0	0.0	0.3	-0.1	1.9	2.2	1.1
<i>wood, publishing and printing</i>	0.0	0.0	0.0	0.1	0.4	2.0	2.3	-7.0	-3.0	0.6
<i>chemical, rubber and plastic products</i>	0.0	0.0	0.0	0.0	1.5	1.7	0.6	-0.9	-0.2	0.6
<i>radio, TV and communication equipment</i>	0.0	0.0	0.0	0.0	-0.2	-0.3	-0.2	7.2	-0.5	0.6
<i>office machinery and computers</i>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Trade and repairs	28.2	22.5	1.2	0.1	1.4	-4.4	-5.8	-1.3	11.9	10.4
Real estate, IT, R&D, equipment lease	0.0	1.0	3.7	0.8	3.1	7.0	5.4	13.7	11.5	3.4
Construction	3.8	7.1	0.9	-0.2	0.4	0.5	-1.4	-2.0	-1.0	3.5
Mining and quarrying	0.0	0.0	3.9	4.2	4.3	7.0	1.2	0.8	-0.1	0.2
Hotels and restaurants	0.0	-3.1	-0.7	-0.5	-0.4	-0.5	-0.3	-0.2	-0.0	-0.0
Agriculture and fishing	0.0	0.0	0.0	-1.0	-1.0	-1.2	-0.7	-0.5	-0.4	-0.2
Electricity, gas and water	0.0	0.0	-1.5	-3.3	-3.2	-3.2	-1.7	-0.9	-0.4	-0.2
Transports, communication	3.8	-1.0	1.7	3.5	5.9	9.5	6.4	-2.5	-1.1	-0.6
Remaining, unclassified	37.9	45.0	66.5	62.4	60.3	85.5	84.1	57.4	31.0	12.4
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: Minus (-) sign signifies disinvestment/withdrawal of capital to Poland. Percentage shares may not add up to 100 because of rounding  
Source: National Bank of Poland, 1997–2006.

communication. Although the former had a share of only 0.2% and 10.7 million USD of FDI in 2005 it experienced a period of growth from 3.9% in 1998 to 7% in 2001 reaching a peak of 27.2 million USD. In case of the latter, growth occurred in the same years but was stronger (from 1.7% or 7.3 million USD to 9.5% or 36.6 million USD) but then decreased more dramatically ending with a disinvestment of 1.1% in 2004 and 0.6% (-30.2 million USD) in 2005.

The last three industries for which data are available, i.e. hotels and restaurants, agriculture and fishing plus electricity, gas and water, showed throughout the whole time period disinvestments. The final entry for accumulated FDI outflows bears the rather mysterious label “remaining and unclassified”. One could aptly quote in this case the cliché expression: “last but not least”, since, except the year 2005, the FDI shares in this case have been the largest (reaching 557.1 million USD in 2004) and exceeded those for financial intermediation (353.1 million USD in 2004) or manufacturing (520 mln USD in 2004). From 1998 to 2003 the cumulative shares in this category surpassed 50% of

total FDI reaching in 2001 the level of 85.5% or 330 mln USD. What is hidden behind those surprisingly high percentages and absolute values is unclear. One possible explanation is that taking into account for ex. the geographic structure of FDI outflows from Poland for the year 2004 where two countries, Switzerland and Holland, dominate with a combined share of 53.2% (Wolniak, 2006), the motive might have been capital flight and subsequent formation in those two locations of financial entities for further FDI without Polish identity and various accompanying “cumbersome” obligations (for ex. in the sphere of reporting or taxation).

## Conclusions

Departing from the assumption that Poland is a mature transition economy the following observations can be made regarding the industry cross section of inflowing FDI, as the country moves through stage 2 of its IDP:

1. Throughout the decade under investigation the accumulated value of FDI outflows was by far smaller than

that of FDI inflows, ranging from 1.2% (the share of accumulated FDI outflows in accumulated FDI inflows) in 1996 to 6.7% in 2005. This asymmetry reflected the continuing albeit decreasing disparity between the overall competitiveness of domestic Polish firms and their foreign/multinational rivals.

2. From 1996 to 2005 accumulated FDI inflows rose 15.8 times reaching the value of over 70.5 billion USD, indicating that Poland with her large internal market and a growing pool of created assets offered attractive investment opportunities.

3. In FDI inflows the dominance of manufacturing was systematically eroded by growth of the service sector, led by such industries as banking, trade, transport and communications.

4. Starting from 1999 the entire service sector became the new leader in absorbing incoming FDI, replicating a similar trend in more developed countries.

5. Managing to defend their positions with relatively small losses in the share of FDI inflows were those industries within manufacturing that are technology and capital intensive, focused both on consumer and industrial markets. Best examples in the Polish case are motor vehicles and chemical as well as rubber products.

6. A change occurred within the light manufacturing sector: the gap left by the demise of food, beverages and tobacco was filled by wood, paper, publishing and printing. Or looking from a behavioural/needs perspective: once basic needs had been satisfied by the food et al group of industries they were substituted by the more sophisticated ones catered to by companies from the print media industry.

7. The market seeking motive was prevalent in the growth of real estate and the utilities, whereas the drive to improve efficiency was visible in FDI in IT as well as R&D activities.

8. The remaining industries consisting of a wide assortment ranging from agriculture and fishing, through construction to services like hotels and restaurants and ending with the extractive sector played a negligible role mainly due to lack of sufficient location advantages and local assets, both natural and created.

As for outflowing FDI the following tendencies emerge in stage 2 of Poland's IDP:

1. From 1996 to 2005 accumulated FDI outflows rose 89.3 times, much faster than FDI inflows, reaching the value of over 4.7 billion USD.

2. Throughout the studied period, but only up to the end of 2003, manufacturing appeared as the leading sector for FDI flowing out of Poland. Thereafter the service sector took over, dominated by banks and other financial institutions (financial intermediation) plus trade and repairs. The coincidence here with Poland's accession to the EU as full member in 2004 may offer an explanation to this change in leadership. In these services market and strategic asset seeking motives seem to be the prevailing ones. Thus

a similar trend has been observed in FDI inflows and outflows with the difference lying in the definite, dominating foreign provenance of firms investing in Poland and the

unknown real proportions of the origin of firms investing out of Poland, i.e. whether they were Polish owned or MNC subsidiaries operating in Poland.

3. Within manufacturing capital intensive and technology oriented industries such as metal and mechanical products plus the motor industry were observed as being in the lead until 2003 but then giving in to petroleum as the new leader. In the case of the latter, FDI can be practically traced to expansion, via acquisitions of strategic assets, of Orlen, Poland's largest petroleum company by annual revenue.

4. The meaningful share of construction was mainly related to the ownership advantages of Polish firms while the observed (share) fluctuations could be partly explained by the industry's sensitivity to changes in the business cycles in the foreign markets.

5. Thus it can be observed that in stage 2 of the IDP there has been a very limited spread/profile of industries generating FDI out of Poland, reflecting mainly Polish firms' still relatively weak competitive advantages and/or their embedded preference to still consider exporting as the ultimate method of sustaining market presence abroad.

## Policy Implications

Policy recommendations offered by Dunning in his IDP model are rather scant (Dunning 1997, p. 237-238).

In stage 1 government intervention, in order to stimulate FDI inflows, takes the form of providing basic infrastructure and upgrading human capital via education and training. Economic policies are supposed to focus on import protection via domestic content regulations and export subsidies. There is also limited government involvement in upgrading domestic created assets via innovatory capacity stimulation (Dunning, *ibid.*).

In stage 2 of the ideal IDP the main trends of government policy toward inflowing FDI do not differ from those identified in stage 1. Import protection embraces now also tariff and non-tariff barriers and stress is on development of domestic firms' technological capabilities. Outward FDI is influenced by government-induced push factors very similar to those recommended for FDI inflows: export subsidies and technology development or acquisition (Dunning, *ibid.*).

Poland has only partially followed those prescriptions in her economic policies so far. Extensive import protection in stage 1 but falling in stage 2, especially with the EU countries as the 2004 entry into the EU drew closer. Infrastructure development both in stage 1 and 2 has been quite visible but still much lies ahead, especially in creating

a network of motorways compatible with EU standards. The most visible advances have been in education and training.

A redirection of attention is necessary focusing more on outward rather than on inward FDI. In strengthening competition with foreign firms in Poland and in stimulating outward FDI, the weakest point however has been the practical absence of a comprehensive and coherent government program of technological upgrading and development oriented towards domestic Polish firms. This weakness is turning gradually into a pressing need as Poland attempts to pass into stage 3 of her IDP and Polish firms are beset by this technological gap which hinders their competitiveness in foreign markets, especially in countries positioned in more advanced stages of their IDP.

An alternative solution lies of course in providing those firms with funds for which they could develop or secure access to new technologies without or with minimal government direct assistance. Here there is room for government induced financial and fiscal measures fostering and promoting mergers and acquisitions as well as business alliance formation, the notion of which is still quite alien to most small and medium sized Polish firms. Also in order to reinforce the identified trend towards the service industries the above measures should have such sectoral focus clearly delineated. In the manufacturing sector technology upgrading is required, which should be government co-financed and directed towards the identified industry leaders: mechanical and metal products, the motor industry and petroleum. And lastly, more effort on the part of government promotion programs is needed to investigate and change the negative country image effect afflicting sales of Polish products abroad.

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