Private Higher Education in Poland: A Case of Public-Private Dynamics

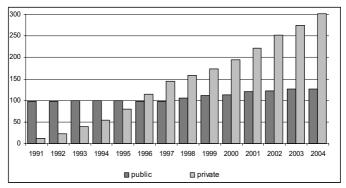
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1. Introduction

Based on the dissertation of the first author (Duczmal 2006), this chapter seeks to increase our understanding of the rapid rise of private higher education in Poland and the effects on the dynamics of the Polish higher education system as a whole. After the collapse of communism in 1989, Polish higher education, like other sectors in the economy, went through a rapid period of reform that may be characterised as liberalisation, marketisation, and privatisation (Johnstone 2002).

In higher education, the policy stance changed from a centralised, state-steered approach to a more decentralised, market-competitive one. A new law, the Higher Education Act of September 12, 1990, provided the basis for a number of far-reaching changes in the system. Major innovations included the devolution of authority from the government to institutions, allowing private providers of higher education to establish themselves alongside the incumbent public providers, and the introduction of tuition fees.

Figure 1: Number of public and private higher education institutions in Poland; 1991-2004



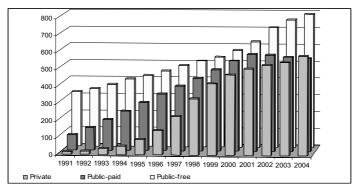
Source: own analysis based on Yearbook of Higher Education (1991-2004)

One of the most visible results was the emergence of a large private higher education sector, the most extensive system of its kind in Europe. The number of private providers rose from 3 in 1990 to 280 in 2004, with more than half a million students (see figure 1). Almost 30% of all students attend institutions run by private providers.

Public universities also adapted quickly to the new climate. In addition to providing places that were free of charge, they began to engage in the supply of fee-paying study places to students in part-time and weekend programs. The result is that the number of fee-paying students in both private and public higher education institutions now exceeds the number of non-paying students (figure 2).

Private higher education and the market-oriented behaviour of public higher education have been studied by many higher education researchers (Altbach 1999; Geiger 1986, 1988; Levy 1986a, b, 1992, 2002), but many of these are from the Anglo-Saxon world and studied the phenomenon in their own higher education contexts, that is, outside Central or Eastern Europe. The privatisation movement has hardly been studied in Poland (Kwiek 2003; Reisz 2003). We seek here to partly fill this gap.

Figure 2: Number of higher education students in Poland in fee-paying and non-paying forms of studies, 1991-2004 (students in thousands)



Source: own analysis based on Yearbook of Higher Education (1991-2004)

While a much larger study conducted by the first author looked at more details, this chapter addresses aspects of the strategic behaviour of individual private providers. In particular, we look at their location, the type of programs offered, and the fees charged. In short: we study their differentiation strategies.

Section 2 sketches the analytical framework for our study, touching on the underlying theories. Section 3 identifies a number of hypotheses to be confronted with the empirical situation in Poland from 1990 onwards. Section 4 presents the sample of private higher education institutions we cover in this study and covers aspects of the dependent variable, the strategic responses. The outcomes of our empirical analyses are presented in sections 5 and 6, treating, respectively 'products' (programs) and 'prices' (tuition fees). Finally, section 7 presents conclusions connected to the hypotheses.

2. Theoretical framework

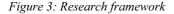
To study the performance of higher education providers in Poland from 1989 to 2004, we employ a theoretical approach that sees the strategic responses of providers as the outcome of a combination of institutional forces (in terms of the government's higher education policy, i.e., laws, regulations, and funding arrangements) and external (demand and supply) conditions on the higher education market. This theoretical framework is based on two main theories: neo-institutional theory (North 1996) and industry analysis (Scherer and Ross 1990; Dill 1997, 2003), also including some ingredients from business science (Porter 1980).

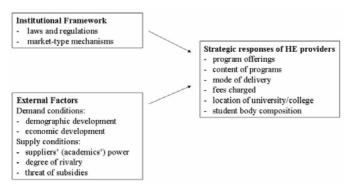
Many studies from a wide range of countries conclude that the role and functions that private higher education plays are primarily determined by public policies addressing private higher education. In recent years, another important factor fuelling the growth of private higher education is massification - a phenomenon that places enormous demands on higher education systems and government as the main funder of the system. In terms of the relationships between state policy and private providers, three possible policy stances, or postures towards private education may be identified (Zumeta 1992, 1996). The first is laissezfaire, where the state leaves private higher education to its own devices. In the second posture, central-planning, private and public institutions are treated much the same by the state and have planned roles in the higher education system. The third stance is the market-competitive approach, where the state injects market elements into the higher education system. Increased policy attention to the private sector is advocated by those that find that the mission, priorities and goals of private higher education are close to the public higher education sector's mission, goals, and priorities. However, observers that regard the private sector as different from the public sector often advocate less policy attention for the private sector. We argue that state policies addressing the private sector, together with the so-called external forces, determine the actual behaviour (strategies) of the private providers. Private providers are expected to evolve in directions rewarded by institutional arrangements. How they behave is also shaped by external forces, understood as 'demand and supply' factors such as demographic trends, the macroeconomic situation, the degree of rivalry in the market, etc. To explain how higher education providers will respond to institutional and external conditions we would like to go beyond merely descriptive analyses (e.g. Bowen et al. 1997; Cerych 1995; Geiger 1986, 1988) or observations that stress the copying behaviour of higher education providers (e.g. DiMaggio and Powell 1991; Levy 1999). Therefore, we have constructed the analytical framework, our 'interdependency model', shown in Figure 3.

We focus on the interactions between higher education arrangements (public policies affecting higher education), the basic external conditions (the "Five Forces" identified in Porter (1980)), and the responses of higher education providers. While we are aware that higher education providers can influence the institutional framework and that basic conditions also shape the institutional arrangements (and the other way around), we will not take into account other such interactions. Our de-

pendent variable is understood here as the strategies of higher education providers and the way these work out at the level of the higher education system as a whole.

The institutional framework includes national regulations, policies, norms, and traditions that impact academics' and students' behaviour. As we are primarily interested in understanding the effects of the injection of market forces into higher education policies, we analyse the higher education institutional framework through the concept of marketisation policy (Jongbloed 2003). We understand the concept of marketisation as a process that takes place in several related higher education policy dimensions such as barriers to the entry of new providers to the higher education market, regulations affecting various aspects of the providers' autonomy, conditions for providers to receive state funding, the availability of information on prices and quality, students' freedom to choose the preferred educational provider, and students' freedom to have a say in the content of their curriculum as well as their ability to qualify for government scholarships.





The responses by higher education providers in terms of products, prices, and clients are co-determined by external factors, the *demand and supply conditions*. These basic conditions are operationalised through indicators derived largely from the "five forces" diagram developed by Michael Porter for analysing competitive strategies in an industry (Porter 1980). When translated to higher education, we identify the following forces:

Demand conditions:

- overall economic conditions
- demographic trends/students' power

Supply conditions:

- threat of substitutes
- academics' power
- degree of rivalry between providers

Although we do not analyse all five forces in detail here, we make a few remarks about the role they play. First, demographic developments heavily determine the available pool of clients to which higher education providers can cater. Periods of demographic decline will affect the institutions' 'hunting ground', so to speak. Second, the general economic situation and sectoral structure of the economy also affect the demand for highly trained personnel, that is: higher education.

Looking at supply conditions, the threat of substitutes refers in particular to the availability of vocationally oriented courses that are potential substitutes for higher education programs. In addition, the option for secondary school graduates to take a job in the labour market may also be regarded as a substitute for embarking on a higher education program. Therefore, the employment opportunities for secondary school graduates form an indicator of the supply conditions. An indicator of the power of suppliers is the number of academic staff working in higher education institutions. If the number of teaching posts held by academics is larger, and there are more habilitated doctors and professors among them, the power of suppliers is considered larger.

Of the five forces, rivalry between suppliers is an important variable in our model. Rivalry is partly a result of government policies and partly a result of economic competition between higher education providers. Rivalry is operationalised by looking at the concentration of higher education providers on the market, the size of the higher education market, and the variety of degree programs on offer. Here, attention should be paid to the specific character of the higher education market. Higher education providers face a situation of monopolistic competition, which means they act on the market with many small and medium-sized providers; not all of a provider's customers would choose other products if the provider raised its prices. Each provider is presumed to be able to differentiate its product from that of its rivals. Higher education providers may base their differentiation on low costs and proximity to clients (i.e., students), or program diversity and high quality. Differentiation strategies are a crucial element in higher education markets and act as the dependent variable in our analytical model.

3. Hypotheses

Our interdependency model is used to guide our exploratory analysis of the effects of marketisation in the Polish higher education market. We have formulated six hypotheses about the strategic responses by higher education providers (see table 1). Here we focus only on the private providers. The first set of hypotheses addresses the period immediately after the fall of the communist regime, 1989-1997, when the higher education market expanded rapidly. The second set of hypotheses is used to guide our analysis of 1997-2004, when the higher education system may be characterised as a saturated and more mature market.

Hypothesis 1 argues that when the government allows private providers to enter the higher education market and eliminates barriers to entry, the fundamental free market rule will come to life: if a demand for higher education exists, supply will rise to fill the void. Due to the state's policy posture towards the private sector, private providers will be mostly demand-absorbing institutions.

Hypotheses 2-6 all relate to the strategies of private providers in terms of variety of programs, modes of delivery, pricing policy, location, composition of student market, and admission policy. Following Porter we identify two main groups of strategies:

- narrow/market segment strategies
- broad market strategies.

Within these two groups, organisations can choose a product differentiation strategy or a cost leadership strategy. This leads to the four 'generic strategies' shown in table 2.

Table 1: Hypotheses

Period 1: 1990-1997	Period 2 : 1997-2004
 In an expanding higher education market with increasing student demand, a low degree of rivalry between providers, low barriers to entry, and an absence of state financial support for private higher education institutions 1. the number of private provid- ers will expand significantly. The main function of private higher education will be to provide more higher education and absorb unmet student de- mand. 	 In a mature higher education market, with stable student de- mand, a high degree of rivalry between providers, and an ab- sence of state financial support for private higher education 4. most private higher education institutions will choose a steady sales growth strategy, focusing on the entire market rather than selected student segments. They will offer di- versified academic-oriented study programs and target students previously served by public institutions.
2. most of the new private pro- viders will choose an aggres- sive growth strategy through market expansion. They will aim at selected segments such as mature and part-time stu- dents, offering a limited range of study fields and focusing on high-demand low-cost vo- cational study programs at medium or low tuition fee levels.	 private higher education insti- tutions that earlier offered high quality study programs at high prices will not change their strategies.
 only a limited number of private institutions will choose a high quality-high price strategy. They will provide a broad study offer, master degree level courses, and have a more balanced structure of enrolment between part-time and full-time students. 	 new private providers will choose either a focused, low- cost strategy by offering low- cost study courses that are vo- cationally oriented and charge low prices. Other new provid- ers will adopt a focus- differentiation strategy by of- fering unique study courses for selected student segments.

Targat/saana	Adv	vantage
Target/scope	Low cost	Product uniqueness
Narrow	Focus strategy: low	Focus strategy: differen-
(Market segment)	cost	tiation/high quality
Broad	Cost leadership strat-	Differentiation/high
(Industry wide)	egy	quality strategy

Table 2: Porter's generic strategies

Sharp and Dawes (1996) examined organisations in terms of their strategies in a given environment. In their view, strategies depend on the characteristics of the market:

- Emerging and growing markets, with high fluidity of competitive structure, low competition from other firms within the industry, low buyer power and relatively rapid changes in customer needs;
- Mature, saturated and stable markets, with lower fluidity of competitors but higher rivalry, higher buyer power, and lower speed of changes in customer needs.

The two distinct sets of conditions may be related to two distinct periods in post-communist Polish higher education: 1990-1997 and 1997-2004. This is because the institutional arrangements and external conditions are very different in the two periods. New providers starting after 1997 are governed by the new Vocational Higher Education Act that specifies a very different opportunity set. Moreover, our interdependency model also takes into consideration the impact of basic demand and supply conditions. These conditions were very different at the beginning of the 1990s compared to the second part of the decade and the early years of the 21st century. In particular, the second period is characterised by a decrease in the size of the school-age population (2-24 years of age).

Hypothesis 2 suggests that new private providers will choose a broad market and 'low cost strategy', attracting students unable to enrol in public institutions. They will therefore be established mostly in metropolitan areas and focus on mature students, many of them from poorer socio-economic backgrounds. These students prefer to study on part-time study courses to be able to combine work and education.

Hypothesis 3 predicts that given the external and institutional environment, only a few private higher education institutions will choose a high-quality strategy offering high quality study programs mostly at master level and charging high tuition fees. These institutions will focus

on national rather than regional markets. Private and reliant on tuition fees, they will mainly develop programs in high-demand areas.

Hypotheses 4 focuses on the strategic responses of private providers in a situation that may be characterised as a mature, stable, saturated market, where there is a high degree of rivalry. The private providers will offer a more academic type of program, rather than vocationally oriented courses. Most private providers will charge similar fees to the public providers. In other words, we expect a convergence between the public and the private sectors.

Hypothesis 5 states that a small number of highly selective private and public institutions will not change their 'premium positioning' strategy and will continue to defend their competitive advantage on the basis of the high quality of their services.

Hypothesis 6 argues that private institutions that appear on a relatively mature and saturated market will choose between two strategies: (1) they will offer low-cost study programs that have a vocational orientation, charge low tuition fees and locate themselves in small non-academic cities to attract new groups of students; or (2) to differentiate themselves from other providers, they will offer unique programs not previously supplied by older institutions. We expect that in saturated markets with a high degree of rivalry between providers it is hard for newly established institutions to compete directly with older, more prestigious institutions solely on the basis of low costs. They will have to seek out forms of differentiation and look for new potential student groups.

4. Preparing the empirical analysis

To establish whether there is support for the hypotheses, a large amount of data was gathered. While much is of a qualitative nature, we also managed to obtain quantitative information for a sample of individual higher education (HE) providers. While we have information for the system of higher education as a whole, for the purpose of this article we from now on mostly concentrate on a sample of private institutions. Our dependent variable refers to different aspects of strategic responses by private HE providers. We look at the location of the provider, its student enrolment, program offerings, program levels, and tuition fees (see the right hand box in figure 3).

To prepare the empirical investigation of the hypotheses, we constructed a sample by dividing Polish higher education providers into a number of distinct strata by looking at the area of location of providers and their year of establishment. We distinguish whether the institution is situated:

- in the capital (Warsaw);
- in a large city or metropolitan area (> 300,000 inhabitants);
- in a medium-sized city (100,000-300,000 inhabitants); or
- in a small town (< 100,000 inhabitants).

The changes in the population of public and private providers are shown in table 3.

	in War- saw	in large cities	in medium- sized cities	in small cities	total
Institutions					
established before					
1991					
public	5	22	17	0	44
Institutions estab-					
lished between					
1991 and 1997					
public	0	2	0	0	2
private	34	34	32	28	128
Institutions estab-					
lished during					
1997-2004					
public	0	0	7	17	24
private	24	41	25	42	133

Table 3: Changes in the population of HE providers in Poland

Excluding the already existing private, church-funded institutions (11 in 1991), the first private provider emerged in 1991. Thereafter, a rapid expansion of private higher education took place (see also Figure 1). Student enrolment in the private sector increased from 13,700 in 1990/1991 to 582,100 in 2004/2005 (see also figure 2). Private higher education institutions are located throughout Poland, although (in keeping with typical patterns cross-nationally) the most prestigious are concentrated in and around large cities such as Warsaw, Krakow, Poznan, Wroclaw, and Lodz. On the other hand, the number of public providers hardly changed during the period 1991-1997. After the implementation of the new Vocational Higher Education Act, twenty-four new public providers were established.

For our empirical analyses we mainly focus on a representative sample of 35 private providers, 19 established before 1997 and 16 after (table 4). The names of the institutions are given in sections 5 and 6 below.

	in Warsaw	in large cities	in medium- sized cities	in small cities	total
Private					
institutions					
established during	5	5	5	4	19
1990-1997					
established during	4	4	4	4	16
1998-2004					

Table 4: Sample of private HE providers

To give some background information and to place our sample into perspective, tables 5 and 6 provide some basic facts for the two sub-periods covered in our analysis.

In 2004, there were 427 institutions, 126 public. A total of 71 of the public institutions operate in the same field as the private institutions, whereas the others are relatively unique, single-discipline institutions focusing mainly on medicine, arts, architecture, sports, and navy or police and military instruction (regulated by different laws and their 'own' ministries).

Table 5: New higher education institutions (HEIs) and student numbers, 1991-1997*

			Year	Year of establishment	ment		
	1991	1992	1993	1994	1995	1996	1997
New private providers	1	10	16	19	24	34	25
New public providers	0	0	1	0	0	0	1
Total number of institutions	110	120	138	154	179	213	245
Total number of students	428 200	495 700	584 000	682 200	794 500	927 500	1 091 800
Students per HEI	3 892	4 130	4 231	4 428	4 438	4 354	4 456
Students per private HEI	400	410	535	695	1 010	1 195	1 600
Students per public HEI	4 220	4 850	5 540	6 380	7 120	8 000	8 820

Source: Duczmal (2006, p. 293) * Excluding church funded institutions

1998-2004*
) and student numbers,
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Table 6: New J

			Year	Year of establishment	iment		
	1998	1999	2000	2001	2002	2003	2004
New private providers	13	16	21	26	31	22	27
New public providers	8	5	2	7	2	1	4
Total number of institutions	267	287	310	341	377	400	427
Total number of students	1 268 500	1 425 800	1 578 200	1 268 500 1 425 800 1 578 200 1 711 300 1 800 500 1 858 700 1 926 100	1 800 500	1 858 700	1 926 100
Students per HEI	4 751	4 968	5 091	5 018	4 775	4 646	4 510
Students per private HEI	2 140	2 460	2 490	2 320	2 105	1 990	1 925
Students per public HEI	8 839	9 072	9 787	10 025	10 418	10 412	10 666

Source: Duczmal (2006, p. 295) * Excluding church funded institutions

Contrasting the rate of increase of student numbers with the increase in the number of providers, it becomes clear that during 1991-1997, despite the large growth in the number of (private) institutions, the degree of rivalry decreased. During 1997-2004 the number of public higher education providers grew considerably. This was the result of the 1997 Act that led to the establishment of public vocational higher education institutions, many of which emerged in smaller towns outside the metropolitan areas. By 2004 there were 28 such state institutions. Due to the increase in the number of private and public providers and the demographic decline that took place, the degree of rivalry on the higher education market increased substantially compared to 1990-1997.

5. Results of empirical analysis, Part 1: program supply

In terms of the institutional arrangements during the first period of analysis (1990-1997), we argue that despite having a substantial private higher education sector, Poland was still removed in many ways from a truly competitive higher education system. Of the five dimensions of marketisation policy, two (institutional autonomy and barriers to entry) were met to some extent, while this was hardly the case for the other (three) dimensions. Recognised private higher education institutions were not eligible for state subsidies, students in private higher education institutions were excluded from state scholarships, and laws and regulations affecting the transparency of the system and ensuring quality and dissemination of information, were largely absent. In the beginning of the 1990s, the priority of policymakers was to allow more autonomy to the providers and increase the number of higher education providers to meet the rapid increase in demand for higher education without increasing state spending on higher education.

During 1990-1997 there was a low degree of rivalry between providers. Most private providers adopted an aggressive growth strategy, concentrating on part-time programs. Almost eight of every ten students in the mid-1990s were enrolled on a part-time basis. This imbalance between full-time and part-time numbers increased during 1990-1997. The great majority of new private higher education institutions based their product differentiation mostly on location and low-price programs. These are the 'demand absorbing' institutions, catering primarily to students from lower socio-economic classes and offering low-cost study programs in popular subjects, especially economics and management. Only a few private providers adopted a high-quality strategy. The distribution of student numbers across disciplines is shown below (figures 4 and 5). The first private higher education institutions that entered the market in 1991 and 1992 offered study courses in economics (mostly marketing and management). Over the years, one observes a gradual diversification in their programme supply.

We now turn to our sample of private HE providers (table 4) to analyse the program supply.

The study offer in the five selected private higher education providers located in Warsaw¹ was relatively rich compared to other private providers established outside the capital. All 'Academies' began to offer master programs well before 1997.² These private providers developed 'elite' programs to set high academic standards and based their differentiation strategy on high quality services and a variety of program offerings. Mostly due to their proximity to high ranked academics working in public institutions, these private providers were able to expand their course offerings. Postgraduate master level courses were developed to build up prestige, reputation, and a 'brand name'. This also provided good contacts with the business community and, what is more, the master level courses provided higher profit margins since fees for such programs were higher than undergraduate studies. During 1997-2004, these providers continued to set high academic standards in the private higher education sector. In 1998, the Koźmiński Academy became the first private institution in Poland to gain PhD granting rights in economics; in 2003 it received rights to confer the title of habilitated doctor.

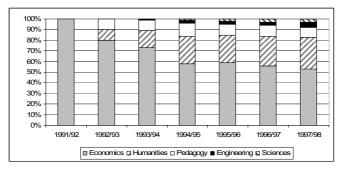


Figure 4: Distribution of students across disciplines, 1991-1997

Private Academy of Business and Administration; Academy of Management; Łazarski Academy of Commerce and Law; Koźmiński Academy of Entrepreneurship and Management; Polish-Japanese Academy of Computer Sciences.

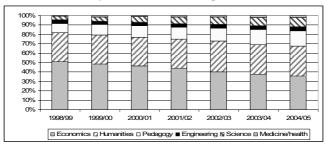


Figure 5: Distribution of students across disciplines, 1998-2004

In our sample, the five private providers situated in large metropolitan areas outside Warsaw only offered courses in the fields of business and management. In contrast to the providers established in Warsaw, none of these had the right to confer master degrees. They offered only threeyear courses leading to bachelor degrees. We note that these providers were established later than the private providers from Warsaw and therefore had less time to enhance their study offer or provide postgraduate courses. During 1997-2004 these institutions developed at a different pace and in different directions. The Academy of Management and Finance in Wrocław, the Academy of Banking in Poznań, and the Academy of Entrepreneurship and Management in Łódź tried to attract students previously served by public institutions and developed a relatively wide study offer including master degree programs in finance and banking. The other two institutions (the Academy of Marketing and Business in Łódź and the Academy of Banking and Finances in Katowice) chose a defensive strategy and did not expand their study offer.

From the third stratum that covers the private providers established in medium-sized cities, the study offer varied considerably in terms of program supply and degrees awarded. In the first period of analysis these providers typically concentrated on inexpensive fields such as economics and management, acting as specialised providers offering undergraduate courses. During 1997-2004 these private providers divided into two groups. Three institutions broadened their study offer and obtained the right to confer master degrees (Academy of Finance and Management in Białystok, Private Academy of Environment in Radom, and Academy of Management and Administration in Opole). The second group comprises two providers that continued to be small teachingoriented vocational institutions (Polonia Academy in Częstochowa and the Academy of Computer Sciences in Bielsko-Biała). The fourth sub-sample is private providers in small cities; the most homogeneous group. All offer undergraduate programs in management and marketing at bachelor level. The majority represent the lower tier of private education, being less affluent and single-discipline institutions (Academy of Entrepreneurship and Marketing in Chrzanów; Academy of Management in Leszno; Academy of Management in Słupsk). After 1997, their study offer did not change much. However, the oldest private provider in this group (the Academy of Business in Nowy Sącz) developed into one of the most prestigious private higher education institutions in Poland and nowadays occupies a leading position in various rankings of non-state higher education institutions conducted by magazines like *Wprost, Newsweek, Home & Market*, and *Polityka*.

For the private providers established after 1997 the differences between the four strata are no larger than the variation within the strata, in particular in terms of study offer. Most of the institutions analysed were established in 1999 and 2000. The new, vocational higher education institutions established in Warsaw displayed a diversified study offer; however, of all them were single-discipline institutions (Academy of Personnel Management, Academy of Advertisement, Academy of Administration and Social Sciences, and Academy for Beauticians and Health Care). The private providers from the second stratum, established in large metropolitan areas, are also a relatively heterogeneous group, displaying various specialisations (Pedagogical Academy in Łódź, Academy of Business and Foreign Languages in Poznań, Academy of Economics and Computer Sciences in Kraków, Academy of Management and Computer Sciences in Wrocław). The institutions in the third stratum (established in medium-sized cities) offer management, pedagogy, tourism, sociology, and information technology (TWP Academy of Humanities in Szczecin, Academy of Tourism in Częstochowa, Academy of Informatics in Gorzów Wielkopolski, and Academy of Management in Szczecin). Finally, the group of four vocational institutions in small non-academic cities outside the large urban areas mostly consists of single-discipline institutions offering business-related programs (Academy of Management and Administration in Zamość, Academy of Local Development in Żyrardów, Academy in Humanities and Economics in Brzeg, and Academy of Business and Administration in Łuków).

Overlooking the program supply of the post-1997 privates, we conclude that since they operate in a saturated market with a high degree of rivalry, they had to develop a unique course supply not previously offered by the older private institutions. This is why we see vocational courses for beauticians, physiotherapy, monument renovation, sociology, and tourism & recreation.

6. Results of empirical analysis, Part 2: fee-setting by private providers

The Constitution of the Republic of Poland guarantees free higher education. There are exceptions to this rule however, as charging fees is permitted in part-time courses at public institutions and in the private sector in both full-time and part-time courses. In the 1990s, because the state budget subsidies did not increase proportionally with the growing number of students, fee-paying forms of study were created in the private as well as the public sector. The share of fee-paying students amounted to more than 50 % in 2004.

We now examine in detail the pricing policies adopted by the private providers in our sample. Since private higher education institutions completely depend on tuition fees, the level of their fees has a strong impact on their budgets. One would expect that public providers would pose a limit – a pricing umbrella – on the fees charged in the private sector. However, once competition on the higher education market increases, one may predict a fall in the level of tuition fees, for both private and public providers.

During 1990-1997, the (five) private higher education providers from Warsaw charged the highest tuition fees on the market due to the fact that they offered master's degree courses, sometimes of a unique character (e.g., in computer sciences). Another reason was that the tuition fee levels in the *public* higher education institutions in Warsaw were also among the highest on the country. This allowed the private institutions to charge high tuition fees without fear of losing clients to public institutions. Furthermore, Warsaw is the most developed region in Poland and offered promising career prospects for higher education graduates. The five providers chose a high quality/high price strategy. The fees were about 140% of the average for the whole sector, often paid in American dollars rather than Polish *zlotvs* (The Private Academy of Business and Administration charged \$2,390 in 1991/92; the Polish-Japanese Academy charged \$2,200 in 1997; the Łazarski Academy of Commerce and Law set its fees in 1993 at \$1,200). During 1997-2004 the pricing policy of these 'elite' private providers remained unchanged. Tuition fees were very high and increased over the years in contrast to other private providers in the country.

During the 1990s, private providers in other large metropolitan areas charged lower fees than those in Warsaw. As this group was very homogeneous in terms of study offer, fee levels were also quite homogeneous (Academy of Banking in Poznań: \$1,300; Academy of Marketing and Banking in Łódź: \$900; Academy of Entrepreneurship and Management in Łódź: \$1,000; Academy of Finances and Banking in Katowice: \$800). These institutions charged slightly higher fees than average for the private sector despite the fact that their offer was not regarded as particular high quality. During 1997-2004 fees did not increase much as these institutions tried to attract new student groups previously served by public providers. Tuition fee levels for full-time courses even decreased. In 2004, the highest fees were charged by the Academy of Banking in Poznań: \$1,250; The Academy of Entrepreneurship and Management in Łódź charged \$1,050 in 2000/01. Fees charged by the other three providers were similar.

The third stratum in our sample (private providers in medium-sized cities) was a very heterogeneous group during the first period of the transformation process. We distinguish two categories in this group. The first consists of two institutions: the Polonia Academy in Częstochowa and the Academy of Finance and Management in Białystok. Due to their rich study offer and right to confer master's degrees they set higher fees than other providers in the cluster. The institutions from the second group kept tuition fees low in order to be affordable for lower- to middle class students and working students. The Polonia Academy in Częstochowa charged about \$1,200. The Academy of Finance and Management in Białystok charged \$800 in 1993, increasing to \$900 in 1997. The fees charged by the other three providers were lower and close to the average on the market. During 1994-1997 the Private Academy of Environment in Radom charged \$950. The Academy of Management and Administration in Opole, established in 1996, set the fees in its first year at average levels: \$850. The Academy of Computer Sciences in Bielsko-Biala, adopted a similar policy on fee levels. During 1997-2004 the fees charged by these five private providers converged, as all providers except the Academy of Computer Sciences and Management in Bielsko-Biała offered master degree courses and thus aspired to ascend to a higher tier in the private higher education sector. The level of tuition fees stabilised from the year 2000 onwards at around \$1,050.

The fees in the second and third sub-sample were very similar, especially after 2000, as a result of similar strategies adopted by these institutions. Private institutions developed a wider spectrum of programs, obtained rights to confer master's degrees in a few disciplines, and became more interested in attracting full-time students. To some extent they emulated the behaviour of 'elite' private providers and traditional public higher education institutions.

The fourth sub-sample includes four private providers established in small towns. We find two institutions that followed the high price policy and two that kept fees at low levels. The most distinguished was the Academy of Business in Nowy Sącz. It focused on full-time rather than part-time programs. This was reflected in its pricing policy; contrary to other private providers, its fees for part-time programs were higher than for full-time: \$1,600 for full-time and \$2,000 for part-time programs. The Academy of Management in Słupsk also charged relatively high fees: \$1,250 (full-time courses). The other two providers followed a low cost strategy and in fee level terms were situated below the average for the private sector. For instance, the Academy of Entrepreneurship and Marketing in Chrzanow, established in 1994, charged \$650 for full-time courses in its first year. During 1997-2004, tuition fees for the Academy in Nowy Sacz remained high, although compared to other 'elite' private higher education institutions these were modest (\$1,600 USD for fulltime and \$1,200 for part-time courses in 2004). The Academy of Management in Słupsk reduced its fees to \$1,000 in 2004, while fees for part-time courses increased by 15% to \$900. The Academy of Entrepreneurship and Marketing in Chrzanów increased its fees (in 2004: \$1,050 USD).

For our sample of post-1997 institutions subjected to the 1997 Vocational Higher Education Act, we find two pricing strategies unrelated to the location of the provider. The first is the low price strategy adopted by vocational providers that offer undergraduate courses in inexpensive study fields, such as economics, humanities, and pedagogy. These are courses which are also offered by the great majority of older private providers and the traditional state universities. The average fees amounted to \$800 for full-time and \$750 for part-time programs. The other group of vocational HE institutions consisted of providers that developed relatively unique study programs addressing specific student niches and charging higher tuition. The average level of tuition fees charged by these institutions was \$1,200 for full-time courses and \$1,050 for part-time programs.

In the period after the privatisation wave, there was a relationship between the study offer and the level of tuition fees; location also had an impact on prices. In general, we may distinguish two groups: first, the so-called 'elite' private providers situated mostly in Warsaw but also in some other regions; and second, a group much less affluent and more heterogeneous. According to our hypotheses, the 'elite' providers chose the high quality/high price strategy. The second group had lower fees, reflecting the average fees charged in the private sector. These institutions were usually undergraduate single-discipline institutions and their enrolment structure was dominated by part-time students. Therefore, these providers charged much lower fees for part-time than for full-time programs. In terms of location, the average level of fees was slightly higher in bigger cities.

During 1997-2004 we identify three pricing strategies. The 'elite' private providers, positioning themselves as high-quality institutions charge very high tuition fees. The second group that also sets its fees above the average are those institutions that introduced new study lines over time, obtained rights to provide master's degrees, and shifted their focus from part-time to full-time students. These private providers, in direct competition with state higher education institutions, usually mirrored the level of fees set by their public counterparts situated in the same region. In addition, we may include in this group a few new vocational higher education institutions that offer unique study courses and also charge relatively high fees. Finally, the last group of private providers comprises mostly single-discipline undergraduate institutions that concentrate on low cost disciplines; mostly economics and humanities. These institutions adapt their pricing policy to students from lower income groups and kept their fees at affordably low levels.

7. Addressing the hypotheses; conclusions

We now return to our hypotheses relating to the strategies adopted by private higher education institutions. During a period of expansion and a low degree of rivalry between providers coupled with an absence of state financial support for privates, we observed a rapid expansion of the private higher education sector. This began in 1991 with the new state regulations that allowed private institutions to enter the market. Private institutions started to play an important role in meeting the demand for higher education. This is in line with hypothesis 1. In the academic year 1992/93, the share of students enrolled in the private sector accounted only for 0.9% of all students, while in 1998 it had increased to almost 19%.

Regarding hypothesis 2, the growth in private student enrolment was mostly concentrated in part-time programs, with almost 80% of students enrolled on a part-time basis. Interestingly, private higher education institutions that adopted a strategy of high academic quality standards showed an enrolment structure more balanced towards full-time students; they did not expand their enrolments at such a rapid pace as other private institutions.

Continuing our hypothesis 2 exploration, we saw the majority of the new private providers founded particularly in metropolitan areas and larger cities. Private institutions did not often take root in the poorer regions with a lower population density. The new private higher education institutions based their product differentiation on either location or lowprice programs, with a few adopting a high-quality strategy (hypothesis 3). The great majority of new providers are 'demand absorbing' institutions catering primarily to students from lower socio-economic classes and offering low-cost programs in popular subjects, especially economics and management. In 1997, the share of students enrolled in disciplines within these fields was between 60 and 70%. The overwhelming majority of these private institutions were single-discipline, vocationally-oriented institutions, offering only bachelor degree programs.

In contrast, and as stated in hypothesis 3, only a few private providers (often located in 'academic' cities) adopted a high-quality/high-price strategy, developed a wider array of programs, and awarded master degrees. Yet, as expected, they were strictly limited in number, with only a few private providers, mostly the oldest, established in the early 1990s.

To further address hypotheses 2 and 3, we also analysed the tuition charged by the private higher education providers. The bottom value was usually set on the basis of costs incurred, while the top level was set in accordance to fees charged by comparable (public and private) higher education providers in the region. Only a few private providers set tuition fees regardless of the level of tuition fees charged by other providers. They mostly offered master level courses and were perceived as high-quality institutions. Their fees were much higher than the average private fee. During 1990-1997 the level of tuition fees in all private higher education institutions increased annually, mostly at a rate in line with or exceeding the rate of inflation. This was possible due to the rapid rise in student demand and the increase of fees in the public sector, which provided a 'pricing umbrella' for the private sector.

The second period (1997-2004) for which we analysed hypotheses 4-6, may be characterised as a period when state regulations caught up with the rapid expansion of private higher education. Student enrolment further increased – from 1,091,000 in the academic year 1997/98 to 1,926,100 students in the academic year 2004/05. In 2004, students in private institutions accounted for 30% of all students, compared to 21% in 1997. In this second stage of the transformation period, the contribution of the private sector was acknowledged in government policies; from 2001 on, full-time students in private institutions became eligible for state support in the form of means-tested and merit-based scholarships. In 2004, part-time students in private higher education institutions became eligible for student support. However the effects of this policy fall outside our period of analysis. From 2001, the share of full-time students in the private sector has increased, reaching its peak in 2004 at 25% of total enrolment.

However, one of the furthest reaching elements of marketisation policy, making state subsidies available to recognised and accredited private higher education institutions, was still absent. Therefore, public institutions still had an advantage over private institutions in terms of offering tuition-exempt full-time study courses. In 1997 the government passed the Vocational Higher Education Schools Act to increase the number of public and private higher education institutions, aiming especially at smaller cities. Under the new regulations it became easier to open a higher education institution and standards for offering bachelor level programs and student places were less demanding than for providers operating under the previous 1990 Higher Education Act.

In terms of the external conditions for higher education, we focus first on demographic developments. The size of the school-age population (2-24 years of age) began to decline from the beginning of the 1990s and decreased by 13% from 1989 to 2004. This demographic low reached higher education in the year 2000. Secondly, the degree of rivalry between providers on the higher education market changed. Contrary to the beginning of the 1990s, the number of public higher education institutions grew from 98 in 1997 to 128 in 2004 due to the passage of the 1997 Vocational Higher Education Schools Act. Combined with the growth in the number of private providers, there were 427 higher education institutions in 2004 compared to 245 in 1997. This meant that the degree of rivalry on the higher education market increased substantially after 1997.

The new institutional arrangements and the changing external conditions obviously had an impact on the development of higher education system. Both private and the public providers now tried to attract students from segments they previously did not target and started offering more diversified study programs in terms of study fields, quality, type, mode of delivery, and price. Private institutions started offering study programs in fields such as engineering, health, information technology, and sciences. The distribution of students across disciplines changed considerably during 1997-2004 (figure 5). While in 1997 the students in economics-related programs exceeded 55%, their share decreased to 36% in 2004. In 2004, more than 100 private providers had received the right to confer master's degrees and a few were allowed to confer doctoral degrees. As a result, the private higher education sector managed to attract more full-time students. The full-time share increased from about 17% in 1998 to about 25% in 2004. In line with hypothesis 6, we therefore conclude that the private providers in many ways (but not in terms of receiving public funding) began to become more like public providers.

Among other things, hypothesis 6 stated that in a monopolistic competition situation new private institutions that emerge on a mature and saturated market will often locate themselves in small, non-academic locations in order to attract new groups of students. This proved to be the case, and private higher education institutions proliferated more evenly across the regions in the studied period. Compared to 1997, private higher education providers in 2004 now were established in places without academic traditions, and in economically less developed areas.

Interestingly, in accordance to our hypotheses, the level of tuition fees during 1997-2004 was stable, and fees even decreased towards the end of this period. Despite inflation and the rising salaries of academic staff, private higher education institutions were forced to lower tuition fees, copying the behaviour of public institutions. Public institutions for their part also decreased tuition fees in order to enrol a critical mass of students in their part-time programs to combat diminishing state subsidies and student demand.

Hypothesis 5 addresses the strategic responses of elite private higher education institutions on a mature and saturated market and was largely confirmed. The institutions that adopted a high-quality strategy during times of rapid market expansion did not change their 'premium positioning strategy' over time and continued to base their competitive advantage on the high quality of their products. All 'elite' institutions charged high tuition fees to reinforce their superior quality.

Our empirical analysis confirmed that most private higher education institutions in Poland, as in other countries, are vocationally and commercially oriented colleges. They primarily strive to survive in the marketplace rather than to boost the broader public good. Therefore, as expected, their study offer is oriented towards low-cost study programs in high-demand disciplines. However, over recent years some changes can be observed, such as an increased variety in programs.

Our empirical research also proved that our analytical framework (figure 3) was very useful in understanding developments in Polish higher education. To a large extent the reactions of private higher education providers in terms of their location, their pricing strategies, and their decisions on the subjects taught and modes of delivery may be wellunderstood in the light of our interpretation framework. Michael Porter's "Five Forces" model developed to analyse the main competitive strategies of higher education providers proved to be a useful analytical tool.

Our empirical analyses generally found support for our hypotheses about the dynamics in the Polish higher education system and the coexistence of private and public providers.

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