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Structural Changes in the Polish Higher Education System (1990-2010): a Synthetic View

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1. Introduction

The paper synthesizes major changes in Polish higher education in the last two decades. It focuses on changes in governance, management, funding, and the academic profession and links them to social, economic, political, and demographic drivers. In particular, a recent wave of reforms (2008-2013) is analyzed, with its potentially deep impact on further structural transformations. The paper discusses the following five themes: the divided, privatized, expanded/contracting, stratified and collegial university: (1) the disciplinarily *divided university* (with divergent academic rules, norms and codes of behavior in hard and soft academic fields and the ensuing deinstitutionalization of the research mission of the university in soft fields), (2) the *privatized university* (with massive external and internal privatization, or with a fully fee-based private sector and fee-based tracks in the nominally free public sector, and the changing public-private dynamics under declining demographics), (3) the *expanded/contracting university* (with a period of massive system expansion in the decade and a half after the collapse of Communism in 1989, followed by abrupt current and future system contraction), (4) the *stratified university* (with the increasing differentiation of institutional “haves” and “have-nots” in research funding, following the recent wave of reforms with a new competitive and individualized research funding regime), and (5) the *collegial university* (with an unprecedented, from a European comparative perspective, power of collegial bodies in university management and organization). The paper explores the extent of changes in each of the themes and locates them briefly in comparative European contexts.

Polish higher education has changed fundamentally since 1989, both quantitatively (higher participation rates, numbers of students, faculty and institutions) and qualitatively (regained institutional autonomy and academic freedom, shared governance, emergent public-private duality, new competitive research funding and fees regimes). The scope of changes and their speed are not easy to comprehend outside of the context of the overall postcommunist transition to an open, market-driven economy, fully integrated with European Union's (EU) economies. The gradual political, economic and social integration of Poland with the EU has been accompanied by the deepened, gradual integration with Western European higher education and research systems, themselves in the deepened European integration processes (Maassen and Olsen 2007, Kwiek and Maassen 2012). Polish higher education became a dual (public-private) highly differentiated, strongly marketized and hugely expanded system, with all ensuing consequences of fast changes for both institutions and the academic profession. Since 1989, the system has witnessed the phenomenal rise in the number of public and private institutions, the rise and fall in the number of students (from 0.40 million in 1989 up to 1.95 million in 2006 and down to 1.67 million in 2012), the rise in the number of doctoral students (from about 2,000 in 1990 to about 40,000 in 2012) and in the number of academics (from 40,000 to 99,000 in the same period). The unprecedented expansion of the system and stunning growth in its accessibility and affordability have led to the increase in the share of the labor force with higher education credentials to about the European average (24 percent in 2012). As often in the case of large-scale institutional change processes, the impact of a large number of expansion-driven gradual and incremental changes were transformational and consequential changes (Mahoney and Thelen 2010, Streeck and Thelen 2005). University management, organization, governance, funding, and the academic profession have been in the eye of the storm for two decades, as elsewhere in Europe (Stensaker, Välimaa and Sarrico 2012). Now, when the processes of contraction of the whole system (and of the private sector in particular) are in full swing, a fresh look into the past, linking it to the future, is needed. The paper provides an overview of past changes and links them to current and future system-level policy challenges.

2. The divided university

The first theme links gradual changes in academic research productivity in various academic fields to changes in the academic profession in a hugely (until 2005) expanding system.

Traditional academic rules and norms in top public universities according to which research was of key importance to the academic enterprise (Altbach 2007)) were gradually weakening throughout the 1990s in the expansion-related, soft academic fields. As we have shown elsewhere in more detail (Kwiek 2012a), the price of this process in soft (as opposed to hard) fields for top public universities was high, though: it was the prolonged institutional (as well as individual academic) focus on the teaching mission, at the expense of the research mission. In the postcommunist expansion period (1989-2005), prestigious public research universities in Poland became much more teaching-oriented, especially in soft disciplines, than could have ever been expected judging from their traditionally elite and Humboldtian character. In the current and future contraction era, under declining demographics, and with new legislation in force since 2010-2011 which changed the public research funding architecture, the more teaching-oriented segments of public universities are expected by policymakers to become much more research-intensive. The expansion period has led to internally divided top public universities: between research-oriented faculties in hard fields and teaching-oriented faculties in soft fields. Low research engagement in the past two decades in such areas as social sciences and humanities may be a substantial obstacle to the implementation of current reforms which link public research funding to measurable research output, though.

We view the 1990s and mid-2000s as the period of the gradual deinstitutionalization of traditional academic rules and norms in public universities, with growing uncertainty about which academic behaviors were legitimate and which were not (Olsen 2010: 128), and what the core of the academic identity in research universities was. The deinstitutionalization processes were concentrated mainly in soft academic fields, in particular those which were in high social demand and which provided additional multiple employment opportunities to the academic faculty in the expanding private sector. The higher education legislation of March 2011 reinstitutionalizes these temporarily suspended traditional rules and norms. It introduces new governance and funding principles, redefines the academic career ladder and presents new rationale behind public support for both teaching and research. It finally makes full-time multiple employment hardly possible as of October 1, 2013. Current government-produced, instrumental views (Olsen 2007, Kwiek and Maassen 2012) are intended to bring the research and teaching missions in top public universities back to a healthy balance, much needed in knowledge-driven economies in which academic knowledge production increasingly matters (Bonaccorsi et al. 2007, Kwiek 2011, Kwiek 2013a).

In what we can term the expansion era (1989-2005) in Poland, there were ever more students in both public and private sectors, and estimated 30-40 percent of academics (and about 70-80 percent of professors) from the public sector in soft fields held parallel employment in the private sector. The rationale was to make use of opportunities when they arise and to be able to maintain middle class standards of living while university salaries were falling behind the salaries of other professionals. All institutions at that time, including public research universities, became teaching-focused in their soft fields departments. The traditional academic rules, norms and codes of behavior which stressed the role of research for individual career progression and for institutional development were widely questioned by the academic community (more in practice than in theory, though). Prestigious public universities were no longer able to provide proper legitimation for an established organizational practice of academic research, and the state was not able to provide more than rudimentary research funding. Social (and especially peer academic) pressures on being involved in research were low, the “erosion of institutionalized rules” was caused by a “declining normative consensus” (Scott 2008, Oliver 1992, Djelic and Quack 2008) about what constituted the core of academic activities in top universities.

The reinstitutionalization of the research mission in universities is linked to a coherent reform program of 2010-2011, marked by a set of six laws of 2010 reforming the research sector and a new law on higher education of 2011 combined with increasing public (national and European) investments in research. The decline of the research mission coincided with social and economic instabilities of the transition period in Polish economy in the 1990s, started by “shock therapies” leading to the market economy, and coincided with the expansion era in higher education. The processes of reinstitutionalization of this mission coincide now with the period of well-established market economy, combined with the political stability achieved through the EU membership, and the demography-driven contraction era in higher education.

The dramatic growth of private higher education in the 1990s was made possible by the gradual decline of traditional academic codes of behavior in public universities. Large-scale multiple employment of the academic profession for about a decade became the (academic) norm, not the exception. The price to be paid by the system as a whole was high, though: it was a growing isolation from the international research community. Academics relieved from “taken-for-granted” (Scott 2008: 196, Djelic and Quack 2008: 301-304) research duties

eagerly focused on large-scale, profit-driven teaching. The suspension period lasted until the last wave of reforms which may be interpreted as a government-inspired (rather than academics-driven) legal call to return to a traditional academic normative consensus about what top public universities should be doing and why.

A simple bibliometric analysis (performed on the basis of the SCImago Journal & Country Rank dataset developed from the information contained in the Scopus database, and referred to the 1996-2010 period) demonstrates a powerful disciplinary divide between hard and soft fields. The three strongest fields throughout the 1996-2010 period studied have been physics and astronomy, mathematics, and chemistry (globally ranked 13, 13 and 14 in 2010). In 1996, these three fields were globally ranked roughly in the same, relatively high positions (13, 15 and 12, respectively). The weak fields, in contrast, include arts and humanities, social sciences, and economics, econometrics and finance, ranked relatively low in 2010 (39, 39 and 37, respectively). In 1996, two of the three fields – arts and humanities, and social sciences – were ranked much higher (24, 24, respectively; the third field was 37). There are many reasons why, in general, the natural sciences and related fields were able to maintain their relatively high position both in the global and regional (Central European) knowledge production in 1996-2010 and why the social sciences and related fields performed, by comparison, much worse. One of them is the individual academic and institutional focus on teaching and the teaching mission, and the individual academic and institutional disregard of the research mission in faculties of arts and humanities, social sciences and economics in most prestigious Polish universities. Poland in those fields in which massive expansion occurred has lost significantly its international research visibility. While in the global ranking (all fields), Poland moved down the ladder from rank 16 (1996) to rank 18 (2003) to rank 20 (2010), its still relatively good position is due mostly to those fields in which academics had virtually no opportunities for multiple employment in the private sector.

From a regional perspective, Polish chemists, physicists, astronomers, and mathematicians published more international papers than their colleagues from Slovakia, Hungary and the Czech Republic combined both in 1996 and in 2010. Their publications accounted for 55.7 percent and 54.3 percent of all publications from the four countries in respective years. What is important for us here, though, is the cross-country differences in national research outputs in soft, expansion-linked fields. Research output in those fields has been decreasing systematically in Poland, compared with the research output of the three regional competitors.

In 1996, in soft areas, the share of Polish research output in the output from the region was relatively high in both arts and humanities (55.6 percent) and in social sciences (48.8 percent) (it was much lower in economics and related areas: 23.8 percent). In 2010, though, in the arts and humanities, the number of Polish internationally visible publications was only about half of the number of publications of their colleagues from the Czech Republic and Hungary, and only slightly more than those from Slovakia (Polish publications in the arts and humanities accounted for only about 23 percent of all publications from the four countries). In social sciences, the total number of internationally visible publications by Polish, Czech and Hungarian academics was about the same, and in economics and related areas – Polish research output was much lower than the Czech one. But, at the same time, the Polish higher education and research systems are huge by comparison (Poland had more academics than the three other countries combined throughout the 1996-2010 period. The slide in the Polish share in soft academic areas was from 43 percent to 26.9 percent in the period studied).

Thus, hard academic fields managed to maintain their high positions and soft academic fields noted a downward slide. In particular, the share of Polish publications in arts and humanities and in social sciences in the pool of publications coming from the four regional economies studied slid dramatically from 55.6 percent to 18.8 percent; in social sciences, it slid from 48.8 percent to 30.8 percent. Research productivity across academic areas and across the four regional higher education systems clearly shows that soft areas in Poland were powerfully affected by the processes of the deinstitutionalization of the research mission in universities, given that the financial austerity in university was roughly equal in all academic fields. What is important for the future is that academic norms, attitudes and codes of behavior are changing very slowly, as empirical studies of the academic profession show (Teichler, Arimoto and Cummings 2013). The current policy challenge is not only to increase the overall low research productivity of Polish academics but also to deal with a cultural and normative divide between hard and soft academic fields produced in the times of educational expansion.

3. The privatized university

The emergence of the private higher education sector contributed to the demand-absorbing growth – but the expansion occurred throughout the two sectors, and throughout the two major modes of studies, full-time and part-time (Poland has the highest share of part-time

students in Europe, 45 percent, and a highest number, about 800.000 in 2011, GUS 2012: 55). The period of expansion in higher education enrolments can be viewed through the double matrix of two major dimensions: public and private sectors, and full-time and part-time modes of studies, or through a single matrix in which the major dimension is paying fees. The most prestigious first-choice vacancies have been free or tax-based vacancies in the public sector; the second-choice vacancies have been fee-based vacancies in the public sector and vacancies in the private sector (where all vacancies are fee-based).

Polish students can be defined by sectors they come from: public and private. But even more fundamentally, they can be defined as fee-paying and tax-based students. Fee-paying students are all students from the private sector (full-time and part-time) and all part-time students from the public sector. While according to the former distinction, 29.37 percent of students are enrolled in private institutions and 70.63 percent in public institutions, according to the second distinction, almost exactly half of all students, or 50.28 percent, are paying fees and 49.72 percent are not paying fees (2011). The first impact of a powerful reversed demographic trend is seen through the stagnating, and then falling share of fee-paying students in both sectors (combined) beginning in 2006. The total number of tax-based students have been increasing throughout the last decade, and only in the last three years for which national data are available (2009-2011) the number increased from 828.000 (43.58 percent) to 876.700 (49.72 percent). Under declining demographics, there is a zero-sum game: public sector gains mean private sector losses.

The largest growth in Polish private higher education in the 1990s occurred through the non-elite, mostly demand-absorbing, type of institutions (exceptions include about 10-20 semi-elite private institutions, out of 328 in 2011/2012, located mostly in Warsaw and several other metropolitan areas). As elsewhere in rapidly expanding systems, most students were “not choosing their institutions over other institutions as much as choosing them over nothing” (Levy 2009: 18). As in other countries, demand-absorbing subsector tended to be both the largest private subsector and the fastest growing one. This is also the most vulnerable one in the current setting of declining demographics. The growth of private higher education did not necessarily mean “better” services, or “different” services: it meant most of all “more” higher education (Geiger 1986: 10, Enders and Jongbloed 2007: 20).

In the 1990s, when the first private institutions appeared throughout Central and Eastern Europe, Polish higher education policy was focused mostly on educational expansion. Private (called “non-public”) institutions in Poland and elsewhere in the region were mushrooming; there were limited quality assurance mechanisms and accreditation procedures in place at the time. In the two decades between 1990 and 2009, 330 private institutions materialized in Poland and about 700 in Central and Eastern Europe. The expansion of the system was closely linked to economic policy that encouraged external privatization (the emergence of new private providers) and internal privatization (the emergence of fee-based part-time studies in the nominally free, or tax-based, public sector; on the distinction, see Kwiek 2009 and Kwiek 2010). Student numbers in Poland were skyrocketing: the peak of enrolments came in 2005 (1.95 million), and since then every year total enrolments in both public and private sectors were slightly lower, reaching 1.82 million in 2010 and 1.67 million in 2012. The peak of enrolments in the private sector came two years later, in 2007 (660.000), and they have been decreasing ever since, to 580.00 in 2010 and 518.00 in 2011, with powerful consequences for the public-private dynamics and the financial stability of the private sector.

As we have studied elsewhere in more detail (Kwiek 2013b), the expansion was accompanied by hierarchical differentiation: much of the growth was absorbed by public and private second-tier institutions and by first-tier public institutions in their academically less demanding and less selective part-time studies. Expansion also took place in specific fields of study, in particular such as social sciences, economics and law. The expansion was supported by both public and private sources. The inflow of public funding to the public sector in the expansion period was significant but equally significant was the inflow of private funding from fees to both sectors. While the private sector is overwhelmingly reliant on tuition fees, the public sector during the peak of the expansion (especially in 2000-2005) was also heavily reliant on tuition fees from part-timers which were providing 16-20 percent of its operating budgets.

While the communist-period higher education in 1970-1990 in Poland could be termed unified, following V. Lynn Meek, Leo Goedegebuure and colleagues (Meek et al. 1996) and Yossi Shavit, Richard Arum, and Adam Gamoran (Shavit et al. 2007), the recent period of its expansion (1990-2005) showed a transformation from a unified to a diversified system. Higher education under communism was not inclined to encourage expansion, either of existing elite universities or through the formation of new, especially non-university

institutions. The number of students in the two decades of 1970-1990 was strictly controlled and, in general, was not increasing (it was between 300.000 and 470.000, with a peak in 1975-1980: in 1965 the number of students was 252.000, in 1970 – 331.000, in 1975 – 468.000, in 1980 – 454.000, in 1985 – 341.000 and in 1989 – 377.000), and the strict *numerus clausus* policy, restricting access to particular study fields and institutions, was the rule across Central European countries. While Western European systems were already experiencing the processes of massification in the 1960s, 1970s and 1980s, higher education in Central Europe was as elitist in 1990 as in the decades past. One of the major reasons of the phenomenal growth of private higher education following the collapse of communism in 1989 in (some) Central European countries, and in Poland in particular, was heavily restricted access to public higher education under communism combined with new private sector employment opportunities. Increasing salaries in the emergent private sector were widely socially recognized, which gradually pushed more young people into higher education. The biggest increase in both student numbers and in the number of newly created private higher education institutions was in the first 7-10 years of the transition period (the number of private institutions increased from 0 in 1989 to 80 in 1995 and 195 in 2000, and the number of students increased from about 400.000 in 1990 to about 800.000 in 1995 and about 1.6 million in 2000).

The processes of both internal privatization and external privatization are currently in retreat, though: under declining demographics, the number of fee-paying students in the public sector decreased dramatically by 30 percent in the 2005-2011 period (from 530.000 in 2005 to 439.000 in 2009 to 369.000 in 2011, GUS 2012: 55), as did the share of income from fee-paying students in the public sector, from 16.6 percent in 2005 to 12.9 percent in 2011 (GUS 2012: 342-346). The private sector has been shrinking dramatically in the 2007-2011 period, by almost 25 percent (from 660.000 to 518.000). The ministerial projections show that private sector enrollments will shrink from 34.21 percent in 2008 to 12 percent in 2022, and the number of institutions may shrink by 80 percent. The decline of the private sector is fundamental, and cannot be reversed: Poland will witness another decade of its gradual demise, especially that declining demographics is combined with expanding pool of tax-free vacancies in the public sector. Increasingly (internally and externally) privatized higher education of the expansion period is becoming ever more public, with increasing reliance on public funding.

4. The expanded/contracting university

Thus dramatically changing demographics becomes the major parameter of higher education policy: enrolments, expected to fall from about 1.95 million students (2005) to about 1.2 million in 2025, introduce new dilemmas related to public funding and admissions criteria. We expect public policy for higher education in the times of expansion to be fundamentally different from public policy in the times of contraction, as we have explored the issue elsewhere in more detail (Kwiek 2013b).

The expansion of Polish higher system slowed down after fifteen years (1990-2005) and since then the system has been gradually contracting. The contraction has far-reaching consequences for the future differentiation of the system, public-private inter-sectoral dynamics, and the selectivity of public and private institutions and their admission criteria. Powerful demographic shifts may thoroughly change the structure of the system, and the remonopolization of the system by the public sector cannot be excluded, due to the gradual (spread over the next decade) decline of the private sector. The processes of inter-sectoral differentiation of the expansion era may be replaced with the processes of the inter-sectoral de-differentiation (or homogenization) of the contraction era.

In the first decade of the expansion (in the 1990s), tax-based places in metropolitan elite institutions were scarce and available on rigid meritocratic selection criteria. The number of tax-based vacancies was increasing throughout the 1990s, though. Elite metropolitan universities were trying to retain their high quality of teaching in the times of ever-increasing student numbers through channeling the newcomers, mostly from lower socio-economic classes, to their paid study offers, of considerably lower academic quality. Elite universities became as open to the newcomers as never before: the share of students from lower socio-economic classes to the tax-based studies reached the 20 percent ceiling in the last decade, and in the fee-based studies it was higher than 50 percent.

The quality of higher education provided in both public and private institutions, and the differentiation of institutions and academic credentials, became a public issue only in the second decade of expansion, in the early 2000s. The most valuable vacancies – those in elite metropolitan public universities in full-time mode of studies – were scarce and competitive.

They were socially precious not only because they were tax-based but also because they were academically demanding. All other vacancies, much less socially precious from a larger perspective, and conceived as much less socially precious by the intelligentsia-turned-middle classes –have been offered to all, in fee-based modes, throughout the two decades.

During the times of expansion, questions about equitable access and fair selection criteria were not asked, and issues of social justice were not publicly raised, either in official policy documents, or in the scholarly discourse. Expansion was viewed as public good in itself, and its details related to fairness and inclusion were generally both under-researched in academia and under-debated in the public domain. Higher education statistics and labor force statistics were showing a highly positive picture of the emergent well-educated society with increasing share of the workforce with higher education credentials. The national and regional statistics were not differentiating between types of institutions attended and modes of studies. But the system expansion stopped about 2005 and the contraction continues, with an increasing share of students enrolled in the tax-based public sector, and shrinking enrolments in the private sector.

The demographic shift will determine new admission patterns in both sectors and may still increase access of lower socio-economic classes to higher education throughout the system. The number of 19-years old was increasing throughout the 1990s and until 2002. Since then, for a decade, the number has been decreasing, and according to demographic projections, it will be decreasing for another decade (until 2022). In 2020, there will be about 360.000 of 19-years old, compared with about 612.000 in 2005 and 534.000 in 2010. Also the pool of potential students (traditionally the age bracket 19-24 in Poland) will be steadily decreasing every year until 2020, from about 3.4 million in 2010 to about 2.3 million in 2020 (decrease by 31 percent within a decade). At the same time, very high entry rates, participation rates, and part-time student rates and very low drop-out rates and international students rates in higher education preclude counterbalancing demographic trends through traditional strategies.

While demographic factors are well defined, political factors are not. Political factors depend largely on policy choices: one policy stance known from the political economy of reforms is to leave things as they are. A less obvious and much more contestable policy stance is to intervene, especially intervene through changing the financial architecture of higher education, relatively stable in the last two decades. A possible policy intervention is either in

the private sector only (public subsidization of teaching in the private sector) or in the public sector only (introducing universal fees in the public sector), or in both sectors (the combination of both policy interventions). The segment of higher education with strong interests in new policy choices is the private sector, expected to be desperately seeking survival strategies at the macro-level of national policies. What seems theoretically possible is politically complicated, though; lobbying for one or both of the two policy choices is in progress. Given the stability of demographic factors, the unstable, unpredictable political factors are therefore extremely important for the higher education system as a whole. In Poland, the projected demographic decline is fundamental rather than limited in duration. Poland does not seem to be politically prepared for the introduction of universal fees in the public sector and for the introduction of public subsidies in the private sector (both interventions might slow down the processes the gradual disintegration of this sector in the coming years). It is also unclear to what extent the survival problem of the private sector may become a major policy problem to be solved by politicians. The introduction of universal fees seems also politically difficult in the climate of the economic crisis. Whatever policy choices are made, though, the contraction is going to be a defining feature of the Polish system for at least another decade.

5. The stratified university

Demographics have been fundamentally changing the higher education system and politics led to comprehensive reforms of both higher education and research systems. Their major part was the 2010 law on a new national research council called the “National Science Centre” (or the NCN). The rationale behind its establishment was twofold: to leave decisions about research funding for fundamental research to the academic community and to increase the overall competition for research funding (as elsewhere in Europe, Enders, de Boer and Westerheijden 2011, Stensaker, Välimaa and Sarrico 2012). Until the recent wave of reforms, a large proportion of research funding was distributed through an (almost non-competitive) “statutory research” funding. It was allocated to university units based on periodic (institutional only) research assessment exercises. And for about two decades, it was the major source of research funding. According to the new law, at least 50 percent of all research funding will have to be awarded on a competitive basis from 2020 onwards. The NCN, as a new independent research council, is a major player in this change of funding regime: away

from non-competitive (and institutional), statutory research funding and towards increasingly competitive (and individual) grant-based research funding. The other new funding agency, the National Centre for Research and Development (or the NCBIR) supports applied research and university-business links. The research funding allocated through the NCBIR in 2012 was about five times higher than that allocated by the NCN (4.5 billion PLN and 900 million PLN, or about 300 million USD and 1.5 billion USD, respectively).

A gradually changing formula of research funding distribution is leading to the “haves” having more competitive research funds and the “have-nots” having less. New funding mechanisms lead to the emergence of new families of institutions: strongly and moderately research-oriented on the one hand and those with no research mission on the other. During its first two years of operation (2011-2012), the NCN funded over four thousand grants (4,360), with budgets totaling roughly a half billion USD. The NCN (focused on fundamental research) is a Polish equivalent of the extremely successful European Research Council (ERC) that provided 7.5 billion EUR to European academics in the 2007-2013 period for what it terms “frontier research”. The rationale for creating both agencies (an independent agency, academics making decisions), the division into streams of funding and the structure of disciplinary assessment panels is almost identical. The results of calls for proposals in all categories (starting grants, postdoctoral grants, mid-career grants, and established researchers’ grants) have been stunning. They reflect a new geography of knowledge production as well as the growing stratification of the Polish higher education system.

The two largest national universities—the Jagiellonian University in Krakow (UJ) and Warsaw University (UW) are in fierce competition with each other, earning over 400 grants each. These are the only institutions ranked in the 2012 Academic Ranking of World Universities, in the 301-400 ranks. UJ and UW together received about 20 percent of all research grants and of all research funding available from the NCN. The second cluster of universities are Poznan University (UAM), AGH University of Science and Technology in Krakow, Wroclaw University, and Warsaw University of Technology. The number of their grants is considerably lower, though, with UAM receiving 212 grants and the other three universities receiving 114-145 grants each.

While the research dominance of the two largest universities is clear, what also emerges from the distribution of NCN grants are national ranking lists: the Top 10 universities have won 42

percent of all grants and the Top 20 institutions have won 55 percent of all grants. The statistics for the most prestigious grants (called Maestro) offered to top-level researchers follows the same pattern. There were 99 Maestro grants awarded in the period studied and 30 percent of them went to UJ and UW, 45 percent to the Top 5, 60 percent to the Top 10, and 80 percent to the Top 20 institutions. Slightly more than a half of all 40 Maestro-grant recipient institutions, at the other end of the spectrum, received only one Maestro grant.

The growing concentration of research funding, talents and opportunities has been clear throughout the last two decades. With new research funding mechanisms, with the increasing effect of competition, further stratification of research seems unavoidable and is consistent with developments across Europe (Kwiek 2012c, Kwiek 2013a).

Who are the losers under a new research funding regime? The list of recipient institutions includes slightly more than a half of higher education institutions (only 250 in a system of about 450, including 328 private) and several dozens of research institutes of the Polish Academy of Sciences. The list of non-recipients thus includes about 200 institutions. The winners are top metropolitan universities while the losers are middle-level and low-level institutions where knowledge production is only marginally competitive. Among the recipient institutions, there are over 100 institutions (or about 40 percent) that received only 1-3 grants and 71 institutions (or about 30 percent) that received only one grant.

Competitive research seems not to be performed in the private sector at all: there are only two private institutions among the first 100 recipient institutions and among top 200 institutions there are only four of them. There are only two exceptions (which might be termed “semi-elite” private higher education institutions), both Warsaw-based – University of Social Sciences and the Humanities (SWPS) and the Leon Kozminski Academy, with 29 and 13 grants respectively, and with total funding of 2.5 million USD and 1.2 million USD (each institution received also one Maestro grant). From the point of view of prestige, the NCN data are disastrous to the whole private sector. They are not surprising, though. The private sector in Poland is almost entirely teaching-oriented and unable to participate in a competition for national (or international) research funding. The issue of research-linked prestige is of marginal importance, though, in the context of declining demographics and systematically falling revenues from fees.

The competitive funding made available through a new national research council will gradually lead to the emergence of a new class of Polish research-intensive universities. This category is expected to enter Polish public policy discourse with more intensity, accompanied by an ever higher concentration of research funding and ever growing stratification of institutions in the coming years.

6. The collegial university

Finally, we shall explore briefly changes in governance and management. How can the Polish system be located on the professional/ academic – managerial/ bureaucratic axis or on the autonomous – managerialist – open market axis (Birnbaum 1988, Becher and Kogan 1980, Olsen 2007)? There are two useful typologies of university/state relationships and university organization and governance: Robert Birnbaum's and Johan P. Olsen's. Birnbaum (1988: 83-174) distinguished between four major models of academic organization: "collegial", "bureaucratic", "political", and "anarchical". Olsen (2007: 30), in turn, argued for four "stylized visions" of the university: "a rule-governed community of scholars", "an instrument for shifting national political agendas", "a representative democracy", and "a service enterprise embedded in competitive markets".

Exploring the current level of collegiality in Polish universities, we start with the applicability of Olsen's first model (the university as "a rule-governed community of scholars", related to Birnbaum's "collegial model"). The university in this model is an institution with the following characteristics: it has its own constitutive and normative and organizational principles; it shows shared commitment to scholarship and learning, basic research and search for the truth (irrespective of immediate utility and applicability, political convenience or economic benefit); it is supposed to benefit society as a whole and not specific "stakeholders" or those able to pay; neutral competence is the only source of legitimate authority; it shows collegial organization, has elected leaders and disciplinary organization; its activities and results are assessed by the internal norm of scholarship (peer review); truth is an end in itself, and the system evolves through internal, organic processes (rather than external design) (Olsen 2007: 30-31). To what extent does the Polish academy manifest the characteristics of Olsen's "rule-governed community of scholars"? We link his ideas presented above to the selected EUROAC dataset variables to see how the Polish system can be located among other

European systems.¹ Based on research literature, the initial hypothesis was that Poland should be a “community of scholars” type of system to a higher degree than most European systems. In particular, we assumed that the current dynamics is that the collegial model is still very powerful today but it has been gradually eroding in face of the ongoing structural reforms in the last few years.

We analyze here several clusters of statements best fitting Olsen’s first model: these are views on scholarship, views on research, the character of primary research being done, and views on research funding. The following eight views are analyzed below (percent “agreeing” or “very much”; we refer to percentages of answers 1 and 2 combined, on a scale of answer 1= strongly agree to 5= strongly disagree and a scale of answer 1= very much to 5 = not at all):

- Scholarship is best defined as the preparation and presentation of findings on original research: Poland is about the average (69 percent agreeing vs. the European average of 71 percent).
- Scholarship includes the application of academic knowledge in real-life settings: Poland, together with Austria, ranks the lowest (59 percent agreeing vs. the European average of 74 percent).
- Faculty in my discipline have a professional obligation to apply their knowledge to problems in society: Poland ranks the lowest (40 percent agreeing vs. the European average of 57.3 percent).
- Emphasis of your primary research: applied/practically oriented: Poland ranks the lowest (55 percent very much vs. the European average of 63.7 percent).
- Emphasis of your primary research: commercially oriented/intended for technology transfer: Poland is about the average (18 percent very much vs. the European average of 17.1 percent).
- External sponsors or clients have no influence over my research activities: Poland ranks very high as the third from the top, following Norway and Austria (54 percent agreeing vs. the European average of 50.1 percent).
- Interdisciplinary research is emphasized at my institution: Poland ranks the lowest (32 percent agreeing vs. the European average of 52.8 percent).
- Your institution emphasizes commercially-oriented or applied research: Poland ranks the second lowest, following Austria (33 percent agreeing vs. the European average of 40.1 percent).

¹ The data used in this section are drawn from eleven European countries involved in the CAP and EUROAC research projects (Austria, Finland, Germany, Ireland, Italy, the Netherlands, Norway, Poland, Portugal, Switzerland, and the United Kingdom). The total number of returned surveys was about 17,000 and included between 1,000 and 1,700 surveys per country. We used the final data set dated June 17, 2011 and created by René Kooij and Florian Löwenstein from the International Centre of Higher Education and Research – INCHER-Kassel. The EUROAC research team included also Dr. Dominik Antonowicz. Research conducted in Poland in 2009-2012 was coordinated in Europe by Ulrich Teichler of Kassel University and funded through the European Science Foundation within its EUROCORES EuroHESC scheme.

Thus the Polish system differs substantially from most European systems in most of the items related to “the community of scholars” model. It ranks the lowest in Europe in several categories in which the lower the rank, the closer the system to the model: the application of academic knowledge to real life, the application of knowledge to social problems, the applied or practically-oriented character of their primary research and the emphasis on interdisciplinarity. Poland ranks the third in the case of the lack of influence of external sponsors on research (the higher the rank, the closer the system to the model). Poland is also the second from the bottom in the share of academics agreeing that their institutions emphasize commercial or applied research. It is about the European average in the case of scholarship viewed as original research and in the emphasis on commercial and technology transfer in academics’ primary research. Although the emergent picture of the Polish academy is not fully following all major parameters of Olsen’s model, it seems to be the closest to it from among the European countries studied.

Olsen’s second model of the university (the university as an “instrument for shifting national political agendas”) does not fit. Compared to other European systems, it is the least applicable to the Polish case. In contrast, the analysis of the current Polish reform agenda indicates that it is a dominating model in the policy-making community. The clash between the two visions in the coming years seems therefore unavoidable, leading to possible powerful backlash on the part of the academic community to ongoing and further reforms. The two remaining Olsen’s instrumental models (the university as “a service enterprise embedded in competitive markets” and as a “representative democracy”) do not fit the Polish case either. Polish academics view both of them as largely irrelevant (and the same applies to the policy-making community). Only Olsen’s first, collegial model is perceived as relevant for Poland. The second, instrumental model – massively promoted in a new wave of Polish reforms and perceived as irrelevant by the academic community today – may be gaining influence in the coming years through various state-supported changes in funding and governance mechanisms, though.

Who are the most influential actors in decision-making in Polish higher education (government or external stakeholders; institutional managers; academic unit managers; faculty committee/ boards; or individual faculty)? Eleven decisions taken by actors were studied in detail: selecting key administrators; choosing new faculty; making faculty promotion and tenure decisions; determining budget priorities; determining the overall teaching load of

faculty; setting admission standards for undergraduate students; approving new academic programs; evaluating teaching; setting internal research priorities; evaluating research; and establishing international linkages. We focus here on the role of collegial bodies and individual faculty in academic decision-making. The responses indicating faculty committees/boards and individual faculty (both answers combined) to the question of actors having primary influence in eleven above items in Poland were the following: for 4 items, Poland ranked very high, for 4 it ranked very low, for 2 it ranked exactly the average, and for 1 it ranked low. We have also construed an “index of collegiality” by aggregating and averaging answers indicating “faculty committees/boards” as the actor of the primary influence in decision-making given by full-time faculty for all eleven European countries. Collegiality as seen through the lenses of this index is very high in Poland (and it is the second only to Switzerland). Again, the Polish system was perceived as a highly collegial.

Following Robert Birnbaum (1988) and adapting his four major models of university organization (collegial, bureaucratic, political, and anarchical), we used selected variables to assess collegiality in academic organization (see Manning 2013:40-48). The following six statements refer to collegiality in his account (percent “agreeing”; we will refer to percentages of answers 1 and 2 combined, on a scale of answer 1= strongly agree to 5= strongly disagree):

- Good communication between management and academics: Poland ranks about the average (22.2 percent agreeing vs. the European average of 25.7 percent).
- Collegiality in decision-making processes: Poland ranks exactly the European average (25 percent agreeing).
- I am kept informed about what is going on at this institution: Poland ranks below the average (34.7 percent agreeing vs. the European average of 41.7 percent).
- Students should have a stronger voice in determining policy that affects them: Poland ranks the third from the bottom, following the Netherlands, the lowest, and Switzerland (27 percent agreeing vs. the European average of 31.5 percent).
- A top-down management style: Poland ranks exactly the European average (54 percent agreeing).
- Lack of faculty involvement is a real problem: Poland ranks the lowest (16.9 percent agreeing vs. the European average of 40.4 percent).

The emergent picture is not unequivocal but the Polish system seems more collegial than most other European systems studied. It represents exactly the European average in “collegiality” and “top-down management” issues, and about the European average in “good communication” between management and academics. It also indicates that the lack of faculty involvement is not a real problem to a highest degree in Europe and that students already have

strong voice in universities. Polish academics are kept less informed about what is going on at their institutions, though.

Thus Polish higher education is still operating according to the traditional collegial model of the university as a “community of scholars”. The defining feature of Polish universities is powerful collegiality. The influence of collegial bodies on academic decision-making is the highest in Europe, and that of the government, in contrast – is the lowest in Europe. Polish higher education is one of the last remnants of the collegially-coordinated “republic of scholars” in Europe, albeit exposed to ever increasing reform pressures.

7. Conclusions

There are several conclusions to be drawn. First, while in the expansion era (1989-2005), Polish higher education was integrating slowly with Western European systems, in the last few years of the contraction (2006 and beyond) European integration processes have been much deeper. Current changes in governance, management and funding bring Polish reforms in line with an array of reform initiatives taken in the last decade across European countries and linked to the changing state-higher education relationships. Second, the major emergent parameter of higher education policy in the future will be demographics: its negative impact on future public funding, admission and selection criteria in top public institutions, the stratification of the academic profession, its research productivity and its morale, as well as on the overall public-private dynamics is still underestimated. The remonopolization of the system by the tax-based public sector and the gradual decline of the private sector in the coming decade will transform the system beyond recognition. Third, powerful systemic changes in university governance and management (away from the “collegial university”, or from the power of academic collegial bodies, and towards centralized and top-down management in institutions) and changes in funding modes (away from largely evenly distributed institutional research funding and towards ever more competitive and individualized grants-based funding) will shatter the stability of the academic profession. Processes of institutional differentiation will draw ever clearer lines between “haves” and “have-nots” in research funding in terms of institutions, departments, and research groups. Internationally visible research activities will be conducted in ever smaller number of institutions and departments, and by ever smaller number of academics – which will also be

the end of the enduring myth of the teaching-research unity in Polish universities. The stratified academic profession will be employed in increasingly stratified institutions with diversified missions: mostly teaching-focused and selectively research-intensive. And finally, fourth, after two decades of being fundamentally different due to the communist legacy (i.e. being “postcommunist”), Polish higher education has a chance to become a standard European system, with similar governance and funding regimes and, hopefully, ever growing knowledge production.

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