Chapter 3
A Bastion of Elitism or an Emerging Knowledge Proletariat? Some Reflections About Academic Careers with an Economic Slant

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3.1 Introduction

The increasing influence of economic and management ideas in higher education is associated with changing perceptions of the roles that higher education should play. In recent decades, societies and governments have evolved their views about the social role of higher education, with significant implications for the Identity of HEIs and the Organization of the HE Sector (Scott 1995; Geiger 2004). Educational decisions have been increasingly perceived as motivated by economic factors and educational institutions as economic institutions (Bok 2003; Winston 1999). Moreover, the social contribution of the activities of higher education and science organizations has been increasingly linked to a variety of ways of assessing their economic relevance (Slaughter and Leslie 1997). Hence, policy-makers and institutional managers have been exploring ways to steer individual and institutional behaviour through incentives that are consistent with an increasing influence of economic and management ideas in higher education and research.

This changed view about HEIs and the way they should manage their academic resources has had significant implications for the academic reward structure (see Teichler 2007). A major driver of this change has been the growing influence of a number of economic concepts, such as human capital analysis, based upon the view of academics as rational individuals that try to maximise their returns (both financial and non-pecuniary). In this text we reflect on some major trends in the academic profession by adopting a labour market perspective, and explore the contributions and limitations of this perspective for understanding this constituency. We will start by looking at changes in labour economics and the way this field has come to look

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at academic careers. Then we will briefly present some major trends that led to a growing influence and political legitimacy of economic ideas in higher education policy and management. This is followed by a look at the impact of marketization on certain aspects of academic careers. In our analysis we will focus our attention on the attraction of new researchers and the evolution of pecuniary and non-pecuniary returns to academic careers and to what extent these changing perceptions have contributed to an increasing inequality in the financial and working conditions of academics. We will conclude this text with some reflections and speculations about possible future trends.

3.2 Academic Careers and the Economics of the Labour Market

The way economists approach labour issues has changed significantly over time. The developments have tended to emphasise the economic dimensions of labour relations over other legal, sociological, and political aspects (McNulty 1986). Moreover, economists have become increasingly more confident in applying economic tools of analysis in their attempt to explain certain trends and features of labour markets. One of the main issues of debate among labour researchers is to what extent the labour market is a peculiar type of market (Kerr 1993).[1] There are those that believe that the neoclassical model of markets needs to be adjusted in order to take into account the specificities of this commodity and the institutional framework affecting labour relations. Furthermore, there were those that considered that this institutional dimension and the non-economical character of the so-called labour supply and demand pose major limitations to the use of a market framework and question its explanatory effectiveness. This includes the development of unions and other forms of workers' organisations, which have introduced a mixture of economic and political dimensions in labour relations and in employees' behaviour.

The different views of the labour market and its protagonists do necessarily shape the way labour economists see the wage determination process. Whereas some will regard labour markets as analogous to other types of competitive markets and therefore see the process of wage determination as not very different from the one defined by competitive market theory, others express doubts about the competitive assumption underlying the view of wages as a market price. According to the former view, although some forces may, to a minor extent, delay or limit the impact of competitive markets, by no means should this be considered a central aspect in terms of wage determination. This applies to issues such as collective bargaining or

[1] A market mechanism is usually presented in economics as a resource allocation mechanism based on a multiplicity of individual decisions that operates through the interaction of supply and demand forces. A market system is normally associated with a significant degree of competition between individuals, a high degree of freedom for each agent, and a strong economic motivation of individuals to obtain gains from those activities.

labour market legislation, which are recognised as interfering with wage-setting (and other aspects of the labour market), though without challenging the competitive market as the benchmark for wage determination, and hence for labour research.

Hence, the prevailing view among most economists is one that may identify certain common features across labour relations by using a market analytical framework (supply-demand-price) (see for instance, Ehrenberg and Smith 2003; Borjas 2010). Moreover, and despite some variations, labour markets are regarded as essentially competitive, meaning that the so-called imperfections of real labour markets are not crucial for the determination of the general picture of the labour market and do not challenge the main predictions of the competitive labour model. Accordingly, one would start from a basic market model and successfully introduce certain peculiarities of certain types of labour markets, aiming to reach a balance between analytical simplicity and relevance.

This view is somehow challenged by an alternative view that emphasises the variety and the peculiarities of specific labour markets. According to this view, the analysis of labour relations should talk about labour markets, rather than a single labour market (see Reynolds et al. 1991). This would accommodate and underline the national, regional, and sectorial particularities of specific labour markets. Although many would recognise the usefulness of a market as an analytical simplifying device, they also point out that in reality there is a multiplicity of markets divided by occupation, skills, location, and regulations (Kaufman and Hotchkiss 1999). This view, normally closer to industrial relations and to economic sociology, underlines the fragmentation of the labour market and expresses a more cautious view of the possibility of generalizing the study of labour markets, especially if one is interested in paying attention to those aspects that make each market particular and distinct.

The analysis of academic careers is a clear example of this aforementioned tension. On the one hand, the issue of academic labour markets has become one of increasing interest and visibility for labour and educational economists (see Ehrenberg 2002). The expansion of higher education professionals and the political and organizational changes pervading higher education has given greater prominence to the use of economic analysis in the study of academic careers (more on this below). This has certainly legitimised an economic approach to academic careers by taking into account the basic market framework. On the other hand, higher education researchers studying the academic profession have tended to emphasise the peculiarities and the regulatory features of this professional group and the non-competitive and non-market features governing academic employers' and employees' decisions and behaviour.

The purpose of this text is not to settle this debate, but rather to illustrate some of the insights that can be drawn by adopting certain tools of economic analysis for studying academic careers. The analysis will attempt to show the extent to which certain major features are an effect of the increasing legitimization of market rationales in higher education, which tended to play down the specificities of this occupational group and to make it more similar to other groups of workers analysed by labour economics. On the other hand, the analysis will point out some of the obvi-

ous limitations of relying exclusively on an economic market approach, notably if one envisages capturing the multidimensional and complex nature of academic labour markets (see Musselin 2005). In the next section we analyse the growing role of market forces in higher education, while the subsequent section addresses the impact that these market rationales have had on certain major dimensions of academic careers.

3.3 Markets in Higher Education and Changes in the Academic Profession

In many countries, particularly in Europe, higher education has been regarded as a bastion of public service and a priority for government intervention in the areas of public funding, regulation, and provision. Regardless of the current financial difficulties (be it those linked to the current financial crisis or to more structural financial imbalances), one could arguably say that this remains the case among most policy-makers and the public opinion at large. These views are usually strengthened by the widespread perception that this has long been the case in European history, where universities have traditionally been regarded for as a public responsibility. Thus, many Europeans regard with scepticism the possibility that market forces and private ownership could potentially make significant inroads in this sector.

Despite significant social and political resistance, European higher education has been experiencing growing influence from marketization forces (Teixeira et al. 2004; Teixeira and Dill 2011).[2] For instance, they have seen competition strengthen (nationally and internationally) for students, for financial resources, and for academic staff. This strengthening of competition was often stimulated by regulatory forces and has been associated with an increasing institutional autonomy, in a drive to make European HEIs more capable of responding to those competitive challenges. On the other hand, the influence of marketization has also resulted from an increasing privatization of higher education. This privatization has been taking place not only as a result of the development of private sectors, but also and quite significantly through the adoption of private-like rules and practices in public HEIs, driven by a desire to increase flexibility while at the same time improve efficiency.

The recurring use of market forces in European higher education has been the result of some important trends associated with the massive expansion of higher education over the latter part of the twentieth century. The so-called massification of higher education has created huge challenges to which institutional leaders and policy-makers tried to respond in multiple ways, not least by trying to find the additional financial and human resources necessary to adequately keep fulfilling the missions allocated to higher education. The massification of higher education has

[2] Since some of the main elements of a market system are complex to be applied to higher education, one usually speaks of quasi-markets, meaning the partial presence of market elements in a specific higher education context (see Teixeira et al. 2004).

meant that it was necessary to attract a growing portion of the labour force to academic and research positions and efforts had to be made to fund those positions in such a way that those careers were sufficiently attractive, both in terms of financial rewards and employment conditions.

On the other hand, the expansion of higher education has led to a move from an expanding sector to a mature industry (Levine 2001). In an expansion phase, growth is seen as a sign of improvement and HE manages to keep public and social actors satisfied by managing to accommodate larger numbers of students. In a mature phase, the external stakeholders become more demanding and will not be satisfied just by adding more activities or expanding existing ones. The rising costs of higher education caused concern among policy-makers and public opinion and attracted increased political and social scrutiny (Clotfelter 1996; Geiger 2004). Thus, the pressure has mounted for HEIs to find ways to reduce costs and since personnel represents, by far, the largest share of costs, institutions have been under pressure to find ways to make savings in their costs with academic and research staff.

The increasing influence of the marketization of European higher education is associated with changing perceptions of the roles that higher education should play. In recent decades, societies and governments have evolved their views about the social role of higher education, with significant implications for the identity of higher education institutions and the organization of the higher education sector. Educational decisions have been increasingly perceived as motivated by economic factors and educational institutions as economic institutions. Moreover, the social contribution from the activities of higher education and science organizations has been increasingly linked to a variety of ways of assessing their economic relevance (Bok 2003). Hence, policy-makers and institutional managers have been exploring ways to steer individual and institutional behaviour through incentives that are consistent with an increasing influence of economic and management ideas in higher education and research.

These aforementioned trends of increasing marketization of the European higher education landscape have had very important consequences both at the system and institutional levels. One of the major impacts has been in academic careers. Although the academic profession continues to be significantly regulated by government and professional forces, there have been important advances in the influence of market forces, though its impact has varied across countries, institutions, disciplines, and professional status. In the following section we focus our attention on the influence that those market forces have been playing in the academic profession in Europe.

3.4 Market Forces and Changes in the Academic Profession

The influence of market forces may be felt in several instances of the academic profession. One of the first aspects to analyse is the way the profession is attracting new academics and the extent to which economic factors are relevant in explaining patterns of attractiveness and recruitment in the academic profession. The second

aspect deserving attention refers to the pecuniary and non-pecuniary rewards to academics and the extent of which an increasing influence of market forces may shape the evolution in the salaries and other employment conditions of academics, especially vis-à-vis other occupational categories. Finally, we will analyse the extent to which marketization has been stimulating a greater differentiation in the reward structure of academics. The analysis will inevitably be very general, to some extent even superficial, and mostly concerned with identifying a number of emerging trends associated with a growing influence of market forces in academic careers.

3.4.1 The Labour Market Conditions for New Academics

A labour market approach to individual choices regarding the capacity of a sector to attract new candidates is largely focused on the potential rewards associated with that occupational choice vis-à-vis the costs incurred. Contemporary economic views regarding advanced training and occupational careers have been significantly influenced by the development of human capital theory (Becker 1993). Accordingly, individual decisions are largely determined by an analysis of expected costs and benefits, most of which will occur over several years. Thus, individuals have rather imperfect information about several of those elements and their calculus is performed under conditions of significant uncertainty which can affect it (Ehrenberg 1992), either by underestimating or overestimating several of those expected costs and benefits. Among the major costs are not only the direct costs borne by prospective doctorates, but also the opportunity costs of pursuing an advanced degree instead of entering the labour market.

These choices have become even more complex in recent years due to the development of cost-sharing in higher education and the development of loan mechanisms in many higher education systems (Teixeira et al. 2006). This means that many bachelor and master graduates will conclude their education with significant levels of debt that need to be repaid. This may become an important deterrent for potential candidates to a doctoral degree, especially since we are dealing with degrees that are often viewed as being an uncertain investment due to high drop-out rates and long average times to completion. The continuation of training at an advanced level will also be affected by mechanisms of financial support available for doctoral students. For instance, evidence for the US has pointed out that students who receive financial assistance (fellowships, research assistanceships) have higher completion rates and take, on average, less time to complete their doctoral degrees (Ehrenberg and Mavros 1995).[3]

[3] The discussion on financial support to doctoral students in the framework of the EHEA raises additional issues such as the issue of portability of financial assistance within the area. Currently, most European countries seem to take a rather cautious approach, namely regarding direct mechanisms of support (Vossensteyn 2004). With the expected increasing integration of higher education systems and greater inter- and intra-degree mobility of doctoral students, it will be interesting to

Despite the interest of cost-benefit analysis, most of the studies have been focused on undergraduate higher education. Not many studies cover the rates of return to doctoral education, and the few that do exist have mostly been applied to non-European labour markets and often do not refer to recent data. Moreover, most of the studies do not provide detailed information on the differences per field and on the impact of institutional and individual characteristics (Ehrenberg 1991, 1992). Despite those limitations, the results of the available studies converge in obtaining a positive rate of return, though lower than that found for undergraduate education. The existing studies tend to focus on science and engineering, where the public and private demand for doctoral graduates is likely to be more significant. It would be important to analyse data for doctorates in social sciences and humanities, where in several cases it is admissibly possible that very low or even negative rates of return may exist for graduate education.

The attractiveness of academic careers should not be assessed on the grounds of pecuniary returns. If, on the one hand, financial incentives do not seem to be particularly strong, the results obtained by rate of return studies indicate that the economic analysis implicit in the decision-making process of future PhDs is not restricted to pecuniary issues. In fact, it has for a long time been assumed in economic and social analyses of the economic profession that non-pecuniary issues may be particularly relevant as determinants of decisions to enrol in a doctoral degree and in pursuing a research career (Williams et al. 1974). Hence, any reflection upon the attraction of new academics needs to pay attention to the evolution of issues such as workload, flexibility, and degree of autonomy, especially when compared with other highly qualified professions.

Moreover, the expansion of doctoral training across many higher education sectors in Europe (and elsewhere) suggests the existence of no lack of potential candidates for doctoral training and, at least in part, for an academic career. In fact, from a labour market point of view, this steady expansion of new doctors has the potential to reduce their market value when considering an academic career, unless there is a significant expansion in the number of positions available. Although some countries expect a certain degree of renewal in their academic structures due to the fact that the early generations of academics from the massification phase are approaching retirement, the current restrictions existing in the recruitment of new workers in the public sector (which dominates the provision of higher education in many countries) make that less likely to happen. This could be compensated by an expansion of new non-public higher education institutions, though these are not expected to compensate for the decline in the public sector due to the fact that the former does not have either the size or the disciplinary breadth of the public sector (Teixeira 2009).

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see if governments will take a more flexible stance and prioritise the funding of the students regardless of the nationality of institutions in which they enrol, or rather if the financial restrictions will prevail on a more reductionist approach. On the other hand, and as regards the attractiveness of academic careers beyond Europe, there is the additional issue of under what conditions are non-European candidates eligible for financial support provided by national and European agencies.

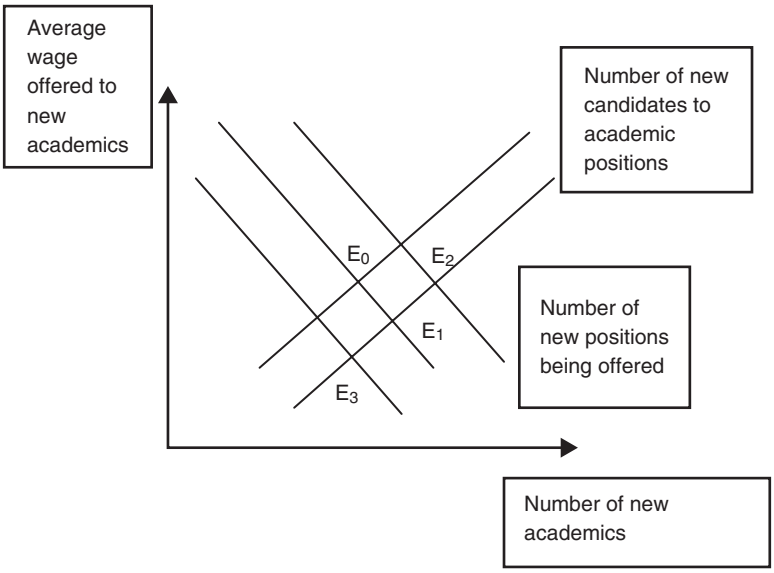

Fig. 3.1 Scenarios regarding the evolution of the Labour Market conditions for new academics under market flexibility

Figure 3.1 presents a simplified graphical analysis of several potential scenarios facing new entrants to the academic profession. The basic conditions are that the higher the average salary being offered, the larger the number of new potential candidates to a new position (though, as we have already mentioned, other factors will also motivate those candidates, especially when considering other employment alternatives). In contrast, the lower the salary, the larger the number of new positions that higher education institutions are willing to offer. The equilibrium situation would be the one presented by E0. An expansion in the number of individuals finishing doctoral training means, all other things remaining equal, that we have an increase in the number of available candidates for each position. If institutions have the possibility to adjust their offers, this means that they will be able to fill their positions by offering lower financial conditions, due to the tighter competition on the supply side (E1). This negative trend could only be compensated by an increase in the number of positions available and an expansion in the size of faculty (E2). By contrast, a decline in the number of new positions will deteriorate even further the conditions available to new candidates (E3). In many European countries, scenario 1 or even 3 are clearly the most likely, suggesting that the entrance conditions for academic careers are expected to deteriorate significantly in the short term.

Surely, one could argue that this downward adjustment is significantly limited by the fact that academic careers are highly regulated and that many universities are unable to adjust the starting salaries for the academics they are recruiting. Thus, in Fig. 3.2 we present the possible adjustments for a situation in which institutions cannot offer a lower salary in order to profit from a greater number of appli-

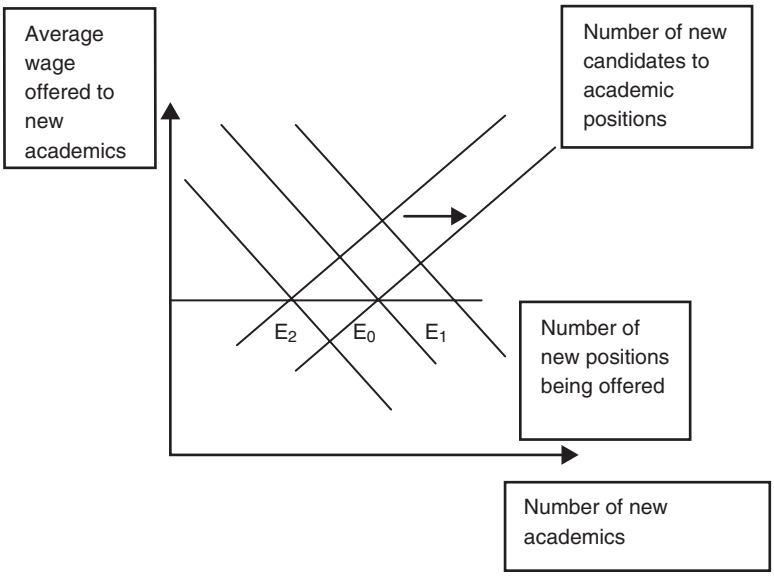

Fig. 3.2 Scenarios regarding the evolution of the Labour Market conditions for new academics under significant rigidity

cants. In this case the academic labour market would be moving from E0 to E2, in which the number of applicants for that wage level clearly exceeds the number of positions institutions are willing to hire, creating an excess of candidates that will not be able to enter into the academic profession. That situation is nowadays highly likely in many areas that have been producing a significant number of doctors but that have not been expanding (for instance due to demographic or scientific retrenchment in those fields).

However, the argument about adjustment through quantity rather than through adjustments in wages carries less weight than it may seem. On the one hand, the strengthening of market regulation and of institutional autonomy has meant that institutions may experience growing autonomy in this respect, therefore being capable of greater autonomy in managing their human resources policies (and their recruitment procedures and conditions). On the other hand, we also know that institutions may have more subtle ways of making this adjustment even in more regulated labour markets. For instance, the adjustment may be performed by hiring new academics through less traditional routes that are less regulated and/or less well paid than traditional ones (such as non-permanent posts or teaching positions) (see for instance, Altbach 2003). In any case, the market trends paint an unfavourable picture regarding entry conditions into the academic labour market, especially if

marketization trends are reinforced and/or if retrenchment continues to prevail in many higher education sectors.[4]

3.4.2 Working Conditions in Academic Careers

The less attractive scenario that has been drawn regarding new entrants into the academic profession has some implications for the academic profession as a whole, though most of its current members are somehow protected from this situation in what labour economists would call the covered or protected sector of the academic labour market. Thus, an expansion in the number of newly trained academics has a limited impact on the salary and working conditions of existing academics. Nonetheless, the marketization trends may help disseminate some of those effects even among the established members of the academic profession, notably through public sector reforms and the associated overhaul of the existing labour agreements and regulations that has been taking place in many areas of the public sector.

Much of the economic literature on academic labour markets assumes that faculty needs to be incentivised to perform research and that the reward structure needs to steer them towards greater productivity (especially in research dimensions). Moreover, the increasing influence of economic rationality and managerial practices in higher education institutions has given increasing visibility to the idea that productivity needs not only to be stimulated and rewarded, but also monitored. This contrasts with those holding the view that there is an intrinsic motivation among academics that leads them to commit to research, based on values associated with personal fulfilment (Reskin 1977) derived from knowledge discovery and solving problems, and that this motivation may be more relevant than financial and other extrinsic rewards. This is one of the main reasons that have historically justified a great degree of autonomy in the development of research work.[5]

[4] The analysis would have to be further complicated by the fact that the academic labour market is to a large extent a series of non-competing groups, since the qualifications and the stock of human capital accumulated by a candidate in a certain field hinders their capacity to compete with other potential candidates. Thus, we may have very different situations across disciplines, with insufficient supply in some fields and excess of new candidates in other fields, with the academic labour market largely unable to internally reallocate those candidates from a field in which there is an excess to another where there is scarcity. This information may be relevant for subsequent cohorts, but it will also take time to adjust since a lengthy period is necessary to train (or retrain) highly specialised human capital.

[5] There is limited quantitative empirical work in this regard. One of the aspects that has been explored is the extent to which the pattern of research productivity is affected by the approach of points in the academic career where faculty is assessed, for instance the assessment point for tenure or promotion. If research output increases significantly before those moments and declines visibly afterwards, then the idea that external incentives are more important than intrinsic values and motivations will gain additional strength. Some work has been carried out on this front, though the evidence seems to be inconclusive regarding the relative importance of either (Tien and Blackburn 1996). However, this may indicate that incentives play a necessary role in promoting higher

One of the critical issues regarding the attractiveness of academic and scientific careers refers therefore to the financial rewards, both in absolute and in relative terms. On the one hand, universities and research organizations aim to attract highly qualified and competent individuals. On the other hand, they are likely to be increasingly competing with other public and private organizations that may offer them attractive financial packages. This may be particularly felt in certain disciplines. Thus, we need to find evidence of the evolution of academic and scientific salaries and their relative positions in the labour market, though unfortunately we know relatively little about the latter.[6] Over the last two decades we have seen a significant increase in the wage premium for more educated workers in most western labour markets (Levy and Murnane 2004). Although academic salaries may have benefited at least in part from this trend (Archibald and Feldman 2010), there are signs of deterioration of the academic financial position in relative terms (Huisman et al. 2002).

The evidence available for some countries suggests that faculty salaries do not seem to follow the increases in other highly qualified professions (Martinello 2006) and that the increase was more concentrated in certain groups of academics. In a recent study for the UK, Walker et al. (2010) compared academic salaries for a range of occupational groupings considered as similar, in terms of unobserved characteristics, to academics. These authors concluded that higher education teaching professionals had lower earnings than most public sector graduates and that the former did particularly poorly compared to most other comparable professionals, though they did better than some groups of public sector workers. Although their results cannot be easily generalised to the rest of Europe, it should be noted that the study refers to that system in the European higher education system that has arguably faced the longest and deepest marketization trends over recent decades and therefore may be signalling forthcoming trends in other systems.

Monitoring the evolution of academic and research salaries becomes even more important in view of the current economic crisis and the impact that current and future restrictions in public expenditure may have for them. The evidence from some countries suggests that faculty salaries tend to be positively correlated with government expenditure in higher education. This is hardly surprising. Since in most countries the majorities of academics are hired by public institutions and that personnel expenditures represent a large chunk of universities' costs, the expansion of public funding for higher education is likely to allow more generous financial conditions for academics. In contrast, academic salaries seem to be negatively correlated with the expansion of other sources of funding, since institutions do tend to feel a stronger pressure to diversify their funding base in times of financial retrenchment and stronger restrictions to public expenditures (Johnstone 2006). Thus, the

research productivity, though they are not a sufficient explanation for it and do not capture the complex array of motivations that explain differences in productivity in research careers.

[6] For a recent international comparison of academic salaries see Rumbley et al. (2008), though unfortunately they provide very little data about the relative positioning of those salaries within each national context, especially as regards to other qualified occupations.

current trends towards diversification of funding may represent a context of increasing financial rigour and cost containment that could reflect negatively on academic salaries.

Another critical issue when discussing the financial rewards of academic careers refers to potential differences across disciplines. For some time differences in the reward structures of disciplines have been documented in several instances, namely in the US (Tuckman et al. 1977). These differences seem to be particularly relevant regarding women, whose less favourable position is the result of several significant trends (Bellas 1994).[7] There is limited information about the differences regarding different disciplines, though this information is particularly relevant and may indicate the existence of more acute problems in certain fields or in certain countries where the competition from non-academic careers is felt more strongly (Huisman et al. 2002). Analysing data for the US higher education sector, Ehrenberg et al. (2006) observed that average faculty salaries differ widely across fields and that the magnitudes of these differences in salaries have been growing over time.[8]

As mentioned above, the analysis of the benefits associated with academic and research careers should not be restricted to pecuniary issues, but also include the evolution of non-pecuniary advantages associated with that type of occupation. In addition, the outlook is not very favourable on this front for the attractiveness of academic careers. There are some indications that the workload is increasing (Huisman et al. 2002) and that a part of that is related to increasing bureaucratization and assessment of academic work. Furthermore, the degree of autonomy enjoyed by academics seems to be declining, not only due to more explicit mechanisms of assessment, but also to the influence from research priorities and strategies of economic motivations and funding concerns.[9] The decline in academics' autonomy seems to mirror wider trends in the labour market to which several labour economists have been paying increasing attention. In a recent study, Green (2005) found that in several Western countries the decline in workers' autonomy was indicated by respondents as by far the largest source of dissatisfaction among them. This clearly superseded concerns with employment stability or even financial rewards.

[7] First, disciplines where more women are present tend to be associated with salaries below the average for academic work. Second, women are concentrated in disciplines with worse labour market conditions. Finally, women have lower human capital in characteristics that are valued in the labour relationship such as education, experience and publication output. However, these factors do not explain all the wage differences, thus suggesting that, like in the labour market as a whole, there is persistent discrimination in the academic labour market.

[8] In their study they have also found that differences in the quality of faculty present in different fields at a university, measured by differences in national ratings of graduate programs, were important predictors of the field differences in average faculty salaries that exist at the full professor level.

[9] For an illustration of those trends, even in a context of dominant public provision of higher education and highly regulated academic labour markets, see the analysis of Teichler (2007) and Vabo (2007) covering the German and Norwegian experiences respectively.

The apparent negative evolution as regards non-pecuniary dimensions of the labour relationship in academia is even more striking bearing in mind the considerations made above regarding their role in explaining the attractiveness of these occupations. If the cost-benefit studies that point out that a large part of the attractiveness of academic positions are to be taken seriously, then a decline in the non-financial rewards such as autonomy, flexibility, or prestige, is even more relevant in the context of academia then in other occupations. The significance attached to those by academics means that deterioration in those aspects will be felt more strongly in academia and may be a major force in explaining signs of dissatisfaction among academics.

3.4.3 A More Unequal Academic Labour Market? – Trends and Challenges

Several of these trends signal an increasing differentiation of academic positions, especially in those contexts where the degree of marketization has been stronger and been developing over a longer period.[10] There are reports that Europe has reflected the trend observed for some time in North-America, with growth in temporary and non-tenured positions (Ehrenberg 2002). However, whereas in the US these positions tend to be mostly used for teaching purposes, it seems that in Europe they are being extensively used for research work (Huisman et al. 2002). Moreover, these positions are becoming a common entry point for many young academics and researchers (Robin and Cahuzac 2003). However, there are indications that some can stay in that kind of situation for long periods, suggesting the existence of significant barriers in moving to more stable employment relationships in academic and research work (Musselin 2005). These trends indicate the possibility of increasing segmentation of academic and research labour markets, following the work of some labour economists for the labour market at large (Cain 1976). Thus, we need to obtain much more information not only about the relative magnitude of this type of more precarious contract, but also on the professional paths of those that entered the research labour market under such circumstances.

This trend towards increasing diversity of staff contracts is the result of some already implicit tendencies resulting from the influence of economic and management rationales in higher education institutions. The search for greater economic and administrative flexibility is largely responsible for that, since it helps institutions to adjust to changes in external demands (Bland et al. 2006). This differentiation of employment arrangements within the institution also belies an attempt to contain costs. Since the dominant portion of the costs supported by higher education institutions are those related to personnel with academic staff representing a very large portion of that group many institutions have been trying to make savings on

[10] For analysis of the UK experience in this respect, see Brennan et al. (2007).

that front, especially when faced with the many signs indicating that emphasis on research intensity does seem to contribute to rising costs (Geiger 2004; Clotfelter 1996). Faced with significant financial pressures, institutions are using their increasing administrative flexibility and autonomy to differentiate employment and salary arrangements.

This widening of salary conditions is also relevant to the upper end, since it highlights the competition of institutions for the best staff. This trend has been observed in systems where the influence of marketization trends has been felt for longer (Ehrenberg 2002) and is likely to become more visible in Europe as well, especially with the emphasis on research productivity in institutional profiles and academic careers. One of the possible explanations has to do with institutional concerns with prestige and the contribution that each academic may give in that respect (Melguizo and Strober 2007). In a context of increasing institutional competition, the fact that institutions are willing to reward those faculty members that contribute more significantly to the institution's external reputation and research (yet again…) seems to be highly significant in this respect. Moreover, it seems that this pattern, which tends to be sustained by more research intensive institutions, tends to be emulated by those parts of the system less focused on research, thus steering a large part of the higher education sector in this direction.

The widening ranges of salaries at the upper level is also consistent with the well-known reinforcement hypothesis developed by several sociologists of science, suggesting that there is increasing inequality with age in the distribution of publications and citations (Allison and Long 1974; Reskin 1977).[11] This cumulative advantage of the best scientists in each field, also known as the Mathew effect (Merton 1973), is certainly favoured by particular departmental characteristics (Allison and Long 1990), such as the facilities and resources available and the pecuniary and non-pecuniary rewards of certain intellectual environments. This will tend to favour disproportionately the best and wealthiest institutions which cannot merely attract the best scientists and retain them through better salary and working conditions. Hence, the strengthening of marketization will tend to promote increasing individual and institutional inequality among science rewards and outcomes.

This increasing diversity of labour relations within universities and research organizations has some important consequences. One of the most important effects of this use of different types of appointment relates to the degree of commitment and the productivity of the staff hired through these less traditional routes. There is evidence that tenure seems to have a very significant impact on the level of commitment of faculty to an institution (Bland et al. 2006) and this will have spillover effects onto long-term research performance. The comparison of non-tenured faculty with full-time faculty with tenure or on tenure track show significant differences regarding levels of productivity, not only in research but also in teaching. The

[11] It should be noted that although citations are often regarded as a kind of non-pecuniary reward, providing prestige and reputational rewards, it is also seen as a proxy for output (Diamond 1986). Hence, it is often taken into account by institutions both for attracting scientists and academics and also for promotion and for salaries.

latter group is not only more productive, but also more committed to the institution and works longer hours.[12] Thus, it may be that institutions will in the long term pay dearly for some of the savings they are making in the short term.

If many would doubt that current practices regarding incentives would have a major positive effect on faculty's productivity, especially regarding research activity and publications, this increasing correlation between academic performance and payment raises other types of concerns.[13] The increasing willingness of academic institutions to adjust financial rewards to productivity, especially research institutions, leads to growing wage inequality among faculty. The possibility to do this is still very diverse across Europe, though the trend towards greater privatization and administrative institutional autonomy will create more opportunities to differentiate academic salaries. This will certainly create tensions among academics, depending on the perceptions of fairness and how these new reward systems will be consensualized within the institution.

Higher education institutions should also devote more attention to this widening of salaries and employment because of its potential impact on individual and institutional behaviour and the ways it may affect the organizational and social capital of their institutions. For instance, some research has indicated that an environment of greater pay inequality will lead to a reduction in faculty's degree of satisfaction and collaboration (Pfeffer and Langton 1993). This will tend to affect more those employees without tenure, those that earn less and those that work in more recent fields where issues of prestige and reputational rewards are less consolidated. Public universities tend to be more affected by these negative effects since they run against deeply entrenched organizational values and practices of homogenous pay scales. Large universities also tend to be more affected by these effects, since knowledge about pay scales is more transparent and more widespread.

Moreover, the concern with linking performance and rewards may create significant institutional challenges. There is some evidence questioning the ability of academics to excel in both research and teaching and the detrimental effect to individual and institutional performance of institutional or national policies that incentivise both teaching and research and/or that promote the same profile across faculty members. As Fairweather notes, "policies meant to encourage teaching productivity and effectiveness might adversely affect individual research productivity, and vice versa. More complex and potentially successful policies might reward teaching and research productivity differently at distinct points in the faculty career. Alternatively, rather than having a single broad institutional expectation for faculty work, academic policies might differentiate individual faculty responsibilities and allocate rewards accordingly. In its most radical form, this alternative might lead to the 'unbundling' of faculty work responsibilities with differential work assignments, expectations, and rewards. For most academic departments, the key to increasing teaching and research productivity may lie in looking for group solutions rather than

[12] However, more studies need to be developed to assess if these groups are comparable or not, or if institutions are sorting according to research potential.

[13] For a critical review of productivity rewards see Rhoades (2001).

on relying on each faculty member to increase productivity levels in teaching and research. Viewing faculty productivity as an aggregate across faculty members permits department chairs and departmental committees to combine the efforts of their individual members to achieve acceptable levels of productivity." (2002, p. 44). Thus, higher education institutions need to develop more policies that may support both individual and institutional performance in a sustainable and effective way if they want to thrive in an increasingly market-oriented higher education sector.

3.5 Concluding Remarks

The increasing influence of marketization has been pervading our views about higher education and has had a growing influence on the labour arrangements that European higher education institutions establish with academics and researchers. Three major effects may be highlighted. First, and under the pressure of managerial and financial concerns, higher education institutions have been increasingly differentiating the types of contracts offered to academics, especially new ones, which tend to be characterised by a much weaker institutional commitment. This trend tends to be enhanced by the combination of a growth in the number of candidates and an attempt to circumvent existing regulations. Second, institutions are more attentive to patterns of productivity and tend to integrate this in their management of academic resources. Third, institutions, (especially research institutions) have been focusing on the financial rewards provided to academics and the way this may reflect different patterns of output.

The influence of these trends seems to be contributing to the emergence of a very different labour market for academics. On the one hand, there are signs of increasing segmentation in the market, though we do not have strong evidence of how fluid or how segmented mobility is between different employment situations and this may vary across disciplines, types of institutions, and higher education systems. On the other hand, Europe is likely to be replicating trends observed elsewhere with increasing inequality among researchers – inequality not only with respect to stability of employment, but also salaries and other non-pecuniary benefits. Although European academic labour markets are still more regulated than those existing in other regions of the world (see Altbach 2003), the trend towards greater institutional autonomy and managerial flexibility will create more favourable conditions for the emergent inequalities, entrenching their position. Hence, academic careers may be evolving towards a situation where we will observe a growing coexistence of the protected labour relations that characterise elite professions, with more precarious and less favourable ones that one could ironically characterise the careers of what could be termed a kind of intellectual proletarians.

Although the trends point to the strengthening of market forces and to the reduction in some government regulation, the overall picture may be more complex. Two issues that deserve significant attention are, on the one hand, to what extent marketization trends in other aspects of higher education will reinforce each other and, on

the other hand, how significant will national differences remain. The growing pervasiveness of marketization and privatization in aspects such as funding sources is likely to have a major impact at the organizational level and in the management of human resources, thus reinforcing those trends therein. Likewise, a more market-oriented academic workforce is likely to enhance greater diversification of funding streams.

The impact of these trends is likely to be shared to different degrees across the EHEA. Moreover, the strong national identity of HE systems and the persistent levels of government regulation should ensure that this would remain the case. However, the growing integration within the EHEA will spur these trends across national borders, especially for those institutions that have a higher degree of international integration (which are also often among the most prestigious in each country). Hence, despite national specificities, one may expect in the near future a growing homogeneity in the degree of influence of marketization forces across the EHEA. Overall, we hope that this text has helped draw more attention to the effect that market forces are having in moulding the European academic labour markets.

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