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HIGHER EDUCATION AND ECONOMIC DEVELOPMENT

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SKOPE SEMINAR 1
HIGHER EDUCATION AND ECONOMIC DEVELOPMENT

The Expansion of Higher Education: Economic Necessity or Hyper-Inflation?

Abstract

The question of the expansion of higher education has been tackled from different disciplinary perspectives. The sociological angle has tended to be predominant in general discourse but more recently the economic approach has gained ground and it has become increasingly common to see expansion discussed along the lines of individual and social rates of return. This paper examines two interpretations which have resulted from this reflection, namely expansion as an economic necessity and as an inflationary danger.

Firstly, the paper identifies the various ways of defining and describing the imprecise notion of the expansion of higher education. Drawing examples from the many reforms initiated in the British higher education sector over the last forty years, it shows how the nature of a response to the 'economic necessity versus hyper-inflation' problem cannot be detached from the details of the question.

The economic argument that has been advanced to justify expansion in education, including higher education is then discussed. The intrinsic limitations of the model, both in theory and practice, are highlighted. Particular emphasis is given to the convergence that exists between the economic approach based on human capital and the sociological one based on meritocratic principles. Both have used the social justice argument to justify educational expansion.

The sociological assessments of higher educational expansion and its effects are then explored. The debate is shown to have revolved around epistemological polarisations, namely the place and pre-eminence that structure and agency should be given in any understanding of educational expansion. This helps to show that in the case of the expansion of higher education, it is difficult to use the term 'inflation' as antithetical to 'economic necessity' because the two notions relate to different sets of assumptions. The conclusions are that the expansion of higher education as it stands today appears to be a socio-political necessity and a direct operational economic

necessity at local and regional levels. As far as the social rate of return to higher education is concerned it is too dependent on the qualitative dimensions of the sector and its environment for any straightforward conclusions to be drawn. Finally, the paper offers other suggestions as to why the worth of the expansion of higher education has been called into question.

Introduction

Concern about expansion of higher education in Western Europe and North America is not a recent phenomenon. Major changes took place in the 19th century that prepared the way for increased participation (Curtis and Boultwood 1966) and, with the acceleration of the process since the end of the Second World War, higher education has become *de facto* part of the national system of education in most European countries.

Recent growth has raised concerns that are not entirely dissimilar from those expressed when primary and, in particular, secondary schooling expanded in the course of the 19th and 20th centuries. The history of the development of formal education, both in terms of participation rates and the lengthening of study-time has gone hand in hand with a critical questioning of its real necessity, its usefulness and even its potential drawbacks and dangers. Mandeville's criticisms of charity schools (Mandeville 1732), Schumpeter's forecasts of growing dissatisfaction among 'sub-employed' graduates (Schumpeter 1943) and today's recurrent criticisms of expansionist trends in higher education in the form of the 'more means worst', 'dumbing down' or 'over-education' debates share a suspicion of the worth of educational expansion. During the second half of the last century, the question of educational expansion attracted much attention and the debate revolved mostly around the evaluation of its socio-economic benefits and costs. This paper discusses a number of assumptions which have underpinned the formulation of this debate.

1. The Modality of Expansion of Higher Education

The notion of 'expansion' as applied to higher education is an imprecise term which needs to be examined in terms which go beyond an increase in volume or a greater number of students passing through the system[1].

Firstly, the aggregate level at which the problem is being considered needs to be specified. The subject of expansion has most often been tackled on a national basis without any further justification or explanation, but it may be anticipated that

[1] In the UK, this kind of expansion has been particularly rapid in recent years (see graph)

geographical considerations will have implications for the way the question of the modalities of expansion is to be answered. The situation in Britain, for example, shows that the question may be tackled at a cross-national level (OECD 1998; OECD 1998), a national level (Dearing 1997), a regional level (Cubie 2000) or even at a local level (e.g. the insistence of certain regional authorities on having their own university). Such differences imply considerable variations in the relative weight of the social and economic factors which are taken into account in the debate. Defining this level is heuristically fruitful as it helps to understand the range of social, political and economic mechanisms at work behind higher education expansion.

Secondly, past experience shows that the qualitative aspects of the various ways higher education can expand are not neutral in terms of their impact on higher education input, process and output. For instance, an increase in volume may not be the result of increased participation rates if the size of the relevant population has grown. On the other hand, if the size of the relevant population has decreased and volume increased, this signals increased rates of access which will have qualitative implications for the higher education sector given the enduring structure of the social origins of its student intake. During the period 1990-1996, in spite of the diminishing size of the relevant population, Britain was among the four OECD countries with the highest increase in tertiary enrolment (OECD 1998). Today, a third of all school-leavers pass directly into higher education and the current government's new target is to have 50% of those under 30 years of age participating by 2005. More and more young people gaining access to higher education now come from an educational and often social background with little tradition of university education. In the case of Britain - and the same would be true in many other European countries - the rapid increase in volume due to a rapid increase in participation rates has reinforced a sense of crisis within academia as this evolution has more or less directly called into question its traditional culture and values.

The last remark leads us to reflect on the pedagogical aspects of any expansion. These concern the extent to which expansion has brought about the availability of new qualifications (e.g. the creation of multi-disciplinary courses and the relative demise of

single honour degrees), the setting-up of new degree programmes[2], the formal definition of new levels of study (e.g. qualifications at sub-degree level, the development of taught masters degrees) and/or the reorganisation of syllabuses and examination practice (e.g. the development of credit accumulation and transfer). For Britain, the problem may also be placed in parallel with a "re-branding" type of expansion, whereby existing post-secondary institutions have been granted the right to deliver higher education qualifications. Crosland's polytechnic initiative may be seen as such a form of expansion. The extent to which these pedagogical changes have become widespread and even a permanent feature of a higher education system will have a considerable impact on the process and output of the sector. In particular, they are likely to breed a sense of loss and uncertainty among both academics and employers because the meaning of working towards and holding a university degree is no longer what it was. In this situation, two attitudes are possible: to resist or to adapt. The rhetoric of resistance tends to embrace the hyper-inflationary threat posed by any further expansion of higher education, whereas the rhetoric of adaptation tends to appeal to the economic and social necessity of such an evolution (Kerr 1963).

The pedagogical aspects of expansion are influenced by its operational characteristics, that is the extent to which it is accompanied by an adequate level of investment in general infrastructure (e.g. buildings, material and facilities) and staff. In this matter, part of the post-Robbins expansion in Britain in the form of newly built universities was distinct from other expansionist steps such as the creation of the Open University at the beginning of the 1970s or the funding rearrangement that preceded and accompanied the decision to bridge the binary divide at the turn of the 1990s. In the British higher education system, material and staffing difficulties have been compounded by the fact that academic institutions are publicly funded institutions entrusted with two main tasks: to carry out research and to educate part of the next generation at a higher level. In this context, the qualitative aspect of the expansion of higher education has been concerned with the strategic options for economic growth favoured by decision-makers. These strategic options have ranged from the priority given to broadening access to

[2] The debate and objections triggered by the setting up of degrees in golf course management or football coaching is an interesting case in point.

undergraduate studies, with an implicit endogenous growth model based on the importance of human capital accumulation, to priority given to research activities, with an implicit exogenous growth model based on the importance of technical innovation as a driving force behind future economic growth.

In the UK, the departure from the UGC block grant funding procedures, which led to the formal separation of funding for teaching and for research activities, reflected the desire on the part of successive British governments to influence both of the above aspects in the expectation that they would contribute to economic growth. This explains why teaching activities - besides the specific case of Oxford and Cambridge - have been funded on a broadly egalitarian basis. By setting the levels of fees, clawing back funding and ruling out top-up fees, central governments have tried to monitor student intakes while checking unit costs. On the other hand, research money has been allocated on a government-established but academically-run competitive basis, harnessing the traditional academic peer-review process to the allocation of research funding. The result has been a steady increase in student/teacher ratios, which has caused a degree of damage to the quality of the traditional university experience. This has been compounded by the fact that academics have had less time to teach and less of a career interest in teaching. In this sense, the view that university experience is being devalued as more graduates are being produced at a diminishing cost per student would contribute to a view of higher education expansion as hyper-inflation. Seeing expansion as an economic necessity would imply that, regardless of the quality of the experience, time spent at university represents in any case a valuable investment for the individual and for society.

One final qualitative aspect of growth in higher education is its degree of internationalisation. In the UK, since the introduction of the full-cost fee policy for non-EU students at the end of the 1970s, there has been an increased intake of non-European students on a more or less direct commercial basis (Williams 1992). The British government's recent expectation that British universities should attract an extra 500,000 foreign students may not be entirely unconnected to this evolution. Off-shoot campuses abroad also need to be seen as a form of expansion of higher education. The way in which international expansion could be perceived is far removed from the way higher education expansion within a strictly national - and now European – context is

traditionally considered. Here, the notions of hyper-inflation or economic necessity might be debated in a very different manner.

To speak of ‘expansion’ in relation to higher education is to use a term that conveys a broadly quantitative meaning to refer to numerous controversial qualitative matters. What is often at stake in the arguments that are used either to justify or question the necessity of higher education expansion is not so much expansion as such but the modality of this expansion. Having said this, we will now turn to the more elaborate arguments that have been developed concerning the likely economic and social impact of growth in higher education.

2. The Expansion of Higher Education as an Economic Necessity

Various studies have claimed to show that economic growth cannot take place without an educated workforce (Solow 1957; Carré J.J., P. et al. 1972; Matthews, Feinstein et al. 1982) but the exact nature of the causal link between the two remains undetermined. Economic growth may have taken place because of rising education in certain countries such as Germany, Britain or France, but until a clear methodology can demonstrate that historical events have persistently followed the logic that states that education precedes any economic development (Kindleberger 1964), it is equally plausible to suggest that nations which have experienced fast economic growth and increased wealth have consequently been able to invest more in education. In this respect, opponents of educational expansion have perhaps been more insightful in their warnings concerning the potentially disruptive social effects of generalised and prolonged access to formal schooling[3].

Justifying expansion of higher education as an economic necessity *stricto sensu* leads more or less directly to an understanding based on cost-benefit analyses of higher education provision. These give rise to the well-known methodological difficulties entailed in trying to calculate not only the private but also the social returns to any given stage of formal education (OECD 1998; Harmon, Oosterbeek et al. 2000; Sianesi and Van Reenen 2000). The economic theory which underpins this exercise and which has informed the debate on the necessity of educational expansion over the last thirty years or so is human capital theory. Proponents of human capital accumulation have emphasised the correlation between education and income to argue that the general training and qualifications of workers play a key role in a country's economic growth (Schultz 1963; Schultz 1971; Schultz 1981; Schultz 1990). This has been argued from both micro- and macro-economic perspectives.

In micro-economic terms, the understanding has been that individuals can acquire sets of aptitudes, mostly in relation to health and education, such as hygiene or

[3] Mandeville's remarks for instance are interesting in the light of Alexis de Tocqueville's interpretations of the causes of the French Revolution. Schumpeter's forecast combined with sociological interpretations such

knowledge, which have a direct bearing on their average income throughout their lives. Thus wage differentials between individuals are said to reflect differentials between their own private investments in human capital. The higher salaries that educated entrants are able to command on the job market represent both the interest on the capital they have invested in education and the fact that they have become more productive by having invested, regardless of the type of education they have received. For any individual, accumulating human capital is the equivalent of an investment that builds up his/her initial endowment and in turn increases his/her productivity. An approximate valuation of this increased productivity may be measured by the individual's increased earnings. These higher earnings are then an incentive for individuals to invest even further and to acquire higher qualifications. In a longer perspective, education has also been presented as a protection against unemployment as it makes individuals more entrepreneurial and adaptable through increased flexibility in the face of change and difficulties. A reverse corollary of this understanding is that when employers are prepared to hire less qualified people, rates of participation in formal education decrease accordingly as the possibility of earning an immediate salary increases the opportunity cost of staying longer in formal education.

From what precedes it should be clear that human capital theory relies on the implicit understanding that through education the individual acquires competences and skills whose essential characteristic is the ability to be transferable and negotiable on the employment market. The type of capital accumulated through education comes in the form of a body of knowledge and a set of personal abilities and qualities that can not only be acquired by anyone, but which also have a transactional value. The difficulty lies in the methodological problems there are in measuring human capital empirically. An approximate value for accumulated human capital has often been reached using the aggregate value of the capacities acquired by individuals which yield greater income. Human capital has often been evaluated as the unqualified accumulation of educational credentials of individuals - referring to the length of their schooling understood as a stock of accumulated competences - which may be exchanged and traded on the job market

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as those developed by Pierre Bourdieu raise interesting questions concerning the 1968 student riots in Western democracies.

(Blaug 1987). However, rapid changes in employment conditions, the future macroeconomic environment[4], technical innovation and skills obsolescence are amongst the variables that throw into question the full validity of the human capital model applied to the individual.

At a macro-level, analysis has focused on the impact of the various factors which are known to contribute to economic growth. In this matter, it has proved particularly difficult to distinguish and separate the respective contribution of the technological infrastructure and know-how and of human capital, understood as the quantitative and qualitative characteristics of the workforce measured by using the average educational level of the population (OECD 1998). In fact, a combination of both is important if higher growth is to be achieved (Fernandez 2001). Furthermore, to calculate the overall rate of return to society of any gains due to extra output found to have been achieved through educational expansion, one needs to offset it with the cost of providing this education. For the period 1960 to 1995, the social rate of return of tertiary education for OECD countries has been estimated at more than 10% (Mingat and Tan 1996) but whether this estimate provides solid grounds for justifying further expansion at this level is another matter.

With the rapid introduction and development of new techniques and technologies, it is reasonable to think that more investment in education in industrialised countries will help boost future rates of economic growth. However, whether this will generate for individuals and society returns on the scale of the two-digit figures that are currently being advanced to justify expansion remains to be seen. In purely economic terms, this may turn out to be a speculative bubble. The main difficulty lies in that the human capital understanding provides little qualitative and quantitative insight regarding the various forms of human capital an educational system should help create in order to secure economic growth. The ultimate question is whether it is possible to assume that greater participation in higher education will lead to an optimal return in this matter. While human capital theory offers a partial explanation for an understanding of the demand side

[4] The economic redistribution of productivity gains is also a matter for social bargaining. One can argue that, in normal circumstances, the need to provide pensions to larger cohorts of retired generations combined with competitive pressures arising from increasingly globalised and integrated economies will

of expansion in education, it is of little help in terms of supply (Dearden, McIntosh et al. 2000) for it considers education and training to be like any other goods with supply adjusting to demand. This may be true for certain specific types of short-term training programmes but, for various reasons mostly related to time-lag, it does not reflect accurately what is happening in other parts of the higher education sector. This suggests numerous sources of market failure, such as uncertainties, asymmetrical information or risk avoidance behaviour. Meanwhile, policy-makers eager to match supply to perceived demand are promoting both the vocationalisation and the specialisation of education as well as greater breadth and variety in knowledge transmission (Blunkett 2001). The perennial question remains which type of educational investment today - secondary, vocational or higher forms of post-secondary education - would be most likely to generate an adequate rate of growth while securing an equitable redistribution of the wealth created (Dearden, McIntosh et al. 2000). In OECD countries, we can already see that if, at an individual level, tertiary education brings about greater marginal benefit than upper secondary schooling in the form of higher incomes, the same is not systematically true with regard to social rates of return. This observation has been used to justify greater private contributions to the cost of higher education (OECD 1998) (Greenaway and Haynes 2000).

International comparative studies have also highlighted the effects of certain educative practices on the world of work (Prais and Wagner 1983) pointing, in qualitative terms, to types of human capital accumulation that are best promoted by certain ways of organising educational systems. If education and training play a major role in labour productivity in terms of greater flexibility on the job, better machine maintenance, product quality, production and delivery schedules, greater efficiency is achieved not only when the quantitative needs of businesses and enterprises are known but also when certain qualitative aspects of the educational system are recognised or publicised. In particular, the way educational systems are organised can, to a greater or lesser extent, increase the trend for upward credentialism. For instance, in countries such as France where university degrees are recognised nationally and on a strong egalitarian

help keep salaries down. This calls into question the direct link salaries are believed to entertain with workers' productivity.

basis, ‘inflation’ can occur because students continue studying at a higher education level using higher education qualifications as a signalling device. On the other hand, the absence of a formal national recognition of university degrees in the US may have fed into employers’ demands for higher qualifications, which would indicate that higher education qualifications have been increasingly used as a screening device. Aggregate corporate strategies at regional and national level can have a large impact on educational structures and strategies (Finegold and Soskice 1988).

Despite the issues and deficiencies surrounding evidence of the returns to education (Harmon, Oosterbeek et al. 2000), the strength and visibility of human capital theory has lain in that it has shown in theory that there has been a utilitarian type of convergence between the individual and the general interest. Large investments in human capital have repeatedly been presented as a major source of economic strength, of greater efficiency in the use of the workforce and of increased wealth distribution. With education being shown to have a positive effect on labour productivity, which in neo-classical terms is identified with the wage rate in a situation of equilibrium, the conclusion has been that an ever greater accumulation of education stock is fundamental not only for increasing wages but also for equalizing them. Education at all levels has therefore been presented not only as a social investment that can contribute to economic growth, but also as a means of achieving greater equity in the distribution of the wealth it helps to create. The fact that the neo-classical understanding is based on a conception of the individual as entrepreneurial and discerning in his/her choice of resource and time allocation is a major assumption that helps to shape this theoretical convergence.

3. The Sociological Perspective on Expansion of Higher Education and Hyper-inflation

Since the 1960s, human capital theorists have presented education as one of the most productive means of growth investment while, at the same time, they have presented education as an equalizing social device. On this ground they have met those sociologists who have used the correlation between education and status to show education to be an efficient means of opening up professional opportunities and of reducing the impact of family backgrounds on individuals' achievement (Parsons 1961) (Bernbaum 1977).

The sociological debate on education has revolved around the differing degrees of recognition of two aspects of education: on the one hand, its selecting, screening and allocating function and, on the other hand, its potential to help to promote meritocratic social mobility. In the light of these terms of understanding, political discourses have persistently supported education and access to higher education as an effective instrument in the equalization of life and social chances for individuals. In this, they have been in phase with voters anxious to secure upward social mobility for their offspring, although it is difficult to determine the 'push' and 'pull' factors that have been at work in this matter. The result is that, over the last thirty years, all sections of society in Western democracies have contributed to putting into practice a theory which upholds the intrinsic worth of human capital accumulation in the form of increased educational stocks, with higher education fitting more and more into this picture.

As a result there has been a general increase in the schooling level but this has been accompanied by a modification of the direct relation between academic titles and their associated social status (Collins 1979; Halsey, Heath et al. 1980). In Britain, throughout the 1970s, 1980s and 1990s, the time-series pattern of the relative supply of highly educated workers and wage changes shows that there has been a dampening down of wages in response to increased supply (Machin 1999). Over the years, similar jobs have been filled by increasingly qualified staff as more people with higher qualifications have emerged from the educational system. In this sense, the case of nurses in Britain or of schoolteachers in France may be considered as symptomatic. Some graduates have even

experienced the growing gap between the nominal value (i.e. name and level) of their degrees and their market value in real transactional situations in the form of periods of unemployment or sub-degree level occupations. This goes a long way towards explaining the semantic shift in relation to expansion in higher education to terms such as 'hyper-inflation' and the 'devaluation of diplomas'.

Various sociological explanations have been put forward to interpret this phenomenon (Boudon 1969; Bourdieu and Passeron 1970; Bourdieu 1973). For the neo-Durkheimian school of thought the rapid expansion of higher education has exposed the symbolic dimension that has always been implicitly embedded in university titles through the social and cultural representation of their rarity (Bourdieu 1973). Academic symbols have multiplied rapidly but this has combined with relative stasis in socio-professional organisations and stratifications, in income distribution, in cultural representations or in social strategies. In the case of Britain, it may be said that the systematic discrepancy that has existed between, on the one hand, the actual state and status of the academic sector and, on the other hand, the cultural representation of academia and the social strategies related to the social representation of academic titles, has helped successive governments to justify their reforms of quantitative expansion and decreasing unit costs.

In the short term, the process of expansion in higher education tends to expose variations in the certifying effect of university diplomas as the number of candidates joining the employment market outstrips the number of graduate jobs that are available. This explains the growing use of the notions of 'sub-employed' graduates or an over-educated workforce (Chevalier 2000). Meanwhile, employers revert to more stringent selectivity in their recruitment practices, which has the paradoxical but understandable effect of reinforcing the role of higher-level diplomas and qualifications as selection criteria. This explains why analysts are able to emphasise repeatedly the perpetuation of the professional advantages conferred by a degree. However, this remains a broad claim. In the medium term, Britain might experience something similar to the situation in the United States where higher education expanded at an earlier stage. This would mean a reshaping of a job market previously stratified according to educational attainment into 'waiting lists' for available jobs, with each person's place being strongly influenced by the level and the type of diploma held. In this case, the positioning of degree holders

remains a relatively privileged one but direct conclusions as to the impact of an increase in the average qualification of members of the population on the overall productivity of the workforce cannot be drawn.

The central assumption of human capital theory that better qualified workers and employees are more productive than their non-qualified counterparts has been questioned from an early stage (Berg 1970). However, more significant for the overall debate is the possibility that the lengthening of average schooling time may lead to a reinforcement of social inequalities, with a decrease in the variance in wage distribution corresponding to each level of education but an increase in the difference between the mean salaries that correspond to these different levels of education (Thurow 1975). By bringing financial rewards not entirely related to productivity, expansion of higher education could bring about greater social stratification.

At this point, we have moved from the human capital interpretation, which, because it was centred on the notion of increased productivity, was implicitly focused on a function of education concerning skills transmission and knowledge acquisition, to an interpretation that puts a premium on the changing relative worth of individual profiles and on the selective social function of education. Likewise, since the end of the Second World War, the sociological debate surrounding expansion in education has revolved around two main notions: democratisation, which has been implicitly rooted in a modern agenda, and reproduction, which has been potentially leading to a 'post-modern' one. In the 1960s, those who sought to justify expansion in higher education presented it as a source of personal and social liberation. Thus the Robbins Report endorsed and encouraged higher education reforms for socio-economic purposes in the name of an ethical and political ideal (Scott 1988). The image of the 'untapped pool of abilities' was used to justify expansion on the basis of the equalisation of social chances and the democratisation of education. What was implicitly expected was that unhindered expansion would eventually bring the sector to a natural state of equilibrium where all those who would have previously been deprived of a higher education experience for mere structural reasons would legitimately find a place in the system. The 'untapped pool' image was used to denounce forms of institutional and social resistance and inertia

directly linked to the selective educational practice of socially stratified societies. The universities were particularly exposed to such criticisms.

At about the same time, in line with the then prevailing systemic and structural strand of socio-political understanding, the reproduction school of thought developed its influential theory of social mechanisms based on the principle that all societies tend to reproduce their constitutive structures, most notably their social classes. Educational systems, in particular at their final selective stages, figured prominently in the understanding of the causes of these phenomena since it was argued that their main role was to justify social reproduction at work within all modern societies on supposedly objective grounds (Bourdieu and Passeron 1970; Bourdieu 1996). The message was clear: whatever the degree of expansion in formal education and whatever its cause and impetus, the dominant groups would always manage to influence and restratify the system in the name of objective educational practice in order to preserve their social advantages.

With its polymorphous heuristic apparatus, reproduction theory has proved to be as appealing as it has been self-closing, not to mention self-contradictory (Alexander 2000). However, there is no denying that an important component of the value of a diploma, represented first and foremost by its transactional value in terms of earnings on the job market, obeys an ensemble of cultural laws which are as much a system of practice in relation to established rules as they are a system of rules which bring about a hierarchy of values and forms of legitimacy (Bernstein 1975). This interpretation goes some way towards explaining the repeated incidence of 'academic drift' that has accompanied attempts at reforming secondary and tertiary education towards more vocationally-oriented syllabuses in countries such as Britain and France (Prost 1992).

Repeated failures at trying to regulate educational inflow both quantitatively and qualitatively has meant that more empirical forms of research have been encouraged in order to understand the logic of expansion and social stratification in education from the actors' points of view. What these have shown is that, at the level of the individual, the choice to continue into higher education remains a rational one in the sense that, as expansion gathers pace, the risk involved in not participating becomes increasingly great. It is generally rational for individuals to try to acquire the highest possible level of

qualification. The expansion of higher education and its unintended 'hyper-inflationary' consequence emerge as the result of an accumulation and combination of individual strategies (Boudon 1973; Robinson 1999). These conclusions based on methodological individualism, that is to say on the premise that sociological understanding is best achieved through an analysis of the meaning and actions of its participants, have been shadowed by the understanding based on game theory borrowed from the economic field (Turner 1992).

What seems paradoxical when considering the traditional economic model of demand in education based on the opportunity costs of studying, is that that there should be any increased demand for higher education qualifications when this increase appears to be concurrent with a devaluation of job opportunities for degree holders. This puts into question the axiomatics of the rational choice approach. But it is also possible to reconcile the two phenomena by taking into account the types and various degrees of control that students can exercise on the use of the use of their time[5]. From this it appears that one reason why university degrees remain broadly attractive is related to the certifying structure of a university education. This effectively allows students to modularise the time spent studying so as to lower opportunity cost, which contributes further to quantitative expansion in higher education (e.g. the increasing number of part-time students). The decrease in the rate of return on diplomas is compensated by a reduction in the cost of study, which is often obtained at the expense of the probability of success in examinations, hence the rise in student drop-out rates (Eicher and Levy-Garboua, 1979). It follows that any increase in the direct costs of studying in the form of increased fees or cuts in public subsidies to students, as has occurred in Britain, has the greatest effect on those from poorer social backgrounds because they react in priority to the worsening of their immediate circumstances. In the longer run, the development of part-time jobs for students combined with increased drop-out rates could bring about a decrease in the salaries offered to non-graduates and thus play in favour of more individual scholarly investment. The problem is that in the context of an open economy with significant wage differentials, as is the case in Britain (Machin 1999), economic

models suggest that the possibility of this happening on a basis of equal opportunity is becoming increasingly remote (Turrini 1997).

[5] This is influenced by 1) their current incomes (parental and public subsidies, small jobs…); 2) their current quality of life (entertainment, food, accommodation…) and 3) the likelihood of future benefits arising from graduate job opportunities.

4. The Expansion of Higher Education: a complex societal logic

The overall expansion of higher education has increased uncertainty and the chances of downward mobility for traditional users of the system without significantly increasing upward mobility opportunities for newcomers, thereby providing more demand for higher education (Archer 1982). Rapid skills obsolescence due to accelerating technological innovations has reinforced this phenomenon. At the same time, the relative importance of elements other than merit as measured by educational achievement has increased in social selection (Brown 1990), illustrating how expansion of education can occur without a significant reduction in social inequalities.

The result is that today, expansion of higher education in its traditional form appears to be:

1. a socio-political necessity in terms of input (i.e. who gets access). In the case of Britain, it is interesting to note that rapid expansion in higher education has coincided with the end of the long-standing debate concerning the legitimacy of private schooling at secondary level.
2. an economic necessity in terms of process (i.e. local job creation and demographic vitality, invisible exports)
3. a qualitative question mark in terms of output and, by implication, in terms of process.

In this context, the rise in the use of terms such as 'devaluation of diplomas', 'hyper-inflation' or 'over-education' points essentially to the loosening of the direct relation which formerly existed between university degrees and their social recognition. The expansion process has laid bare the fact that what has been at stake in gaining a university experience are the social benefits that such an experience is expected to confer. In England, this has provided an acid test for the liberal ethos. It has been difficult to hail expansion and the conditions in which it has taken place as a success for the disinterested pursuit of knowledge. Today there are few in academia who see the bottle as half-full rather than half-empty or, in other words, who still champion what was strongly argued for previously: the development of education and knowledge in society regardless of graduate job opportunities. It used to be thought that the democratisation of higher

education would be achieved through equal opportunities for access to a university education. Today, the focus has shifted to other aspects of expansion. Decreasing unit costs in universities, increasing government intervention in academic affairs, higher average private returns than social returns from higher education and now also the realisation that it is possible on an individual basis to gain a university degree without getting access to a graduate job have figured among the reasons advanced in order to try to go beyond the human capital and democratisation approaches that have underpinned expansion of higher education. These have formed the basis of current reforms proposed by certain economists, think-tanks, UK university representatives and political leaders, the long-term implications of which will need to be thoroughly assessed.

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