Matching higher education and labour market in the knowledge economy: the much needed reform of university governance in Italy

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Abstract

In the knowledge economy and current public finance constraints, matching higher education and labour market is not one of the main issues in higher education policy sustainability: it is “the issue”. Being universities’ sources of funding almost entirely domestic and in most countries primarily governmental, politicians are expected to ensure that the increasing public investment in higher education is justified by the fact that the benefits are captured by domestic workers and investors. In doing so they must avoid disrupting the international and free community of scholars and students pursuing knowledge, killing the goose that laid the golden eggs for so long. The European debate and frontiers of research concerning the interactions between universities and labour markets are analyzed. The much needed reform of university governance in Italy is evaluated in its premises and implications for the matching of higher education and labour market.

Keywords: governance, university, new managerialism, knowledge economy, labour market, higher education.

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1 Introduction

This study aims at exploring the main ideas for a governance reform in Italian universities, framing it in the transformation of higher education and its relations with the labour market. In fact, I strongly believe that improving students’ career opportunities is the main objective of a modern university and it is the main expectation of students and families: I call that “matching higher education and labour market”. Being most European universities under “public control”, I also believe that one of the main policy tools in the hand of European national governments in order to improve the “matching” is to reform university governance and put in place the right incentives in the system.

The issue is increasingly relevant in what is defined as knowledge economy: “The knowledge economy conjures a world of smart people, in smart jobs, doing smart things, in smart ways, for smart money, increasingly open to all rather than a few” (Brown and Hesketh 2004: 1). It is believed that the European knowledge economy increasingly requires more and more skilled workforce, and a significant increase in higher education enrolment levels to close the gap with the most performing economies. The European Union thus needs to both improve access to higher education and to increase funding in higher education, despite national financial constraints. Many European nations are experimenting with internal and external privatisation in higher education, also as a way to overcome those public finance constraints.

The idea of a knowledge economy and society incorporates the central role of widening participation in higher education in economic competitiveness (World Bank 2002, OECD 1999, Peters 2007, Trends V). Equitable access, educational expansion, mass higher education become crucial concepts and policy terms, together with internal differentiation of higher education systems, diversification of higher education funding streams and stratification of students populations. But how further necessary expansion (assessed by the EC to be at 50%; EC 2005a: 11) is to be performed in existing governance, organisational, administrative and funding arrangements, and how this expansion is to be translated into matching the labour market needs and expectations? A EC paper accompanying the EU December 2008 “New Skills for New Jobs: Anticipating and Matching Labour Market and Skills Needs” initiative highlights the need to increase substantially higher education attainment levels and links the need to technological change, globalisation and
new forms of work organisation (EC 2008b: 23). The CEDEFOP report makes a quantitative projection, based on analyses from 25 EU countries, that almost 19 million new jobs in the EU by 2020 will require higher education (as opposed to 13 million jobs requiring education at medium level and 12.5 million jobs requiring no or low formal education, CEDEFOP 2008: 13).

At the same time, OECD stresses that there is no evidence in current data suggesting any “crowding-out effects” of lower-educated from higher-educated individuals: “on the contrary, there seems to be positive employment effects for individuals with less education in countries expanding their tertiary education” (Hanssen 2007: 18).

The expansion of higher education systems through both external (emergence of the private sector) and internal (cost-recovery mechanisms in the public sector, such as students’ fees) privatisation raises crucial issues related to graduates’ employability. While the links between public higher institutions and the labour market have been thoroughly studied in Europe, the links between private higher education and the labour market have been severely under-researched. The internal privatisation of public higher education institutions leads to further complications in which, alongside traditional almost non fee-paying students, there are fee-paying ones and, alongside traditional academic staff, there is a temporary and privately employed one. In many European countries serious doubts are raised about skills and competencies of students from new private higher education institutions, and their future in labour markets is uncertain. In the meantime, the share of private sector graduates has been increasing substantially. I agree that “it is impossible to understand contemporary expansion, including its size and contours and policy dimensions, without knowledge about both [public and private] sectors. It is also important to analyse dynamics between the sectors. What effects does a kind of access through one sector have on the other sector” (Levy 2008: 13).

It is widely believed that EU as a whole needs increased access to higher education if it wants to maintain or increase its economic competitiveness. Gross higher education enrolment index ranks globally only five EU-15 countries (and only nine EU-27 countries) in the first twenty ranks (Porter, Sala-i-Martin, and Schwab 2008: 427). There is huge need for increased access to higher education compared also with the USA. The EU thus needs to improve equitable access to higher education and to increase higher education attainment levels, as well as to increase total (public and private) investment.
in higher education. To reach the levels of enrolment in higher education of young people (aged 18-24) seen in the US, European institutions would have to increase enrolment by 50%.

A “Skill-Biased Technological Change” approach (Machin and McNally 2007, Machin 2004, Machin 1996) may be assumed to explain the changing role of higher education in the knowledge economy: its basic idea is that new technologies that improve the effectiveness of production process are “skill-biased” – higher educated workers are more able to correspond to these new technologies than less educated workers (Brown, Green and Lauder 2001). “This non-neutral technological change makes higher educated workers much more attractive for employers and therefore increases the demand for this type of workforce” (EENEE 2008: 6-7; see also Machin and McNally: 2007, Machin and Vignoles 2005). Powerful arguments for further expansion of higher education systems come from OECD research and analyses, most recently from Machin and McNally in their OECD study of education systems and labour markets: “in no case considered here, can one speak of ‘over-supply’ of tertiary education. The strong, positive return to tertiary education suggests that ‘under-supply’ is more of an issue and that continued expansion is justified. [...] If there were over-supply, relative wages and employment probabilities would fall to the level of their closest substitutes – and that has not happened” (Machin and McNally 2007: 3). What is causing the relative demand shift is explained by the skill-biased technological change thesis claiming that new technologies are biased in favour of skilled workers. The right expansion produces more workforce with right skills and competences – but wrong expansion produces more workforce horizontally or vertically mismatched to the labour market.

European systems in the next decade can be expected to experiment widely with the public-private dynamics of higher education systems, including teaching and research funding, contractual obligations of academic staff, blurring boundaries between public sector and private sector organisation, administration, management and governance or the teaching/research divide between institutions. This may occur in some countries by increasing the number of private institutions and increasing enrolments in private institutions, in other countries by changing the legal status of public institutions to that of private ones (or non-state, opting-out of the public system towards a foundation-based institution, possibly a third category, as in Germany’s Saxony, North-Rhine Westphalia and Baden-Wurttemerg or in Sweden); in
still other countries, by the introduction or increasing the level of tuition fees, and with accompanying loan programs expected to take precedence over non-repayable scholarships (on fees and loans, from an equitable access perspective, see Johnstone 2006). In all of them, the themes of academic entrepreneurialism, further diversification of funding sources, or the increasing role of third-stream funding in university budgets are expected to be widely discussed to secure simultaneously the financial sustainability of national systems, their openness to new segments of society (expanded access) and their responsiveness to labour market needs. Reforming university governance is a precondition for universities’ accountability to external stakeholders, for improving their performance, to bring all the above themes together and match labour markets demands: it is a responsibility of national governments to provide guidelines for effective governance reform.

2 Matching higher education and labour market

Education and skills mismatch occur when “there is a difference between the skills a worker provides and the skills necessary for the job. In particular, working in a job below an individual’s level of skills limits individual productivity and leads to ‘underutilisation of education’” (EC 2008a: 34). In a recent successful EU REFLEX project on “flexible professionals in the knowledge society” the variable of “mismatch” is based on “the respondent’s self-assessment of his/her job in relation to his/hers education. Self-assessment is viewed as the best available measure concerning the measurement of education-job mismatch”. Consequently, graduates may be grouped into five categories of severity of mismatch – no mismatch, horizontally mismatched (working in a job matching one’s own level but not one’s own field of education), vertically mismatched (matching one’s own field but not one’s own level of education), both vertically and horizontally mismatched, and unemployed (REFLEX 2007: 223-224).

The difference between educational mismatch and skills mismatch is important – they are related but not the same. As a recent study summarizes, “educational mismatches by no means imply mismatches between available and required knowledge and skills. […] Many graduates in ‘matching’ jobs nonetheless report skill mismatches” (Allen and de Weert 2007: 72). Does privatisation in this sense lead to further inequalities, differentiation and stratification? Or does privatisation decreases the inequality of access?
Empirically-grounded answers could be given based on the studies of economic returns and job satisfaction from the same degrees (field of study) received from differentiated (public and private) institutions, viewed by the proxy of self-assessment of graduates surveyed and interviewed; but such studies, to the best of our knowledge, are still nonexistent.

Everyone agrees that matching higher education and labour market is critical for the skills and competencies of current and future citizens of knowledge societies and workers in knowledge economies. So it is alarming that the mismatch between the labour market expectations from education and training institutions and the product of these systems is substantial and is being reported as widely as never before. Higher education is in the centre of fierce national and international debates on the economic competitiveness, graduates’ future in national and global labour market and transformations of the labour market itself. Never before was higher education so high on both national and EU agendas, and these agendas closely link it to new roles, missions and tasks, along economic lines. Higher education, perhaps for the first time in its modern history, is being forced by governments and their funding agencies, the public and their accreditation and evaluation agencies and mechanisms, students and parents, to adapt itself to changing social and economic realities covered by the terms of knowledge society and knowledge economy. Its traditional stakeholders are becoming more powerful than ever before and request it to reconsider its roles, missions, and tasks.

The reason for the renewed EU interest in higher education, especially in its links to the labour markets on the one hand and innovation on the other, is clearly stated by the European Commission: while responsibilities for universities lie essentially at national (or regional) level, the most important challenges are “European, and even international or global” (EC 2003a: 9). The major challenges facing Europe – related to both globalisation and demographics, such as losing its heritage and identity, losing out economically, giving up the European social model – should be met, according to a recent influential European Commission report (EC 2005c), through education, knowledge, and innovation: “The most appropriate response to these challenges is to increase the capacity of Europe to create, absorb, diffuse and exploit scientific and technical knowledge, and that, to this end, education, research and innovation should be placed much higher on the European policy agenda” (EC 2005c: 17).

Thus recent years have brought about intensified thinking about the fu-
ture of public universities in Europe, from a distinct EU perspective. For the first time in the 2000s new ways of thinking about higher education were formulated at an EU level – and were accompanied by a number of practical measures, coordinated and funded by the European Commission. Higher education, left at the disposal of particular nation-states in recent decades in Europe, returns now to the forefront in discussions about the future economic competitiveness of the EU.

The economic future of Europe increasingly depends on investing in knowledge and innovation and on making the “free movement of knowledge” (the “fifth freedom”, completing the four freedoms of movement of goods, services, people and capital) a reality (EC 2007: 14); and “the success of the Lisbon strategy hinges on urgent reforms” of higher education systems in Europe, as another title runs (EC 2003b).

The impact of globalisation on EU-level educational policies and strategies, and increasingly on ensuing national policies and strategies, is substantial. Higher education is viewed, assessed, and measured in the context of both globalisation and Europeanisation. Globalisation, indirectly, for instance through a Lisbon Strategy for growth and jobs, fundamentally alters the lenses through which universities are viewed, assessed, and measured. Its most evident impact on universities is the overall sense that universities in Europe need profound transformations if Europeanisation is to be a successful response to globalisation. Consequently, the overall picture on reading recent EU (as well as OECD) documents, reports, working papers and communications is that the relationship between government, labour market and universities is in need of profound change (see e.g. OECD 2008a, 2008b, 2006 and 2004).

3 Literature and main issues in the debate about higher education/labour market dynamics

3.1 Privatisation in and of higher education (internal and external) and the labour market needs

In some scholarly research (Clark 2004, Sporn 1999a, 1999b, Shattock 2008, Shattock 2005, OECD/IMHE 2005) and policy documents, including especially the management, organisational and financial solutions suggested to public higher education systems, increasingly include references to such notions as academic entrepreneurialism in teaching, research, and third mis-
sion activities, academic institutions becoming increasingly financially self-reliant and significantly less dependent on core state funding (diversification of funding sources, non-core non-state income, third-stream funding etc); and cost-sharing in the form of introducing, or increasing where already existing, tuition fees, accompanied by more student loans and fewer student scholarships (Shattock, 2005; Williams, 2003; Johnstone 2006). All of them figure prominently in recent both national and EU-level debates on financially sustainable higher education in Europe, in debates about the future of both the European Higher Education Area (EHEA) and the European Research Area (ERA). These measures are under heated discussions, including scholarly discussions, in many countries. The level of their implementation differs considerably from nation to nation.

Various European countries (and especially transition countries in the 1990s) have been experimenting with the privatisation of various segments of the welfare state, including both cash benefits (such as old-age pensions) and benefits in kind (such as health care and higher education) (Barr 2004: 89-92; Barr 2001). The traditional welfare state is often viewed as “overburdened”, operating under increasing financial pressures. These pressures, directly or indirectly, affect publicly-subsidized higher education systems due to the competitive nature of public funding. Nicolas Spulber stresses in “Redefining the State” that “Whatever its form, a privatisation program involves a broad redefinition of the role of the state and of its relations to the market and the society. Specifically, it aims at shifting the prevailing balance between the public sector and the private economy, by rolling back the state’s power and activities via public ownership and public services – but in practice its impact is far more widespread” (Spulber 1997: 148; see also Enders and Jongbloed 2007, Belfield and Levine 2002).

Public higher education is “in the eye of the storm” and among the cost escalation of all public services, it has to clearly demonstrate the value of services it provides. The major issue for the general public and for policy makers is that the value put on whatever higher education produces is relative to the value of social results to be achieved by the same resources used elsewhere. Increasingly, parallel to debates on university missions, the problem of public higher education is recast in “terms of resources available to achieve them” (Salerno 2007: 121). Increasingly, the future of public higher education is viewed in financial terms (Maassen and Olsen 2007).

The crucial role in introducing privatisation in major public services is
played by wider political, economic, and legal contexts. Because of changing European demographics and the aging of European societies, the costs of both health care and pensions are not only very high but tend to be increasing as a share of GDP in almost all Western European Union countries (Pestieau 2006: 24). The competition for tax-generated public funding has been growing. The current and future financial picture involves a higher inflow of private funds to research and development through technology transfer and corporate contracts, to higher education through student fees.

If privatisation is viewed as a process or tendency of universities taking on characteristics of, or operational norms associated with, private enterprises, then the privatisation of higher education is flourishing in many European countries. In general terms, privatisation is “the transfer of activities, assets, and responsibilities from government/public institutions to private individuals and agencies. Education can be privatised if students enrol at private schools or if higher education is privately funded” (Belfield & Levin, 2002: 19).

The emergence of powerful market mechanisms in public higher education and the emergence (in the new EU member countries) or existence (in the old EU member countries) of the private sector are the two different faces of the same process of the privatisation of higher education, referred to here as internal and external. Higher education in general has traditionally been discussed as manifesting itself in two opposed modes: either public or private. The radical distinctiveness of the public sector from the private sector has been a constant point of reference in both research and policy analyses. But both sectors can also be analysed as following the same road of privatisation if the phenomenon is applied more broadly to higher education in general. As Daniel C. Levy (Levy 1986: 15) stressed, “Institutions called private and public are not always behaviourally private and public, respectively”. This description fits higher education well in European countries. Regarding their link to the labour market, the issue of changing skills needs in Europe has been discussed in particular in such recent reports as the CEDEFOP reports, Future Skill Needs in Europe: Synthesis Report (2008) and Future Skills Needs in Europe: Focus on 2020 (2008); the report of the European Experts on the Economics of Education (EENEE), Origins and Consequences of Changes in Labour Market Skill Needs (EENEE 2008) and European Employment Observatory publications. Its high importance was recently stressed in a new EU initiative called “New Skills for New Jobs”
(EC 2008a, EC 2008b), an important social part of the European Economic Recovery Plan of November 2008 (EC 2008c).

3.2 The (quasi-) market in higher education and its new income-generating patterns

With the growing relevance of the market perspective and increasing financial accountability for all public services (accompanied by growing competition in public expenditures), European higher education institutions are expected to be responding to changing financial settings basically by revenue-side solutions: seeking new sources of income, largely non-state, non-core, and non-traditional to most systems. Higher education in general, as opposed to healthcare and pensions sectors, and top research-intensive universities in particular, are perceived by European societies as being able to generate their own additional income through entrepreneurship or cost-sharing (such as “fees”). The more successful public entrepreneurial universities are today, the bigger chances of letting them follow this entrepreneurial direction in the future are. Along with the efforts to introduce market mechanisms in pension systems (multi-pillar schemes instead of pay-as-you-go ones) and healthcare systems (privatised systems based on additional, private, individual insurance policies), especially but not exclusively in new EU member states, the most far-reaching consequences of this marketisation/privatisation trend can be expected for public funding for higher education and research. As William Zumeta stressed, “unlike most of the other state budget components, higher education has other substantial sources of funds that policy-makers feel can be tapped if institutions need to cope with deep budget cuts” (Zumeta 2005: 85).

An expected development is the promotion across Europe – as a mostly new and reasonable policy solution to the problem of underfunding of European universities, especially compared with their US and Japanese counterparts – of a more substantial inflow of both private research funds from the business sector and of more private teaching funds from student fees. The EC stressed recently that “it has been shown that free higher education does not by itself suffice to guarantee equal access and maximum enrolments” and invited member states to consider whether “their current funding model [...] effectively guarantees fair access for all qualified students to the maximum of their capacities” (EC 2005d: 8; see also Green 2006, Kaiser and Vossensteyn

The tension between the general attitude of governments and populations (education perceived as perhaps the primary asset of the individual) on the one hand and the inability or unwillingness of the very same governments to increase current levels of public funding for higher education and research in public universities – is as strong as never before. As the EC put it recently, “to attract more funding, universities first need to convince stakeholders – governments, companies, households – that existing resources are efficiently used and fresh ones would produce added value for them. Higher funding cannot be justified without profound change: providing for such change is the main justification and prime purpose for fresh investment” (EC 2005c: 8). Consequently, incentives for transformations in functioning of higher education may be coming through new funding arrangements (referred to by the EC as new ‘contracts’ between universities and societies).

Market forces in higher education are on the rise worldwide: while the form and pace of this transformation are different in different parts of the world, this change is of a global nature and is expected to have an impact on higher education systems in Europe. Market forces formulate the behaviour of new private institutions and, more importantly, increasingly reformulate the missions of existing traditional public higher education institutions. The competition between public and private institutions in various parts of Europe will influence the core mission of public higher education generally.

The most general, structural policy issues with regard to public universities (as presented in the EC, OECD and World Bank documents of the last decade, especially regarding funding) do not seem substantially different from structural policy issues discussed with reference to other segments of the public sector. The major difference – namely, the widely acknowledged fact that universities have much wider options to diversify their income – may lead to viewing universities as even more financially self-reliant than before, and potentially being much more open to new funding patterns. The policy challenge at national levels is to what extent particular countries are willing and able to accept global thinking about the future of public sector institutions in general (and of public universities in particular), and to what extent responses to this new way of thinking can vary in different countries (surprisingly the worldwide reform agenda for universities already in the 1990s was remarkably consistent, Johnstone 1998: 1).
3.3 Students, graduates, employers and the changing teaching/research nexus: towards student-centred, labour-market focused universities

Within the European Higher Education Area, the role of new (and previously significantly less important) stakeholders will be growing, both in discussions at national levels and at the level of the European Commission. Universities under conditions of massification will be increasingly expected to be meeting not only the changing needs of the state but also changing needs of students, employers, labour market and the industry, as well as the regions (see Arbo and Benneworth 2006, Goddard 2000, OECD 2005, Tavoletti, 2004, 2005, 2007, 2008, 2009) in which they are located. The relationships between stakeholders, with the decreasing role of the state (especially in funding), the increasing role of students and the labour market for the more teaching-oriented sector, and the increasing role of the industry and the regions for the more research-oriented sector – are fundamentally altering the missions and roles of higher education, both public and private. The differentiation-related (or stratification-related) developments are fundamentally altering the academic profession in general, still more increasing its heterogeneity, and they have a strong impact on the traditional relationships between teaching and research at European universities.

The social, political, cultural, and economic world is changing, and so are changing student populations and educational institutions. Higher education is subject to powerful influences from all sides and all – new and old alike – stakeholders: the state, the students, the faculty, employers, and industry, and on top of that, it is becoming very costly. Institutions are expected to transform themselves to maintain public trust (and use public subsidies). Also the role of the market in higher education (or of government-regulated “quasi-markets”, see Teixeira et al. 2004) cannot be ignored as the market is reshaping our lives as humans, citizens, and finally as students/faculty. Never before has the institution of the university for so long been under the pressures of so many different stakeholders; never before has it been perceived by so many, all over the world, as a failure in meeting the needs of the students and the labour market (the literature on the supply/demand mismatch is substantial, see Brown 2004). Therefore the question is which directions higher education systems will be taking while adapting to new social and economic realities in which the role of the market is growing and the edu-
cation received by graduates is increasingly linked to their professional and economic future. This change of mood is expressed in an EU communication on “Mobilising the Brainpower of Europe”: “If universities are to become more attractive locally and globally, profound curricular revision is required – not just to ensure the highest level of academic content, but also to respond to the changing needs of labour markets. The integration of graduates into professional life, and hence into society, is a major social responsibility of higher education” (EC 2005c: 5).

Following transformations of all public sector institutions, universities in Europe – traditionally publicly-funded and traditionally specializing in both teaching and research – are under powerful pressures to review their missions and to compete for financial resources with other public services heavily reliant on the public purse. The consequences for the teaching/research agenda are far-reaching. As Deem alarmingly put it recently, “teaching-only universities per se (as opposed to higher education institutions in general) do exist in both public- and privately-funded forms in many countries, but at the present time this is not the norm in most of Europe. However, this may not continue to be the case in the future” (Deem 2006: 285). The trend of disconnecting teaching and research in higher education has already started: as Vincent-Lancrin (2006: 12) summarizes his analyses of OECD datasets, “academic research might just become concentrated in a relatively small share of the system while the largest number of institutions will carry out little research, if any”.

3.4 Regional contribution of universities to economic competitiveness: graduates for the regional labour market

Research and teaching are being increasingly complemented with the “third” university mission: the regional mission. The new third mission reflects the change in attitude of universities’ external stakeholders: national and local governments, local businesses and industry, as well as, students and their parents. Higher education is increasingly conceived as a vehicle for economic development of the nation, and of the region in whose social and economic fabric it is embedded (see Goddard 2000, OECD 1999, Arbo and Benneworth 2007).

There are well-established methodologies and templates of good practices for assessing the impact of particular institutions and regional systems
on particular regions, and there are specific methods of monitoring their region-focused functioning. Good practices show that internal mechanisms in higher education institutions are important to support their regional mission (and they include additional funding, new incentives, modified career ladder requirements, monitoring of failures and successes of ongoing regional engagement, cooperation with the local industry via university boards). Also a specific mental barrier found in institutions is important to overcome: regional engagement is still found inferior (and ranked as an inferior academic activity) than the national or international one.

Regional economic competitiveness cannot easily overcome low levels of national economic competitiveness. And higher education institutions, with their curricula and programs, scope of their regional (third) mission, are just one of the several pillars of competitiveness. They are often interdependent and try to reinforce each other (Porter, Sala-i-Martin, and Schwab 2008: 3-6).

The expectations toward higher education are similar but there are many other equally important factors which can be observed in that laboratory for higher education privatisation that is Central and Eastern Europe. The chronic underfunding of public higher education in such Eastern European countries as Poland, Romania and Bulgaria meant permanently seeking temporary solutions; some of these market-oriented solutions – cost-sharing in the public sector or the state authorities giving the green light for expanding the accredited private sector, albeit with no state subsidies for it – became parts of national policies and legislation (Kwiek 2008a; Salmi, 2006). As Daniel C. Levy noted, “Central and Eastern Europe lies at the extreme for the global generalization that private higher education emergence has been sudden, shocking, and unplanned” (Levy 2007: 280).

In expanding systems, though, the burden of costs of education was increasingly being shifted from governments to students and parents, leading to sharp national debates on fees, equity and efficiency (globally, see especially Teixeira et al., 2006; Pennel and West, 2005; for the EU views on equity see EC, 2005b). The expansion of Polish, Romanian and Bulgarian systems was made possible by growing external and internal privatisation, both referring directly to the opportunities provided by opening higher education to the market. Two alternative strategies to meet growing demands for higher education were used, both implicitly (rather than explicitly) supported by the state: the emergence of privately-owned, teaching-focused, fee-dependent in-
stitutions and the internal privatisation of public sector institutions by which they were able to supplement their state subsidies with students’ fees.

4 Reforming university governance in Italy: matching higher education and labour markets

4.1 A critical analysis of “Government’s Guidelines for the University”

Italian Universities are interested by a deep reform promoted by the central Government. In a recent document issued by the Ministry of Education (“Government’s Guidelines for the University”) the idea of a student-centred university, we have discussed in the previous paragraph, is clearly stated - “students, their needs and aspirations, must be put back into the centre of our mission” - and the traditional model of governance, based on a community of scholars, is sharply criticized for its supposed outcomes: “internal stakeholders’ demands were placed before those of students and young scholars, with results that, paradoxically, have increased the costs of teaching and at the same time excluded many deserving young people from the world of research. In 1998 [...] professors and researchers were less than 50,000, today there are over 62,000, a total increase of 24%, but for the full professors as much as 46%, compared with a growth of 7% in the number of students”.

The idea that the number of researchers should be linked to the number of students is also symptomatic of a “teaching-centred” idea of university by the Government (a part from the fact that I will prove these quoted data to be entirely misleading in the international comparison). Such a statement is very similar to the World Bank’s view and the most dominant ideas about higher education: “the ownership of tertiary institutions has often shifted away from those who should be the main clients (student, employers, and society at large) to control by the teaching staff. The raison d’être for some institutions has become to provide staff employment and benefits rather than to serve as educational establishments focused primarily on the needs of the students and the labour market” (World Bank, 2002: 62).

The idea of a university increasingly autonomous and independent by the national state is also promoted by the Italian Government, allowing and stimulating universities to transform themselves into “private foundations” – what I have called “external privatisation”. The vision of an autonomous and independent university, though, is focused on financial independence
and financial autonomy, while Government’s Guidelines retain the old idea that legislation and ministerial regulations should control and define into details the organization of universities, departments and faculties, such as students/teachers ratios, salaries/total university spending ratios, a nationally fixed salary for teachers, number of academics required to establish a department or a faculty, minimum number of students, number of courses and curricula that can be offered, students’ fees and so on.

As far as the governing bodies are concerned, the main point in the reforming project is the distinction between the functions of the Academic Senate and the Board of Directors, “giving to the first one the task of representing scientific and academic issues, and to the second one the task of defining the guidelines for the strategic planning of the University as a whole, so to ensure a proper and prudent management, inspired by the general interests”. The purpose of the reforming project is to shift the balance of power towards management staff representing external stakeholders and general interests. As far as the community of scholars is concerned, it can express its demands to the Board of Directors through the Senate.

It is said in the Government’s paper that “procedural control” by the Government will be substituted by “substantial control” (Braun and Merrien, 1999), through “accreditation” – “accreditation must therefore take responsibility for ensuring the substantial value of diplomas issued by the universities, overcoming a formalistic conception that is also not the least cause of some system degenerations” - and more general mechanisms of “accountability”: “a culture of accountability to the outside must be developed, focusing on open communication of results in research, training, technology transfer and financing”. As it has already been said, this stated vision is in contradiction with the detailed new legislation and ministerial regulations coming from the Government, so that both procedural control and substantial control are on the rise.

The Government’s Guidelines for universities face a very peculiar situation of higher education among the most developed economies: “to GDP, the United States over three times more tertiary education than [...] and nearly four times more than Turkey and the partner countries Brazil and the Russian Federation” (OECD, 2009: 209). Italian spending on tertiary education institutions as a percentage of GDP in 2006 was 0,9% (the lowest is in Turkey, 0,8%, the highest in U.S.A., 2,9%, while the OECD average is 1,4%, so that Italy is at the penultimate place in front of Turkey) (OECD,
The situation is not at all different if the spending on tertiary education as a percentage of total public expenditure is considered: it is 1.6% in Italy (last position among OECD countries); 3.9% in the U.S.A.; 2.4% in the U.K.; 2.3% in France; 2.5% Germany; 2.5% in Spain; while the OECD average is 3.1% (OECD, 2009: 241).

The Government’s idea that the increase in the number of academics is not justified by the increase in the number of students reveals once again a student-centred and a teaching-centred idea of university, as it doesn’t take into account the increasing demand of research and research staff for third mission activities, but is not justified by the international comparison among OECD countries. In fact, the ratio of students to teaching staff in tertiary education is 19.5 in Italy; 15.1 in USA; 17.6 in UK; 16.6 in France; 12.1 in Germany; with a OECD average of 15.3% (OECD, 2009: 383), so that Italy doesn’t reveal any excess of teaching staff but is on the opposite 27.5% below the OECD average. The situation is not different if the staff is divided in its main components, such as academic staff, research assistants and administrative staff: for all the categories considered by the OECD, with no exception for any category, Italy is below the OECD average in the ratio of personnel to students, so that no excess of personnel is revealed but on the opposite a shortage of it (OECD, 2009: 386). The supposedly unjustified increase in the number of teaching staff is highlighted by the Government as the main distortion of the existent model of governance where academics play a very central role, but data reveals on the opposite a shortage of teaching staff in respect to the OECD average and the main Western countries, giving evidence to the fact that Italy was lagging behind in the number of teaching staff and has been catching up in the last few years.

The second main distortion of the existent model of governance that the Government highlights is the supposed high percentage of public expenditure on tertiary education that is spent as staff salaries (where the Government considers 90% as maximum acceptable percentage; the passing of which is punished with a general block of new recruits in the “irresponsible” university). Once again the international comparison, with specific reference to teaching salaries, doesn’t support the hypothesis of an Italian anomaly: teachers’ salaries in tertiary education in Italy is 45.3% of the total expenditure on tertiary education (according to the OECD criteria for “total expenditure”), in respect to a slightly inferior OECD average of 43.4% but with higher percentages in comparable countries such a France (51.8%) and Spain.
The real anomaly of the Italian case is neither the students to teachers ratio nor staff salaries. The real main anomalies are four: 1) the low level of spending in tertiary education; 2) the low percentage of the population that has obtained tertiary education; 3) a very high level of intellectual unemployment; 4) a very peculiar belief system in education (Tavoletti, 2004). The data about the low level of spending in tertiary education as a percentage of GDP and in comparison to other European countries have already been quoted.

As far as the level of attainments in tertiary education are concerned, the percentage of the Italian population that has obtained tertiary education in the age cohort 25-64 is 14%, with a double OECD average of 28% (OECD, 2009: 39); the situation is not indeed different in the 25-34 (19% Italy; OECD average 34%) or 35-44 age cohorts (14% Italy; OECD average 29%) and is even worst for the 45-54 (11% Italy; OECD average 25%) or 55-64 (9% Italy; OECD average 20%) age cohorts.

Given such a low level of attainments in tertiary education one would not expect a significant level of intellectual unemployment in respect to other comparable OECD countries or the OECD average but the opposite is true and Italian graduates are even disadvantaged in respect post-secondary non tertiary graduates: “In a few OECD countries, even young adults who have completed tertiary education are subject to considerable unemployment risk when they enter the labour market. Greece, Italy, Portugal and Turkey more than 10% of 25-29 year-olds with tertiary education are unemployed. these countries, plus Denmark, Spain, and the partner countries Israel and Slovenia,unemployment rates for upper secondary and post-secondary non-tertiary graduates are lower than for those with tertiary qualifications in this age cohort” (OECD, 2009: 341). The data collected by Almalaurea Consortium show similar results: “in the early 2000s the recruitment of graduates planned by firms has even shrunk from 7.2 to 6.5% (between 2001 and 2003)” (Almalaurea, 2008: 9); it is a long run deteriorating situation and it is getting worst because of the international crisis: “the first two months of 2009, compared to the corresponding two months of the year before, shows a 23% decrease in requests for graduates, a contraction of demand which involves almost all of the paths of study, even those usually at the top of employment (35% decrease in the economic-statistics graduates and 24% decrease in engineering)” (Almalaurea, 2008: 11). The intellectual unemployment does not
indicate any sort of closed or privileged graduate employment market, just
difficult to access by young people, because real wages have been decreasing
in the last four years: “a sore point is represented by wages that, five years
after graduation, although nominally at € 1.300, have seen their real value
decline significantly in the last four years (about 6%)” (Almalaurea, 2008:
17).

I believe that the fourth main anomaly in Italian higher education system
is rooted in a very traditional belief system and concept of knowledge that
favour “positional competition” (Tavoletti, 2004) and “credentialism” and
does not favour engagement with students, economy and society at large.
A constructivist belief system and a new concept of knowledge would be
needed for effective engagement with economy and society. This hypothe-
sis that I have fully developed in a previous theoretical work, as a main
cause of intellectual unemployment (Tavoletti, 2004), is now confirmed by
recent OECD data: “in all countries but Italy the average endorsement of
constructivist beliefs is stronger than that of direct transmission beliefs. In
most countries, therefore, teachers believe that their task is not simply to
present facts and give their students the opportunity to practice, but rather
that they should support students in their active construction of knowledge”
(OECD, 2009: 431). The fact that Italy is the only OECD country in which
the “average endorsement of constructivist beliefs is not stronger than that
of direct transmission beliefs” (OECD, 2009: 431) is a significant and recent
piece of evidence in support of the conceptual framework and explanation I
have provided for high intellectual unemployment in Italy (Tavoletti, 2004)
as I have theorised that a non-constructivist belief system is the main symp-
tom of a traditional concept of knowledge that does not favour any more
engagement of higher education with surrounding economies and does not
favour intellectual employment.

These anomalies in Italian higher education are stressing the system to
its ultimate limits, so that a bold and brave action is needed urgently at the
highest level of governance if we don’t want mistrust and contempt to prevail
among external stakeholders and public opinion at large. Given the existent
Italian system of rules, it is up to the national government to design a new
framework for university governance.
4.2 Recommended reform of university governance

I have already described in a previous work (Tavoletti and Lazzeretti, 2006) “where” and “how” university governance is shifting in Europe and in the world. The traditional continental model of governance, defined as “bureaucratic-oligarchic” (Braun and Merrien, 1999), where all the substantial power is in the hands of academics while a tight procedural and legal control is reserved to the national State, is not an sustainable option any more and is widely considered as a deviation of purpose and “almost be described as a form o privatisation of public institutions to the benefit of specific internal stakeholder groups” (World Bank, 2002: 62). That’s because the traditional pillars of von Humboldt’s model of university are vanishing under increasing political and financial pressure: 1) from “solitude and freedom” to local, social and economic engagement, and accountability to the different stakeholders the university is “off-loaded” to (national government being just one of them); 2) from a “protected space” to an unprotected one; 3) from a “cultural belief system” to a service belief system; 4) from the “teaching-research nexus” to an increasingly separation; 5) from “Academe self-rule” to the need of managerial skills.

“Knowledge economy” and “knowledge society” are increasingly important concepts in the process because they imply that universities cannot be any more isolated providers of excellent research and teaching because the creation of excellent theoretical knowledge is in many fields tightly “linked to” and desperately “in need of” industrial application. This is what Gibbons has called the shift from a “Mode-1” science, discipline based and with distinct borders, to a “Mode-2” science: “One of the characteristics of Mode-2 science, we claimed, was that knowledge was now being generated in the context of application [.]. The implication of our argument was that science could no longer be regarded as an autonomous space clearly demarcated from the “others” of society, culture and (more arguable) economy. Instead all these domains had become so “internally” heterogeneous and “externally” interdependent, even transgressive, that they had ceased to be distinctive and distinguishable [.].” (Gibbons et al. 2001: 1). In many disciplinary fields the development of knowledge outside the context of application doesn’t make sense any more (one can immediately think about hard science, pharmaceutical industry, biotechnology, information technology and engineering, that are increasingly linked to industrial application and funded by industrial ap-
Applications, but also to medicine, that is increasingly linked to technology and science, social sciences and arts in general where technical innovation and commercialisation pay a significant and increasing role) and it is revealed by the fact that excellent universities are embedded in innovative clusters of firms or dynamic urban areas with an increasing interchange of ideas, people and financial resources between universities and external institutions. The implications of this scenario on the organization of universities are pretty clear: they should become more porous and open to external stakeholders because in a Mode-2 society and in a borderless higher education environment the boundaries between inside and outside make less sense and do not increase effectiveness of higher education.

These transformations involve a tight substantial control from external stakeholders (through financial ties or direct managerial involvement or general influence and accountability), a loose procedural control from the national state (with increasing autonomy or even the option of becoming a private foundation), make universities much more entrepreneurial and relevant in the local economy (Tavoletti and Lazzeretti, 2005) and are summarised as the “new-managerialism governance model”. Such a model – that is loose procedural control and tight substantial control by the national government and external stakeholders - seems to be an effective option for Western Europe and Italy. It is compatible with our tradition in a world that, on the opposite, is moving fast towards a brave new “market model” of governance in higher education, with completely loose substantial and procedural control from the national government. Eastern European countries are a close laboratory of experiments for the “market model”, as it has been highlighted in the first part of the article, but several issues are rising in terms of its ability to match higher education and the labour market. The most advanced and successful experiences in the “new managerialism model” are found in The Netherlands and in the United Kingdom and they could be a model for Italian universities.

The temptation to delay any transformation in order to preserve the traditional “bureaucratic-oligarchic” model would be damaging for universities and graduates employability and even pointless, given the forces at work. It has been argued convincingly (Paletta, 2004: 190) that the “new managerialism” governance model could be implemented in Italy delegating the entire managerial/executive function to a small professional board of directors (consiglio di amministrazione) with exclusive jurisdiction over strategic
planning and balance sheet. The board of directors would be nominated and chaired by the Rector and accountable to her, after a vote of confidence and acceptance by the senate; managers would be chosen mainly outside the university, based on their managerial competences and widely recognized abilities. The academic senate would continue to represent the main democratic body in the university, elected by a broad base and with exclusive jurisdiction over regulations and statutes, academic issues, rights and duties of students, academics and staff, without any overlapping competence with the board of directors. The senate would define the politics of the university and would give legitimacy to the board; it would protect freedom of teaching and research. The Rector would continue to be elected by a broad internal electoral base.

Such a project of reform represents a clear element of rupture of the bicameral system (where there is a continue overlapping of jurisdiction between senate and board of directors) because the university would be entirely governed by the executive board of directors, given the institutional policies defined by the senate. The board would not be elected and no democratic or political issue would be involved in choosing its professional members: it should not represent or protect the internal stakeholders but, on the opposite, should provide legitimacy in face of external stakeholders and be a guarantee that the university is not acting in the sole interest of its internal constituencies.

Of course there is the opposite risk that members of the boards that are chosen outside the university might act in sole interest of external stakeholders they might represent. Such a risk could be very significant in Italy because of numerous overlapping interests and political institutions (national government, regions, provinces, municipalities). Kerr and Grade (1989) have identified three unsatisfactory types of boards with independent members: a) *external cosmetic boards*, where famous members enjoy consensus with external stakeholders and are able to attract funds but spend little time and effort for the institution; 2) *selected policy boards*, where members are selectively interested in the agenda and to not attend all the meetings or do not pay attention to all the policy issues; 3) *selective administrative board*, where members are selectively interested in secondary management choices, such as choosing a supplier or a consultant, selecting buildings, locations and courses.

The described types demonstrate that boards with independent members
can be ineffective even if the members are not pursuing personal interests as they could represent interests of specific external stakeholders. For that reason, in order to balance the interests of external and internal stakeholders, it is important that the board of directors is selected by the Rector and approved by the senate.

5 Conclusion

The proposed model of governance would preserve the idea of a university as a community of students and scholars: in fact, the participation of academics in the university would not be weakened in favour of external members but would be differently qualified. Active participation of academics, staff and students to the governance of the university, and the ability of them to determine, to some degree, the shape of the academic environment, are more than a fancy democratic idea or “romantic attachments to the idea of a community of scholars. They are an evident precondition for attracting, nurturing and retaining the best scholarly minds and for fulfilling the mission of the university to pursue independent critical inquiry” (Coaldrake, Stedman and Little, 2004: 26). The traditional collegial model of self-governance may be out of step with reality but scholars cannot be just human resources to be deployed to meet the objectives of the board of directors: they cannot be because if one does that, the best scholars would not be retained or attracted, excellence would be missed and the best employment opportunities for graduates would be lost. The “Government’s Guidelines for the University” do not pay due attention to these considerations and accountability and cost saving are preferred to performance (that is to provide excellence in teaching, research and third mission activities), so that a mere shift of power in favour of external stakeholders might happen. The governance model has been proposed, with a preeminence of the senate, has similarities with the governance models we have in some public Italian universities such as Tor Vergata (where the four members in the board are proposed by the Rector, based on their managerial competences, and appointed by the senate) or Torino (where the eight members in the board are appointed by the senate, based on “adequate expertise and proven professional experience in management and organization”) or Ca’ Foscari (where “at least a three years top management experience in public or private organizations is required” to the members of the board) that where able to avoid management overlapping between the senate and the board and
attributed the entire executive power to the board. Private Italian universities (14 universities with 7% of total national enrolments) seem to favour models of governance with a preeminence of the board, whose members are appointed by the main sponsors, while the preeminence of the board in public universities raised many issues about transparency and effectiveness (Paletta, 2005: 166; Trento being a virtuous and peculiar exception).

The “new managerialism” governance model with an independent managerial executive board in the university, a loose procedural control by the national government, combined with and increased accountability and substantial control by the same national government and external stakeholders, should favour competition among universities, a more responsible recruiting (being this one the main worries in the Government’s Guidelines) and is a precondition for satisfying the main demands of external stakeholders, among which matching labour market demands and higher education is most important. In particular, it should move the system from a legal culture of procedural control and formal correctness to a culture of incentives and managerial effectiveness: “In the absence of appropriate incentives, the rules are made to be circumvented. In an attempt to prevent it, will be issued other rules, which will also be circumvented, and so on. If more rules are accumulated more opportunities are created to use them for fraudulent purposes. The result is an even more stifling bureaucracy but no change in substance, and an exhausting war of nerves to circumvent the rules and fight those who try to circumvent them: all the time consuming activities of minds that would otherwise be employed” (Perotti 2008: 79-80). Unfortunately the “Government’s Guidelines for the University” retains mostly the idea that the system can be changed just with new, additional and better rules.

The introduction of a “new managerialism” governance model inside Italian universities, with a professional executive board, frightens many and the fear is in itself a sign of the delay in respect to the most successful international experiences, where the dilemma between purity of knowledge and “commercialization” of knowledge has been successfully managed. Thorstein Veblen wrote in 1918 that the defects of the American academic system are attributable, in the words of the subtitle of The Higher Learning in America, to “the conduct of universities by business men” (Veblen, 1918) and Harvard alumnus John Jay Chapman wrote in 1909 that “the men who control Harvard today are very little else than businessmen, running a large department store” (in Bok 2003: 19): history has proved their fears to be wrong if
the academic leadership these large American universities have been able to reach in the following one hundred years is considered. One may wonder if Italy is not one hundred years late in this debate.

The dilemma raised by Branscomb in 1999 is true as never before: “universities are by tradition—one might say by intellectual necessity—open to participation by scholars all over the world. Yet their sources of funding are almost entirely domestic, and in most countries (including the United States) primarily governmental. Politicians may be expected to ensure that the benefits of university research are effectively, if not primarily, captured by domestic workers and investors” (Branscomb, 1999: 3); we must hope that politicians reforming university governance, both at national and regional level, through different forms of internal and external privatisation, will be able to secure such benefits to the national economy and provide a satisfactory matching between higher education and labour market without killing the goose that has been laying the golden eggs for so long. This article has provided some suggestions to do so successfully.

As far as future research paths are concerned, the following four areas may be outlined:

1 *The impact on governance of internal and external forms of privatisation of higher education.*

   Internal privatisation may transform fundamental mission, governance, aims, organisation, management styles, funding patterns, labour relationships and institutional cultures of public educational institutions. External privatisation, that is growth of private institutions, opens direct or indirect competition between public and private institutions, with possible large-scale indirect impact on organisation, management styles, funding patterns, labour relationships and institutional culture of public educational institutions. Initial hypothesis is that both internal and external privatisation will transform the governance of public universities, requiring them more speed and effectiveness.

2 *Governing academic entrepreneurship of private and public higher education institutions.*

   Initial hypothesis is that academic entrepreneurship of the private sector is considerably less extensive than it is assumed in policy debates as the sector seems to be heavily (in some countries, almost fully) dependent on student fees, leaving small room for the diversification of
funding sources. It may be assumed that the hypothesis is verified in all the five major dimensions of academic entrepreneurialism which include: a strengthened steering core, an expanded developmental periphery, a diversified funding base, the stimulated academic heartland, and the integrated entrepreneurial culture (Clark 1998: 8-10; Shattock 2000, 2003, 2005; Williams 2003).

3 Public and private graduates in the labour market: governing employability.

It may be assumed, based on scarce available research, that private sector graduates concentrate in several selected fields only: social science, commerce and law, ignoring in most countries such fields as sciences, health or architecture and engineering (depending on national taxonomies, see Amaral and Magalhães 2007: 101). Initial hypothesis is that the mismatch between skills of private sector graduates and the labour market requirements (as could be revealed in in-depth interviews and web-based survey of graduates and employers in high-skills jobs) is smaller than in the case of public sector graduates in the same public program and in the same sector of employment. The initial hypothesis is that the links of selected study programmes (study programs shared by both public and private sector institutions) to the labour market will be closer for private institutions in old EU countries and weaker in new-EU countries, owing to the faster growth of the private sector and its smaller degree of competition with the underfunded public sector in the latter countries.

4 Governing the teaching-research divide in the private and public sector.

The initial hypothesis is that the private-public dynamics in higher education affect academic profession in both sectors. But as numerous comparative studies focus on the changing nature of academic work, job satisfaction, contractual and labour relationships in the public sector, it is important to fill the gap and research into the changing academic profession in the private sector, to see the dynamics of transformations. The hypothesis is the emergent structural isomorphism of changes in the two sectors, and the increased impact of private sector organisation, management styles and contractual and labour relationships on public sector institutions. The initial hypothesis is that while in the private sector the teaching-research divide is already achieved, the contrast of
private sector with the public sector may be weakening, following trends to increasingly locate and fund (with both public and private funding) research outside of higher education. The hypothesis would be: growing isomorphism between public and private sectors, or public sector becoming structurally more similar to private sector, and both sectors significantly more involved in the third, regional mission.

The above themes are closely inter-related and inter-dependent and deserve future research, based on comparative empirical evidence.
References


Employability and Jobs in the Knowledge Economy. Oxford USA: Oxford University Press.


OECD (2008a) Tertiary Education for the Knowledge Society. OECD: Au-
Ernesto Tavoletti / WP n.27 DiSSE, University of Macerata

thor.


Tavoletti, Ernesto (2008) "The role of universities in supporting local agroin-


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