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# Changing patterns in the steering of the University in Italy: funding rules and doctoral programmes

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**Abstract.** The paper aim is to highlight the transformation of the state-university relationships in Italy, because of the introduction of the autonomy-accountability principles for the university government. The focus is on funding rules and procedures and doctoral programmes as examples of changes of the university steering.

The analysis is carried out taking into account two different government theories, namely the New Public Management (NPM) and the Network-based governance system (NBG). The work is based both on the literature related to the steering of the Italian Universities, and on the Government's acts (laws and related official documents).

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## Introduction

Universities play a crucial role in the knowledge-based economy, as institutions able to supply education, knowledge and services, which contribute substantially to the wealth creation. From the nineties, universities took part to the large process of reorganisation, which affected all the science and technology systems in Europe. The process was mainly direct to revise the traditional governance schemes, in order to meet the challenges emerging from the new patterns of knowledge production (Gibbons *et al.*, 1994)

The paper aim is to highlight the transformation of the state-university relationships in Italy, because of the introduction of the autonomy-accountability principles for the university government. The focus is on funding rules and procedures and doctoral programmes as examples of changes of the university steering.

The analysis is carried out taking into account two different government theories, namely the New Public Management (NPM) and the Network-based governance system (NBG). The work is based both on the literature related to the steering of the Italian Universities, and on the Government's acts (laws and related official documents).

NPM is a narrative for the administrative reform, which assumes that the best way for modernising the public institutions is to use concepts related to the business culture (Ferlie *et al.*, 1996; Barzelay, 2000; Christensen, Laegreid, 2001). NPM implies a favour towards the introduction of some organisational mechanisms and practices for steering the system, as the shift from the bureaucratic control on the institutions' acts, to the evaluation of the results obtained. Moreover, there is a tendency for introducing standards for improving the quality of the services supplied by public organisations, and a central role is attributed to the actors' performance assessment for implementing the public policies.

New priorities are related to NPM: the efficiency and effectiveness of the resource allocation processes, the decision-making transparency, the simplification of any bureaucratic fulfilment, the human resources

management.

NPM aim is to strengthen the capability of the State to direct public organisations. The move is from a centralised way of steering, based on rational planning and controls, to a more decentralised steering, characterised by the supervision of the overall performance of the actors, which are free for building up their own agenda, in principle (Maasen, 1998). In any case, the policy decision-making still remains located in Government's handle. Thus, any relationships with non-governmental actors are hierarchical.

NPM assumes different forms related to the contexts in which it is applied (Gherardi, Lippi, 2002). In Italy it emerged as new tool for steering the public administration since 1997, but its application has been hardly challenged by the existing administrative structures, mainly based on formal and bureaucratic controls than on performance-based assessment. The application of NPM within the Italian University system started from the nineties, with the introduction of the autonomy-accountability principle for bettering both the teaching and research performance (Capano, 1998; Battistelli, 2002).

The second governance narrative emerging from the eighties is a Network-based concept, where government is only one of a number of different policy actors.

The Network as a specific mode of governance emphasises the role of societal subsystems, which bring together both governmental and non-governmental actors (Kenis, Schneider, 1991; Le Galès, Thatcher, 1995; Marsh and Rhodes, 1992). These formal or informal networks interact through aggregation, negotiation and bargaining processes (as ways for building a socially distributed agenda, Rip, van der Meulen, 1997). Government role is to facilitate the network interactions, to activate them and participate in them. The advantages coming from the network governance are related to the overcome of some dysfunction linked to the hierarchical models, as the presence of "losers, who have to bear the costs of a political decision (exploitation of the minority by the majority)" (Borzell, 1997).

The Network governance (NBG) help to

build up an ideal institutional framework for horizontal self-co-ordination between public and private actors, based on communication and trust, which exchange resources for realising common policy aims.

The Network governance is not exclusive, but it could coexist with the NPM model for the steering of the university system (Maasen, 1998), mainly when there is a need to comply with policies which require the management of complexity and uncertainty.

The application of the NBG within the Italian University system should be detected in the application of some policy reform, such as the introduction of the research evaluation procedures, originally based on NPM principles, but effectively managed by a shared governance system.

The paper is divided in four parts. The first describes the relationships of the state and the universities using an historical perspective, for understanding the characteristics of the Italian University system. The second part deals with the main changes of these relationships occurred in the nineties, linked to the Public Administration reform process, which interested also the Universities. In this part we highlight how the political legacy affected the application of reforms. In the third part we focus on the new funding schemes emerging from the nineties for universities, and their linkages with the evaluation practices, while in the fourth part the university steering is discussed through the analysis of the doctoral programmes.

### **1. The transformation of the relationships between the Government and the universities in Italy: the historical context**

The relationships between the State and the universities are mainly shaped through the level of autonomy attributed by the former to the universities, and by the universities to their internal lower levels of organisation. The concept of autonomy is not simple to handle, since it is adapt to cover very different meanings. In our work we refer to autonomy as the decision-making power given by the State to the university for managing its own affair (personnel, funding, organisation internal

governance). Many scholars underlined that the university autonomy should be “contextually and politically defined” (Neave, 1988), so that it is possible to have a gap between the power accorded by law to the university and the effective room for those power to be exercised. Therefore, it is necessary to clarify some basic dimensions of the adopted definition, as it emerges in the main literature.

The government mechanisms, that is the combination of both the autonomy and the responsibility, have a crucial relevance for characterising the content of the higher education policies. So, the distribution of the authority, the degree of autonomy of the institutions and the mechanisms for co-ordinating the system are central aspects for understanding the steering of the higher education system.

As to the first aspect, in the relationship between higher education and the State, the authority can be attributed along three main different levels (Clark, 1983; Becher and Kogan, 1992): the basic units, that could be the individuals (professors) or the collective representatives of professors’ peers (departments, faculties); the university bureaucratic apparatus and trusteeships, and the Government political and administrative authorities. Different combinations in the distribution of the authority, within the described levels, shape the model of university. The so called “continental model” (Clark, 1983), which dominated in Europe until the eighties, was characterised by a combination of academic corporation and Government bureaucracy, while the role of the university institutional level was weak, for the absence of trustees and the substantial role played by the academic corporations. This model was progressively overcome, and replaced in different ways, but it was maintained until the nineties in Italy.

As to the second item, different types of autonomy can be attributed to the universities. The literature (Capano, 1998) distinguished the substantive autonomy (as the power of the institutions to determine the content of their activity, i.e. aims, research programs, curricula) from the procedural autonomy (as the power of the institutions to define only the instruments for pursuing their aims and programs). The

distinction between the two types of autonomy grounds on the level of responsibility attributed by the State to the University.

Finally, the co-ordination of the education systems could be described on the basis of the relevance attributed to the State, the market or the academic oligarchy. In the first case, if the State play a central role, we can face centralised systems, where Universities are conceived as homogeneous bodies without any autonomy, or, alternatively, the State can play a role of supervisor, by fixing the general principles for the functioning of the system, letting the institutions free of self regulate themselves (Van Vught, 1993). In the second case, when the market is the dominant force for co-ordinating the system, the universities tend to assume quasi-market behaviours and the internal structure tend towards getting high levels of flexibility and adaptability to the external clients needs. In the third case, the co-ordination of the system is played by individual professors or their disciplinary networks (Clark, 1983).

### *1.1 The Italian university model: from 1859 to the end of seventies*

The Italian university structures its essential characteristics through some fundamental law (Capano, 1998; Giglioli, 1979; Miozzi, 1993). The first is the Law "Casati" of 1859: the university is considered an institution devoted to the élite education, which is the future directive class of the country. The relationships with the State are regulated on the basis of a centralised model, and the university has no autonomy at all. The subsequent law "Gentile" of 1929 tried to introduce a certain level of procedural autonomy within the University, also by pursuing a policy for the differentiation of the universities on the basis of the specific mission attributed (education, research, professional training). Anyway, the State maintained strong power of control over the higher education system, but there was a tentative to identify different educational models for diverse kind of users.

After the World War II, the Italian higher education system underwent a substantial quantitative expansion in terms of both students

and institutions.<sup>1</sup> The same process affected all the European higher educational systems and it is the way for the beginning of a process of institutionalisation of the higher education policies (Trow, 1974, Valimaa, 1999, Clark 1983).

The Government reacted to the phenomenon of expansion by reinforcing the existing institutional assets, but a strong enlargement of the teaching component occurred, and this enlargement started to modify the consolidated balance of power within the academic community. While in other European country new models of organisation were experimented for complying with the growing social demand for higher education, in Italy, no significant changes affected the relationships between the University and the State for facing the problem. The legislation in this period (decrees De Vecchi 1071/1935 and 2044/1935 and Bottai of 1269/1938 and 1652/1938) eliminated any element of autonomy for teaching activities introduced by the law "Gentile", and replaced a completely centralised system of the State-university relationships.

The seventies represented the first turning point in the European higher education policies: the financial crisis pushed the States to enhance the universities quality, efficiency and effectiveness, and new priorities toward a rationalisation of the existing organisation models emerged. On the contrary, the higher education system in Italy was not affected by any structural change for coping with the new social and economic emergences, and it maintained its key features, that were:

- 1) the complete identification of the higher education system with the universities, without any diversification of the institutions aimed to satisfy new educational needs;
- 2) the absence of diversification processes even in the academic qualifications within the tertiary education, which remained concentrated in one single level;

<sup>1</sup> Some figures could describe the phenomenon. The variation of the university students enrolled in the period 1950-1960 was a percentage of 18.3%, the figure for the period 1960-1970 was 136.7, while in the period 1970-1980 the variation is 37.9%. Furthermore, the ratio students/teachers is 16.1 in the 1950, 18.9 in 1970 and 24.2 in 1980 (Capano, 1998).

- 3) the role of the research activity, which is fundamental function of all the universities;
- 4) the absence of both procedural and substantive autonomy of the universities, justified by the need that the State should provide a unitary discipline for any aspect linked to the education function. This need provides also the justification for pursuing the objective of the maximum level of homogeneity of the university curricula in all the national territory.

The principal consequences of this higher education model were:

- a) the absence of differentiation among the universities on the basis of their specific missions and their territorial embedding (Reale, 1992);
- b) the assumption that the quality of the educational programs supplied by the Italian universities should be considered as equivalent in all the national territory – with an implicit justification for the attribution of a legal value to the university academic qualifications;
- c) the absence of concepts efficiency and effectiveness as referring criteria for the evaluation of both the teaching and research activities.

The higher education policy of this period was mainly concentrated on solving the problem of the status of the teaching personnel, which grew up substantially in quantitative terms during the seventies, with a strong increase of teachers with non-permanent positions, asking for a new stabilisation of their work contract.

### *1.2 The Italian university in a changing higher education system: the eighties*

From the eighties, some European countries experimented, with a more or less effectiveness, the shift from higher education policies driven by the social demand, to market-driven policies, where the effort is toward the correlation of the education supply to the needs of the economic system (Goedegebuure, 1993; van Vught, 1993). The change of the higher education government consists in the attribution of the procedural

autonomy to the universities, while the State maintain the power to determine the objectives, the constraints and the incentives which oriented the space of manoeuvre left to the higher education institutions.

In Italy this process did not emerge. The country concluded a phase characterised by the non capability of the State for introducing a general reform of the higher education system. The decree n. 382/1980 established some, even important, novelties within the university organisation, oriented towards the attribution of a certain level of procedural autonomy, but it was unable to define structural changes in the higher education system.

Anyway, the fundamental measures of the decree 382/80 were:

- the university were defined as the main national research institutions. This recognition was very important, since it justified the introduction of a dedicated budget for the research activities;
- the departments were created within the universities, as the basic units for organising the research activities, with some procedural autonomy for research funding;
- a new administrative regulation was approved for all the Italian universities, and some processes for assuring the Government ex-post control have been established;
- the status of the professors and teaching staff was reformed, with the introduction of the researcher profile, and the articulation of the professorship in two levels: associate professor and ordinary professor;
- the universities three-year Plans, where they should articulate the future activities and could indicate the resources linked to the development aims;
- the doctorate was introduced for the first time as a post-graduate education level.

Two further remarks are needed for completing the picture of the Italian higher education system government. The mechanism for the enrolment of the university professors and researchers remained centralised at the State level. The only Government advisory body for

the higher education policies is the National Universities Committee (CUN), whose members are elected by the professors, and represents the faculties and not the universities. These features confirm the so called "corporation principle" which informed in Italy the relationships between the State and the universities: a strong control of the State on the university budget went with a substantial power of the professors, which organised themselves as a corporate body. The University level was weak, and the autonomy-accountability principle did not appear at the core of the reforming processes.

The government of the higher education in Italy remained linked to the "continental" model elaborated by Clark (Clark, 1983): hard centralisation of the power in the hand of the State, which maintained the formal control on the funding, the personnel status and careers, the curricula. The power of the national bureaucracy (which handled the legal control over the administrative procedures) goes with the absence of any authority attributed to the universities, and with the weakness of the intermediate levels within the universities (faculties for co-ordinating the different disciplinary areas, and the departments for the research activities management). Universities are dominated by the professors, which have under their control the whole organisation of the primary functions of the institution: education and research (Giglioli, 1979; Clark, 1977; Moscati, 1989, 1993; De Francesco, Trivellato, 1985; Benadusi, 1997), using this power for enlarging the individual privileges related to the academic profession.

This asset of the academic power is a common experience of the European countries. The Italian peculiarity is the persistence of this model along twenty years, and the absence of structural changes as answer of the important transformations affecting the social and economic demand to the higher education (Capano, 1998). The compromise between the central bureaucracy and the academic guilds composed by the professors did not ended with the massification of the university, even if some factors of changes could be identified:

- the enlargement of the number of professors and the establishment of

different level in the academic career, with the professors of the low levels asking for a representative in the university government bodies;

- the fit of students representatives into the university government bodies, as well as representatives of the trade unions, which operated for containing the power of the professors;
- the scarcity of resources attributed by the State to the universities, which have to cope with a growing higher education demand;
- the subsequent worsening of the productivity of the university system (in terms of ratio between students enrolled and graduates).

The cited elements represent signals of the need of changes. Nevertheless, the State main interest in its relationship with the universities remained focused on the policies for the teaching staff. The concept of autonomy as new principle for regulating this relationship emerged only in the second half of the eighties, and it will be introduced for the first time with the law n. 168/1989.

## **2. The turning point of the nineties and the introduction of the autonomy-accountability principles**

The law 168/1989 introduced provisions aimed to produce some important structural changes in the higher education sector. Firstly, the institution of the Ministry for the University and the Research (Murst, then transformed in Miur), as main State authority for governing the national research system; secondly, the acknowledgement of the autonomy of the university. The subsequent law 341/1990 modified the national curricula for the tertiary education and settled the discipline for the doctorates.

The law 168/89 did not produce immediately its effects, for its internal ambiguity about the scope of the power transferred to the universities, and for the resistance opposed by the administrative bureaucracy and the professors to its realisation (Cassese, 2000). Its effectiveness occurred some years later, when

the financial laws for the years 1994 (l. 537/93) and 1996 (l. 549/95, Capano, 1998, Id., 1999) defined the basic discipline of the university autonomy. These provisions established the financial responsibility of the universities for the allocation of the resources transferred by the State (passage from the line-item budgeting to the lump-sum budgeting). Furthermore, the university become responsible for decisions on the composition of its teaching personnel (number of teacher needed, competence requested, distribution by professional level, recruitment policies), and the effectiveness of the autonomy-accountability principle in the relationships between the State and the university was ensured by the help of a new organisms, the Observatory of the University, in charge for the evaluation of both teaching and research functions.

A second step forward the autonomy was represented by the general reform of the Public Administration in Italy, by the so called "Bassanini law" (l. 59/1997). This law realised the decentralisation of the administrative action, as consequence of the subsidiary principle. It also introduced the NPM criteria for the management of the public institutions, university included. The provision implies a revision of the traditional bureaucratic action, that invested also the higher education system by enlarging the sphere of actions transferred by the State to the universities. The Bassanini law also introduced definitively the concept of accountability, as mean for assuring the responsibility and transparency of the administrative action (Oecd, 2001). In the higher education system, accountability derives mainly from the State awareness about the linkages between the universities and the economic growth, about their relevance as public services providers, and their dependence from public money.

According with these premises, the reform was implemented at the end of nineties. Two different degree levels (*Laurea* and *Laurea specialistica*) were introduced, as well as the revision of the curricula contents, the definition of the credit system along with the Bologna process, the prevision of minimum standards required for the activation of each course, and the regulation for the doctoral courses (l.

127/97, Luzzatto, 2001). Moreover, the *Osservatorio* for the evaluation of university was transformed in a National Committee for the Evaluation of University (CNVSU, law 370/1999), as technical organism belonging to the Miur, in charge for the evaluation of the higher education system. In each university a Nucleo di Valutazione (NUV) was constituted, for the internal performance assessment as well for supply data, information and analysis to the CNVSU (decree 224/99). Many administrative responsibilities were transferred by the central administration to the universities for the internal management.

In the first years of the twenties, formal linkages between the performance assessment and the resource allocation have been settled up (Decree 115/2001). The funding model was transformed; new regulations for connecting the university performance in education with its level of funding (Decree 165/2001) were established, and new competitive instruments for research funding were introduced. All the universities and the public research agencies are now undergoing the first National Evaluation Exercise for Research (VTR), launched by the Government, and managed by the National Committee for the Evaluation of Research (CIVR). The results of this exercise will influence the Government funding allocation and will provide evidences for the further structure of the research evaluation. Moreover, the minimum standard requirements for the courses have been revised (Decree 15/2005), and a set of rule was established for the formulation of the university three-year plan (Law 43/2005). The possibility for the university to get the core funding from the State depends now from the Government positive evaluation of the Plan. Also the possibility to recruit the personnel is linked to the acceptance of the Plan provisions, and it is submitted to a specific budget constraint: the total cost of the university personnel should not exceed the 90% of the General University Found amount.

Although the policy implementation of the reform, the effectiveness of the autonomy-accountability principle is still weak, for the lack of capability of the university to apply the NPM principles on its internal management and for the law connection between the assessment

results and the allocation decision making.

On one hand, from the mid nineties, the university acquired new margins of manoeuvre for the identification of the curricula contents, for the credit attribution, for attracting resources from external source of funding, for determining the research programs contents and for the internal allocation of the financial and human resources.

On the other hand, the universities' behaviours are not yet really significant in terms of differentiation of missions, strategies and profiles.

Some empirical controls have been carried out on the basis of the University Statutes approved after the introduction of the new regime of autonomy (Finocchi *et al.*, 2000; Fassari, 2004). The Statutes are mainly devoted to design the internal government system of the universities, the distribution of power and competence among different organisms, the basic rules for the internal performance assessment. The contents analysis shows that both the decisional processes (government bodies, nomination to the high level positions, criteria for the election of the faculties' chiefs and of the departments' directors), and the structure of organisational dimensions (autonomy of the basic units, evaluation systems, external relationships), are characterised by a high accomplishment with the government model recommended by the State (vertical isomorphism), and by imitative processes among the different universities (horizontal isomorphism), which generate a strong homogeneity of the Statutes (Fassari, 2004, see also Powell, Di Maggio, 1991). It was argued that this result partly depend from the constraints fixed by the law, which determined some compulsory contents for the Statutes (Cassese, 2000). The same author underlined also that the space of manoeuvre for the university - that is composed by all the items not regulated by the State - is really significant. It means that the scope of autonomy left to the university was large enough, and the Statutes could represent a good mean for the universities differentiation processes, if properly exploited.

By the way, signals of discontinuity from the past can be detected in terms of diversification of functions and organisation (Fassari, 2004).

The students representative and researchers components in the government bodies are reinforced, the Administration Board and the NUV include the participation of stakeholders or external members, new organisms are created for easing the exercise of the new functions transferred at the university level (monitoring, relationships with society, technology transfer, valorisation of research results, professional training, students services, etc.). But a series of provisions about the decision making mechanisms and the internal organisational are lacking (decentralisation of power to the internal basic units, self evaluation processes based on autonomously established procedures, integration of specialised competence for the university management). All these observations can be interpreted as proofs of the prevalence of a defensive position of the universities in their relationship with the State, joint with a scarce awareness about the necessity to assume a new proactive role as central actor in market of knowledge production (Mari, 2000; Fassari, 2004).

As to the teaching courses, the reform aim was to support the diversification of the educational programs for meeting different users requirements. Nevertheless, it has been noted that universities applied the new provisions by enlarging enormously their educational supply, and by avoiding two essential requisites: the transparency for applicants (information about what to choose) and a real competition among institutions (deriving by the absence of external pressures). In this case, the internal decision-making tend to reproduce "the distributive mechanism" that is one of the key feature of the Italian universities (Capano, 1999). As to research activity, the State intended to introduce the NPM model by the funding policy, but even in this case the effectiveness of results obtained was not satisfying (see paragraph 3).

A final remark deserves to underlie another characteristic of the relationships between the State and the universities in Italy.

From the nineties, the State acts for maintaining the control on some key aspects of the academic profession (recruitment, levels of salaries, incentives), and it constraints the university autonomy in determine the content of the curricula through the prevision of minimum standards for activate each course. The power is

centralised within the Miur, and there are no bodies operating at the intermediate level: only the evaluation activities are formally attributed to specialised Committees (CNVSU and CIVR) which have assumed different roles. While CNVSU operated as a Government technical body for the university assessment (by providing studies, analysis, reports, monitoring activities, etc.), CIVR interact between the State and the universities as an intermediary organism. This behaviour become evident when the Committee elaborated the Guidelines for research evaluation (CIVR, 2003) and in the starting phase of the ongoing VTR. In both circumstances, CIVR carried out large consultative processes with many organisms representative of both the academic and the stakeholder interests<sup>2</sup>, trying to harmonise their different needs and requests with the Government aims. The result was successful: the universities acceptance of the VTR scheme was a key factor for allowing the development of the national research evaluation process.

Other organisms are now going to play as intermediaries. The CUN as representative of the professors for all the educational activities, the National University Students Committee (CNSU), as advisory body of the students, the Conference of Rectors (CRUI), which assumed a leading role in representing the university position for any problems related to the academic life. The role of these committees, moreover the CRUI, is increasing along the considered period, and they are mainly devoted to maintain the sphere of autonomy attributed to the universities, by influencing the contents of the legal provisions in charge of the State. Anyway, all these organisms did not handle a government power for the steering of the higher education system. Thus, the NBG narrative does not seem to emerge in the governance of the higher education system, even if some traces of shared governance can be detected.

The following paragraphs try to analyse the

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<sup>2</sup> Consultations were carried out with CUN, CRUI, with a large number of universities, with representatives of the main public research agencies, associations of industries, and other stakeholders. After the Miur decree which launched the VTR, CIVR enters in touch with each university for other consultations on aims, structure and practical aspects of the evaluation exercise. The results of these consultations impact the subsequent Committee directives for the VTR development.

steering model adopted by the State, taking into account the two tracers of the Government funding model and the doctoral courses regulations. Also the effects produced by the Government policies on the university autonomy are examined.

### **3. New tools for governance: the university funding model and internal practices**

The NPM narrative within the higher education system implies a push toward the modernisation of the university management, mainly grounded on the transformation of the funding rules. Different higher education funding methods have been applied in various countries: input based, output-based, performance-based, contract-based, etc. According to the steering models adopted by the country (state-supervised model or state-controlled model) we can find diverse effects of funding on university autonomy, that depend by the context in which the university operate, and are conditioned by the nature of the autonomy (Neave and van Vught, 1994).

#### *3.1 The Government funding model*

The new funding rules for the universities were introduced for the first time through the financial law for the year 1994 (537/93). The law established four funding channels with different aims: the Basic Fund (FFO) for the general university funding<sup>3</sup>, the Fund for Building (FEU) and the Fund for the higher education development (FPS). Finally, a specific competitive fund was devoted to fund university research projects of national relevance, presented by the professors (PRIN).

The goals of the new system can be summarised in the following items:

- a) the shift from a line-item budgeting to a lump-sum budgeting for assuring the simplification of the administrative action and a larger space of manoeuvre for the universities;

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<sup>3</sup> The FFO is about the 90% of the resources transferred from the State to the universities, but this ratio tend to be reduced in the last three year. At the same time, a growing capability of the universities to attract external source of funding emerged.

- b) the setting of the universities' responsibility for the budget covering of their expenses, included the personnel cost. Before the reform, the universities asked the State authorisation for the personnel recruitment. After obtaining the authorisation, the State transferred the financial resources for covering the additional costs of the new personnel. The reform modified this scheme, and the university become responsible for assuring the budget covering of all the expenses linked to their decision making, personnel cost included;
- c) the transfer of the financial resources from the State to the universities on the base of some parameters linked to the educational and research activity, according to a "formula" funding model (Geuna, 1999);
- d) the prevision of a mechanism for balancing the existing unequal FFO distribution between universities, on the basis of their effective costs (*quota di riequilibrio*);
- e) the introduction of incentives for the accomplishment of the priorities and objectives determined by the Government.

The model involved a large number of actors (Miur, NUV, CNVSU, University government bodies, other internal bodies), with different levels of commitment for assuring the accountability of the allocation process. The buffer organisations (CRUI, CUN and CNSU) play a key role, for they have a set of advisory tasks aimed to represent the different interests existing at the university level: decision-makers, academic staff, students.

The new system aims were to enhance the university competition, by guaranteeing to all the institutions the same opportunities at the starting point (through the *quota di riequilibrio*) and by encouraging the co-funding policies.

Evaluation procedures are the mean for the quality assurance. Evaluation should produce an internal feedback (in terms of self-evaluation capability and *moral suasion*) and an external feedback (in terms of resource allocation, rewards and penalties).

A first assessment of the effects produced by the new funding system, carried out by the CNVSU in 2003 (CNVSU, 2003a) underline some weak points.

First of all the lack of adequate funding resources. The introduction of the evaluation procedures to be linked with the resource allocation need the availability of growing funds for sustaining both the physiological enlargement of the Higher Education system, and the introduction of incentives schemes. Table 1 show that the FFO remained stable in nominal terms, and this circumstance influence the effects produced by the new funding system as well as the way in which it can be evaluated.

Moreover, the national objectives linked to special incentives changed too frequently, and the institutions did not have enough time to adequate their behaviours to the new priorities (*Osservatorio*, 1998; CNVSU, 2003a).

The Government implementation of the funding system went toward the construction of a quasi-market environment for the higher education system. Some fundamental requirements were identified by the CNVSU for seeking this purpose: the introduction of mechanisms for the educational producers accreditation, the clients assurance of the possibility to choose different producers, the producers autonomy for combining the different production factors, the establishment of a standard cost for student, which can enhance the students choice among different educational services providers.

**Tab. 1 – The FFO in Italian universities from 1994 to 2003 (Million Euro, current price)**

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Total	3,548	3,699	4,670	5,065	5,273	5,402	5,743	6,042	6,615	6,215
yearly variation		151	971	396	207	129	342	299	122	50
% of yearly variation		4.3	26.3	8.5	4.1	2.4	6.3	5.2	2.0	0.8

Source: Miur-CNVSU

Even some open problems were underlined: the legal value of the higher education degrees, the uncertainties of the public-private competition rules, the students mobility, the absence of an intermediary body, which can represent the clients demand and which can act as a counterpart *vis-a-vis* with the supply institutions.

The revision of the State funding model was one step forward the quasi-market goal (CNVSU, 2004). The funding “formula” for the FFO allocation was modified as follows:

- 30% of the FFO should be transferred on the basis of the existing educational demand (students enrolled and their characteristics);
- 30% depends on the results of the educational processes (credits acquired);
- 30% is linked to the evaluation of the university research results;
- 10% is linked to special incentives.

The CNVSU document, produced on the basis of a specific Government commitment, is a proof of the lack of co-ordination affecting the higher education steering in Italy. The evaluation method for the research results is based on the definition of the research potential for each university (quantitative estimation of the “active research personnel”), to be weighted with the PRIN success index (see the next paragraph), and then corrected with the value of university receipts coming from external source of funding. No proposals were made for combining this method with the method adopted by the CIVR for carrying out the Three-year Research Evaluation Exercise (VTR), and with the research evaluation exercises developed within the universities (mainly on the basis of the CRUI methodology, CIVR, 2003; Reale, 2003). These uncertainties imply a low transparency of the whole reform aims, and the difficulty for the university to understand how the system will effectively evolve. As unintended consequence, the universities could tend to assume an adaptive behaviour for avoiding the cutting of resources. This mean that the accomplishment of the model requirements could be perceived as a bureaucratic fulfilment, with no substantial changes of the universities decision-making.

### 3.2 *The funding of research*

One of the changes introduced in Italy by the Decree 382/80 was the provision of a specific budget for the university research activity. This budget was composed by two different ratios, aimed to create a dual support system. One ratio, the 60%, was transferred to the universities as basic rate for research funding. Universities allocate this amount among all the disciplinary areas according to their different weight. The second ratio, the 40%, was devoted to fund research projects of national interest, proposed by the professors, single or in collaboration with other colleagues coming from the same university and/or from other university.

After the reform of 1997, the system was modified. The 60% was included in the FFO, and the 40% was transformed in a competitive fund called PRIN, that represent the general mean for funding the university research, given the low level of the internal resources and the different capability of the disciplinary areas to attract external funds.

PRIN discipline was aimed to enhance the autonomy-accountability of the higher education system, by putting at the core of its functioning the ex-ante evaluation process for the proposals selection. Before 1997, special disciplinary CUN Committees were in charge for selecting the proposals, and the funds were assigned on the basis of the distributive principle: low amount of funds for about all the applicants (the so-called raining funding).

The evaluation process in the new system is in charge of a special Committee, which select external anonymous referees for the proposals assessment, and allocate the funds on the basis of the referees judgements. A ratio of 42% of the PRIN total amount yearly available is attributed to the best proposals of each disciplinary areas. The other 58% is allocated on the basis of a general ranking list of all the proposals. The contribution accorded to the winners is a share of the project cost: 50% for the intra-university projects, 70% for inter-university projects. Table 2 shows the growing importance of the PRIN in the last six years (1997-2002) in terms of number of projects presented, that was not supported by an adequate increase of funding availability (CNVSU, 2003).

Tab. 2 - PRIN (1997 – 2002)

	1997	2002
Funding requested by the applicants*	270,000	400,000
Funding approved by the Committee*	75,000	140,000
N° of proposal submitted		
<i>inter-university</i>	1,450	2,200
<i>intra-university</i>	200	240
Project funded	450	850
<i>of which interdisciplinary</i>	110	290
Participation index°		26%
Success index°		45.5%

\*thousands euro; ° 1998-2001 medium value

Source: MIUR- CNVSU

The ratio of projects approved on the total reveals that the new evaluation procedure ensured the selection of the proposals and, as a consequence, the spring up of a certain level of competition among universities, but the divergence between the amount of funding requested by the applicants and approved by the Miur indicate that the level of resourced for this instrument is inadequate.

Some other interesting phenomena can be observed, confirming the above mentioned notes:

- the ratio of interdisciplinary project grown up significantly in the considered period, especially in some disciplinary areas (biology, medicine, chemistry);
- the participation index (number of applicants/persons which can participate) and the success index (number of applicants funded/number of applicants) confirm the selectivity of the evaluation process, in a context that seems characterised by a weak participation to the competitions;
- the participation index does not show significant differences between universities (45 universities on 61 have an index between 20% and 30%). The success index, on the contrary, presents higher differences between universities: from 60% to 40%.

For understanding these figures it is necessary to take into account two basic characteristics of PRIN:

- the proposals selection is not driven by priorities or specific themes indicated by the Government, but it derives only by the

evaluation process. Thus the results are conditioned by the dimension of the academic community among each different disciplinary areas, by the capability to get other funding (from university or from other sources) for co-financing the proposals (co-funding capability), and by the amount of funding reserved for each area;

- PRIN applicants can also participate to other national selection for project funding. In Italy there is another instrument, the FIRB – Fund for Basic Research, which support also free project proposals presented by individuals. It has been estimated that in 2002 more than 3.500 professors participated to both the competitions (PRIN and FIRB) and about the 40% was funded by both the instruments for very similar project proposals (CNVSU, 2003).

In sum, PRIN is a mean for realising the autonomy-accountability principles in the higher education system, by enhancing differentiation processes among universities. The weakness of the instrument lie mainly on the low amount of the available funds<sup>4</sup> and on the lack of co-ordination with other funding instruments, that could undermine the results of the evaluation process. Both the cited weakness reveal that the will of the State for steering the higher education system goes with an investment not adequate to the existing demand, and with some uncertainties on the rules of the game, that can produce great distortions on the effectiveness of the reform results.

<sup>4</sup> In 2002 and in 2003, PRIN covers a share of 2% of the total Government funding to the universities.

Higher education institutions have been encouraged for seeking alternative source of funding and this circumstance is generally considered as one of the best guarantee of institutional autonomy. Even in Italy this process is going to be reinforced. The 2003 figures of the universities research budget by source of funds, show that the largest share of funding come from the Miur (26%, PRIN included) and from the university internal allocation (21%). The ratio coming from external sources, namely European Union, public research agencies, other public or private organisms, is 47%. There are no strong evidences for Italy on how the capability to attract external resources impact the autonomy of the institutions, and if there are negative unintended consequences coming from the growing up of the share of external funds (Geuna, 1999).

The experiences of other countries, show that the effect of funding on university autonomy depend on the context in which the university operates. In some context, government funding represent less interference than funding from industry or student fees (UK for instance), and “the good will of government shown in releasing unnecessary regulation for universities can be more decisive that the matter of funding in enhancing university autonomy” (Li-Chuan Chiang, 2004). Deregulation established trust between universities and Government, and trust represents a key factor for the autonomy effectiveness, because it facilitates the voluntary acceptance of an executive’s decision (Trow, 1996; De Boer, 2002). Diversifying funding base by attracting external sources of funding may not have effect on university autonomy in the State-controlled system as direct as in the State-supervised system.

#### **4. Changes in the steering of universities: the evolution of doctoral programmes**

The second tracer for exploring the steering model of the Italian higher education system is the doctoral courses.

The doctorate was introduced in Italy with a great delay, in comparison with other European countries, as post-graduate educational level for

the training in research activities.

The first regulation is of the 1980 (l. 382/80), the cycles begun in 1983. The general aim was to improve the scientific education of the graduates by training them on the research activity.

The regulation was modified in the nineties (l. 210/1998) according to the autonomy-accountability principles which informed the reform process of the higher education system, and also in coherence with the reform of the academic degrees, that were split into two levels (*Laurea*-three years, *Laurea specialistica*-two years, Phd-3 years). A new vision emerged, that indicate, as general aim for the doctorate, not only the training *for* research, but also the training *through* research, aimed to create competences even for working activities other than the academic profession.

The organisational model selected by the law of 1980 conceived the doctorate as a course articulated into teaching activities and seminars. Doctoral students should also develop a research programme and publish the results obtained.

There are no proofs that this was the dominant model applied within the Italian universities. The autonomy of the institutions in organising the doctoral courses was very large, and it is possible that in some cases the doctorates could be organised as a period of research activity on specific selected theme, without any teaching activity. The two models are very different for educational objectives and attainments, as well as in the number of participant. While in the first case we could found a large number of participants, the second model could be direct also to one single participant. Anyway, the quantitative data on the number of doctoral fellowships suggest that the first model should be dominant in the Italian experience (CNVSU, 2004c).

The 1988 reform adopt the course model, and the *Osservatorio* elaborated some criteria for the doctoral programmes assessment, and established the minimum requirements for each courses (professors, structures, competence, collaborations with external organisms for the students stages, prevalent commitment of the student in research activity) and the evaluation procedure.

In 2002 the CNVSU carried out the first evaluation process on the basis of the NUV Reports. The analysis of data and information show a large fragmentation of the courses between areas and disciplinary sectors (in 2002 there were 1,124 doctoral courses and 5,354 fellowships distributed within 67 universities). It means that universities used their autonomy for organising the courses by applying the same distributive principle among disciplines, which informed the whole reform of the educational activities.

The participation of external agencies as funders of the courses was modest, except in some areas; the number of foreign students and the presence of agreements with foreign universities or with local agents were episodic (Avveduto, Cipollone, 1998). The main characteristic is a great differentiation of courses (teaching activities, amount of resources, infrastructures for research, number of professors involved, collaboration, scientific productivity of the students), and the low capability of the courses to attract students coming from other universities.

The CNVSU recommend the universities to assume a new role, becoming more responsible for the organisation of the doctoral courses, and to develop evaluation exercises on their outcome. It also recommends to look for external source of funding, and to improve both the collaborations with other universities and the students mobility. Finally, the Committee suggested the creation of doctoral Schools to overcome the fragmentation of the courses (CNVSU, 2002; Ratti, 2003; Schmid and Stefanelli, 2003).

The Miur agreed the CNVSU, and in 2003 established new criteria for the Phds funding (Decree 301/2003), which linked the transfer of resources to some parameters: the existing potential demand of doctoral courses, the number of doctoral recipients in the same year, the consistency of the NUV Reports with the Miur recommendations (CNVSU, 2004c). The subsequent evaluation exercise reveals a general tentative to adequate the Phds courses to the suggested priorities, but the results are not significant for overcoming the fragmentation of the courses. Data show that, in 2003, in the

Italian universities, there was 2,100 doctoral courses, with 1,660 different denominations, and the 34% did not fit with the Miur minimum requirements. On the contrary, the NUV commitment for the evaluation was substantially improved, thank also to the important action developed by the CRUI for stimulation the universities to better the quality of the educational supply at all levels (Fondazione CRUI, 2003).

A significant implementation of the Government policy was approved in 2004 (Decree 262/2004). The decree set the possibility for the universities to create doctoral Schools, and provide specific incentives for their starting phase.

Italy experienced a few cases of doctoral Schools (5 cases), which present different features.<sup>5</sup> Apart from the adopted model, some common aspects of the existing Schools have been evidenced by the CNVSU (CNVSU, 2005):

- overcoming of the courses fragmentation through the aggregation of the existing ones;
- improving the university attractiveness by opening the doctorates to the external contexts;
- sustaining the internationalisation either by the students mobility, either by the insert of the students within international research network;
- developing the relationships with the local socio-economic context.

The School should be finalised to better the transparency of the educational contents, to exploit the courses characterised by the scientific excellence, to easy relationships, collaborations and network with external agents, to create the premises and the conditions for introducing the doctorates into the workforce.

The Scientific Council, composed by high level external members, in charge for the

<sup>5</sup> The applied models are: the *Scuola Unica* (all the doctoral courses are organised by the School, which is also responsible for the educational and training contents, manages funding and all the related activities), the *Scuola di Area* (the School organises the doctoral courses on common themes and distributes the funds, but it does not manage all the activities), the *Scuola integrativa* (it has a complementary role for the organisation of the common activities or specific aspects that could be better managed by a different organism, i.e. the internationalisation of the activities).

scientific advice and the evaluation of the School activities is thus essential for the effectiveness of the results. The institution of Schools in the CNVSU model is facultative, and in any case the Schools could co-exist with the traditional organisation of the courses.

The CNVSU document indicate the university governance problem as one of the main critical point for the doctoral School, because it represents a new organism, to be added to the existing ones, which often operate with a scarce level of co-ordination and with an unclear distribution of tasks. More specifically, the central problem lie in the relationship with the Departments, which are the basic units for research activities: the co-ordination of the research programmes of the doctoral Schools with the Departments should be ensured through specific means.

The Government steering of the doctoral courses was characterised by a high deregulation, which created within the universities and the academic community a level of trust larger than funding policies.<sup>6</sup> Even in this case, the role of the buffer institutions (CRUI and CUN) was essential, for enhancing the university internal evaluation capability, for co-ordinating the efforts at a national level, and for interact with the State, representing the university interests. The doctoral Schools are a great challenge for the Italian universities, for they are directed to reinforce the institutional level and, at the same time, tend to limit the academic power. Universities have a large room of manoeuvre for designing their internal organisation, since no constraints have been settled up by the State.

## 5. Conclusions

One of the factor which influenced the changes in the relationships between the State and the university is the massification of the higher education system (Trow, 1974). Massification implied a substantial expansion of the system, the diversification of the institutions, the

enhancement of their organisational complexity, and a new awareness about the society role (Government included) as the main higher education funder.

This meant that society, and moreover the State, have a moral justification to steer the national higher education system (Valimaa, 1999). The traditional disciplinary principles which governed the university internal organisation were now challenged by the new practical orientations of the institutions, and by the differentiation of their clients (Clark, 1995).

From eighties, the steering of higher education in Europe became to shift from a centrally planned model to a more self-regulated model. Governments used economic incentives for pursuing a sort of “marketisation” of higher education, that is the development of more competitive behaviours at institutional level. This process should also implied parallel processes of differentiation and diversification within the higher education sector, that the Governments looked up favourably, for they could enhance the capability of the system to cope with different social needs and expectations (Goedegebuure, 1996).

Thus, one of the most important Government policy aims, in the last decade in Europe, was to support the diversification processes, by stimulating the competitiveness of the higher education institutions for both funding and students, in different ways (Williams, 1995). But, as some authors suggested, “the use of competition as a steering instrument ... reinforce hierarchical stratification between institutions, instead of promoting diversity in the national systems ... In addition to national policies, the internal processes of the higher education system follow their own dynamics. According to empirical research, institutions imitate the most successful institutions in an uncertain and unpredictable environment ... Academic drift, thus, works towards integration, resisting governmental policies promoting diversification” (Valimaa, 1999, see also Fulton 1996).

Central Government works through some policy instruments, such as incentives (i.e. selectivity in research funding), the settlement of quality assurance agencies for both teaching

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<sup>6</sup> In this case we make reference to the norm-based trust, as shared values and norms supporting collective actions within uncertain environments (De Boer, 2002)

and research activities, competition among universities for rising students. On the other hand, institutions try to cope with the incentives of the social context in which they operate, by emphasising internal flexibility and adaptability (Dill and Sporn, 1995).

The described developments require the capability to adopt strategic decisions at institutional level. Thus, they push for modifying the decision-making mechanisms in a more networking way, based on the vertical and horizontal integration, which allow the steering of the individual behaviours for pursuing strategic aims at university level (public-private co-operation, getting new clients and new funding sources).

At a deeper level, the disciplinary organisation of the universities' basic units, does not seem appropriate for facing co-operation and competition challenges, emerging at intra-institutional, national and international level. Moreover, a new way of understanding the academic profession is springing up, with an emphasis on the individuals' ability to adopt different working profiles (Clark, 1995) and to sell the expertise inside and outside university.

Italy did not participate to the described processes until the nineties. In the last fifteen years, many provisions were approved, aimed to introduce the autonomy-accountability principles in the higher education system. The State, according with the NPM narrative, tried to apply a new steering model, shifting from a centralised model to a steering-at-a-distance model. The universities answered by adapting their behaviours for the accomplishment of the Government aims, but the existing internal governance structures are not yet adequate to the new requirements.

Some policy legacies affected the Italian higher education system, impeding the definitive application of the NPM principles:

- higher education system is still identified with the universities, and there is not a different range of institutions operating at the tertiary educational level;
- the mission of Italian universities is the same for all the institutions. Specialised profiles of activities related to different institutional functions (education, research, professional

training) did not emerge;

- the legal value of the academic qualifications still persist, and it is equivalent, for the legal effects, in all the national territory, whatever is the qualitative level of the universities;
- the rules for the professors recruitment are established at central level.

These aspects strongly characterised the relationships between State and university, by creating obstacles to the development of a real competition among institutions. Thus, the diversification processes based on strategic choices and organisation have limited market effects, in terms of clients' attraction. The policy legacy constraints tend to guarantee a certain level of homogeneity of results, which did not reward the virtuous behaviours.

The steering of the system maintains some characters of centralisation, and the decentralisation processes are not sufficient to create a real trust in the relationships between the State and the universities. NPM model did not appear at the core of the system, and even the role of the buffer institution was not clear. Other weaknesses of the Italian system are:

- a limited level of resources for the effectiveness of funding and incentives as drivers of changes in the governance of the system;
- a low linkage between the resource allocation and the evaluation procedures, and the absence of a systemic co-ordination among different types, objects and levels of evaluation<sup>7</sup>;
- a university internal governance model based on decision making organisms composed by elective representatives, which reproduce the academic division of power. This asset guaranteed a large self-government of the institutions, but reinforce the tendency of the professors to consider the autonomy of universities as the freedom of individuals from schemes, rules and results constraints (Simone, 1995).

The higher education systems have large and ambiguous institutional aims. This feature

<sup>7</sup> The systemic evaluation need to co-ordinate the ex-ante evaluation with the ex-post analysis, the evaluation of education and research, and the activities carried out by different organisms, namely CNVSU, CIVR, NUV.

affects the organisation, and the institutions are generally characterised by a large internal fragmentation, the diffusion of power to all the agents, and a strong resistance to changes. This feature suggests also that incremental reform designs are more efficient than others, since they allow the internal components to adapt to the new requirements gradually (Clark, 1983; De Boer, 2002). The reform of the funding system is a mean for changing the power distribution, moving from a “collegial” organisation to a “business oriented” organisation. The success of this passage in terms of changes within the internal organisation of the institutions is linked to the emergence of “collegial entrepreneurialism” by the substitution of inter-institutional disciplinary network, with intra-institutional network of agents, which concurred to the development of a common strategy (Clark, 1983).

The mentioned characteristics of the university internal governance did not seem adapt to sustain such changing process. The Italian higher education system need to reinvent the principles for the internal organisation, by reinforcing the power attributed to the institutional level to be balanced with the introduction of a real shared governance<sup>8</sup>, which allow the participation of all the internal components.

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