Evaluation of the performance of French academics in management sciences before and after the 2009 French university reform : a reading from the theory of organizational architecture

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Abstract : The aim of this paper is to present the procedures for the evaluation of academics in management sciences in France. After recalling the characteristics of the evaluation procedures before the implementation of ongoing reforms, an assessment of possible consequences of the latter is conducted in light of the theory of organizational architecture. This theory presumes a causal link between organizational performance and consistency between allocation of decision rights, incentive systems and performance evaluation. The analysis suggests that the expected benefits of reform may be compromised due to an underestimation of the costs associated with implementing the new architecture, the apparent ignorance of the issues of complementarity and coherence between components of the architecture and the possible crowding out effect between intrinsic and extrinsic motivations.

Mots clés : organizational architecture; evaluation of academics; extrinsic motivations; intrinsic motivations; management sciences.

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The movements that have shaken the French University in 2009 are, at least in part, due to the reform in progress for the evaluation of academics. This reform is part of the implementation of the LRU law, relating to the Liberties and Responsibilities of Universities, passed in 2007. The purpose of this law is to considerably increase the autonomy of French Universities with the objective of improving performance in research and teaching which have been deemed insufficient. The ranking of French Universities in certain international classifications, in particular that established by the University of Shanghai, is considered feeble by the public authorities. Furthermore, the failure rate during the first two years of university studies seems too high and the professionalization of the training is judged insufficient.

However, even if we accept the questionable classification (Gingras, 2008) established by the University of Shanghai as it is, this diagnostic may appear severe. As such, France is ranked 7th. However, it is ranked 5th for its global share of publications. These classifications can be related to the research effort. Based on the figures published by the OECD, France places 14th for domestic spending for R&D relating to the GDP, 15th for domestic spending for R&D per person and 10th for the number of researchers per 1,000 jobs. These conclusions also seem to qualify for education. The failure rate during the first two years of university studies can be explained in part by the organization of higher studies in France. In certain sectors (management in particular), the elitist branches, made up of “grandes écoles”, select the best students through competitions, while universities must welcome all students regardless of their level. Moreover, the unemployment rate for university graduates is much lower than for non-graduates (Cereq, 2008). Finally, all performance can be evaluated only in relation to the means invested. As such, the annual cost in France for the education of a student in university was 7210 € in 2007 (source OECD). This figure can be compared to education costs in foreign countries: 22476 € in the United States, 12255 € in Germany and 11494 € in the United Kingdom.

This performance, if proven to be insufficient, would result, at least in part, from an under- investment. The reform in progress recognizes this point since its purpose is to allocate greater financial means to universities. It also attempts to improve the performance of universities by a reform of their organizational architecture, relative to their different components (Jensen and Meckling, 1992 ; Brickley et al., 1997): allocation of decisions, incentive systems and performance evaluation. The measures being prepared affect as much the nature of activities performed by academics as their methods of remuneration and their evaluation. The academics in France have the status of civil servants and are divided into two bodies, lecturers and professors. From the viewpoint of status and management methods, there is no need to distinguish between the situation of academics in management sciences and that of academics in other disciplines.

According to the organizational architecture theory proposed by Brickley et al. (1997), the organizational performance depends mainly on the consistency and complementarity between the three components mentioned. For this reason, the matter of the evaluation of academics, which is the subject of this chapter, will be dealt with in relation to the other components of the organizational architecture. In order to understand the reform of the evaluation in progress, we will firstly describe the system prior to the reform. Secondly, we will present the principal characteristics of the current reform and attempt to define the anticipated effects. Lastly, we will conclude.

1 – Evaluation of Academics Prior to the Reform: an Evaluation by Peers Adapted to an Internal Labour Market Logic

In order to understand the role and the methods of the evaluation, prior to the implementation of the LRU law, it is beneficial to represent the academics' market as an "internal labour market" inasmuch as most of the academics are recruited as lecturers over thirty years of age (34 years of age in 2006 for lecturers in management sciences), after their doctorate dissertation and remain, almost without exception, in the employ of the French university until retirement. Academics have the status of civil servant and any move between universities – for which there is little autonomy – is made on a voluntary basis, except when the move is associated with being promoted from lecturer to professor.

This type of "market" is not specific to large public bureaucracies – we often refer to the large Japanese companies to illustrate how it works. It presents certain characteristics that can justify its existence in terms of economic efficiency: an important role of the careers and promotions associated with a long term employment relationship, remuneration evolving most often according to seniority and promotions, and lifetime job security. The normal problems associated with this type of organization (a lack of reactivity with regard to the evolution of the external environment, influence costs associated with searching for a promotion…) would be more than compensated for by certain advantages (cost-savings on recruitment, internal flexibility...).

The logic itself of the internal market makes the evaluation at the time of the recruitment of the academics, that is to say, essential input for the activity of academic, of great importance since the consequences of an error could be felt for some thirty years to come. This importance is even greater in this intellectual profession for which the objective is either to produce knowledge or provide training of human capital, activities for which the output is relatively difficult to evaluate. Once the recruitment is complete, evaluation normally accompanies a promotion. Once again, the particularities of the profession of academic involve very specific characteristics.

After having presented the methods of evaluating academics in management sciences prior to the reform, at the time of their recruitment and during their career, we will proceed with an analysis with the other components of the organizational architecture of universities.

1.1. Evaluation of Academics in Management Sciences During Recruitment

For purposes of simplification, the evaluation of academics will only be considered for the permanent personnel excluding associate teachers who are recruited only for a limited duration and according to specific conditions. This evaluation takes place during the competition (“concours”) for initial recruitment. It is carried out by peers with conditions that vary according to the type of job, lecturer or professor.

1.1.1. Evaluation for the Recruitment of Lecturers

Lecturers begin by going through the National University Council or NUC, organized within a disciplinary logic, each field being associated with a particular committee of the NUC. The management sciences committee consists of 24 members (12 professors and 12 lecturers), that are either elected (two-thirds) or appointed by the Ministry of Higher Education and Research (one- third). This committee decides on the candidates' ability to exercise the functions of lecturer during a "qualification" procedure. Even if the regulatory documents stipulate that a doctorate is not required to be a candidate, under the doctrine applied by the NUC, the qualified candidates hold a doctorate or possess a level of scientific knowledge deemed equivalent. Qualification is based on three criteria: the work record (scientific and pedagogical), teaching experience in the discipline as well as other experience (professional activities relating to the teachings provided, educational support…). The evaluation has a "subjective" character inasmuch as there are no objective criteria that automatically guarantee qualification – for example, a minimal amount of publications – and where the weighing between the different criteria is flexible. After hearing the reports from two of its members, the NUC decides in a sovereign and independent manner.

This first step, which is relatively selective (the qualification rate is approximately 50% in management sciences), makes it possible to form a candidate pool, where qualification is valid for a period of four years. During the second step, the qualified candidates apply for the jobs proposed by the universities, defined according to their needs and which are publicized nationally, most often specifying the specialty required (finance, marketing...). As part of this second step, performed locally, a board of specialists (of the discipline in question) chooses the candidates in regard to the profile of the job opportunity. This board is composed of academics, elected locally for a period of four years and of academics appointed outside the university. The board can rank a maximum of five candidates. If the different top-ranked candidates choose another university, the job to be filled will remain open. Recruitment is carried out based on the same criteria as on the national level, with a determining weight being attributed to local needs. A major difference with the national qualification procedure is the interview of the candidates retained following a prior examination of the pertinent records. This interview consists of a brief presentation of the work and prior experience followed by a discussion with the members of the board; this procedure reinforces the "subjective" character of the evaluation. The total time between the introduction of the candidates and the moment the candidate assume his/her responsibilities is close to one year.

1.1.2. The Evaluation Process for the Recruitment of Professors

The positioning of the evaluation during the recruitment of the professors raises a question. Regarding the internal market problem, does this evaluation take place upon entry into an organization (the whole French University environment), or is the evaluation performed at the time of the promotion within the organization? The answer varies according to the procedures. In management sciences, as in law and economics – recruitment is different for the other disciplines - the recruitment of professors can be carried out by three courses: the first competitive examination (“premier concours d’agrégation”, a competition opened to outsiders), which is the main course since, according to regulations, it fills at least half of the jobs offered, the second competitive examination (“second concours d’agrégation”, a competition reserved to insiders) and finally, the "long course" (“la voie longue”).

The national character, the absence of the seniority requirement, the diversity of the origins of the candidates, as well as the absence of a connection between the methods of recruitment and assignment, lead to assimilating the first competition to an external recruitment process that shapes entry into the internal university labour market, even if 70% of the winners come from the body of lecturers. This conclusion can be more highly contested with the second examination and, most of all, the long course since these two competitions are intended almost exclusively for lecturers in office. They can therefore be considered as courses of promotion. For simplification, however, we consider that evaluation for the three types of competitions correspond to a logic of recruitment rather than promotion, the change in level being accompanied often in management sciences by a transfer between universities.

The first competitive examination is open to holders of doctorates or “habilitation” to direct theses. This competition (Altman and Bournois, 2004; Marco, 2006) is managed by a committee of seven members: five of these members belong to the body of professors in management sciences, the two others can be professors in other disciplines or individuals from the business or administration world. The committee normally meets every two years. The President is appointed by the Minister, usually based on seniority in the highest rank. The President chooses the other members of the committee, based on the different disciplines that comprise the field of management sciences. The President can only preside over the committee once and the committees are normally often rotated. The ratio of the number of positions to be filled and the number of candidates is about one to three. The candidates are mainly from the body of lecturers in office but there are also candidates from the body of teachers in the “grandes écoles” or from foreign countries. The average age of recruitment for the first competition is almost 37 years.

The candidates are selected based on three oral lessons. The purpose of the first lesson is to evaluate the candidate’s scientific knowledge and his/her ability to present it and defend it orally. This is often a determining factor and leads to the elimination of almost half of the candidates. The purpose of the second and third lessons is to evaluate the educational abilities. The second, non- specialized lesson evaluates the general culture in management sciences, the third the ability to solve and present a case study in the field of the specialty (accounting-management control, finance, marketing, human resources management, strategic management…) chosen by the candidate. The evaluation therefore covers the two main functions assigned to academics, research and teaching. This is a group evaluation based on the opinion of the peers and it is subjective inasmuch as it is based on the weighing of a certain number of criteria, more or less explicit, that can vary depending on the nature of the specialty. This evaluation leads the committee to classify a number of candidates that is lower or equal to the number of positions open by the Ministry, based on requests made by the universities. The choice of positions is made according to the classification rank.

This method of recruitment, carried out on a national level, almost eliminates any risk of localism and procures great mobility for the academics, who were previously lecturers. The rotation of the committees also reduces the risk associated with domination of a disciplinary specialty or a methodological school. The process can sometimes last up to nine months. This duration and the remuneration attributed to the members of the committee make this, in all probability, the most in- depth evaluation process in the French universities. Its most obvious defect is the ignorance of the university’s needs, the laureates’ profiles may not correspond to the local needs of the universities; symmetrically, the laureates may wish not to remain in the position they were forced to choose. This factor explains that most professors leave their position after a period of three years, the duration during which mobility is not permitted. However, the advantage of this system is that it reinforces the mobility and in a certain way, the feeling of belonging to a national "body" rather than to a particular university. We may add that the disconnection of the local needs can prevent the phenomenon of short-termism that favours the immediate needs in a particular sub-discipline at the expense of the long-term balance necessary to the development of the entire field of management sciences.

The second competition (internal examination) is open to lecturers aged 40 years and over, who hold a doctorate and who possess at least 10 years teaching experience in a higher education institution. The competition is comprised of two lessons, one regarding the work and one requiring a commentary of a scientific text. The principles of the evaluation are close to that practised for the first examination. The internal character is mainly related to the requirements regarding age and seniority but the candidates have no guarantee that they will remain in their university of origin.

The long course procedure involves, firstly, the local level and a board of specialists that examines the records in order to make a pre-selection along with an indicative classification of academic candidates for the positions proposed by the universities. The pre-selected records are then sent to the NUC that, after examination, declares them acceptable or non-acceptable, eventually modifying the classification established on the local level. There are a very limited number of professors in management sciences that are recruited by this method. Most often, they are lecturers at the end of their careers, who are deeply involved in the administration of their university, but whose record must however be deemed sufficient on a scientific level in order to receive the endorsement of the NUC. The evaluation, as much on the local level as on the national level, is also subjective, particularly regarding the importance it attributes to the different activities, the scientific aspect plays a more minor role. Along this course, conflicts frequently arise between the local and national logics.

1.2. Evaluation of Academics During their Career

If the characteristics of internal markets make the evaluation a priority to entering a university, it also intervenes during a career, but to a lesser extent in terms of challenges, at least at the individual level. The evaluation of academics is therefore carried out on two levels, on the individual level to decide on the advancement of grade and the attribution of bonuses for doctoral support and research ("prime d'encadrement doctoral et de recherche"), or as a component of a group evaluation when it is a matter of evaluating research laboratories and diplomas, normally every four years.

1.2.1. Evaluation of Academics Using Individual Procedures

The evaluation of individuals is performed, firstly, at the time of the advancement procedure during a career, and secondly, during the attribution of a bonus for doctoral support and research. The methods vary slightly depending on if the individual is a lecturer or a professor. The body of lecturers includes two classes, the normal class and off-class ("hors-classe"). Within a class, advancement is based on seniority and a certain number of pre-defined steps. Moreover certain bonuses can be attributed under certain conditions (administrative activities, foreign mobility...). An evaluation is carried out only when the academic wishes to move from the normal class to the off-class. Advancements can be proposed by the NUC at the national level (for at least 50%) or by the University's Board of Directors at the local level. The annual quota for promotions is decided on the national level according to the percentage calculated on the entire body of lecturers. The NUC proceeds with the evaluation of the records based on three criteria – teaching, research and administration – with two reports for each record. At the local level, the choice of the Board of Directors is based on the opinions and classifications of the board of specialists and the scientific council. A specific procedure exists for the lecturers who exercise certain administrative duties.

The normal class resulted, a few years ago, from the merger of the former first and second classes. In the present system, if a lecturer does not candidate for a position of professor, he/she cannot be resubmitted for individual evaluation before becoming a candidate in the off-class category. Since advancement is automatic within the normal class over a period of more than twenty years, we can evidently conclude that the system has few incentives and that seniority plays a major role. These few incentives are otherwise confirmed by the tight range of salaries, the remunerations of the body of lecturers presenting a ratio of 2.12 between the beginning and the end of their career. The conclusion relative to the risk of the absence of an evaluation, however, must be attenuated since it is rare that a lecturer will never apply as a candidate for a recruitment as professor. Moreover, since it is rare to be promoted during your first candidacy, the lecturers are evaluated each time they become a candidate, according to a process that can be compared to the traditional image of a tournament. On the national level, the individuals promoted each year represent 8 to 9% of the candidates.

For the professors, the system's logic is similar with a more pronounced incentive character since there are three classes (second, first and exceptional). Within the second and first classes, the advancements in level are exclusively according to seniority (with the exception of certain bonuses). Within the exceptional class, the passing between classes as well as between levels is submitted for evaluation. The evaluation of professors is therefore performed more frequently than for the lecturers. The methods of evaluation, in particular the sharing of roles between the local and national courses, are similar to those for the lecturers. The low incentive character is also confirmed by the ratio between the remuneration at the beginning and at the end of a career, which is 2. However, with a large portion of professors never being promoted to the exceptional class, the range is often limited to 1.77. The percentage of promotions compared to the number of candidates represent, for the national course only, 8 to 9% of candidates for the first class and 6 to 7% for the exceptional class.

In fact, a certain distribution of roles was established between the local and national levels. The best scientific records are normally promoted by the national level, while the local level promotes the academics that have been deeply involved in the administrative activities of their university. We may also add that the procedure normally seems more transparent nationally, due to the national character and the mono-disciplinary composition of the NUC.

An evaluation is also carried out to grant certain bonuses, in particular for doctoral support and research (a little more than a month's salary), implemented in 1990 with the purpose of enhancing the treatment of academics compared to the rest of the public service. The candidates for this bonus agree to perform, beyond their normal obligations, a specific activity in research and the training of doctorands for a period of four years. The decisions for attribution are made on the basis of prior evaluation of the candidates' records by a committee composed of university representatives appointed by the Ministry. Due to the nature of the bonus, the evaluation relates mainly to scientific activities and in particular, objective elements that attest to these activities: number of publications, number of theses supported and retained… This bonus was granted to about 20% of academics, with the rate of acceptance of requests at about 50%.

In summary, during a career spanning 30 years, an academic is evaluated individually and on average about fifteen times and most often simultaneously at the local and national levels. A case of a total absence of evaluation, after recruitment, can only occur for a lecturer who never requested a promotion or a bonus. Such a person would be doubly penalized in terms of remuneration and status compared to his/her colleagues.

1.2.2. Indirect Evaluation of Academics Through a Group Evaluation

The direct relationship between evaluation and the incentive component passes through the examination of individual records, for there is no financial incentive relating to the performance of group units (departments and laboratories) to which the academics are connected. However, we can question the link between the group evaluation, the individual evaluation and the incentive aspect in the university organizational architecture.

Group evaluations were carried out mainly on two levels, that of diploma accreditation and that of laboratories, in particular in affiliation with the National Centre for Scientific Research. Today, this evaluation is performed on the national level by the Evaluation Agency for Research and Higher Education (Agence d'Évaluation de la Recherche et de l'Enseignement Supérieur AERES) created by the 2006 Research Program act. This agency is an independent administrative structure responsible for evaluating establishments, laboratories and diplomas.

Regarding diploma accreditation, in addition to the training content, the evaluation also relates to the connection between scientific research and professional training. This connection, which is supposed to guarantee the quality of the education provided, is a condition for diploma accreditation in addition to criteria such as career openings. The scientific aspect is evaluated through the publication records of the academics intervening in the diplomas.

This scientific aspect intervenes more directly in the evaluation of laboratories. The evaluation criteria are particularly related to the scientific strategy followed, the scientific results obtained, the attractiveness of the laboratory, the contribution to teaching and the relationships established in the socio-economic world. Due to the variety of laboratory functions, the multi-criteria evaluation renders the latter strongly subjective, even if it is partly based on objective criteria such as the number of publications in refereed journals, these criteria and their weight varying according to the disciplinary field concerned.

The evaluation of the training and laboratories which is based on the work of the academics has repercussions on their careers inasmuch as it will influence the work environment and the means at their disposal, not to mention the recognition associated with belonging to a notorious laboratory which makes it easier to obtain financing. Therefore, there is a strong interdependence between the individual and group evaluations.

1.2.3. Evaluation of Academics and Evaluation of Teachings…

The educational aspect of the actual system is explicitly taken into account in the recruitment competition as much through the educational experience as discussions with the boards of specialists. It is evaluated more completely by examination committees ("jury d'agrégation") based on the lessons performed. These different evaluations are performed solely by peers and have no effect on the independence of the academics regarding the content of their teaching and their research, a principle which is recognized and guaranteed by the French Republic Constitution.

Due particularly to this principle of independence, it is not possible for the teachers to be evaluated by the students. What is practised is an evaluation of the teachings which was introduced in 1992 and specified since by a certain number of regulatory documents. The students' opinions regarding the training and teaching objectives must, in principle, constitute an element for evaluation of teachings. This evaluation normally plays an informational role between the teacher and the students regarding the educational aspects of teaching. However, the boundary between the evaluation of academics and that of teachings being sometimes very thin… the application of this evaluation has met with opposition and is not generalized.

1.3. ***Evaluation of Academics Before the Reform: a Coherent System***

Prior to presenting the changes to the evaluation systems under the current reform, it is important, firstly, to review the main characteristics of the current system and, secondly, to resituate the role of the evaluation in the organizational architecture of the university.

1.3.1. The Main Characteristics of the Evaluation Prior to the Reform

Most of the conclusions that we can establish concerning the current evaluation process of academics are linked to the characteristics of their activities whose relative complexity leads to attributing a central role to the evaluation by peers.

The first conclusion relates to the criteria favoured in the evaluation. Although the educational skills are not ignored, the most important criterion is the content of the scientific record. The scientific skills are judged by recruitment bodies comprised of peers as a necessary condition for access to the profession; it is moreover the component that is the easiest to evaluate (for peers…) because it can be based on relatively objective elements (in particular, publications in refereed journals). The other elements are much harder to evaluate reliably and independently. Therefore, these elements appear to be complementary and secondary. For the competitive examinations (agrégation), we can however underline that the educational capacities are appreciated throughout the lessons. As for the NUC, it requires that teaching experience be an indispensable pre-requisite for qualification. The dominance of the criteria associated with the scientific quality of the record also characterizes the evaluation during a career. However, over the last years, the academics that have the most invested in the administrative functions have benefited from specific courses of promotion or career bonuses.

The second conclusion relates to the fundamentally “subjective” character of the procedure. The committees are never bound by objective criteria such as a minimal number of publications or years of seniority. This subjective character is justified by different reasons. A first justification is linked to the multi-task character of the profession of academic. The evaluation must be able to take into account the various abilities required to exercise the different activities. Favouring scientific skills, which is normal for such a profession, does not exclude taking into account the other criteria associated with the other activities. In addition, the scientific skills are a required condition to transmit reliable knowledge. This subjective character extends also to the evaluation of work and the adjustments made according to their nature (articles, books…).

The third conclusion relates to the depth and independence of the evaluation performed which appears balanced in view of the contradictory criticisms it has received. It would be too superficial or too comprehensive; it would ignore local realities or be subject to localism. To judge this process, we must already take into account that the evaluation, regardless of the level, does not start from nothing. On the national level, there are about 1700 academics in management sciences which is not a very high number. If we take into account the collaborations in terms of research, the fact that academics have often taught in different establishments, been members of numerous PhD defence committees and participated in seminars and symposiums, it is rare that a candidate will apply for a position without having a certain capital-reputation with the different bodies responsible for the evaluation. The candidates are often over 30 years of age and possess significant experience that can be assimilated to a long apprenticeship. Capital-reputation implicitly intervenes in the evaluation and the candidates' knowledge is often superior to what it would be for a recruitment in a company, because of the specificities in the university environment which constitute a network of relatively tight links and where the peer notion is central. Can we inversely maintain that the evaluation procedure during recruitment operations is too exhaustive, even too costly, an argument often advanced by the parties for the suppression of competitive examinations (agrégation)? Even if we do not have an accurate estimate of the cost of recruitment procedures (including the cost of mobilization of the teachers), we must remember that this cost is spread out over the career of the teacher. As for independence, it is guaranteed, at least in part, by the overriding national character of the evaluation and the regular rotation of the panels and councils. Conversely, the more the local character of recruitment or of the promotion decision, the more this independence is threatened.

Localism, – i.e. a favourable bias for local candidates –, is often considered a major defect of the current system, while for all the disciplines, the percentage of doctorands recruited in their university of origin is only 30%. In the present method of lecturer recruitment, in certain cases, the procedure attributes an advantage to local candidates with the board of specialists, which can be explained by a lower asymmetry of information and a concern for keeping existing research or educational teams together.

The fourth and final conclusion relates to the relatively low cost of the evaluation, which is most often almost all performed on a volunteer basis by the peers. The voluntary character appears to be associated with a conception of the profession according to which the body of academics is self-managed and self-regulated, just as certain liberal professions.

1.3.2. *An Evaluation to Resituate in the Organizational Structure*

A judgment on the current evaluation system is pertinent only in relation to two other aspects of the organizational structure, the allocation of decisions and the incentive system.

a) Evaluation and Allocation of Decisions

The evaluation must be brought into perspective with the strong autonomy of academics regarding teaching and research, in particular in the definition of content and themes. The emphasis placed during recruitment on the content of the scientific records as well as the teaching experience normally constitutes a guarantee in this regard. After the recruitment, the evaluation, as we have seen, takes place when there are promotions, when academics move to another university or ask for bonuses and gives precedence to the scientific aspect, relatively the easiest to evaluate.

The coherence between the type of evaluation practised and the academics' strong decisional autonomy are common characteristics of the profession: the independence necessary for scientific creativity and the evolution of teachings, the strong intrinsic motivation of academics and the difficulty of evaluating the academics' activities, even for their peers. A more frequent evaluation, based on more formal criteria, would risk compromising the independence and the related advantages in terms of creativity, all the while being more costly. Obviously, the efficiency of such a system is based mainly on the quality of the recruitments carried out. Without being able to accurately evaluate the different activities, the advantages relating to independence and autonomy appear only if the academics are self-disciplined, which supposes significant intrinsic motivation.

If, for reasons of under-estimation of the academic profession (cf. Bouzidi et al. 2007), the level and motivation of the candidates diminish, there could be a reduction in the level of research and teaching regardless of the evaluation criteria used, if the panels are obliged to recruit in order to fulfill the needs.

b) Evaluation and the Incentive System

Is the evaluation practised consistent with the incentive system? We have already mentioned the characteristics of the internal labour market of the French university system. One of the common advantages attributed to internal labour markets is, due to the long-term character of the employment relationship, to encourage the accumulation of human specific capital. This is particularly the case for the university where the accumulated capital, which is very specific, would be hard to use elsewhere. The remuneration that increases mainly with seniority is consistent with this concern for investing long term in specific capital. Finally, we can use this same argument to justify the weak unequal character of the remunerations. The accumulation of specific capital would be easier if the exchange of knowledge that facilitates research is not impeded by the rivalry between researchers which would risk happening in a system with greater incentives. Furthermore, such a system does not require frequent evaluations since the incentive aspect is low and seniority plays an important role. The result is that the functioning of this system is, a priori, not costly and especially so since the absence of risk, related to job security, leads to lower salary costs for equal qualifications.

The viability of such a system is also based on highly implicit contracts. On the one hand, the State agrees to maintain remunerations that remain comparatively interesting throughout a career, knowing that the long-term character of the relationship allows for a certain temporal flexibility in salary adjustments. The risk however, is that the State may not keep its commitment – the study of Bouzidi et al. (2007) shows a substantial decrease in the remunerations of academics over the last two decades –, in such a case, it may become difficult to recruit quality academics and there could be an upset to the system's balance, in particular in disciplinary sectors such as management sciences where competition for talents is the greatest.

The risk of opportunism also exists for academics. Since there is virtually no risk of termination linked to the status of civil servant and the seniority criteria is important to advancement, academics can neglect certain activities, in particular those that are less subject to control. Hence, a significant proportion of academics (Combes and Linnemer, 2009) ends up doing research only on occasion and prefers to give precedence to teaching and administrative activities, or personal activities (business consulting, teaching in "grandes écoles"…). This temptation is that much stronger since academics are under-remunerated and the evaluation of activities can become almost inexistent if they renounce all promotions.

We can question the reasons why these situations, which are often known, at least by close peers, persist. Two explanations can be put forth to justify this apparent laxity. The first is linked to the university tradition. Persons recruited through a long and demanding process such as a doctorate and who renounce, in particular in sectors such as management, a more lucrative career in the private sector, are in principle, very motivated by research and attribute importance to the university values and culture. Normally, as a result, there is a self-regulation that occurs and which would confine these cases to exceptions, in particular because of the moral pressures exercised by the peers. It would therefore appear less costly to tolerate such exceptions than to implement a more restricted control system. The second explanation is less compatible with the system's productive efficiency: such situations would result from an implicit contract between the State and the academics. The under-remuneration would be compensated for by a greater tolerance and by the absence of a hierarchical evaluation which would constitute advantages associated with status. If such a balance is confirmed, it could have unwanted effects over the long term, in particular on the quality of research. However, abandoning the advantages associated with status would devaluate it even more.

One of the usual problems associated with internal labour markets relates to promotions that play two roles simultaneously, a role of incentive and a role of allocation of personnel to different positions. If salary increases are related to a change in the nature of the functions performed, we can be faced with a situation where a person is promoted because of his/her qualities displayed during previous functions. The problem is that the profile of the new position may not necessarily correspond to his/her skills therefore justifying Peter's famous principle: everyone is promoted until they have reached their level of incompetence. In principle, in the French university system, promotions do not lead to the performance of new functions and therefore this inconvenience is not present. Passing from one class to another or the level of lecturer to that of professor, does not result in changes in functions, even if, in fact, professors most often perform the most important administrative duties. With the dominance of scientific criteria, the evaluation performed and justifying the promotion, consists mainly of recognizing the best scientific skills, which moreover justifies the evaluation by peers. The most important administrative duties (president of the university, dean of a faculty, laboratory director...) are accessed by means of an election and do not constitute a promotion. Academics who perform these duties mainly do so temporarily and normally return to their basic mission upon termination of their mandate.

c) A Globally Consistent Architecture

There appears to be a certain consistency in the current configuration of the organizational architecture. The evaluation performed is important mainly at the beginning of a career or when changing levels. Favouring its scientific character, it is performed by peers who are the only ones with the necessary expertise. Its relative infrequency can be explained by the importance of seniority and the system’s low incentives. These drawbacks, relating in particular to eventual opportunism of the academics are, at least to a certain extent, compensated by the economies in salaries and control costs and by the university culture associated with the often strong intrinsic motivation of the academics. However, this balance supposes that the implicit contracts concluded between the State and the academics are respected, in particular in terms of preservation of the purchasing power. Conversely, the reduction in the quality of recruitment and the development of opportunism can lead to negative consequences as much in terms of training as research. If this weak control has certain advantages regarding innovation and academic freedom, it can also reflect certain qualitative risks if the self-regulation and regulation by peers are revealed to be defective and if the intrinsic motivations are reduced.

This central role of intrinsic motivations is also emphasized using a theoretical grid, which attempts to combine the contributions of contractual theories of organization and Knowledge Based View theories (for example, Osterloh and Frey, 2000; Osterloh et al., 2002) to highlight the link between this type of motivation and the nature of the knowledge created. Osterloh et al. (2002) show that the organizational structure pertinent in an activity depends on the nature of the knowledge produced (explicit vs. tacit) and on the type of incentive (extrinsic vs. intrinsic). According to their analysis grid, the university appears to be a knowledge-based production team, an organizational type that is situated at the crossroad of tacit knowledge and intrinsic motivation.

A university can be considered a repository of specific resources that produces knowledge. The most productive and innovative universities are often old and rely on a particularly strong tacit intellectual tradition which constitutes an intangible asset that is very hard to replicate. According to Osterloh et al., in complex professions, the difficulty in implementing an efficient control requires that the actors have strong intrinsic motivation to contribute to the constitution of the pool of intangible resources specific to the organization. The development of intrinsic motivation passes through the participation of the actors in the definition of objectives, the implementation of self- organization and the creation of team spirit. In contrast, the introduction of an extrinsic motivation system based on performance would result in a decrease in intrinsic motivation due to the crowding- out phenomenon often seen between these two types of motivations (Deci, 1975; Frey, 1997). The current features of the control system in universities can therefore be interpreted as preserving and increasing intrinsic motivation.

2 – Evaluation Reform: a Reinforcement of the Control of Non-Guaranteed Efficiency…

The recent LRU law substantially changes the governance of universities by reorganizing the jurisdictions of the board of directors and the scientific council. It reinforces the power of the Presidents with regard to budget and human resources management (recruitment policy, incentive system). Universities can then create financial foundations, receive donations, take equity stakes and become owners of their real estate assets. This law also attempts to reconfigure the organizational architectures of universities in order to improve their performance.

The reform in progress has significant implications regarding the evaluation of academics. We will first make a presentation of the ongoing developments. Secondly, we will attempt to evaluate their potential effects.

2.1. The Main Developments of the Evaluation Systems of Academics

The reforms relating to evaluation procedures should be placed in relation to the reorganization of the incentive systems. We will also distinguish between the evaluation performed during recruitment and the one performed during a career.

2.1.1. Evolutions During Recruitment

With the exception of the recruitments that are subject to national competitive examinations, which remain intact, the reformed procedure preserves, without exception, its simultaneous national and local character. On a national level, the NUC should continue to address the qualification of candidates under the same conditions as it does currently. However, an important deviation should be mentioned: candidates having taught in a foreign country, at a level equivalent to that of the job applied for, are excused from the qualification procedure. The procedure therefore becomes exclusively local for these candidates.

The major development is on a local level with the disappearance of the board of specialists, replaced by selection committees, the goal being to increase autonomy of universities in matters of recruitment. Contrary to boards composed almost exclusively of specialists of the same discipline as the candidate, elected by their peers for a period of four years, the committees have an ad hoc and temporary character relating to the recruitment for the position to be filled. These committees are created by deliberation of the university Board of Directors, which sets the number of members, as well as its composition in terms of external members and members of the discipline. The proposed members must be agreed upon by the scientific council and the Board of Directors. The committee can meet only if at least half of its members are present; of which half of these members must be external. It hears the candidates whose records have been previously retained based on two reports and issues a substantiated statement on the different candidates and the classification retained. The Board of Directors rules, based on these statements. The President has the power to refuse to transmit the name of the selected candidate to the Ministry but does not have the power to change the classification. However, there is a notable reinforcement in the power of the President in the recruitment process.

2.1.2. Evaluation During a Career

The reform in progress for the evaluation procedures during a career has also attributed more power to the President of the university. This reform can only be analyzed jointly with the remuneration policy.

One of the objectives of the current reform is to enhance the attractiveness of an academic career. The anticipated measures relate as much to the initial levels of remuneration as to the advancement during a career and the bonus systems. In the end, there should be a significant revitalization of the level of remuneration upon entry, faster advancements and in more significant proportion, and a bonus system with more incentives, these bonuses being currently significantly less than in other sectors of the French public service. These measures are not differentiated according to disciplines and regions, therefore if the system takes on a more incentive character, it would preserve several characteristics of an internal labour market by ignoring the differences in remuneration that exist on the external labour market, relating to the graduates' specialities or the geographic location. As a result of this ignorance, the efforts made relating to remunerations offered in certain sectors (in particular in management sciences) risk being insufficient.

The objective of this increase in the incentive character is to "enhance the professional commitment and excellence" in the university. Other than their increased power regarding recruitment, the Presidents of universities have been offered the possibility of implementing a policy for human resources management with an increased "extrinsic" incentive aspect. They would then possess more significant latitude for granting promotions and bonuses and modulating the services of the academics between their different activities. In particular, the teaching service to be performed, if it is still based on a reference standard defined on the national level, can now be increased or decreased.

At least, that was the initial intention, however the strong protests of the academics, relating mainly to the fear of being submitted to arbitrary decisions of University Presidents, has led to the implementation of several safety devices. Hence, half of the promotions will continue to be decided on a national level with propositions by the NUC. Moreover, the possibilities for modulating the services will be seriously monitored. Firstly, the Presidents' decisions must be part of a nationally- defined framework fixing equivalences between the different activities. Secondly, these decisions must be taken according to principles defined locally by the University's Board of Directors and after the statement of the dean of the faculty. Thirdly, the modulations can only be performed with the written agreement of the academic concerned.

This reform must be accompanied by a substantial restructuring of the evaluation procedures that, paradoxically, increase the role and power of the NUC. Each academic must draft a report on all of his/her activities at least once every four years. This report, along with a statement issued by the Board of Directors of the university regarding the educational and administrative activities accomplished, is sent to the NUC to undergo an individual evaluation. The results of this evaluation must be taken into consideration by the universities in their promotion policies and when granting bonuses. This evaluation should, in principle, attribute more power to activities other than research, in particular to teaching, for which the evaluation methods must be reviewed, particularly regarding the power attributed to the students' opinions.

We also seem to be headed toward a more standardized evaluation regarding publications retained which make it possible to be qualified as a "publishing teacher". This important notion plays a determining role in the evaluation of the activity of universities in view of attributing budgetary means. The other important criterion is the number of students registered for examinations. For the AERES, in management sciences, the notion of publishing teacher should appreciate exclusively based on the articles published in journals appearing within the first two categories of a classification list. It is likely that the AERES criteria will serve as a base for the evaluations of the NUC and universities. Therefore, the result would be a shift of the highly subjective evaluation towards more measurable elements.

Beyond promotions, the Presidents' latitude has also been strongly increased with regard to granting bonuses. This policy has been substantially modified for the nature and the level of bonuses as well as the conditions for attribution. The current doctoral support bonus has been replaced by a scientific excellence bonus the amount of which could represent more than double the current bonus. An educational responsibility bonus of the same amount has also been created. The criteria for granting these bonuses must be defined locally even if the bonus amounts are set within a nationally defined range. There is therefore a significant modification to the old system, since the old doctoral support bonus was granted on the national level and the amount was based on the rank (professor or lecturer), with no possibility of modulation.

In summary, regarding the evaluation, the reform attempts to more efficiently take into account the diversity of the academics' functions and to be based more on "objective" elements. At the same time, for a reform that was to increase the autonomy of universities, it has reinforced the role of the NUC, since its evaluations are supposed to influence the decisions of universities, including on the local level, and it preserves its current jurisdictions by proposing half of the possibilities for promotion.

2.2. A Few Thoughts on the Potential Effects of the Reform

What are the potential effects on the recruitment level and during a career that we can expect from the evaluation reform in progress?

2.2.1. Potential Effects on Recruitment

The risk of a recruitment being subjected to local influence is most important for people exonerated from the national qualification procedure. In principle, under the standard procedure, the reform reinforces the power of the outside academics in the evaluation with the objective of reducing the localism phenomenon sometimes noted and attributes a major role to the President of the university who proposes the members of the selection committee.

The power of the peers resulting from the discipline can be reduced according to the composition of the committee, which could result in significant bias in the evaluation of competencies and conflicts among disciplines. The prior evaluation performed by the NUC during qualification does not protect against this risk since it is possible, for example, to submit a candidacy for a position in management sciences after having been qualified by a committee of the NUC representing another discipline. This risk of disciplinary circumvention is particularly seen in management sciences, in view of the current difficulties regarding recruitment due in particular to the differences in remuneration with private sector careers.

Reform includes another risk. The fact that the presence of outside members influences the functioning of the selection committee, besides increased travelling costs, can lead to significant difficulties. With problems of schedule compatibility between the regions or the absence of incentives to be part of the committees, reasons that explained the frequent absence of outside members on boards of specialists, the functioning of selection committees can be difficult. The alignment constraint of the number of internal members against the number of outside members present will only reduce the number of members able to participate in the selection process and, as such, risks bias in regard to the latter. Contrary to what is expected, there would be no reduction in the risk of localism since the outside members still continue to be proposed by internal members, often through a reciprocity agreement.

2.2.2. Potential Effects of the Evaluation Reform During a Career

In an attempt to define the potential effects of an evaluation reform during a career, we will successively consider its foreseeable impact on the behaviour of academics, then on that of universities and finally on the university system as a whole.

a) The Potential Effects on the Behaviour of Academics

One of the first possible effects regarding the increase of extrinsic motivations as well as the systematic evaluation, is the occurrence of the crowding-out phenomenon between the extrinsic and intrinsic motivations already stated. If individuals choose to become an academic while they could have aspired to significantly higher remunerations, it is often because they overestimate the intrinsic motivations as intellectual interest, personal accomplishment, social usefulness, independence and autonomy, the feeling of collegiality… This importance of intrinsic motivations often appears by overworking and by the almost voluntary exercise of numerous administrative and evaluation functions. Hence, duties as heavy as those of university President, laboratory Director or faculty Dean were performed with very few advantages compared to equivalent responsibilities in the private sector. As for bonuses associated to diploma-related responsibilities, they were most often symbolic. The implementation of a more formal evaluation and extrinsic motivation system risks compromising the intrinsic motivations, not only to discourage the candidates interested in a university career but also to encourage the tenured academics to no longer perform most of their administrative and evaluation functions on a free basis.

The systematic evaluation of the different activities can also lead to certain unwanted effects. In case of arbitration between different activities of equal effort and equivalent remuneration, favouring the activities for which the evaluation is the most accurate is rational. From this point of view, research, in particular if it is based on the criteria such as the number of publications, has a comparative advantage. Even if the NUC receives statements from the universities' Boards of Directors, it is doubtful that it would attribute more weight to activities other than research in its evaluation than it does currently. How do we compare statements issued from different universities and concerning a highly heterogeneous public and diplomas? The current practice is likely to continue. In other words, the NUC will probably require a minimum threshold for activities other than research, but the choice of candidates proposed for a promotion will continue to be based mainly on publications, maybe even more than before the reform. The weight attributed to the number of publishing teachers in the granting of financing risks heightening the competition between universities to recruit them, which would increase the importance of publications even more. Contrary to expectations, reform risks increasing the importance of the research activity, to the detriment of the other activities, and all the more so since the modulation of services will concern mainly the non-publishing academics.

Certain unwanted effects can also affect the research strategies, the teaching content and the influence strategies. The relatively frequent occurrence of evaluations (every four years) as well as the forms of production favoured (articles in refereed journals) risk having the following consequences. The quadrennial frequency could lead academics to give up the most uncertain research projects, the most complex on an empirical plan and the most original or infer strategies for a time-related smoothing of scientific production, such as the increase of article co-signers. The only evaluation on the basis of articles published in the most high-ranked journals risks being performed to the detriment of works published in other forms such as books. It could also lead to a disappearance of contributions proposed to journals mis-classified or not classified because they are too new or deemed marginal compared to the dominant standards or to professional journals, opposing the distribution of innovations and the necessary dialogue between practitioners and academics, in particular in the management sciences field. Certain unwanted effects (decreasing quality of content, a reduction in requirements…) are also expected in regards to teaching if the only evaluation criteria are the opinion of students.

We may also fear a reinforcement of influence strategies undertaken by academics, in particular on a local level, inasmuch as the discretionary power of the Presidents would be substantially reinforced. On a national level, the competition to occupy favourable positions in the evaluation bodies (NUC, AERES…) may also be reinforced. With the reinforcement of the weight of the evaluation, the statements provided by the experts would have much more importance. If the evaluations are too severe, a significant deterioration in the relationship between academics could arise; it would be harmful to the scientific exchanges and the implementation of group research strategies. If, in return, the evaluations are lax, the opposite could result, an inefficiency of the implemented control systems.

b) The Foreseeable Effects on the Universities and the French University System

At the university level, a first consequence of reform would probably be a significant increase in management and evaluation costs. As we have emphasized, the performance of the main administrative responsibilities at the local or national level is actually carried out on a voluntary basis (most often through an election by peers) and with a symbolic remuneration. The increase in the prerogatives of the university Presidents would be accompanied by a substantial revitalization of their bonuses (from 25,000 to 40,000 euros depending on the size of the university). However, even with this revitalization, the Presidents' remunerations (at most 100,000 euros per year), would remain far from the remunerations offered in foreign countries. In the United States in 2007-2008, the average remuneration for public university Presidents was $427,000 with a maximum of $1,346,000.

These differences in remuneration illustrate the problem that the French public services are confronted with in their desire to implement a system with greater incentives. By definition, such a system based on explicit motivations is more costly and requires additional financial means. However, a university President in France does not have the power to freely set the level of tuition fees which are still at a very modest level (about 200 euros) in France, which otherwise shows the limits of the autonomy aspect in French universities under the current reform.

Beyond the costs associated with the incentive system, strictly speaking, we must also mention those incurred by the evaluation reform, which each university will have to bear. In the current system, the cost of the evaluation appears low if we consider only the explicit costs. Taking into account the opportunity costs associated in the past by the universities already leads to a higher estimation. The projected reform significantly risks increasing this cost for many reasons. First of all, the evaluation of teaching and administrative activities will result in administrative costs and additional deliberations, while the French universities already have, due to insufficient resources, a very significant lack of administrative staff. Secondly, according to an argument already put forth, the increase in constraints weighing on the academics risks compromising the voluntary character of the evaluation. Thirdly, the increase in the incentive character and the possibilities of promotion will create an increase in the evaluation work as much in terms of frequency as in accuracy. Fourthly, if a system favouring seniority and age in the determination of promotions is not sensitive to influence, these activities will be much more profitable and substantially increase influence costs in the reformed system. On the whole, the cost of the new organizational architecture of French universities can grow significantly, which once again brings up the issue of financial resources.

In other words, the project associated with the LRU law, for which the objective is to increase the efficiency of universities by giving them more autonomy, could come up against the financial cost associated with the new organizational architecture. Of course, it is possible that universities can finance their own increased needs thanks to the funds raised through foundations that they are able to create. However, it must be underlined that – contrary to what is happening in the United States where it is mainly individuals, in particular alumni, who contribute to foundations – in France, the financing of these foundations is mostly anticipated from companies and this poses two problems: economic inequality between the regions and independence of the academics regarding the content of the courses as well as the orientations of the research.

This issue of financing is directly linked to that of the competition between universities. The implementation of an incentive system takes its meaning from a competitive process between establishments in view of attracting the best students, following the example of what is happening between the universities in the United States or, in France, between the management "grandes écoles", establishments whose life is punctuated by the publication of different rankings by the specialized press. This competition, which systematically drives a search for differentiation, has very costly consequences regarding communication and public relations policies.

Whether in foreign countries or in the management "grandes écoles" in France, this competition has incurred substantial increases in tuition fees. Presently, at Harvard University, tuition fees have reached $35,000 annually, which have led this university to undertake exoneration measures for students from modest backgrounds. This example illustrates the problems induced by the race to be on top – following the arms race model (Franck and Cook, 1995; Frank 2001) – which leads to higher and higher positioning costs for all the establishments. From a social viewpoint, these costs can be considered a waste.

To come back to the reform in progress, can we believe that if its main effects would not trigger an "arms race" between French universities, they would at least reinforce it, without resulting in a significant improvement in the quality of both teachings and research, guaranteeing a better international classification for the French universities, in view of their financing handicap.

Conclusion

The issue of the evaluation of academics, in particular, in management sciences cannot be dissociated from a more global reflection on the organizational architecture of French universities. The reform in progress can be interpreted as the passage from one type of architecture, with its own logic and consistency, to another – in particular, in view of the financing methods of the French university.

According to the organizational architecture theory, the changes in organizational architecture associated with the managerial methods (re-engineering, quality management, etc.) - for which the current reform regarding the evaluation of universities appears to be an illustration relating to the underlying naive vision of incentive systems – often end in failure. The latter often results from an under-estimation of the costs associated with the implementation of a new architecture and from ignoring the matters of complementarity and consistency between the architectural components… Under the reform in progress, it appears that aspects as important as conflicts between intrinsic and extrinsic motivations, explicit and implicit costs of the new evaluation and incentive system, the influence on the nature of the knowledge produced and the potential effects of an “arms race” between universities, have not been truly perceived…

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