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MERIT PAY, SCIENTIFIC PRODUCTION AND CNEAI*

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In the report done by the OECD *La Universidad bajo Escrutinio* the economic crisis (oil crisis, inflation, recession, unemployment, checking of public expenditure) was blamed for the reluctant position the Society took against the use of the resources assigned to the academic education "demanding balances, a

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systematic evaluation of the educational results, proofs “for the exercise of one’s duties”,..." (OECD, 1987: 24).In fact, taking into account the above mentioned crisis, a wider rigour in the assumption of liability was demanded by means of the university and research institutions. That’s why new criteria of effectiveness and efficiency were established, fact which gave rise to a new way of relation between the above mentioned institutions and the Society or policy Institutions, that is to say, **the accountability.**

Among some other effects, the economic crisis as well as the increasing globalization caused a change in the economic policies aimed to the achievement of a group of settlements: “structural settlement measures”. As Martin Carnoy stated (1995), such economic policies were based on the lack of regulations, the privatization of the economy, the support for exports, the reduction of the inland demand and the deduction of public expenditure.

As a result of such settlement policies, the financial situation as well as the salaries within the frame of the university and research institutions was frozen and sometimes decreased. At the same time, those institutions were seen as the key to overcome such crisis and to provide the economic system with strength and stability

Even in 1992, the ECLA pointed out that the necessity of increasing the productivity of teaching became a priority in a period of increasing costs and scarce resources, of severe economic balances and competition with several demands from the rest of the social sectors, (ECLA-UNESCO, 1992).

In the educational field, the idea was to reduce the public expense per student in the different levels of education but without loosing a speck of quality and in this sense, to make the contribution of families to teaching bigger by means of the

increasing of registration fee rights, especially those related to the university education (Carnoy, 1995). In the research field the priority was the **increasing of the scientific production and its impact on the economic production, promoting** at the same time the applied research and enlarging the technological transfer.

In this way, the promotion of the University as a primary and strategic place in the development of researching taking into account this one as an outstanding indicator of its modernization level and the confidence in the competence for the distribution of short financial resources as a guarantee for the improvement of quality, gave rise to implantation systems based on the evaluation of the research activity, balances and the differential remuneration._All these factors tried to build new patterns of behaviour and legalize a new way of institutional culture (Araujo, 2003).

Obviously, **Spain was not beyond belief** to all these above mentioned facts. On the contrary, as a result of the structural reasons which characterized our economy in that period, the economic crisis had a notorious influence on the Spanish Economy. That's why the term **accountability**" was introduced in Spain within the frame of the research and the University institutions[1] together with the so-called "evaluation culture" [2]. The approval of the Law 13/1986, April 14th related to the Promotion and

[1] Artículo 45, párrafo 3º de la Ley Orgánica 11/1983, de 25 de agosto, de Reforma Universitaria: "Los Estatutos de la **Universidad** dispondrán los procedimientos para la evaluación periódica del rendimiento docente y científico del profesorado, que será tenido en cuenta en los concursos a que aluden los artículos 35 a 39, a efectos de su continuidad y promoción".

[2] The first action decided by the Spanish "assessor State" which had important practise repercussions centred on the control of the funds owned by the state assigned to research projects and to redirect the Spanish System of Science and Technology, was the creation in 1986 of the la **Agencia Nacional de Evaluación y Prospectiva** -ANEP-, (National Agency for Evaluation and

General Coordination of the technical and scientific research (the so-called Law of Science) as well as the first National Plan for Research and Development 1988-1991, gave an incentive to the research and evaluation activities. At the same time and as a significant element in the introduction of so many changes in the university[3] institutions background, **the economic incentive system** was included always linked to the evaluation for the exercise of one's duties..

By the end of the 80's the situation is characterized by the "Cuasi-monpoly" of the evaluation of the research activities done by the ANEP (Sanz Menéndez, 2004) and that's when the CNEAI -National Commission for the Evaluation of Research Activity- was created in order to make the research evaluation of the university teaching staff a way of evaluation for the exercise of one's duties linked to a new merit pay system.

It was with the **order in Council 1086/89, August 28th related to the Compensations of the University Teaching Staff** when two independent systems for the evaluation of teaching and research were established and at the same time,

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Prospective) run by the State Department of Universities and Research of the Ministry of Education and Science. Its main functions are: A): Technical and scientific evaluation – objective and independent- of the sections, programmes and projects of the National Plan as well as the results' continuation. To evaluate the technical and scientific proposals entrusted by the State Department's Secretary of Universities and Research. B) Prospective analysis and researches related to scientific investigation and technological development.

[3] Artículo 45, párrafo 3º de la Ley Orgánica 11/1983, de 25 de agosto, de Reforma Universitaria: "Los Estatutos de la **Universidad** dispondrán los procedimientos para la evaluación periódica del rendimiento docente y científico del profesorado, que será tenido en cuenta en los concursos a que aluden los artículos 35 a 39, a efectos de su continuidad y promoción".

two new economic incentives[4] emerged: The fringe benefit achieved by merit teaching and the one for researching productivity *connected both of them to an incentive of the individual teaching and research activity*[5].

The National Commission for the Evaluation of Research Activity of the University Teaching Staff (CNEAI) was created on 28th December 1989 for Ministerial Directive in order to begin with the evaluation of the research activity if so required by the University teaching staff and to prove the effectiveness of the new retributive system established by the order in Council_1086/89 as well as a result of the development of the above mentioned 2.4.2 section. The function of the CNEAI is

[4] 1º.- Complemento específico (art. 2.3). Resultante de la suma total de tres componentes: 2.3.A) General. 2.3.B) Singular. 2.3.C) Componente por **méritos docentes**.

2º.- Complemento de productividad (art. 2.4). De forma literal, los apartados 1-3 del cuarto párrafo, del artículo 2, contemplan:

"2.4.1. *El profesorado universitario podrá someter la* ***actividad investigadora*** *realizada cada seis años en régimen de dedicación a tiempo completo, o periodo equivalente si ha prestado servicio en régimen de dedicación a tiempo parcial, a una evaluación en la que se juzgará el rendimiento de la labor investigadora desarrollada durante dicho periodo.*
2.4.2. *Dicha evaluación la efectuará una* ***comisión nacional*** *integrada por representantes del Ministerio de Educación y Ciencia y de las comunidades autónomas con competencias asumidas en materia universitaria, la cual podrá recabar, del Consejo de Universidades, el oportuno asesoramiento de miembros relevantes de la comunidad científica nacional o internacional cuya especialidad se corresponda con el área investigadora de los solicitantes.*
2.4.3. *La evaluación positiva por la comisión nacional comportará al profesor la asignación de un complemento de productividad por un periodo de seis años de la siguiente cuantía anual (…)".*

[5] Preamble of the Order in Council 1086/89, August 28th, about Incentive Pays for the University Teaching Staff.

to evaluate the research activity of the university teaching staff – always under a previous voluntary request as the aim is to obtain a six-yearly stimulated productivity complement - and its purpose is based on the same as the one ascribed to the productivity complement, that is to say:" *To promote the research activity of the university teaching staff and to spread it national and internationally"*[6], *being its essential aim to motivate among the researchers*[7].

The evaluation of the scientific activity in the CNEAI is a regulated process ruled by general evaluation criteria as stated in section 7, Order of the Ministry of Education and Science, December 2nd 1994[8] and complemented by specific criteria for each of the evaluation methods arisen from the Resolution October 25th 2005 of

[6] Order December 2nd 1994. The proceedings_for the evaluation of the research activity are established_in the Order in Council 1086/1989, August 28th related to the retributions for the university teaching staff.

[7] Preamble of the Resolution October 25th 2005 from the Chairmanship of the National Commission for the Evaluation of Research Activity related to the specific criteria in each evaluation field.

[8] Artículo 7. *1: En la evaluación se observarán los siguientes principios generales:*
a) Se valorará la contribución al progreso del conocimiento, la innovación y creatividad de las aportaciones incluidas en el currículum vitae abreviado, considerando la situación general de la ciencia en España y las circunstancias de la investigación española en la disciplina correspondiente a cada evaluado y en el período a que corresponda la evaluación.
b) Se primarán los trabajos formalmente científicos o innovadores frente a los meramente descriptivos, a los que sean simple aplicación de los conocimientos establecidos o a los de carácter divulgativo. Estos últimos sólo podrán llegar a tener valor complementario, salvo en circunstancias especiales apreciadas por el órgano evaluador.

the CNEAI Chairmanship[9]. Such criteria have been subjected to changes in every annual summoning, not essential as a whole but they describe the experience of the previous meeting.

Several authors have given the CNEAI a **notorious role** in the promotion of the scientific research in Spain when considering the evaluation of the exercise of one's duties done by this institution as one of the essential elements in the increase of the Spanish scientific production in the last few years (Jiménez-Contreras *et al*., 2003).). "The National Commission for the Evaluation of Research Activity came into being at a time when the effects of previous government policies began to fade and investment was levelling off. It marked the start of a system designed to evaluate individual research activity, and gave preference to the publication of work in international journals listed in the ISI's Journal Citation Reports. This stimulus has proved to be a highly efficient, as shown by the growth in production rates since 1990" (Jiménez-Contreras *et al*., 2003:140). The **CNEAI** Managing Director herself attributes the institution the main role in the redemption of the Spanish research: "Since the creation of the CNEAI the productivity has significantly increased, fact detected on international critical bases. Obviously this is not a direct quality data but an indirect and a quite reliable one. The direct data are based on comments published in prestigious scientific journals where the CNEAI is pointed out as one of the mainstays in the development of the scientific activity in our country" (Ana Crespo, 2006: 7-8).

[9] Resolution October 19th to 25th 2005, from the CNEAI Chairmanship by means of which specific criteria of each evaluation field are defined.

Bearing in mind what above mentioned it looks as if from the introduction of the salary complement colloquially known as "sexenio" – period of six years – and the evaluation of the CNEAI, a great change in the Spanish scientific production has been shown. But it doesn't. Having a look at the general results of the evolution of the Spanish scientific production it's confirmed that there are no significant data which let us think about the noteworthy influence of some other elements but the increase of resources.

Therefore**,** the increase of the scientific activity in Spain **it's not proved to be related with the entailment** of the evaluation activity of the CNEAI as well as with the *merit pay* system. Moreover, we observe how the so mentioned merit pay system presents important risks which must be borne in mind for not producing unwanted consequences.

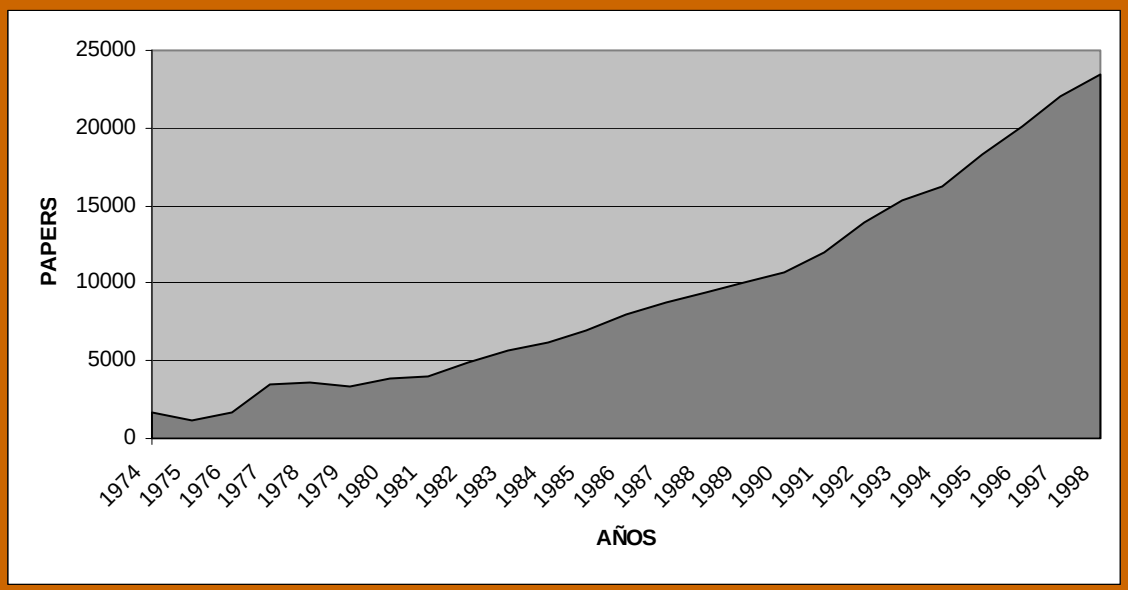
Taking into account the **evolution** of some other variables in the previous and subsequent years to the creation of the CNEAI as well as to the establishment of the merit pay system and comparing them with the evolution of the research production, we must admit that they are ruled by quite similar tendency patterns. Such simple variables are as follows: Number of University teachers, research investment and number of researchers. On the basis of a quite plain starting point hypothesis we add: "The **more human and material resources we have, the more the production will be increased"**

Let's see at first **the evolution of the Spanish research production** in the previous and subsequent years of the above mentioned establishment of the "sexenio" and the resulting evaluation of the CNEAI. In order to measure such scientific production we use the following indicator (also used by the CNEAI itself): The number of documents of the SCI **-Science Citation Index-**Taking as an example a

wide amount of years to evaluate this tendency, we observe how a progressive increase in the production is held without neither **any outstanding remark** (except in the mid-70´s) nor any significant change. In order to have a more accurate vision of this constant tendency in the evolution of the Spanish scientific production and according to the above mentioned indicators, the following bar chart is included:

- Chart number One -

EVOLUTION OF THE SPANISH SCIENTIFIC PRODUCTION



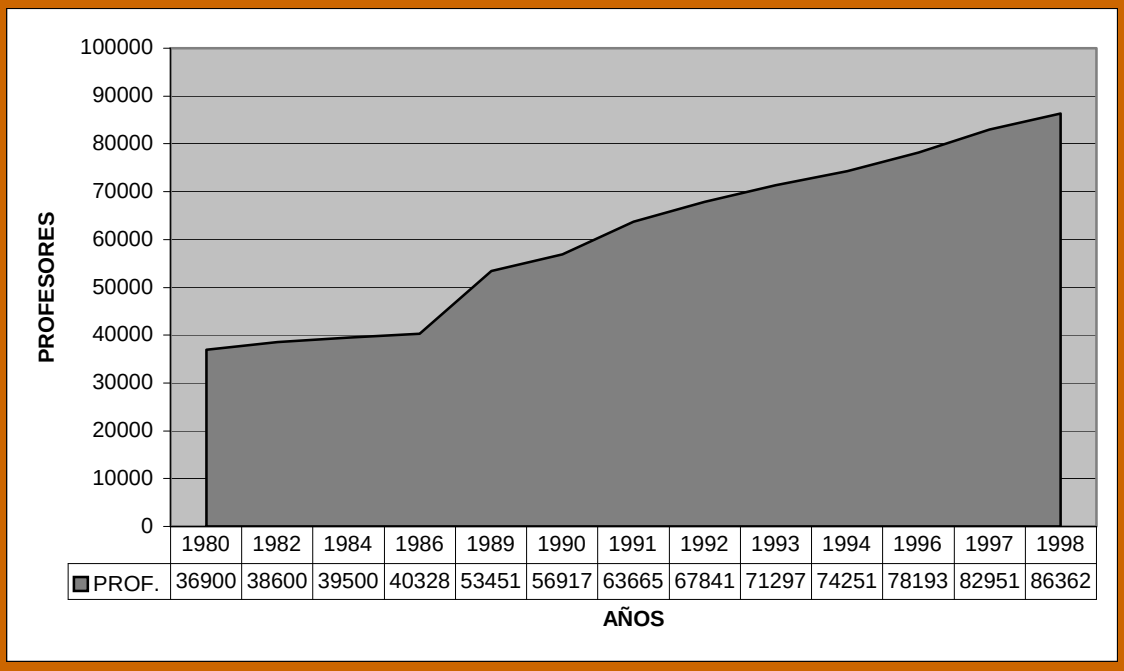
Let's have a look at the **evolution of some other variables** in the previous and subsequent years to the so mentioned Order in Council 1086/89, August 28th related to the Salary of the University Teaching Staff in order to compare the tendencies regarding the Spanish scientific production tendencies. These data come from the Ministry of Education and the National Statistics Institute.

A kind of evolution of the sustainable growth can be observed taking into account the variable of university teachers in the stated period of time. Reasonable indeed, that such progressive increase in the number of the **university teachers** produced a certain growth in the scientific production at the same time. Therefore, only the evolution of this variable could explain with no need of mentioning the efficacy of the "sexenio", the progress of the scientific production. We'll see which other variables have their influence in the same way.

The continuous and ascending line with no significant changes (except exactly in those years when the analysed rule was approved) can be clearly observed in the following chart:

- Chart number two -

EVOLUTION OF THE UNIVERSITY TEACHING STAFF

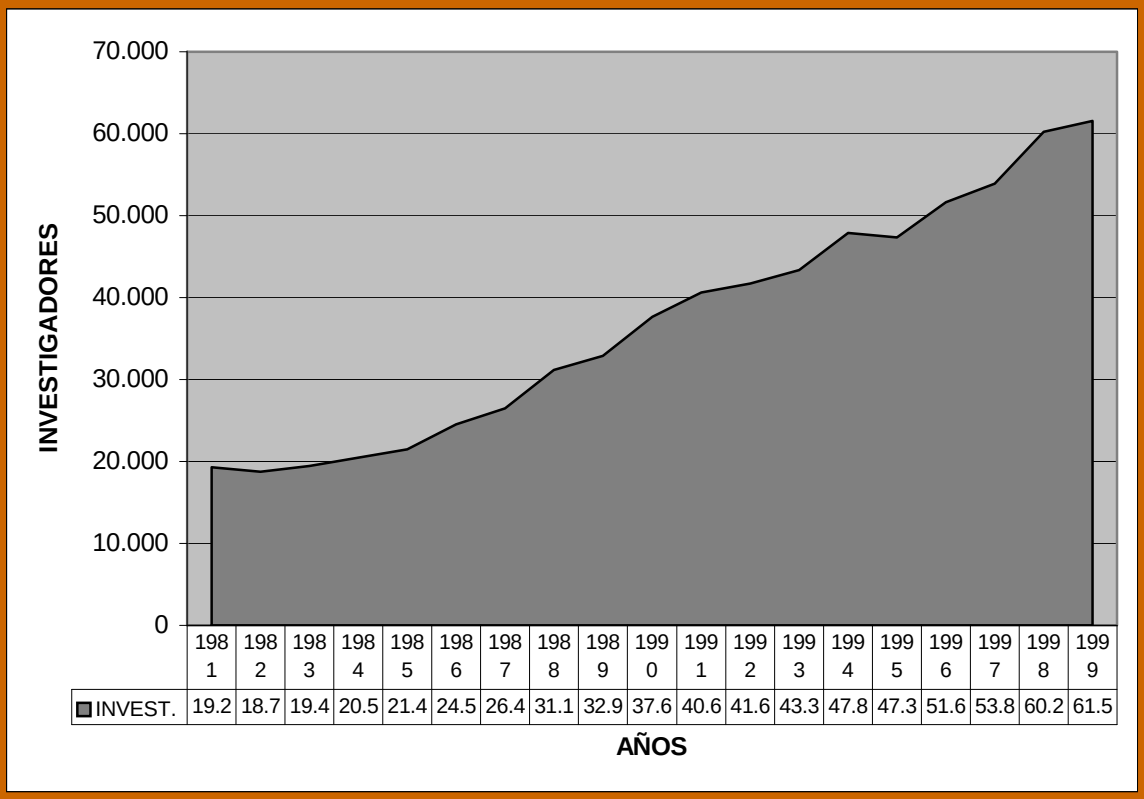


	1980	1982	1984	1986	1989	1990	1991	1992	1993	1994	1996	1997	1998
PROF.	36900	38600	39500	40328	53451	56917	63665	67841	71297	74251	78193	82951	86362

The very same growing evolution shows the data related to the number of researchers as a whole, decisive without question in our opinion, together with the ones related to the material media devoted to the research activity in accordance with the global scientific production in the analysed period of time and in order to check, as reiterated in previous paragraphs, the importance of the CNEAI role and its influence in production of the *merit pay* factor. In the chart number three we appreciate the stressed profile of the gradual increase in the **number of researchers**:

- Chart number three -

RESEARCHERS EVOLUTION



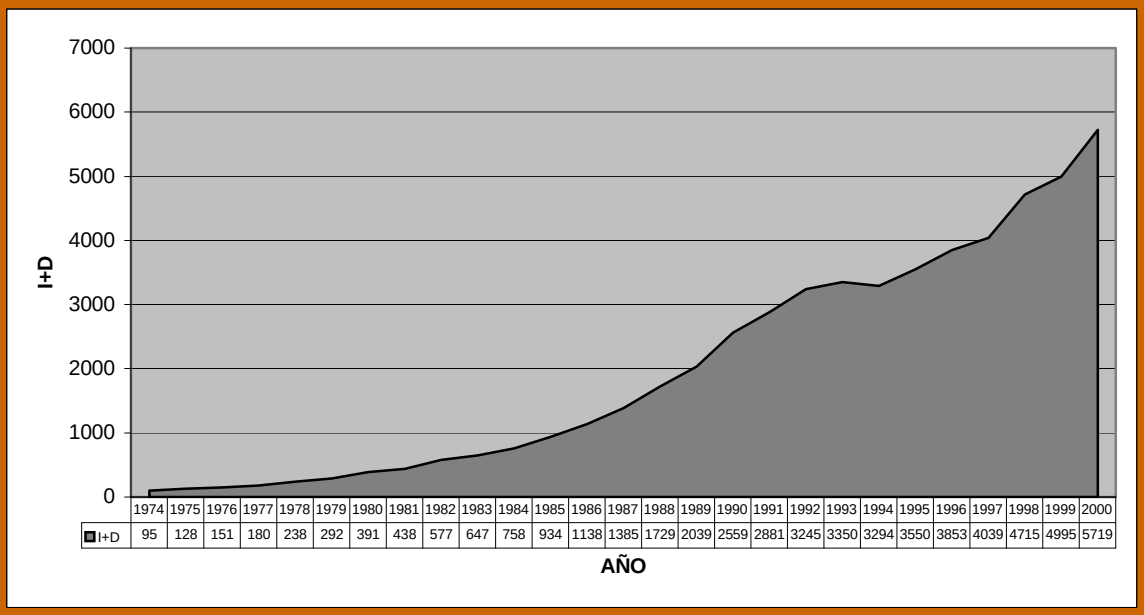
	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
INVEST.	19.2	18.7	19.4	20.5	21.4	24.5	26.4	31.1	32.9	37.6	40.6	41.6	43.3	47.8	47.3	51.6	53.8	60.2	61.5

Even more significant is the chart number four where the evolution of the Spanish investment in I+D (Investigation + Development) during the already mentioned period of time is analysed. It can also be observed a notorious increase in the research expenses and as it also happened in previous examples the establishment dates of the new rewarding systems coincide with an outstanding growth in the **I+D investments**, fact which should reasonably involve better material resources for the researchers and consequently an increase of the production in the forthcoming years.

-Chart number four-

EVOLUTION OF THE SPANISH INVESTMENT IN I+D

(INVESTIGATION + DEVELOPMENT)



	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
I+D	95	128	151	180	238	292	391	438	577	647	758	934	1138	1385	1729	2039	2559	2881	3245	3350	3294	3550	3853	4039	4715	4995	5719

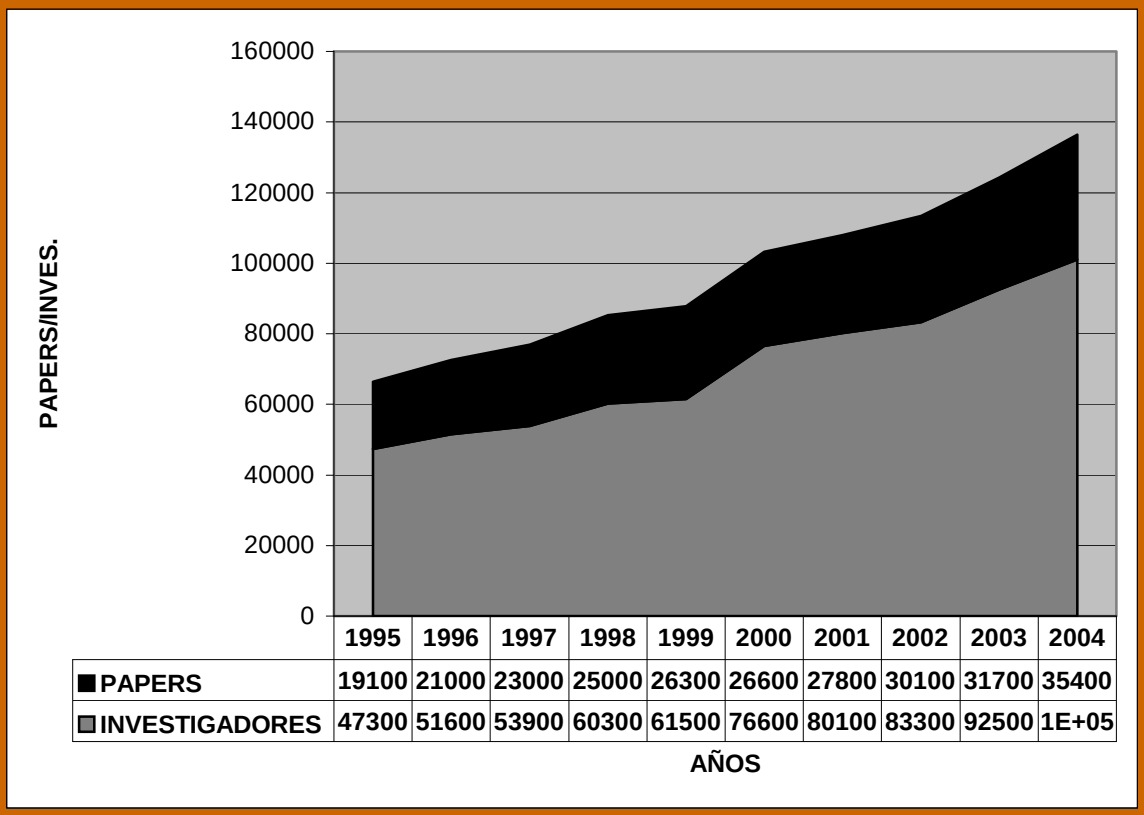
Taking into account what mentioned in previous pages, we do **consider It can't be proved** from the scientific point of view that the incentive system by means of the payment of an economic complement as a result of the positive evaluation of the CNEAI ruled by the Order in Council in 1989 has been significant in the increase of the Spanish scientific production. On the contrary, It could also be validated the statement which declares that such scientific production has been increased in a similar way and as a result of the increase of the number of people devoted to researching as well as material resources are at the disposal of the researchers. It could also be said that the mere increase of researchers with the same material resources and the same salary should culminate in an increase of the global researching production and in that way, the mere increase in the material resources for the research activity with the same number of researchers and the same salary should lead to the increase of the global scientific activity, that is to say: When earning the same salary a bigger increase in the scientific production should be produced.

Should there be any doubt about the relation between the evolution of the scientific production and the evolution of the number of researchers as well as with the growth of the researching investments, the data of the last few years can be appreciated together with the practically identical evolution lines showed in the mentioned items. Firstly we expose the comparative chart between **scientific production and number of researchers**.

- Chart number five -

EVOLUTION

SCIENTIFIC PRODUCTION / NUMBER OF RESEARCHERS

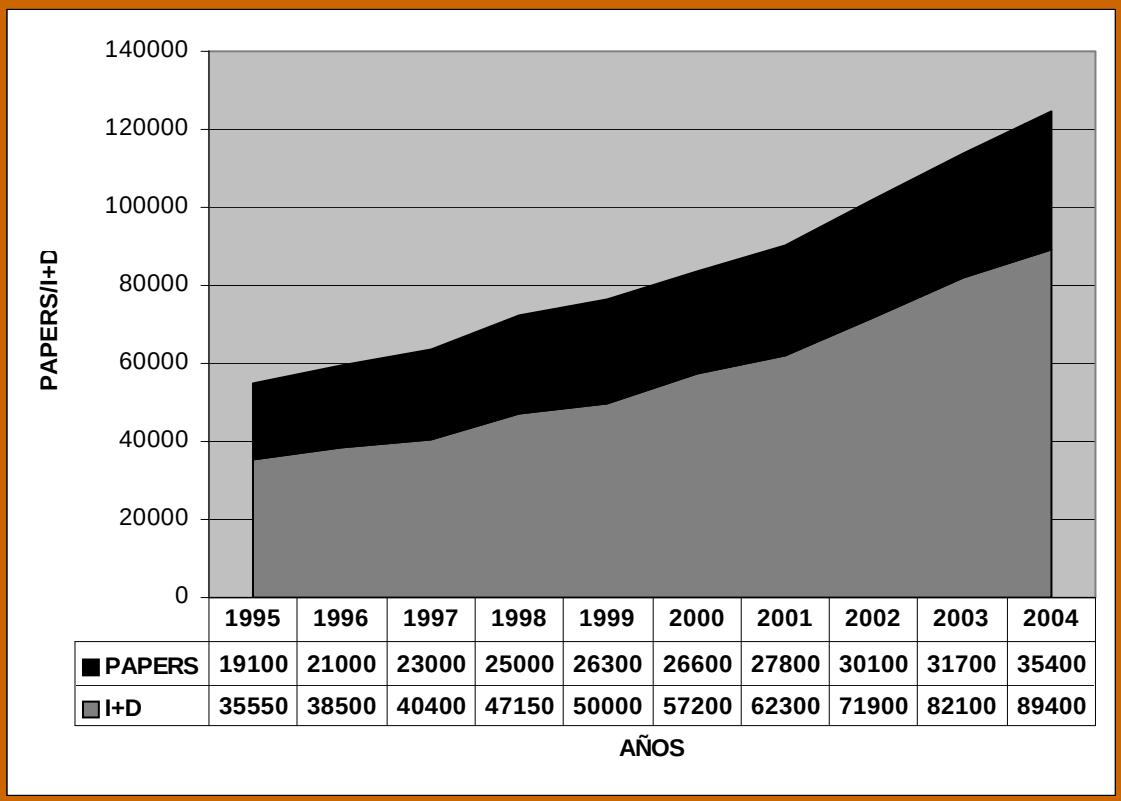


We secondly show the comparative chart between **scientific production and I+ D investments** as an equally illustrative example of the similar evolution we want to state

- Chart number six -

EVOLUTION

SCIENTIFIC PRODUCTION / I+D INVESTMENT



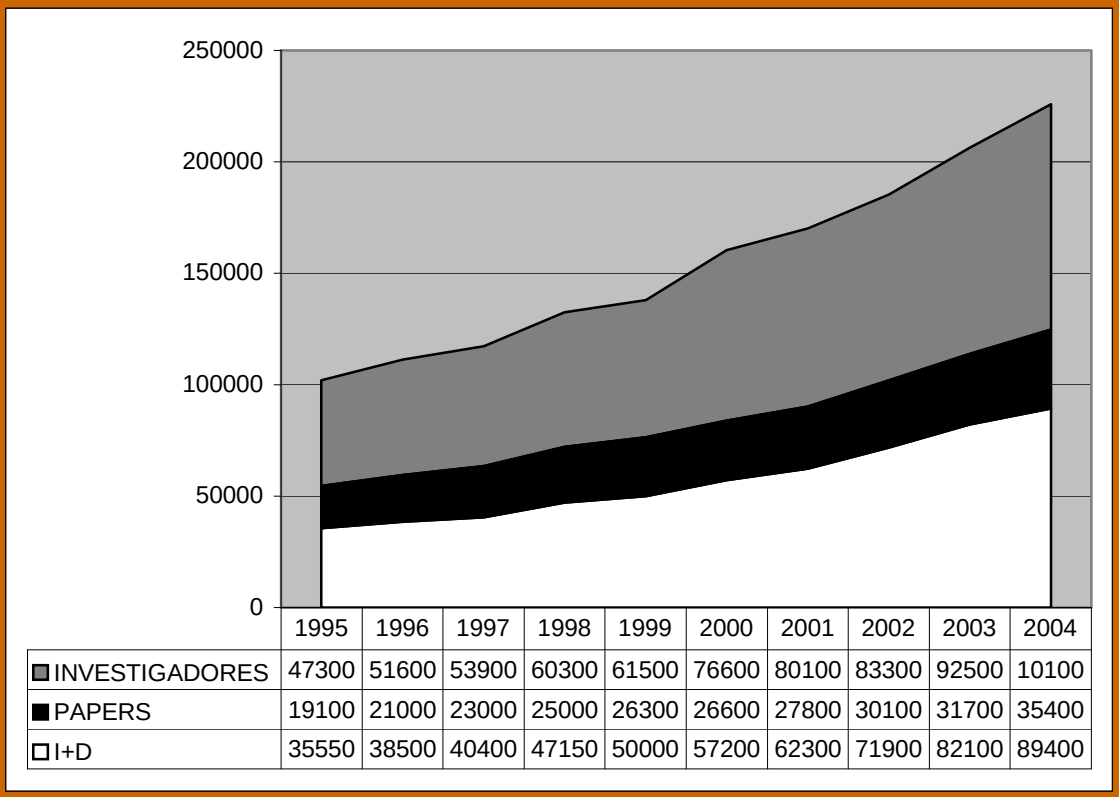
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
PAPERS	19100	21000	23000	25000	26300	26600	27800	30100	31700	35400
I+D	35550	38500	40400	47150	50000	57200	62300	71900	82100	89400

In order to ease even more the comparison of the tendencies, we show the last chart which includes the three items inside: **Scientific production, number of researchers and I+D investments:**

- Chart number seven -

EVOLUTION

SCIENTIFIC PRODUCTION / I+D INVESTEMENT/ RESEARCHERS



	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
INVESTIGADORES	47300	51600	53900	60300	61500	76600	80100	83300	92500	10100
PAPERS	19100	21000	23000	25000	26300	26600	27800	30100	31700	35400
I+D	35550	38500	40400	47150	50000	57200	62300	71900	82100	89400

In fact the main purpose of the *merit pay* system consists of its usefulness to foresee important traces about changes in the values of the organization (Kessler y Purcell, 1991). In this sense, the merit pay is useful, among others, as an instrument **to change the organization's culture** together with its strategies and methodologies**.** Such changes are aimed at a one particular objective, taking the evaluation as a reference of what is considered important, (e.g.: The publication in ISI -Information Sciences Institute- magazines can be seen as a quality indicator as well as evaluation criteria). At the same time, the merit pay system presents some other purposes which might be turned out as negative and above all, they must be borne in mind to avoid unwanted results.

The use of differential remunerations, incentive pays, rewards and the merit pay system as instruments to introduce changes in the educational field are not new concepts. The establishment of single and institutional rewards as well as differential remunerations by means of a clearly defined governmental policy has been spread to different countries, giving rise to a new **competitive ethics** in the regulation to obtain more and better public financial resources (Araujo, 2003).

Despite the increasing use of the remuneration according to the exercise of one's duties in private and public sectors, this fact doesn't mean to have been kept out of reach from criticism. Its popularity between authorities and professionals has been equalized by the academic researchers' scepticism about its efficiency. A market research published by the Research Institute of Human Resources in the United Kingdom evaluated if the efficacy of the remuneration according to the exercise of one's duties had an influence on the employees' motivation, the reduction

of rotary shifts, the change of organizational structures and the process to establish a more fair system for the employees' remuneration. The results were discouraging. Even though the controversies found, the exercise of one's duties was taken into account to set the remuneration in the majority of the private companies and public sectors. Such criteria have become a notorious reference for its establishment in the universities (Jackson, 1999).

Muname and Cohen (1986) exposed the risks arisen from the *merit pay* system mainly in the evaluation sector but also in the fact that the merit pay system for the exercise of one's duties might conceal remuneration for an **extra work.** As Janey (1996) states the merit pay system **must not be used to whether substitute or complement a low salary** as it would be used as a repressive[10] tool.

[10] That's exactly the case of the Spanish system in its origins. Just when the complements created by the Order in Council 1086/89, August 28th about Remunerations for the University Teaching Staff were instilled, a wage demand was strongly demanded in order to make up for the serious loss of purchasing power accumulated by the university teaching staff during the years of high inflation, higher indeed than some other group of official employees. I was honoured by attending at the Academic Committee for the Board of Universities when the Ministry announced the imminent measures to be taken. He himself alleged that such measures were a type of wage rise to compensate the above mentioned loss of purchasing power but at the same time he pretended to present them as productivity complements for them to be approved by the Treasury. In fact, the term "sexenio" was named as "**research productivity complement".**

José Palazón (2006) adviser of the Spanish trade union CCOO, brings to memory how the CCOO head office objected alone to the Order in Council 1086/1989 of compensations etributions which on the one hand left **aside a great deal of the teaching staff** and on the other, it didn't met neither the **compensation for the loss of purchasing power** nor **its standardization** with the rest of the civil service. The retributive system of the university teaching staff must be deeply checked and made equal to the official employees with the same academic level or professional

The adviser of the Spanish trade union FETE- UGT José Antonio Gonzalo (2006), points out that there's a real risk when using a better retributive mechanism like one (quite different indeed) of professional classification which allows to classify the university teaching staff in an artificial way: Those who have one, two, three, four, five or six "sexenios" -period of six years-.This fact would cause an unexpected and not desired effect which should be kept under control.

Among all these serious risks related to social rights, the differential remuneration system for the exercise of one's duties presents also a quite serious difficulty associated with the unavoidable **evaluation.** First of all, a remuneration policy based on productive incentives must resolve above all the problems arisen from the production evaluation, of special interest in case of the university teaching staff. The election of the evaluation method of the objectives is not a mere detail and it has important consequences for the motivation of the agents to reach the marked objectives (Becker, 1979).

As Murnane and Cohen stated (1986), it would be advisable for the employees to know who did the best work and why if the purpose of a differential compensation system is to improve the exercise of one's duties. Unfortunately **this is not what happens** in most evaluation systems for the exercise of one's duties[11]. Perhaps for

environment, avoiding the multiplication of complements and making the teaching staff's motivation easier.

[11] According to the **CNEAI evaluation**, Palazón (2006), from the Trade Union CCOO, points out it wasn't clear **enough** because it was out of the research conditions in universities as well as of historic moments and specific fields. Moreover it also showed discriminations between the different teaching staff.

that reason Johnson (1984) points out that payment proposals are accepted "at first" but then rejected when put into practise. In the Fender report (1993) done in Great Britain to emphasize the function of the differential remuneration, it was advised that the universities and the university local authorities must prove to have enough resources and capacity to define properly criteria as well as objectives to evaluate the the exercise of one's duties and to make impartial and justified evaluations because in this sense its failure not only infringes the legislation about equitable remunerations but it also discourages those who are considered to be treated most unfairly.

It's indeed in the academic and scientific atmosphere as well as in the artistic one where such actions are **difficult to evaluate.** There are countless reports with empirical ascertainment that so testify. In this sense, Bright y Williamson (1995) declare it could be even more difficult to specify the objectives and measure them with accuracy after having been achieved. At the same time, Lawler (1995) status that the *merit pay* system is only useful in those minority organizations where the tasks are easy to evaluate. On the contrary, such system is not suitable for responsibilities based on high technology knowledge and in those where team working is needed.

If the research quality is pretended to be improved, the **discredit or punishing evaluations** (either related to capacities or to the salary) turn into rakings for "good", "bad" "excellent" or "not excellent" researchers who can take part in committees or not, (branded in this case). Such evaluations try to control the work from a political point of view and can only train excluded groups or reduced oligarchies with political and academic power which seemed to be set aside in democratic systems. These ones no doubt can't substitute the **learning and reached-**

by consensus evaluations which inform the researchers of their does and don'ts, encourage them to constantly improve showing them the right way as well and providing them with suitable methods. In this way the research potential of **most employees** would increase without stopping their stimulation and the excellence of some of them would be highlighted. The initiatives where the learning approach of a wide evaluation context prevails and where members of a professional association, researchers and departments take part in, will increase. As a result of this, the punishing evaluations will be dismissed. Moreover, such evaluations in case they pretend to be fair, can't come true **out of a context** regarding the conditions in which the research activity takes place: Characteristics of the University or Institution, geographic and socioeconomic environment, experience, value of the group, available means,etc.

The **problems and risks** arisen from the merit pay system have been exposed from scientific and rigorous approaches for long time ago. Some drawbacks have been highlighted in order to measure the single exercise of one's duties in a system which depends so much on team working and the relationship between teacher and pupil as well as the fact that the short term accuracy evaluation may stand out the long term ones. It has been showed up that the difference usually promote rivalry and competitive behaviour instead of those of collaboration and cooperation between researchers and researching teams[12]; Therefore what is really encouraged are

[12] E.g.: Taking into account the individual evaluation for the exercise of one's duties, at least in the legal field the CNEAI penalized the team working instead of practising a general scientific policy, both national and internationally, which were on the side of team **working** specially in scientific fields such as the legal one and those of Human and Social Sciences characterized by a quite individual researching job, fact that clearly impoverishes the results. So was told in the resolution October 25th, 2005 related to the field of Justice 2.: *For a contribution to be taken into account, the petitioner must have taken part on high active service as an executor or manager of such job. The number of authors won't be evaluated as such but the topic, complexity and length of itself.* It has

individualistic attitudes which become absolute unwanted effects together with the tendency to disguise the *curriculum vitae*, to join more appreciated investigation lines, favouritism oligarchies which control the publication channels and even the evaluations, to fragment the research and to carry out both legal and illegal practises in order to increase the scientific results.

As already mentioned, these systems usually have some other **collateral effects** not contemplated in the programme whose consequences are as follows: Decrease of the attention to the student's demands and fewer time devoted to teaching tasks; Fewer independency to define research topics ; The selection and guidance of the activities with the aim to improve the category as a researcher; The use of tools and situations where the *curriculum vitae* is inflated in order to obtain a better acknowledgement as a researcher; Favouritism situations which, according to some researchers, are on the side of certain colleagues in the evaluation process. (Araujo, 2003).

Taking into account what above mentioned and as Hanushek et al. (1994) state, it's natural for the merit pay to stimulate the individuals **to do what is more convenient for them** but not for the institution they belong to.

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not only been modified, a **great mistake** in our opinion, but intensified with the Resolution November 6th 2006: *Topic 9.Justice and Jurisprudence. 2. The number of authors of a work must be justified by the topic chosen, complexity and length of it. For an application to be taken into account, the petitioner must have taken part in it on high active service, the references in pages, chapters and fragments of the published research will be the proof of its legality .Only a personal research activity of the petitioner will be valuated.*

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Some other researches as the ones of Low (1993) point out that the remuneration for the exercise of one's duties **could discourage** the employees instead of motivating them.

According to Enders (2000) these initiatives assume the decrease of the general confidence in the academics' self-government, the characterization of the homo *academicus* as a lazy teacher who must be motivated by means of short term incentive pays and obvious penalties. A second description is the **homo *economicus*** who can be controlled by agents concentrated on costs which locally establish rules, regulations and tools in order to obtain effective work and results.

Although there are still too much work to be done and above all quality must always be demanded, it's necessary to emphasize that Spain holds the tenth place in the worldwide ranking for scientific production and the eleventh in the impact of such production; In I+D investments, that is to say the material tools at the disposal of the researchers, it holds **half of the media average** in the OECD countries[13].

Moreover the so-called *homo economicus* has generated Science as already confirmed not by means of an incentive pay[14] (though there are always exceptions to the rule) but according to the human and material means available even though when international indicators suggest that in the 90's Spain presented a clear shortage in the remuneration of the university teaching staff: According to the OECD figures, the Spanish professors have a salary of around 19.000 $ per year , lower than the media

[13] Nowadays the Spanish investment in I+D represents around 1, 1 of the GNP whereas the media average of the OECD countries are roughly 2, 2, a fact which clearly speaks for itself.

[14] **Rather significant**, by the way as the productivity complements hardly represent 10-15% of the salary itself (San Segundo, 2005).

and It's proved that in higher levels the salaries are even lower. Whether the comparison made both in dollars or attending the GNP *per capita*, the index is 1,9 in Spain as contrasted with indicators higher than 2,8 in most of the analyzed countries (San Segundo, 2001). The so-called *homo economicus* is still being an ***homo academicus*** because among some other reasons, if someone in Spain decides to be a university teacher just for economic grounds (incentives included) it's with no doubt at all the wrong way chosen although, once again, there's always exceptions to the rule.

All in all, we find difficult to scientifically qualify a merit *pay* system based on the evaluation of the research activity by means of the CNEAI which after more than fifteen years, **still keeps aside nearly half**[15] the potential beneficiaries.

Finally we would like to point out that a system of economic incentives based on a proper evaluation of the research activity could be useful to improve the quality of the scientific production as well as gradually develop everyone's way of working. For that reason it's necessary to define the effect of such system taking into account future unwanted consequences and as above mentioned, such system should have above all **learning and reached-by consensus evaluations** which inform the researchers of their does and don'ts, encourage them to constantly improve showing them the right way and providing them with suitable methods for their future research activities

[15] 42% of the official teaching staff who can be evaluated has been excluded from the "sexenios" whereas only a10% of them accumulates more than three.

REFERENCES

Araujo, S. (2003). Efectos sistémicos de la evaluación de la investigación basada en incentivos: El caso argentino. *Revista de la Educación Superior*, XXXII (2),126, April-July.

Becker, W. E. (1979). Professorial behavior given a stochastic reward structure. *American Economic Review*, 1010-1017.

Carnoy, M. (1995). El ajuste estructural y la evolución del mundo de la enseñanza. *Revista Internacional del Trabajo*, 114, 6.

CEPAL-UNESCO (1992). *Educación y conocimiento: eje de la transformación productiva con equidad*. Santiago de Chile, ONU.

Crespo, A. (2006). Las políticas de evaluación de la investigación. *VI Foro ANECA: consecuencias de las políticas de evaluación de la docencia y la investigación del PD.* Agencia Nacional de Evaluación de la Calidad y Acreditación, 2006.

ENDERS, J. (2000). Vientos de Cambio: Condiciones de Trabajo y Empleo del Personal Académico en Europa. *Profesorado Universitario: situación en España y*

tendencias internacionales, Madrid, Cuadernos del Consejo de Universidades, Ministerio de Educación, Cultura y Deporte.

Fender Report (1993). *Promoting People, Committee of Vice-Chancellors and Principals*, Londres.

Gonzalo, J. A. (2006). Evaluación y consecuencias: la perspectiva sindical.*VI Foro ANECA: consecuencias de las políticas de evaluación de la docencia y la investigación del PDI"*, Agencia Nacional de Evaluación de la Calidad y Acreditación.

Hanushek, E. et al. (1994). *Making schools work: Improving performance and controlling costs.* The Brookings Institution. Washington.

JACKSON, M. (1999). El impacto de las remuneraciones diferenciadas en las universidades del Reino Unido. *Revista de Educación Superior*. Asociación Nacional de Universidades e Instituciones de Educación Superior, 109.

Janey, C. (1996). Incentive pay. *Education Week*, 16, 10. http://www.edweek.org .

Jiménez Contreras, E.; F. de Moya Anegón & E. Delgado López-Cozar (2003). The evolution of research activity in Spain: the impact of the National Comisión for the Evaluation of Research Activity (CNEAI). *Research Policy*, 32, 123-142.

Jonson, S. (1984). Merit pay for teachers: a Process, not an Event. *Harvard Educational Review*, 54, 175-185.

Lawler, E. (1995). The new pay: a strategic approach. *Compensation and Benefits Review*, 27 (4), 14-22.

Low, S. (1995). *An Evaluation of Appraisal Systems in Universities*, MBA Dissertation Heriot-Watt University.

Murnane, R. y Cohen, D. (1986). Merit pay and the evaluation problem: why most merit pay plans fail and a few survive. *Harvard Educational Review*, 56, 1-17.

Neave, Guy (1990). La educación superior bajo la evaluación estatal. Tendencias en Europa Occidental, 1986-1988. *Universidad Futura*, 2, 5.

OCDE (1987). *Universities under scrutiny*, Paris.

Palazón, J. (2006). Evaluación y consecuencias: la perspectiva sindical, *VI Foro ANECA: consecuencias de las políticas de evaluación de la docencia y la investigación del PDI*, Agencia Nacional de Evaluación de la Calidad y Acreditación.

San Segundo, M. J. (2001*). Economía de la Educación*, Madrid, Síntesis.

San Segundo, M. J. (2005). Promoción y remuneración del profesorado universitario: de la LRU a la LOU. *Hacienda Pública Española / Revista de Economía Pública*, 172-(1/2005), 93-117

Sanz-Menéndez, L. (1995). Research actors and the state: research evaluation and evaluation of science and technology policies in Spain. *Research Evaluation*, vol. 5 (1), 79-88.

Sanz-Menéndez, L. (2004). Evaluación de la investigación y sistema de ciencia. Unidad de Políticas Comparadas del CSIC, Madrid. http://www.iesam.csic.es/doctrab2/dt-0407. pdf .