Alexander Dilger*

German Universities as State-sponsored Co-operatives**

Most universities in Germany are public firms but they have many properties of cooperatives. The most important thereof are described and analysed together with the characteristics of state-sponsorship. The real companions of the university as a cooperation are its professors. The same is true for the faculty level, perhaps even more so. However, especially the students are also organised in a co-operative form as are the representatives of all membership groups together. The state is making some crucial reforms that transform this university model or may even destroy it. In any case, the change is slow, painful and open-ended.

Key words: Co-operative, Incentive, Professor, Reform, Tenure, University

^{*} Prof. Dr. Alexander Dilger, University of Münster, Faculty of Economics, Institute for Economic Education and Centrum for Management, Scharnhorststr. 100, 48151 Münster, Germany, e-mail: alexander.dilger@uni-muenster.de.

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1. Introduction

Most universities in Germany¹ and also in some other, especially European countries can be characterised as state-sponsored co-operatives.² Legally, these universities are not co-operatives, of course, but public firms mostly run by the German Länder (states). Factually, however, they work or at least until recently worked as co-operatives³ with some peculiarities like being financed by the state and having a non-distribution constraint as non-profits. Thus, these universities are quite hybrid organisations. The interplay of their different characteristics will be analysed in the following with a special emphasis on their character as co-operatives getting most of their money from the state.⁴

In the next section, the German universities will be described with an emphasis on their co-operative character at the level of the professors. The third section looks at the impact of tenure for professors, at their remaining incentives without the risk of lay-offs or pay-cuts and at the importance of their abilities and intrinsic motivation. Section four broadens the perspective by including the other membership groups of universities, the untenured academic staff, non-academic employees and students. In section five the current reforms of the university system by the state are considered. Section six is a short conclusion.

2. Universities as co-operatives of professors

In this article, universities are taken as co-operatives but the associates of such co-operatives do not include all members of the universities to the same degree. The most important group are the tenured professors building a co-operative of their own in a way. Especially their rights and freedoms are protected by the freedom of research and teaching guaranteed in article 5 of the *Grundgesetz* (constitutional law). At least, this is the interpretation of the *Bundesverfassungsgericht* (federal constitutional court, the most senior court in Germany) by which the professors must have a majority in academic affairs. They select new associates by themselves, hire and potentially fire other academics and have, at least together, much power over all other employees of the university and the students as its further members. Thus, the university as a

This article covers public universities in Germany only. Private universities with just a small share of all students and the quite important colleges of higher education, which started to call themselves universities of applied sciences, are explicitly excluded. Nevertheless, many insights can be transferred to the latter as long as they are state-sponsored.

Although this idea is quite simple and not new, surprisingly there does not seem to exist any single paper which scrutinises it explicitly. Backes-Gellner/Sadowski (1989) come nearest to doing this, but even they do not analyse the state-sponsorship of most German universities. James/Neuberger (1981) and Glaeser (2003) examine private universities, especially American ones, as non-profit cooperatives. Hunter (1981) adopts this to British universities, also without considering the peculiarities resulting from them being financed by the state.

For economic analyses of proper co-operatives and their problems see Bonus 1986, Pejovich 1990, Wolfstetter 1990 or Kräkel 2004: 362-372.

⁴ There are probably other sectors with comparable properties, i.e. hospitals, museums, churches (cf. for these without state-sponsorship Glaeser 2003) or political parties.

whole is anything but an equitable co-operative, it is very hierarchical with unequal rights.⁵ Nevertheless, at the level of tenured professors it resembles more or less a co-operative with equal rights. For instance, every professor has one vote in meetings or at least in electing professors' representatives, the accumulation of votes is not possible. The leaders of universities are mostly professors and are elected by their colleagues. In a way, a university can be compared to an ancient Greek polis with a strong democracy and many rights for a small segment of society, namely the free, often land-owning males of a certain age, whereas all other people like women, strangers, young men or slaves had much less or none rights at all.

This last point that all other groups have virtually no rights is not completely true for non-professors at German universities. Since the 1960s at the latest, all groups have been represented at decision-making bodies. Besides the professors, these groups are the other, mostly untenured academics who are not professors, the non-academic workers like administrators, secretaries and housekeepers and last but not least the students. In some states the so-called *Gruppenuniversität* (group-university) was introduced. In it, all four different groups had equal voting rights in general matters whereas the majority of the professors in academic affairs was upheld by the federal constitutional court. Since then, this model has been watered-down or not been introduced in the first round by some states, nevertheless, all groups are somehow represented nowadays. Mostly, the professors have a small majority and the other three groups (or sometimes only two without the non-academic workers) share the rest equally. However, equal rights for groups is not the same as equal rights for the members of these groups. Normally, there are much more students than all employees together, such that the vote of a student counts much less than that of an employee.

A majority of professorial votes in academic or even all affairs does mean that the professors can win every voting as long as they consent and vote together. A whole-hearted consent as regards content is sometimes possible but quite improbable at all times. Nevertheless, in many places all professors do vote together whenever representatives of the other groups participate. The real voting with open dissent is done before in a meeting of professors only whereas the formal meeting of all groups sees a consensus of the professors, who have the majority, and is accordingly quite short. Even a professor who disagrees individually and voted the other way just one day before will follow the majority. The formally deciding board of the faculty as well as the senate of the university are composed of representatives of the different groups, such that a professor who does not follow the norm to vote with her or his colleagues risks losing the next re-election.

It can be compared to a craft or guild from the late Middle Ages when the first universities were established. There are still some feudal elements in modern universities whereas contemporary co-operatives are also distant successors of guilds.

The situation is comparable to co-determination at the company level in Germany. Nominally, in large companies there is an equal number of labour and owner representatives on the supervisory board but the chairman coming from the owners' side has the decisive vote in case of a stalemate. Anticipating this, a crucial vote is extremely rare.

Nevertheless, such a norm to vote en bloc by professors does not exist in every faculty or even less often in whole universities. An alternative is that some professors, normally the most powerful (at least afterwards), seek an alliance with the other groups to win against some of their own colleagues. This is especially likely if there are more divergent interests within groups than between them. In most cases, the other groups can trade their voting rights without much concern for them to get some say in matters more important to them (and probably not that important for the allied professors). The same kind of votes' exchange can be observed between professors to establish a durable majority. It is also not unusual to try to influence who is voting. At least at the faculty level it is quite easy to encourage one's own staff to run for mandates as representatives of the other groups. The meetings of the board of faculty are often boring and do not offer much personal gain such that there are not many independent candidates and little encouragement with individual incentives can be enough to stand and win with high probability. Interested professors will campaign themselves and nominate their buddies, too. Even the selection of new professors will be affected by the consideration how and with whom they may vote in the future (cf. James/Neuberger 1981: 603). This is why the real voting power can be quite unequal even though every professor has exactly one vote.

Unlike most real co-operatives, universities have a non-distribution constraint characteristic of non-profit organisations (NPOs) or also public firms to which universities properly belong. However, the autonomy of universities is much higher than for most other public firms such that the comparison to a NPO is most fruitful here. In spite of its name, a NPO is allowed to make profits⁷ but is forbidden to distribute them to its members. This hinders a direct payment of surplus money but there are more indirect (and probably more costly) ways in which members can participate in the performance of their NPO or in this case of their university.⁸ Most common are some non-monetary perks and benefits (cf. Williamson 1963 for their use by managers in for-profit companies). The offices are normally much larger at public universities in Germany than at private ones or even elite-universities in the USA. At least some professors have a quite high number of staff which is not always completely justified by the lot of work to be done (others can do the same with less assistants). There is money to be used for computers, books or business trips with only formal monitoring.

Much more important is the freedom concerning one's own time. There is no compulsory attendance for professors. They should only be present to fulfil their teaching obligations of traditionally eight to nowadays in some states nine hours (school-hours of 45 minutes) a week while the university is in session about fifteen weeks each semester, that is about thirty weeks or 240 hours a year. However, there is no strict monitoring of meeting even this obligation. Administrators do not stand at

Profits are allowed as a by-product but not the main purpose of a non-profit organisation such that not-for-profit organisations would be a more appropriate name.

A special problem is that professors have no possibility to capitalise their former share in the institution when they are leaving. This means that like in a normal co-operative the time horizon of its members is quite short (cf. Milgrom/Roberts: 563), especially that of the more senior members who have normally most power.

the lecture hall, stopwatch in hand to check professors. Therefore, it is quite usual to start the semester one week late, to drop one or two sessions in between, not counting public holidays, and to use the last week for written examinations, monitored by junior staff, not the professors themselves. Some are regularly or at least sometimes late to their lectures while closing them a few minutes early. It is not unusual to sometimes send an assistant as a replacement. If a professor does this most of the time, there may be some chitchat about that but normally there are no more dire consequences. Not showing up at all is more risky but even then it will take years to oust a tenured professor. If he or she appears sometimes in between or drives away all students such that lectures are formally offered but have, alas, to be cancelled lacking any participants, then the job is secured. A nobler alternative is to use modern replacements of old-fashioned lecturing and let do the students their independent learning in groups, in the field or online – the main thing is *alone*. The still remaining supervision, perhaps even more work than traditional lecturing, can be delegated to junior staff.

The conclusion of this is not that all professors are afraid of teaching or working in general but that they enjoy a lot of freedom to do whatever they want. They may teach, research, administer, make money outside the university or simply be lazy. This freedom is the largest benefit of a professorship (together with tenure securing this freedom and permanent income). For most professors this freedom is much more important than their wage level which is very low compared to equally qualified personnel in private companies.9 This freedom is reinforced by the co-operative character of the university. Even nasty abusers of this freedom get away with this because their colleagues do not want to know about it, much less want to act in such cases. Most want to defend their own freedoms and also the academic freedom in principle. They fear that a campaign against great infringements may not halt at their little ones, especially if it is initiated from the outside by some administrators. All professors together have some interest that everyone shoulders some of the work that has to be done but finding or actually punishing single free riders for first-level collective goods like teaching is itself a second-order collective good. There are not many who want to make their hands dirty by denigrating a colleague who will nevertheless remain for many years to come and may take revenge. Moreover, even all other professors together lack strong instruments to punish an uncooperative colleague behind frowning. Indeed, they may strip him or her of some resources inside the university but cannot diminish his or her paycheque. The risk is to lose this person's cooperation entirely, such that some encouragement to do at least a little bit instead of nothing may be the smarter option.

The freedom of every tenured professor is more or less the same and the same logic applies to all of them. One may ask why not all of them abuse this freedom.

Of course there is a connection between this freedom, which is a benefit with monetary value (cf. Lazear 1998: 377-440), and the lower wage level. The marginal (non-)professor will be indifferent between the lower wage with freedom and a higher one without, whereas most professors are happier with the first alternative or at least expected to be so when choosing their career and equally qualified persons outside academia prefer the higher wages there.

Some may be morally scrupulous but a more general and economic explanation refers firstly to different circumstances and secondly to different utility functions to explain different behaviour. To begin with the latter, moral scruples can be classified as a special argument in utility functions. Others can be a propensity to teach or research or different aspirations to prestige. An economically even better explanation assumes equal utility functions but different circumstances that bring about behavioural differences. For example, younger professors can still hope to improve their careers by building good reputations, older professors have definitely reached the end of their careers and may try to cash in their reputations whereas professors in between may have learned whether further career dreams are realistic or not. From this it follows, everything else equal, that younger professors will do more what is expected from them by others (who are important for their careers) than older ones, the same is true for more successful ones in middle-age (for professors this can mean being in their late 40s or early 50s) compared to less successful ones. Very successful professors may try hard still in old age to remain famous even long behind their deaths while most others have to recognise at some point in their lives that this is quite improbable for them, even though it is never impossible.

Another important explanation of differences is specialisation, maybe initially driven by some former differences itself but multiplying them over time. There is specialisation in different fields and subfields on the one hand, and between teaching, research and other activities on the other hand. Someone who is specialised in a narrow subject is normally better in this than other people not that much specialised in it even if the latter one may be much smarter in general than the former one. A distinguishing feature of a traditional German university is the attempt to cover as many different subjects as possible, at best all of them as a really universal university. Inside each field, there is the aim to cover most if not all possible subfields. This means there seldom are two experts for the same at one university. Moreover, every professor has to cover quite wide a (sub)field, at least in teaching. The university is a co-operative of complementary, not substitutive professors. Everyone is necessary but nobody knows in detail what a colleague is doing. At the same time, the work of professors, particularly their research, can only be evaluated by their peers. Accordingly, such evaluation and also co-operation in research are done more by and with professors from other universities than colleagues at the same location.

In teaching, a broad covering of many disciplines can be seen as an advantage, at any rate from the point of view of the whole university and its students. In research, specialisation seems to be a greater advantage bringing about better or at least more visible results. From these two trends follows either decoupling more general teaching from highly specialised research (and thereby losing any synergies between teaching and research) or substituting world-leading research for more general and applied forms. Some professors may even decide to drop research altogether (or declare their teaching material as research output), whereas waiving the formal and for all equal teaching obligations is not allowed. That is why strongly research-oriented professors may try to leave the university in favour of mere research institutes or foreign universities with other rules. In the meantime or in perpetuity, they may elude serious teaching by the ways described above.

Some years ago, at nearly all universities and faculties there was a clear awareness that teaching was the main common good. The value of research was well acknowledged but it was understood that the researcher individually earns reputation for it such that a specialisation in research only is quite egoistic and uncooperative because the colleagues, who perhaps would like to research more themselves, end with more teaching to do. Even Nobel prize winners were expected to do their fair share in teaching. This policy is nominally still in effect, factually it is eroding. The reputation for good or better excellent research is more important nowadays. Faculties and even whole universities can gain not only reputation but tangible money by such research often done by only a few of its members or even a single one. Therefore, the positive external effects of research are larger now than in the past.

However, the collectively important aspects of research may differ from the individualistically rewarding ones. Individual reputation as a good researcher is mostly earned by publications, in the sciences and some social sciences like economics mainly by articles in doubled-blindly peer-reviewed journals, in the arts still more often by monographs. The state does not know how (and why) to appreciate this, instead it gives money for large and visible projects and to add on third-party funds¹⁰. For the university as a co-operative this means that attracting such projects and third-party funds is an important collective good whatever one thinks of their academic value, as long as the additional means are not totally appropriated by those attracting these projects and funds. Publications remain rather individual undertakings, mostly a means to other ends of the co-operative like better ranking places or attracting more funds.

Managing projects and wooing for third-party funds can be seen as a third possible specialisation besides teaching and (pure) research. This can be done within accounts of the university which may profit from this, for example by add-ons from the state, outside the university by an associated institute or some other NPO, finally on a professor's own account to his or her personal gain. A professor needs a permission to do sideline jobs like consulting but it is not too hard to get one. There are many professors who earn much more outside their professorship than inside. The really big money is made, as probably in most cases, by using the work of others. In some, legally problematic, cases these other workers are those from the university. More frequently, a professor will hire additional labour outside the university perhaps offering some additional incentives like a doctoral promotion. Using the title of a professor has also some additional value with clients. Such business by professors may be styled as applied research but normally its results have been fully paid for and remain secret. It is a typical case of a private good, at the most additionally (and unjustifiably) subsidised by public money. This means, the university as a co-operative does not win resources here but loses the labour of the professor and possibly his or her staff, too. Additionally, there are some

One important source of third-party funds is the Deutsche Forschungsgemeinschaft (DFG, German Research Association), financed by public money and organised like a national co-operative of researchers by itself. This co-operative seems to function quite well perhaps because its representatives are elected nationally for their high reputation. In any case, such academic research funds are fundamentally different from non-academic financiers who are interested in practical results for themselves.

reputational risks for the university if the client is not satisfied with the professor or the reputation of the client is poor and rubs offs on the university.

The opportunities to engage in this kind of money-making are different for various faculties. In some faculties like engineering, law, management or (with some peculiarities) medicine, a lot of money can be made outside the university. However, this is true for all professionals in these professions, not only professors, who may use a side job as compensation for abstaining from a full-time career outside of academia. As long as it is only an add-on for hard working professors who would not have come in the first place without it, this is all right for the university and only a kind of wage differentiation given rigid nominal pay at the university. The risk for the university as a co-operative, and that also means for all other professors, is that earning money outside of the university becomes the main occupation for some.

3. Tenure and incentives for professors

A large, as yet under-researched difference to normal co-operatives is that German universities do not have to earn the major part of their money on the market but receive it from the state. This is true for the university as a whole, which hands most money down to the faculties, and also for individual professors, who are paid by the state directly. The individual income of professors is guaranteed and their tenure as civil servants is a much stronger guarantee against dismissal than in nearly any other country worldwide. There is no normal way how a professor could be fired even if he or she is lazy, incompetent or no longer needed. Only if a professor commits a serious criminal offence or malfeasance, a dishonourable discharge is possible, but such cases are extremely rare. More often but nevertheless quite seldom, there are offers for early retirement with high pensions.

This guarantee of the individual salary combined with tenure allows professors to take higher risks than normal employees. The risks in academia normally do not make headlines but because of extremely specialised human capital they are nevertheless quite high. However, this is primarily true for the younger, untenured academics such that the professorship can be seen as a prize in a tournament (cf. Lazear/Rosen 1981) between them. In academia, there is also one additional justification for tenure, the freedom of teaching and research. Without tenure there is the risk of losing one's job just for doing it properly and saying or writing an opinion or even definitive truth that someone else who is more powerful does not like.¹³ The history of academia is full of

There have been very recent changes in some states, for example North-Rhine West-phalia, where professors are now civil servants of the university and only indirectly of the state itself. Therefore, they are paid by the university but are insured against its insolvency, comparable to communal civil servants.

Even if a university falls apart, which traditionally does not happen anyway (they are merged at the utmost), the job of a professor is secure, deleting one strong performance incentive that is present in normal co-operatives and yet for their most entrenched associates.

An analogue argument can be made concerning teaching. The evaluation of professors by students becomes more important. However, professors of public universities still can take the liberty of giving correct or actually quite bad grades. Whereas there is grade infla-

examples that this risk is not only hypothetical but very real. Even in Germany today, untenured academics are well advised to be careful with what they say or write. Powerful people in society at large are less of a danger than other academics who may decide about their future.

As soon as scholars become professors, the perks of professorships lock them into their jobs. Job changes out of academia are very rare. Moreover, someone who worked hard for many years or even decades to get this job does not want to leave it lightly. Not getting or even not having a professorship is seen as a flaw in a way. The valuation of tenure at public universities can be seen from the reluctance to switch to private universities or foreign ones, even though they have their own, less secure kinds of tenure and at least in same cases pay more. Another obstacle to such changes are public pensions, which are not easily and only partially transferable.

The downside of totally secure tenure with guaranteed salary is that the risk of firing or lower pay cannot be used as an incentive. Most civil servants, including professors, will appreciate their own job security but may dislike it in others. Normally, the former feeling is much stronger than the latter, such that all would stand together to defend this privilege. Nevertheless, the loss of the strongest incentives for most employees is a problem, not only for administrators but also for colleagues who are more than co-workers here, namely associates in the co-operative with stakes in its success. In lack of these incentives, weaker ones may be used.

The university decides how to distribute its resources between the faculties and every faculty decides then how to distribute its share between its institutes, normally the realm of one or very few professors, and possibly some other aims. At least potentially, an uncooperative professor can be stripped off his or her tangible means and staff. Covenants made at the time of appointment are legally binding for only five years, hevertheless, they are respected normally much longer whereas all resources on top are open for review and can be redistributed. However, taking away such resources is a questionable performance incentive because the connection to performance is weak or even accidental. Even without good performance, someone can keep staff and money or win still more as long as he or she is good at power struggles and voting games. Contrariwise, also the best performers may lose resources if there is a cutback by the state. The best safeguard against a shortage seems to be campaigning for third-party funds from the outside instead of good performance inside the university.

Another incentive could be reputation. It is no pleasure to be frowned at by one's colleagues, whereas a good reputation is nice in itself and can help to further one's career. Yet, the career-enhancing reputation may be built on other behaviour than the colleagues would like to see. Here, the potential conflict between reputation-raising research and locally-needed teaching is reinforced. A reputation for really good teaching is much harder to acquire and of less value on the labour mar-

tion at private universities or more precisely grade compression to the very high end, public universities are better in rating their students in a differentiated way or even separating out some of them.

Many years ago, this was different such that there are still some quite old professors with many assistants and other large resources that are taboo.

ket for professors anyway. Although a reputation of being a good colleague is important and very interesting for potential future colleagues at a hiring committee, it may depend on other, sometimes even inverted properties. The colleagues (and even students) at the present university have an incentive to give exactly the wrong impression, namely to hold a good colleague and praise a bad one away. Rational members of hiring committees will anticipate this, such that statements of present colleagues should be heavily depreciated.

The best incentives are possible if someone wants something that the colleagues can give or deny him or her. Because job and wage are secure, there is little scope for other material or personnel resources and because reputation has its own problems, the best incentive is to give someone a desired post or even just a title. This presupposes that there is some desire for posts and titles. A few academics may have chosen the profession simply by want of the title professor or before doctor. Perhaps such persons can be further motivated by the title dean, president or professor of the year. Others may desire the power of some post in self-administration, either as an end in itself or to use it for some other end. Such people can be motivated to do a lot of work to reach their goal. However, there are two conditions to this and there is one additional string attached. Firstly, there needs to be some competition concerning such posts or mere titles, at least artificially. As long as none or only one person says to want a post, an aspirant will not have to do a lot to get it but may conversely demand more to take it. Secondly, competition has to be allowed and must not have been replaced by another mechanism like seniority or turn-over every year in alphabetic order. Finally, the incentive by posts may have the disadvantage of adverse selection of powerhungry people in powerful positions. Certainly there are advantages of specialisation in administration, too, but if all professors who are intrinsically motivated by teaching and researching abstain from filling the higher positions in their university, then they cannot complain to be governed by colleagues with another agenda. Here is the greatest danger that an equitable co-operative destroys itself from within.

As there is only a limited role for incentives at the professorial level of a university and no possibility to get rid of unwanted colleagues, the hiring process of new professors is most crucial. The co-operative as a whole is interested in high intrinsic motivation such that a person wants to do something even without external incentives. Moreover, the co-operative is interested in high ability such that a person is good in what he or she is doing and comes quite far, even with little effort (cf. Dilger 2001: 138). It is relatively easy to see the past performance in research. Teaching is less well observable, the same holds for intrinsic motivation and to a lesser degree for ability. A high performer must have some ability, of course, but the mix of ability and effort is hard to entangle. Moreover, effort is caused by a mix of intrinsic and extrinsic motivation. The latter is less good for the hiring institution because it will be reduced in the future. The incentive for an untenured would-be professor to become a tenured professor is much higher than any incentive a university can provide for a tenured professor. In this way, time-tested professors have one advantage to untenured appli-

A clear downside of strict tenure is that the hiring professors will try to minimise risks while filling a job with a high need for creativity and new ideas.

cants: they already could prove that they work on after getting tenure. However, even they may have been motivated only by the chance of getting a new and final call. That is why looking for some indicators or signals of intrinsic motivation would be a good idea for hiring committees. ¹⁶ The same holds for evidence of ability independently from effort and also for teaching. Strangely, the most important criterion, at least officially, is performance in research. The reason seems to be that this can best be measured whereas the other criteria are less clear and offer more space for strategic voting.

4. Non-professorial members of the university

A clear advantage of using past performance to decide who becomes a new professor is the strong incentive effect for all would-be professors. However, this is a very large collective good between all universities because professors are normally hired from other universities to reduce influence activities and to bring in new ideas. It works nevertheless and there are many more incentives for junior academics. First of all, most of them do lack tenure and have short-term appointments instead. Second, they do not simply want to keep their jobs and earn some money but long for certain academic degrees like a promotion or habilitation. The professors can terminate their appointments and deny the wanted degrees. Even though this does not happen very often, the threat is sufficient and its rare use shows its power as an incentive. Furthermore, professors have a long time to screen their academic staff, beginning in undergraduate courses, followed by appointments as student assistants, then junior and later senior research assistants. Because selection and incentives are so strong, it is no wonder that much work is shifted to the temporary academic employees.

The group of non-academic workers like general administration staff, secretaries of the professors or janitors is quite another matter. Normally, they have or get tenure while their qualification is much lower and the selection process less tough than for professors. The salaries of these employees are guaranteed and they have the chance of in-house promotion, whereas professors need(ed) a calling from another university to get a raise. Other differences to professors are that non-academic employees have a clear hierarchy with everyone having one boss, compulsory attendance and less to say in decisions. When professors are the fellows of the university as co-operative, then the other employees are just that, employees. Together with their tenure, this brings about a peculiar situation of weak incentives, low interest in the well-being of the organisation and nearly no possibility to get rid of incompetent or unwilling staff. As a result, there are some hard-working top-administrators, some other self-motivated and competent employees and many others doing more or less what they want. Their superiors, administrators or professors, have to get along with them, pleasing them to get at least some work done. Consequently, most work is shifted to the academic staff, even administrative or secretaries' tasks.

Intrinsic motivation may show itself in doing something that normally is neither expected nor rewarded and can only be explained by having fun doing it. Because hiring someone for doing something like that is a kind of reward, it is not possible that there is general agreement over time what activities do count here. Nevertheless, single hiring committees could search for a temporary measure.

Last but not least, the students are by far the largest group of the university. They are organised by themselves as co-operatives at the university and the faculty level. The work of their representatives is a collective good for all students, present and in the future. Accordingly, it is no wonder that most students do not contribute to this work and nearly 80 % do not even bother to vote for their representatives. Thus, a small group of students with an ideological agenda, usually quite left-leaning, and with the prospect of some personal gains runs the show, especially at the university level. In the faculties there is even more passivity, sometimes filled by one independently active student or two and at other times by a student assistant motivated by his or her professor.

Until very recently, there have not been any tuition fees whatsoever. This means, the students are the most subsidised group in the university getting teaching and grades for free, at least in monetary terms. The other groups are doing work for their remuneration by the state and could at least in some cases earn much more outside the university or in a system of private universities only. Like the other members of the university, the students and especially their representatives are not grateful that they get money or something for free from the state but see this as an underprovided right and are used to demand more, often in an embarrassing way. This compensates for little real power, often preventing the small improvements that realistically would be possible. Some presidents and deans are quite good in using the student representatives, trading some symbolic politics for their votes in more mundane matters.

5. University reforms by the state

The German university system is changing right now. The main agent of change is the state,¹⁷ whereas the university's internal powers try either to resist this change or to make the best of it if they have not resigned altogether. The state has strong powers to change the university at its will, at least nominally, first by changing the relevant laws and second by providing most of the money. Here is the greatest external weakness of the university as a co-operative. It does not operate on real markets and does not earn its money from many customers. There are at best quasi-markets provided by the state that is at the same time the only important customer with monopsony powers. The German university as a co-operative depends on the state and is not survivable without it and its money, at least not in its peculiar form. However, the co-operative character may be destroyed even when the state keeps sponsoring the university but wants to change it too much. At the same time, it is not easy to bring about wanted changes by the state because universities are complex organisations and every change at one place may have unintended consequences at quite another.

The main aims of the state may be described as saving expenses, academic education for more students and world-famous research with better places in international rankings and even more Nobel prizes for scholars in Germany. On the one hand, these goals are mutual exclusive in a way. On the other hand, merely saving expenses is quite easy by squeezing the budget for universities (while ignoring the consequences), more academic degrees can be seen as a quantitative goal powered by incen-

Another important driver of change is increasing international competition for students, professors, ideas etc. Also the role of new technologies like the internet has to be emphasised.

tives (while ignoring the quality) and potential Nobel prize winners could be bought with a lot of money and concentrated at some elite-universities (while ignoring the fate of the numerous other universities). Politicians are working on all three fronts with more or less success.

One further factor is the change in the federal structure of Germany. Education in general and universities in particular are traditionally and by Basic Law the realm of the federal states, not the federation itself. Nevertheless, there was a trend of increasing centralisation by federal law and cartelisation between the states. This has been reversed in the recent past and replaced by more competition between the states and a withdrawal of the federation. This alone will bring about a greater differentiation between German universities, which in the past were believed (even if not totally truly) to be more or less equal in quality. The end of this equality (or belief in it) allows competition and real improvements, at least in some universities. Simultaneously, more inequality comes at costs like less motivation in the universities now clearly below average or less trust in diplomas such that more screening by companies becomes necessary.

More competition between universities for money and reputation is enough to transform the traditional co-operative model at the universities. However, there are much more changes putting the co-operative university under stress, perhaps even destroying it. First of all, there is a reduction in money in some states, at least in real terms and including all new duties the universities have to shoulder like paying pensions or construction by themselves. It seems fanciful to expect more performance by giving less and making this even more volatile and thereby risky. As long as lump-payments without any incentive effect could be replaced by incentive pay this might even work, as long as one ignores the allocation effect that the prospect of earning rents attracts better personnel in the first place (cf. Dilger 2001: 136-137).

However, the payment of all existent professors is fixed anyway and they cannot be replaced soon enjoying tenure. Only the basic pay of new professors is reduced and some kind of incentive pay is introduced for them, resulting in less and more risky pay than that of their older colleagues. Moreover, the incentives of the old system and especially for older professors are reduced or even abolished. In the past, they could get a raise whenever they had a job offer from another university (or from outside academia), now they would have to change into the new and less attractive payment system first. If they not only lose this last monetary incentive to work but are also frustrated by the other reforms, they could stop to cooperate and to work properly. In consequence, either the university breaks down completely or is totally transformed into a hierarchy run by administrators instructing junior staff while paying lot of money to a useless class of (former) professors.

Perhaps in preparation of this last scenario and anyway as a direct attack on the co-operative model, the corporate governance of universities is changed with the aim to give more powers to the leaders. The president and vice-presidents obtain more powers, both from above in form of some former rights of the state's ministry and also from below like competences formally held by the senate of the university or its faculties. At the same time, these top executives are no longer elected by their internal peers but by a new board at the university level, at least half of its members being externs. The executives themselves may be from outside the university. At the faculty

level, the formal power of the dean is raised while the normal professors lose accordingly. However, at least here at the faculty level, it remains possible that the professors defend their rights and keep the structure of a co-operative, for example by electing a weak dean or keeping a tradition to rotate this job every year even if the legal time in office is much longer (normally four years now). Although it is possible to undermine the spirit of new laws, some determination to do so is needed. If there is disagreement inside the faculty, the letters of the law win more weight.

Another area where the traditional model was attacked by politicians but seems successful in holding out is the boundary of the professors' group. In the 1970s, there has been the construction of assistant professors that finally failed. The last federal government created the category of junior professor who should count as a professor and vote with them, have the right to promote others short after his or her own promotion and could use a tenure-track to change his or her temporary position into a permanent one. As long as the federal government gave money for every new junior professor, such positions had been created but ever since new setups are very few. The accompanying attempt to forbid the habilitation, the traditional highest academic qualification in Germany to become a professor, has been toppled by the federal constitutional court. Legally, there are different equal routes to a full professorship including the habilitation and the junior professorship now. Practically, the habilitation is still the silver bullet and even many junior professors are writing a habilitation thesis. The reason is the behaviour of the established professors, collectively upholding the old norm that a habilitation is expected to become a professor.

Still another important change¹¹³ is the introduction of tuition fees. First long-time students had to pay, now in many states tuition fees of € 500 every semester for most students are in place. This is not cost-covering but, at least in cheaper subjects, it can reach a substantial fraction of the costs. The tuition fees have to be used to improve teaching while hiring new professors or other teaching staff is not allowed. This would raise a faculty's capacity and oblige it to take more students instead of improving the conditions for a given number. This shows how far German universities are regulated and away from proper markets. Nonetheless, it is a beginning to diversify to non-state funds and to respond to students' demand instead of only governmental planning figures. The universities also gain powers to choose their own students. The central placing service of students has been changed from an unavoidable bureaucracy to an optional service for universities. All these are first steps to change students from members of a co-operative university into customers.

6. Conclusion

The character of universities as co-operatives is under stress and the sponsorship by the state is reduced at the same time. These are two different but connected trends. The importance of markets is emphasised now although they are quasi-markets at best. There are some juridical risks in the political reforms from above but more im-

Still other important changes are the new bachelor and master degrees, the accreditation of programs of study, the contest to find elite-universities and the higher formalisation of doctoral studies. More reforms are to be expected.

portant are the motivational and organisational perils. Established professors could lose their motivation and enjoy their freedom and tenure. Teaching of not too high quality could be guaranteed by a hierarchy but academic research and training new researchers would suffer badly. By all its shortcomings, the co-operative university has the advantages of being time-tested and possessing some coherence. These would allow it to adapt to a future with less state-sponsoring, whereas the simultaneous pressures to make internal reforms that are steered from the outside and also to manage with less money could be too much to bear. This would not be the end of universities in Germany but of the German university in its co-operative form, which can be traced back, despite its many changes in the past, to Wilhelm von Humboldt (cf. Humboldt 1810).

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The idea of coherence is that there does not exist one best structure for complex organisations like universities. Very different organisations can be excellent, particular properties are less important than their combination. Different components may reinforce themselves and create synergies or be mutually exclusive. All this makes designing and changing such organisations very difficult because incremental improvements here or there may not work (cf. Baron/Kreps 1999; Roberts 2004).