The public choice of university organization
A stylized story with some explanation

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Abstract: The essay presents a highly stylized story of the reactions of the structure of a university to a constitutional reform – in the university law – that radically changed the power structure from a bottom-up representative system to a top-down hierarchical system practically without checks and balances. It was meant as a more business-like system to increasing effectiveness. However, the result has been precisely the reverse. Both the (relative) size and the salaries of the bureaucracy have increased, while its effectiveness has fallen. It is shown that the outcome corresponds to the predictions of Niskanen’s theory of bureaucracy. The bureaucracy has grown particularly fast in the special service bureaus outside the normal structure and in the PR-department.

Acknowledgements:
I am grateful to many colleagues and friends for information. As consistent data are scarce, rumors are plentiful at my university. I have tried to sort by true and false, and to indicate what is based on secure and uncertain information. Still far too much is based on uncertain guesses. I dare not hope that this paper will cause the University to start reporting consistent time-series data allowing us to see precisely what has happened.
I. Introduction: An organization under two systems

This essay gives an interpretation of a university reform process that went awry. The story told is highly stylized. The main effort is to give a theory-based explanation of a story that catches the key facts. It uses my own university as example. Many similar stories have occurred, as university reforms have international fashions. Denmark provides a fine example as the Constitution Law for the Universities was radically changed one decade ago:

The *old system* was a representative democracy, where the university rector, deans and chairmen of departments were elected by the staff and (with a lower weight) the students. 

The *new system* is hierarchical. A largely external board appoints the rector, who then appoints the deans, who in turn appoint the chairmen of the departments.

The stated purpose of the reform was to increase the efficiency of the universities by a more business-like management. Section 2 shows that the reforms have led to the reverse result.

1.1 Overview of the explanations

The theories deals with the two types of university staff: \( A \) is the academic staff. \( B \) is the bureaucratic-technical staff, to which the group of bosses belongs. The main variables considered are the A-share and the B-share. Section 3 presents theory predicting these shares. The key insight is simple: Under the old bottom-up system the B-staff is treated as a necessary cost that is controlled. Under the new top-down system the number and salaries of bosses grow rapidly. They have turned most of the B-staff into their *central* bureaucracy that is allowed to grow too. Some such shift is no doubt inevitable, but the size of the shift adds up to a substantial step into inefficiency.

The standard theory of economics deals with agents on a market that enforces cost minimization. In this theory bureaucrats are good ‘Prussians’ doing precisely what they should and nothing else (see Weber 1922). Public choice theory deals with agents, who are not on a market, but still behave like (other) human beings.

A special branch of standard theory deals with the *worker managed* firm. It can be combined with the Public Choice theory of *political markets*, where decision makers are elected. Together these theories explain why the old system worked fairly well. However, in order to justify

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2. The University Law has often been adjusted, but the big change from bottom-up to top-down happened a decade ago.
3. ‘Rector’ is term used for the university ‘president’ (USA) or ‘vice chancellor’ (UK).
4. Below we divide the B-staff into the large 'central' group and the small group remaining in the departments helping the A-staff. Part of the reforms has been to move as many of the B-staff as possible to the central group.
the reforms the new leaders have developed a story about how badly the old system worked. Below I show that it worked better.

Public choice theory also deals with bureaus with a hierarchical structure. Here Niskanen’s theory of bureaucracy is relevant. It shows how bureaus use murky information to maximize budget, staff and rents. If the bureau has an external board the problem of capture arises. It is shown that these theories provide a fine explanation of the dynamic path of the new system into inefficiency.

1.2 Three limitation of the analysis
A paper can only cover so much, so a lot has to be excluded. Three main limitations are:

(i) The story about the relation between the central administration and the administrations of the faculties is not told at present. The University leaders claim that the administration is integrated. I doubt that it is, but the available information does not allow much analysis of this aspect.5

(ii) The allocation within the A-staff is not discussed. The bosses will probably argue that they have improved this allocation. I assess that these improvements are dwarfed by the big misallocation between the A- and the B-staff made by the new system.

The author has, as I believe all economists do, taught his students the golden rule of trust in data: If a boss (of any kind) uses selected data to prove his case, but refuse to publish these data in a well-documented form, you should take it for granted that you are being manipulated.

(iii) The data for the University are as murky as predicted by Niskanen. Series are short, contradictory, rarely overlap, footnotes with definitions are missing, etc. From the golden rule follows that there is a lot the bosses do not want the staff and the ministries to know. The poor state of published data is a main reason for the stylized nature of the story.

In the last years I have spent weeks chasing data allowing me to understand what was going on at my university. It is easy to find some data, but they are always in incoherent bits and pieces. Gradually I have had to conclude that the poor data are deliberate. If somebody would provide me with consistent well-documented time series for the last 20 years, I would love to revise the paper.

The story is not about nasty or stupid bosses. It is about bad institutions inducing perfectly normal decision makers to give in gradually to temptations and pressures. The poor outcome represents revealed preferences and strong endogenous processes in a hierarchical organization with too few checks and balances.

5. It is possible that a partial explanation of the bureaucratic growth is competitions between the deans about the size of their B-staff. The Dean of Social Sciences recently announced that he has reached 291 in his administration.
2. The stylized story, with two main facts to be explained

Section 2.1 outlines the reform process. Section 2.2 gives a few data on the A and B shares leading to Fact 1. Section 2.3 looks at data for the perceived effectiveness of the administration leading to Fact 2. Section 2.4 considers the idea of a unified central administration, and finally section 2.5 depicts the two facts in a PPF-IC-diagram.

2.1 The reforms and their purpose: Centralization and bureaucratization

When the new law had given the University a new rector he started to build his senior management group, the SMG, and many new bosses were appointed. They isolated themselves in the Headquarter, which was greatly embellished, and vastly increased the PR-department. It appears that main efforts of the PR-department are spent on informing the rest of the staff in the right way. Then the structural reforms started.

All advice was based on the visions of the rector, internal discussions among the new bosses and reports by external consultants. Thus, the full responsibility for the reforms rests with the SMG, notably with the rector. The reforms have had four main axes:

(A1) Inclusion of as many other institutions of higher learning and research as possible.

(A2) Reorganization into 4 faculties (from 9) and 27 departments (from 56) to reduce their numbers and absorb the new institutions.

(A3) Creation of a unified central administration that is isolated from the ones administrated.

(A4) Weakening of all decentralized authority turning all non-boss staff into underlings.

When (A1) to (A4) are seen together it appears that what the SMG really wanted was power (as such) and turning the administration into a tool serving that purpose. They wanted to break the easy collaboration between the B- and the A-staff, and make the administration a real bureaucracy – their bureaucracy.

I wonder if the SMG fully recognized even in its own internal discussions that what they did was a centralization and bureaucratization, but somehow they all agreed that they needed higher salaries, more staff and more power. They did recognize that this was not what the A-staff wanted, and power for its own sake is not really nice, so the SMG came up with other reasons. Maybe they

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6. SMG is rector, his deputy, the four deans and the director. The external chairman of the board and the 14 (new) deputy deans and 9 (new) deputy directors, and about 15 (new) others, etc., also belongs to the ‘bosses’. The 27 heads of departments are (much) smaller bosses. The author has worked at the University for 38 years and knows a couple of these bosses from the old system, but he has lost contact since they were elevated. Most bosses never visit departments to mingle with underlings.
even believed these reasons, but they seem like really tired old ideas:

The words endlessly repeated are ‘modern mass university’, ‘globalized’ and ‘interdisciplinary’. Recently the chairman of the board summarized these ‘ideas’: They were to turn the University from a small provincial into a large international one. Also, the new structure would enhance interdisciplinary research that for some reason (not revealed) is declared to be the future of all research.\textsuperscript{7}

The relation between these words and the realities of the reforms has escaped most staff. If there is a relation it has certainly not been explained in an academically serious way.\textsuperscript{8}

The University has swallowed: Aarhus and Herning Business Schools, the Engineering College of Aarhus, The University of Education in Copenhagen, The Danish Centre for Food and Agriculture and Danish Centre for Environment and Energy (DMU, Risø), etc. It all gives an impressive bulk and large digestion problems.\textsuperscript{9}

The old faculties and the newly merged institutions were turned into four new faculties: Science, Health, Social and Arts, with 27 humongous departments with 250-300 people in each,\textsuperscript{10} having a leadership with little power. It appears that the idea of the merger was the same as the one of the collectivization of agriculture in Russia in the late 1920s. It was necessary for central control. It has, of course, loosened the loyalty of the individual A-staff to his department. Also, about 85\% of the B-staff was moved to one unified central administration.\textsuperscript{11}

2.2 Some data for the A and the B share: Fact 1 the large shift

The SMG often claims that the share of administration at the University is only 10\% and that this is normal, but it is unclear what the nominator and denominator in this calculation are. The following gives some numbers for the A and B shares – they look very different indeed.

Long time series for the University are not available, but scattered data exist for most years. They are rarely consistent and no footnotes give definitions. Many pitfalls exist: The University has a number of separate bureaus that grow rapidly. They may or may not be included. The same applies to postdocs and PhD-students, and staff financed from external sources. Thus, it is easy to

\begin{footnotes}
\item[7] Denmark has two universities built on the interdisciplinary idea in the 1970s – they have not been academically successful. But there are certainly fields (notably in the natural sciences) where cooperation between experts with different education is needed.
\item[8] While it is demanded that the A staff base their work on science no such demands are required from the bosses. They justify their decisions by reports from consultants, visions and fashions.
\item[9] The University is now at the locations shown at http://www.au.dk/om/organisation/find-au/bygningskort/?e=3d7b-687f-819b-4d2e-bc7f-b8c86b7d639400e. It is all over the country, and, of course, in China.
\item[10] I do not know a study of the optimal size of the staff of a university department, but my guess is that it is about 50.
\item[11] The note to Table 1 assesses that about 12\% of the B-staff is left at the departments to assist in teaching and research. This is 5\% of the total staff. The rest are directly under the SMG.
\end{footnotes}
manipulate the numbers. From the golden rule we trust that it happens. The numbers in Table 1 cover two years only, but they are presented in a most authoritative way so they may be consistent.

### Table 1. The employees of Aarhus University 2011 and 2012

<table>
<thead>
<tr>
<th></th>
<th>Total staff</th>
<th>Δ Increase</th>
<th>Shares of A in 2011</th>
<th>Shares of B in 2012</th>
<th>Δ Change</th>
</tr>
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<tbody>
<tr>
<td>2011</td>
<td>6,313</td>
<td>8</td>
<td>56.3</td>
<td>54.7</td>
<td>−1.6</td>
</tr>
<tr>
<td>2012</td>
<td>6,321</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A, Academic</td>
<td>4,905</td>
<td>325</td>
<td>43.7</td>
<td>45.3</td>
<td>+1.6</td>
</tr>
<tr>
<td>B, Technical-Administrative</td>
<td>224</td>
<td>333</td>
<td>100</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>All</td>
<td>11,218</td>
<td>333</td>
<td>100</td>
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Source: The bolded numbers are from the ‘AU in figures’ addition to Profile 13/14. It is made to be separated and folded to be carried in the shirt pocket by all staff. Different numbers for the A-staff are found on the home page: http://www.au.dk/en/about/profile/key_figures/2012/table-a2/. Both sources are weak on definitions.

Note: The University has 27 departments so it is 234 A-staff per department. About 600 of the B-staff are at the departments. It is 12 % of the B-staff and 5 % of the total staff. The total staff per department is thus app. 260.

The A-share was 54.7 at the end of 2012, so it is at most 54 at the end of 2013. Thus, the B-share is 46 %. When the 5 % B-staff in the departments are deducted the B-staff in the central administration is 41 % of the total staff. The increase in the B-share from 2011 to 2012 is unusually large, but it is only one step in an ongoing process. From scattered observations my guess is that the shift has been about 8 ± 3 percentage points since the reforms started. This is a low level of precision, but I have not been able to narrow it down. I want to repeat that I would be most grateful for a precise and well-documented time series. Thus, the first key fact to explain is:

(F1) The B-share has increased app 8 percentage points in the first decade of the new system.

All University salaries are on a public scale, but there has been substantial job re-classification so that the B-staff has gained strongly relatively. If all staff is ordered by the salary received from the University, my guess is that at least the top 70 would all be bosses in the B-staff. This number has gone up about three times since the reforms started, and the wage gap between that group and the rests has greatly increased. Thus, the increase in the B-share is larger if calculated in budget shares.

The increase in the B-share corresponds to a similar sized loss in the A-share, and those who suffer the loss are, of course, the promising young researchers seeking employment as assistant professors. They have to look elsewhere for a job.

Table 1 covers a year where student intake increased. This led to an increase in the allocation of funds to the University, and to a 3 % increase in employment. The table shows that the bureaucracy managed to appropriate 98 % of the increase. This is not what the Ministries of
Research and Finance wanted. Also, there is no indication that it was planned by the SMG at the start of the year – it shows the strength of the Niskanen-mechanism discussed below.

It further decreased the respect of the A-staff for the SMG that the University developed a budget deficit of about 5 % of the budget in 2012/13. By chance it corresponds to the salary for the two years of the 325 extra B-staff appointed in 2012.

2.3 The effectiveness of the administration: Fact 2 reduced effectiveness

In the new system bosses have no incentives to talk with the staff, and they have largely ceased to do so. However, they appointed a lot of PR-staff to talk the talk. The main source of information to the staff is now newsletters, brochures and pamphlets on glossy paper with text to match and many pretty color photos. People who have looked at the PR brochures from 2008-13 and then consider the data in Table 2 must think that there are two universities with the same name.

The APV was a poll done in 2012 of the A and B staff to measure stress at the workplace. Among the many questions posed were a few dealing with the relations to the SMG and the effects of the administrative reforms. Table 2 gives the items and the pattern in the answers. The top panel (I) shows that both the A-staff and the B-staff felt that the SMG does not listen and does not justify the decisions they make. Obviously, the efforts of the PR people have convinced very few.

| Table 2. The assessment of the SMG and the administrative reforms in the polled APV |
|---------------------------------|-----------------|-----------------|-----------------|-----------------|
|                                 | B-staff all     | B-staff Science | B-staff Health  | B-staff Social  | B-staff Arts   |
| I: Assessing the SMG, senior management group: |
| (1) Inform the staff about future decisions | 24 %            | 27 %            | 29 %            | 15 %            | 17 %          |
| (2) Listen to the opinions of the staff    | 15 %            | 18 %            | 18 %            | 7 %             | 7 %           |
| (3) Clearly justify the decisions made     | 16 %            | 18 %            | 19 %            | 10 %            | 10 %          |
| II: Assessing the administrative reforms: It is now better at |
| (4) Quickly react to needs arising        | 22 %            | 10 %            | 9 %             | 2 %             | 6 %           |
| (5) Treat everybody the same              | 57 %            | 35 %            | 34 %            | 22 %            | 38 %          |
| (6) Service and cooperate with the A staff| 19 %            | 9 %             | 11 %            | 7 %             | 11 %          |
| III: The relative satisfaction in the B-group and the four faculties |
| (7) The average of the six answers from    | 25.5 %          | 19.5 %          | 20.0 %          | 10.5 %          | 14.8 %        |

Note: The percentage (of all respondents) for the sum of the two positive of five categories: (i) Fully disagree, (ii) disagree, (iii) don’t know, (iv) agree, (v) fully agree. The APV was done in 2012.

The staff was also asked about the success of the administrative reforms. The results are given in the middle section (II). It is obvious that the staff thinks that the reforms have decreased the effectiveness of the administration. Thus, the second key fact to be explained is:
The efficiency of the administration has considerably fallen.

Rumors at the University say that the APV-results chocked the SMG. They probably believed that things were going as well as described by the PR-department and their courtiers. It also appears that the Minister lost confidence in the SMG. And he appointed a new chairman, known as a troubleshooter, to the board. Soon after the rector, and a little later his deputy, were not reappointed.

The last row (7) of Table 2 shows that the B-staff is the least discontent, while the A-staff in the Faculty of Arts and, in particular, Social Sciences are the most dissatisfied. The main purpose of the reform was to bring the University under a more effective business-like management. If the answers to the six items in the two tables had been a poll of the customers of a company, the SMG would surely have seen a much larger replacement.

The new rector has been an active teacher and researcher till recently. He joined the SMG a few years ago only, and he has made nice speeches, and even started by visiting the departments. So there is some hope of changes. However, he has joined an almost intact group of old bosses and he is subjected to the same temptations and pressures as the old one.

2.4 The idea of a distant unified central administration

One of the key policies of the SMG has been to create a unified central administration that is strictly separated from the A-staff.

The centralization has progressed in three main steps: In the old system the administration had two anchors: One to the director (and the rector) and one to the (old) 9 deans, who worked within their faculties. First, the second anchor-line was severed. Second, the (new) 4 deans were moved to the Headquarter. Third, the ‘central’ B-staff was moved to buildings close to the Headquarter, and the A-staff was told not to enter. Also, all telephone calls have to go through an entry level service. These are radical reforms with a clear purpose: The B-staff should work for the SMG and not for the A-staff. As shown in row (6) in Table 2 this has been a big success.

The primary activity of teaching and research are done by the A-staff, so they are the ones who know what is going on, and the first to see problems that occur. Consequently, the separation has greatly reduced the information flow to the administrators. The bosses keep stressing how hard the B-staff works. This is probably true. It is much more difficult to administrate when you are isolated from the sources of the information needed. If your boss demand that you work with one hand tied behind the back the work gets much harder.

It has also made the administrative chores at the A level more cumbersome. Thus, the total 12. The information void of a ‘dictator’ only informed by courtiers is a key theme in Wintrobe (1998).
amount of time used on administration has gone up, and administrative lags have increased. In short, it has changed our friendly and efficient administration into a heavy and slow bureaucracy.

Nobody in the A-staff wanted a large unified anonymous administration in a distant building. We want a flexible administration that is easy to communicate with. Clearly the whole idea of a unified central administration is a silly, harmful idea seen from the interests of society, the students and the A-staff. Also, it has made the work of the B-staff more mechanical and dull.

But it did change the B-staff into a tool of the SMG, and it created a big need for more bureaucrats, and hence more bosses, so the B-staff had to be increased and consequently the A-staff had to be reduced.

The productivity of the B-staff has fallen in two ways. (i) There are relatively more people doing the same work, and (ii) what is done is not the same work, but something less, especially as all administration is substantially slowed down. The right forms have to be filled in for trifles, etc.

2.5 The stylized story on figure 1
The rumors are that the SMG and the other bosses have held numerous meetings about their reform strategy and high goals, and the importance of talent development, etc. However, the combination of (F1) and (F2) is bad and harmful, notably for talent development. It needs an explanation why the SMG that consists of both intelligent and well-meaning people can make decisions that end up generating an outcome that presumably is the reverse of the desired.

Figure 1 shows what has happened. The two main curves are PPF, the production possibility frontier, and IC\textsubscript{max}, the best indifference curve for the population. If the University was ruled by the mythical beast known as the omniscient and benevolent dictator, it would produce at the OBD-point. In practice it is impossible to reach that point, but one should try to get close.

The ineffectiveness is shown as the distance to the OBD-point. It is I\textsubscript{O} in the old system and I\textsubscript{N} in the new system. The old system had a relatively high A-share and some ineffectiveness. If the reforms had aimed at identifying and reducing this inefficiency, most observers would have liked them. However, the reforms have not been concerned with such trifling matters – they have been visionary aiming at totally restructuring the University.

The thick gray arrow shows the path of the reform process. Reforms are costly, so the curve is not a straight path from old to new, as drawn by the dotted arrow, which has a slope of app -45 degrees (as per equation (3) below). It is rather a curved path that is below the straight path all the way.
The short-run total costs of doing the reforms, is due to half the staff being reshuffled: It has costs of fees to consultants and movers, work lost, renovation of buildings, etc. It amounts to about 10 % of one annual budget. That is twice as large as the deficit in 2013.

The new system has two characteristics as explained above. (i) It has a lower A-share. (ii) It is further away from the OBD-point, so it is less efficient. The SMG claims that both the A and B staff have to learn from doing under the new system before it works as envisioned, but it is clear that efficiency is permanently lower under the new system.

13. The fee to consultants was announced to DKK 197.5 million. My guess is that the fees for the movers must be close to DKK 100 million. As about half the staff have been moved from one building to another they have probably spent two weeks of time, packing, unpacking getting telephones and computers working etc. This is 2¼ % of the budget or DKK 120 million. If the cost of repainting, new furniture, etc., are added, it all comes close to DKK 500 million, which is 10% of one annual budget of the University.
3. The theory explaining the story

Section 3.1 deals with the standard theory of a university as a business, which is strongly at variance with the empirics. Section 3.2 looks at the theory of the worker managed firm, while section 3.3 considers the self-controlled hierarchical organization. Section 3.4 surveys Niskanen’s model, while section 3.5 looks at the theory of regulatory capture. Finally, section 3.6 shows that the new system has much fewer checks and balances than the old one.

3.1 The neoclassical framework: Any relevance?

Public universities are not business enterprises. They are some sort of SOEs (state owned enterprises), with a complex product. The old system was almost a bottom-up ‘worker managed’ firm and the new system is a top-down ‘self-managed’ firm.

Consider a model with two categories of expenditure: A-staff, $A$, and B-staff, $B$, and take the costs of buildings, furniture, computers, travel etc. to be proportional to $A$ and $B$ and included. The production function is:

\[ Y = F_1(A(B)) \text{ or } F_2(A, B), \]

where the equal productivity condition is \( \partial Y/\partial A = \partial Y/\partial B \)

The formulation $F_1$ reflects that the product $Y$ is produced by the A-staff, but they have to have some technical-administrative support, their salaries have to be paid, the premises have to be cleaned etc., so perhaps formulation $F_2$ is preferable. The micro-theory of (1) can be developed as usual. Universities are constrained by budgets, $C$. The next point to note is the budget constraint:

\[ w_A A + w_B B = C, \]

where the $w$’s are wages. By a division by $w_A$ (2) yields

\[ A + pB = C/w_A, \quad \text{here } p = w_B/w_A \approx 1. \]

Is the price of one B-staff in terms of A-staff

The marginal A-staff is an assistant professor. The equal productivity condition can be used to discuss substitution between $A$ and $B$ so that:

\begin{align*}
(4a) & \quad \text{If } \partial Y/\partial A > \partial Y/\partial B, \text{ some } B \text{ s should be replaced by } A \text{ s} \\
(4b) & \quad \text{If } \partial Y/\partial A < \partial Y/\partial B, \text{ some } A \text{ s should be replaced by } B \text{ s}
\end{align*}

These simple equations are easy to develop and make (much) more complex, notably by dividing $A$ and $B$ in more categories.

Business managers are responsible to the shareholders, and there is a bottom line, everybody
can see. Also, there is a market for shares that signals how outsiders think that the company is doing. The high salaries of some business managers are justified in the value they add to their company. This is measured as the profit of the firm and by the increase in the share prices.

The University is owned by society, and the bottom line is the budget minus the costs incurred, not the ‘sale’. Also, there are no shares on the market. Thus none of the market signals that keeps a business on track works.

Imagine that there had been shares with a market price. It would surely have dropped like a stone after the first couple of years of the reforms. This would have told everybody that the SMG and their staff generated negative value, and their salaries should be adjusted accordingly. This would have caused many to leave and the policy to change.

3.2 The old bottom-up system: A worker-managed firm?

Under the old system, the staff and the students elected the ‘political’ bosses.\(^{14}\) That is, the rector, the deans and the heads of departments. They appointed the administration, but as the bosses had to have the confidence of the voters, they talked \textit{with} them. Also the administration had one line of control that was anchored locally at the faculties. As most of the voting power was delegated to the staff it was some kind of a worker managed firm.

A large literature discusses how much voting enforces rationality. Most of this literature deals with national elections; see Nannestad and Paldam (1994) and Wittman (1997). It appears that in elections of great interest to the voters – as the one discussed – the imposition of rationality is fairly large. Swiss Cantons are rather independent and studied in a large literature. Six cantons are smaller or of about the size of Aarhus University (when the students are included). It appears that they are well run, and has little unnecessary bureaucracy, see Christoffersen \textit{et al.} (2014).

A small literature discusses the theory for the worker managed firm. It was started by Ward (1958) and Vanek (1970). It concentrated on an idealized version of the Yugoslavian system – known as the Illyrian firm\(^{15}\) – and showed that in theory such firms might work rather well. When the Yugoslav political system collapsed so did the economic system. Since then little has been written about that case.

Over the years a lot has been written about the Kibbutz in Israel.\(^{16}\) They did well up to a

\(^{14}\) The University Law of 1970 gave equal power to the students. This turned the universities into palaver clubs with endless meetings, but gradually the system was changed into representative democracy where the staff had most of the voting power. From about 1990 to the big reform in 2003 are the good years of the old system. They are certainly the best period I have experienced.

\(^{15}\) The Roman province of Illyria was located much where Yugoslavia used to be before 1990.

\(^{16}\) The author has been tutored in the subject by Yoav Kislev (Rehovot School of Agriculture), who is one of the leading experts; see Csaki and Kislev (1993) and Zusman (1988).
point, especially when they were subjected to military threats from abroad, but they had big problems when the economy of Israel became a normal western economy.

Also, it is a fact that most worker managed firms in the West have done a little below average in the marketplace, except in small high-skill firms in law, architecture, accountancy etc., where young employees after a test period become partners and co-owners in the firm. The empirical literature of 43 papers till the early 1990s is submitted to meta-analysis in Doucouliagos (1995). It appears that the productivity is much the same in worker-managed firms and other firms.

Thus, it is not surprising that the University had an effective and rather cheap administration under the old system, and due to the representative democracy and the normal sized departments with about 40 – 60 staff per department, the staff really felt that they belonged. The main advantage of the system was that it kept bosses from doing things that could not be defended, when they had to face the voters. It also forced the bosses to be accessible. The main reason why the system worked reasonably well is probably that it was a decentralized system.

However, there were some problems of slow adjustments to national and international conditions, at least in some departments, and the structure of the University was somewhat conservative. The Ministry tried to force the universities to adjust to both productivity and the demand on the market for the candidates by the way budgets are allocated to faculties and studies. Two principles were (still are) used: (1) money accrued to the studies according to the amount of exams (STÅ) produced, and (2) the STÅs were given different prices according to some norms said to represent and assessment of the value for society of these exams and the nature of the studies.

Clearly the system worked reasonably well. But instead of trying to adjust the system to be better the SMG decided to change it completely, with results as told. To get some insight in the institutional dynamics that have caused all the problems it is necessary to consider the theory of Public Choice. It is a rather large field so I will refer to the more basic work only.\(^\text{17}\)

3.3 *The new top-down system: A self-managed firm?*

In the new to-down system bosses are in no way responsible to their underlings. Hence, the SMG lost the incentive to communicate with the staff, and largely stopped doing so. From time to time SMG members give talks to *tell* the underlings what has been decided, but as far as I know the SMG has never changed anything based on information from the bottom. Hence, the need for the large PR-staff making flashy pamphlets telling us underlings how great everything is.

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17. The standard references to public choice theory are Mueller (1997 and 2004), Rawley and Schneider (2004) and Shughart and Razzolini (2001). This paper is meant to be readable to people outside public choice as well, so the theories are covered with nutshell verbal surveys only.
An important point that will be further discussed in section 3.6 is that while the responsibility to the staff was abolished, it was not replaced with anything else.

Apart from the budget the SMG is mainly responsible to the board, but as seen in section 3.5 this is not a serious constraint. Also, the University has a ‘contract’ with the Ministry. The contract is available on the net.\(^{18}\) It is full of detailed goals in all kinds of fields. The more goals the larger is the leeway. As far as the rumors go, the contract does not seriously constrain the University.

Also, the University has no sales revenue, so the bottom line is the budget minus the costs. The budget is dependent on the number of students and the production of exams as said. Basically the University has little influence on the size of the budget. As long as the costs are within the budget the SMG can do pretty much, what they want.

As seen in section 2.2 the SMG has redistributed the staff substantially from A to B. Some of the largest redistributions have been from regular staff at the departments to ‘service-centers’ that were meant to help the regular staff. They actually do, but once started, they have started to grow rapidly. In addition, many new centers doing interdisciplinary research have been set up.

### 3.4 Bureaucrats as humans: Niskanen’s model – bureaus want to grow

The basic insight about bureaucracies is due to (the American) William A. Niskanen.\(^{19}\) His book from 1994 brings his papers (from the 1970s) in the field. The key observation is that all bureaucrats have a joint interest in the growth of their bureau. It gives jobs, perks and appointments.\(^{20}\) The key method to reach these ends is to make it as unclear as possible what they produce and what the necessary costs are. Therefore the bureau stress multiple and grand goals – not few and concrete goals.\(^{21}\) It makes sure that statistics is unclear with shifting undefined criteria so that the data cannot be compared over time.

Under this cover the bureaus try to appropriate as much rent as possible. In Niskanen’s model they appropriate it from the tax-payers. They receive a consumers’ surplus from the production of public goods, and the model predicts that bureaus grow till they have appropriated all consumers’ surplus. Then the tax-payers gain no net welfare from the public good produced and the bureau gets everything. Then the budget becomes binding. This can be nicely illustrated by

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19. Niskanen’s examples were from his time as a young bureaucrat in the Pentagon, i.e., the US ministry of defense. I propose that universities are a similarly fertile area of study.
20. A literature has experimented with models for the three goals of the bureau: Budget, staff and rents. I only consider results that are robust to all three goals.
21. The age-old goals of universities are to produce teaching and research, but the University also stresses that it should provide popularization of research and policy advice to the general public and the various organs of the state. Adding soft goals is the classical method to make goals less transparent.
diagrams or solved as a maximization problem, where the constraint is the taxpayer reaction that must occur when the consumers’ surplus disappears.

In the case of the University the B-staff has appropriated rent by squeezing the A-staff. This is surely not what the individual B-staff wants to do, and not what the SMG want either, but there is a temptation – and as the marginal A-staff is an assistant professor, who is not even hired, it appears an easy choice for a boss who wants another man in his bureau. The B-staff is isolated from the A-staff, and the SMG has turned the B-staff into their instrument, so there is a steady upward slide in the B-staff. Also, thanks to extra work necessary when the information flow from the A-staff to the B-staff was reduced, the B-staff desperately needs more people to do the work.

The university strategy statements stress how important it is to nurse talent and the brilliant research done by young researchers. But it is never mentioned that every time a new boss is appointed it costs the University two assistant professors and every time a new B-staff is needed, it costs one assistant professor. And now when the University has overspent it essentially means that such talent will have to look elsewhere for positions for the next couple of years.²²

The slide was slowed down by the good Prussian tradition of Danish civil servants, who work hard to do their duty. But if the reader looks back on Table 1, it is obvious that things have reached a point where the B-staff has managed to appropriate all the marginal change in staff.

This theory also explains the rapid growth of the semi-independent service centers. They all do something useful, but the theory predicts that they will keep growing till they have appropriated all consumers surplus of the rest of the University. Hence, they grow till they stop generating any net welfare to the rest of the University. Some already seem to have exceeded that point.

Niskanen’s theory was independently developed by (the Hungarian) János Kornai in his theory about soft budget constraints (see Kornai 1986).²³ His idea is that when any organization has a soft budget constraint, it will inevitably expand till the constraint grows hard. It might take some time, but it will inevitably get there. Niskanen used empirical examples, but Kornai is a theorist, so he derived his theory from economic fundamentals. Essentially people want to maximize costs, and they will slide into doing it until something stops them. In Kornai’s terminology they will always push on till the soft budget constraint becomes hard. Good Prussian traditions will only delay the process – not stop it.

Still another aspect of the model is the ‘flypaper effect’. It deals with a bureau that

²² The new rector has announced that the B-staff will have to save more than the A-staff, but this is one of these announcements that nobody believes before it happens. Also, the first big savings project announced has been an early retirement scheme addressed to the A-staff.
²³ Kornai developed his theory at the same time as Niskanen. I heard Kornai presenting it at an UN-ECE conference in Bulgaria in 1971, before Niskanen’s first book came out.
administrates a flow of money that should be passed on. The empirical observation is that such bureaus always manage to extract some rents. This observation moved from the vernacular into economic theory by the neat model of Hamilton (1983). The budget to the University is, in principle, given to the faculties and even departments. But on the way the flow encounters the SMG (incl. the deans), who has great freedom to tax.

The same applies to external grants where the freedom to tax is levied with a rather heavy hand – the tax wanted by the SMG has steadily risen to 45%. It appears that most private donors refuses to pay, and gets away with it. So, in practice, the high tax is a transfer of public research money from research to administration.

So it is no wonder that Aarhus University managed to increase the share of the administrative staff by 8% over just a decade. This is bad, but it is really a shame that this is accompanied by a decrease in the effectiveness of the administration, even when all the bureaucrats are reported to work very hard! My claim is that if the contact between the A- and the B-staff had not been severed, it might still have happened, but it would have happened more slowly and without a large decrease in the effectiveness of the administration.

3.5 The theory of regulatory capture

In connection with the international banking crisis (2008-10) it was often proposed that public agencies regulating banks should be introduced, to prevent such crises in the future. But there is a problem: Such agencies already existed, and had done so for a long time. There is no obvious relation between the seriousness of the crisis and the size and power of the existing regulating agencies across countries. Clearly, it is a problem if regulators actually regulate.

The classical papers on this observation are by George J. Stigler. He analyzed time series for the relevant outcome before and after a regulating agency was introduced. There was often a short blip when the agency was introduced, but no lasting impact. Basically, the outcome was the same before and after, so the regulating agency had no effect. This made Stigler propose that such agencies are normally captured by the regulated.

The theory of regulatory capture does not have a basic formal version, but a lot of arguments have been made to explain the process, and numerous cases have been cited in its support. The main explanation given is much in accordance with Olson’s (1965) theory of collective action: The regulated is a small group with strong interests that is easy to organize, while those who benefit from the regulation are many, who are much more widespread and each has small interests, so they

24. The studies are published together in Stigler (1965). They were mentioned in the motivation when he was awarded the Nobel Prize in 1982.
are much more difficult to organize. Hence, the regulated can exercise much stronger political pressures on the agency than the intended beneficiary of the regulations.

Most University board members are appointed on the advice of the SMG, and get all their information about the University from the SMG. So all conditions for a successful capture are present, and it seems to have happened. It was only when the APV made the problems visible and the deficit started to emerge that the board took the step of not reappointing the rector (and his deputy), but the deans and the director all continue. The chairman of the board seems to visit Aarhus only for the board meetings, and when he speaks, it is obvious from where he has his ideas.

3.6 Checks and balances abolished

Many observers of the human condition have noted that power is an intoxicating drug that creates dependency. Therefore, it has often been proposed that organizations should have some checks and balances. In the old system the need of the main bosses to be elected and reelected did exercise some control. There was also a board of elected representatives, and in some distance a ministry with some little control over the budget.

In the new system no boss needs to be elected, and no voters can demand information. And the board is captured. As before, there is a distant ministry which control the budget and little else.

Thus, there has been a dramatic reduction in the checks and balances in the system. The parliament wanted a more business-like management, but the outside controls of business in the form of sales on a market and a balance sheet are missing. Also there are no shares that are traded on the stock exchange. The University is careful not to publish statistics that allow outsiders (such as the staff) to follow what is going on.

It is important to recognize that it is not easy to think of effective safeguards in a public university. As the normal market signals do not work and boards are easy to capture, it is very hard to come up with anything, but control from the staff. Thus, it would seem that some sort of representative democracy has to be reintroduced to get the University back on tracks.
4. Some examples

Where the biggest growth has taken place at the University is in the semi-independent centers set up to service the A-staff. The important point about these centers is that on the one hand they are doing something useful, but on the other hand they are too big and growing – precisely as predicted by the Niskanen-Kornai theory. The SMG does not appear to try to assess the marginal costs and benefits of such centers. It rather appears that each center is a client of one boss who provides protection.

Section 4.1 deals with the PR-staff that has increased tenfold under the new system. A similarly large increase is in the staff teaching teaching as discussed in section 4.2. Section 4.3 lists a few more cases. Section 4.4 considers internationalization, and finally 4.5 turns to an indicator of the character of the old and the new system.

4.1 PR-staff: The biggest expansion area

One of the fields where information about the B-staff is most hidden is the field of PR-staff that is listed under various names, such as communication, branding, press officers, and under the heads of the internal Newspeak journals, etc. Most of the many positions are new. They have probably increased from less than 10 to more than 100 in the last decade. As the rest of the B-staff they are carefully shielded from contact with the A-staff.

I think that a time study of the workload would show that the main job of this large new group is to put the right spin of all information coming from the top to us underlings. To this end they issue many glossy brochures and periodicals. Normally there are a couple of fine color photos of the rector surrounded by smiling students, or brilliant young researchers doing nice research. All pamphlets concentrate on the good news and the text is carefully drafted so as to have the glossy hype preferred by PR-people. The way I understand it is that they describe the University as the SMG want it to be:

The sun is always shining, the students are happy and the University is already doing great and very nice research and will do even more in the future. Also, it is stressed how interdisciplinary everything is: We all work hand in hand, while we dance and sing. There is nothing about the core strategy of centralization and bureaucratization. Nothing about young researchers seeing doors closing, …

It is a simple fact that few of the A-staff even open these brochures, and when they do it turns them grumpy. And as shown in section 2.3 the staff of the University feels that it is poorly informed about the reforms. The A-staff has a long training in reading and understanding difficult
stuff – and the papers we produce contain rather few glossy photos. So the great efforts of the army of PR-people do not work. It rather increases the rumors and it certainly does not increase the credibility of neither the PR-army nor the SMG.

Part of the PR activities is in branding. Everything we do should advertise our University. So that, e.g., all e-mails are doubled up with branding, our home pages should be a branding instrument with fancy maps of the location of our co-authors, all under the control of some anonymous bureaucrat, etc. It is worth remembering that ‘branding’ started as a mean of making sure everybody knew who owned the cattle. Perhaps the branding chief should ask himself if the cattle really like to be branded.

4.2 Teaching of teaching: An equally rapid growth

In order for a university teacher to teach well she needs both experience and some coaching. The coaching is concentrated on the assistant professors. They should also teach, and to get tenure they desperately need to do research. However, they have been a school the previous 20 - 22 years and most have been teaching assistants. As they cannot spend much time learning more about teaching, they quickly get impatient with courses with a high ratio of big wooly words to substance.

The teaching of teaching is a major growth industry at the University – especially at the Faculty of Arts. In 2007 Aarhus University merged with the Danish University of Education, which is now the Department of Education. It has the standard size of a department at the University, with a staff of about 250 of which 157 are full time A-staff and 26 are part-time. Thus the University has abundant capacity to teach teaching.

In addition the Faculty of Arts has a Centre of Teaching Development and Digital Media with a staff the home page claims to be about 60, even when it lists 108 people. The home page gives no information about the history of the center, but when you check the CVs on the home page, it becomes evident that it has grown rapidly in the last 5 years. Thus, the teaching of teaching seems to be the largest single activity at the Faculty of Arts.

For a number to compare with: About 5 people teach Slavic languages, literature, and culture. This is down from about 15 just 20 years ago. So while the students get fewer teachers they can rejoice in the thought that an army of teachers teach them teaching!

Other faculties also have such centers. The Faculty of Social Sciences has the CUL, Center for Teaching and Learning. It started in 2007 with one man, known as a good undergraduate teacher. Now he is the leader of a center with 22 people. The faculty has about 60 assistant professors. For the next few years there will be much fewer. Thus, 22 teaching coaches seem rather excessive – 3 would appear more reasonable. But of course the center has made a big effort to find
things to do to justify further growth,\textsuperscript{25} as a look at its home page will show.

\section*{4.3 Some other centers}

In connection with internationalization the SMG has created an international center. To help foreign staff and students coming to Aarhus and native staff and students going abroad. All departments had B-staff specializing in this, and it is much easier to talk to them, but still the new center has its uses. It started with a staff of 22 just four years ago and it has already reached 31. This is an annual growth of 9\%, with no end in sight.

The Technology Transfer Center is a commercial type enterprise helping researchers at the University making contracts with private companies and international organizations. It appears that the balance sheet lacks both (imputed) income and expenditure posts. As the data are now it appears that there is work for two to three people in this field, but the director of the center has a staff of 17.

Aarhus University Press is publishing books written by the University staff and others. Most books published sell in app 200 copies. Nearly all the manuscripts come with a big subsidy and authors get no fee. But Aarhus UP runs with a deficit, so app. every fifth year the equity capital is exhausted. Then new capital has to be paid in by the University – each time with a stern warning that this is the last time. Thus, the University has for many years taught Aarhus UP that it has a soft budget constraint. It is no wonder that the books published are very handsome.

Another center is the brand new AIAS, Aarhus Institute of Advanced Studies. It is the flagship in the interdisciplinary internationalization strategy of the SMG, and as fits for a flagship no expenses have been spared. The idea is to invite foreign star researchers in different fields to come and spend time together with a similar sized group of University star staff in a special center that is isolated from the rest of the University. It seems to be an expensive way to create precarious little internationalization, but hopefully the foreign stars will be carefully branded.

\section*{4.4 A note on internationalization}

In the various international rankings the University has been around No 100, just after Copenhagen, for the last two decades where such rankings have been made. In a world with about 25’000 institutions of higher learning this is not bad, especially for a university in a small county, with its own language. Those of us, who regularly visit foreign universities, will probably agree that Aarhus University is a reasonable one.

The author started his career at the University in 1975, where the department was almost

\textsuperscript{25} Their biggest accomplishment is that they made the APV discussed in section 2.3.
purely domestic, but this started changing in the late 70s. Since then internationalization has accelerated. In other departments a similar development occurred – sometimes a little before, but normally a little later. This is reflected in staff, publications and citations. With the large increase in the quality and accessibility of international search engines it is easy for all of us to check everybody’s publications and citations. \[26\] I think that the University do rather well compared to a similarly sized state university in the US.

The secret of internationalization is networking, where researchers come to know foreign colleagues working in their field. They meet at conferences, exchange papers, and come to work at joint papers or in joint projects. Due to the deficit funds for such cooperation is being reduced.

The A-staff has lots of such connections, and more than 95 % owes nothing to the initiatives of the SMG. Still it seems that the SMG believes that internationalization is something they do. How they can possibly believe so, I fail to understand. Why it helps the internationalization of the University that academic staff is rapidly being replaced with technical-administrative staff and travel budgets are being cut is really strange.

4.5 Art acquisition and display: Indicators of the distribution of power under two systems

Artists have to find donors and therefore art follows power. Aarhus University has a fine policy of buying art, and Denmark has an active art life. Most of the leading artists during the life of the University are nicely represented on its walls. A recent book (Laugesen 2013) covers the fine art collection. The display of the new art purchased indicate the distribution of power.

Under the old system art was distributed all over the University, especially where many people passed. Maybe they did not look at it, but they could – and some did (we still do).

Under the new system the art purchased serves to embellish the Headquarter of the University, notable the SMG corridor and the meeting room of the rector, which is also the room where ministers, ambassadors and rectors from other universities are received. The University even had an artist in residence for several years working on this project. Underlings do not see this splendor, but a handsome book shows what has been done, see Hansen (2010), and hopefully guided tours will soon be organized.

There has been a rumor that the (old) rector had plans to build the highest tower in town on the University premises, and that he planned to top it with a gold-plated equestrian statue of himself. It seems that the first part of the rumor is true, but the second part is probably false.

\[26\] In my opinion the best such engine is Harzing’s. It is free to use, see references – the reader may check how it works by looking up the stars at AIAS.
5. Conclusions

One telling event in the saga of the reforms occurred about a year ago when the Dean paid one of his biannual visits to the Department to tell us, what the SMG had decided and how well everything was going. At the end some questions were allowed. One was if the Dean would be so kind as to point to something that had improved for the A-staff, as a result of the reforms. After an embarrassingly long period of thinking the Dean had to give up.

I know that the SMG consists of perfectly normal and reasonable people. Over a period of about six years they made a large set of bad decisions: Far too many bosses were appointed, at far too high salaries, they have increased the administration and at the same time reduced its quality. The departments have been merged to a humongous size that makes no sense, etc. Service bureaus have been allowed to grow out of hand.

The simple truth is that it is dangerous if the group of bosses in any institution has too few external constraints, and cut themselves off from all feedback from their underlings. Then they gradually lose their internal constraints; develop steadily more wishful thinking; and slide into empire building and the consumption of rents. Hence, the center grows and those left in the periphery are squeezed. What has happened at my University is not strange – much the same has happened at other universities. It has just gone a little faster at Aarhus.

I think that the main policy message is that power is a dangerous drug, and all organizations need checks and balances. In Danish Universities the academic staff has no power at all, and consequently most bosses have stopped talking with them. The key problem is that nobody else outside the SMG and their subordinate bosses has any real control over what happens. The board is captured and as long as the SMG manages to obfuscate all statistical information they can do almost what they want.

Above we have seen what they did. It is certainly not what they said they wanted to do, and perhaps it is not even what they believe they tried to do, but still it is what they did!
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