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**Changes in Allocation Mechanisms for Higher Education
Institutions: The Swiss Case¹**

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Introduction

This collaborative project between the Observatory Science, Policy and Society (University of Lausanne, Switzerland) and the NCEDR (China) compares the State-University relations (cf. Henkel, Little, 1999; Braun, Merrien, 1999) of the Chinese and Swiss Higher education Systems by developing an analytical focus on allocation mechanisms.

Indeed, international comparisons of European higher education systems have revealed changing patterns of higher education funding: mainly, an increase of funding per project and private funds, a reduction of institutional allocation, and a tendency toward a more

¹ Part of the data presented in this paper comes from the PRIME international research project (Policies for research and innovation in the move towards the European Research Area).

competitive mode of allocation (Benninghoff et al. 2005; Lepori et al. 2007). The scope of change can nevertheless vary from one country to another and between Higher education institutions.

Therefore the aim of this comparison is to analyse changes in funding processes and to identify the mechanisms, incentives and rationalities lying behind them: to which extent do we observe similar tendencies in China and Switzerland, and how can we explain possible differences?

In order to answer this question, the following stages could be taken into account.

- A first stage deals with the national context in order to grasp contextual constraints and logics, as well as path dependencies: in international comparison, national specificities (culture, political system, economy, etc.) are often stressed to explain differences at policy and system level (Senker et al. 1999; Lepori et al. 2007). Therefore, it seems useful to describe for both countries their main political and institutional characteristics.
- A second stage concerns allocation mechanisms in regard to national context. In order to compare the scope of change of the allocation mechanisms for specific Higher education institutions, we will describe the general allocation mechanisms for both Higher education systems. This description will be based on a funding typology. A diachronic analysis will allow measuring the general scope of change for both countries.
- A final stage is dedicated to the comparison of allocation mechanisms in *four distinct Higher education institutions (HEI)*. The idea is to move from a policy-legal point of view to a more institutional and practical perspective. The national allocation system can be interpreted, on the one hand, as the framework within which each HEI operates (a kind of constraining structure) and, on the other hand, as a financial resource by which each HEI defines its own strategy, or what we have called “the degree of freedom in fund-seeking” (Lepori et al. 2007). The selection of the HEI is based on different criteria (see, Vught et al. 2005; Huisman et al. 2007): the disciplines offered, the number of degrees awarded, the size (number of students), the number of disciplines/subjects, the number of publications related to total staff number, the type of degrees offered. Therefore, the study could compare four different types of HEI: internationally well known, nationally oriented, regionally oriented, and professionally oriented.

In this paper, based on research already carried out on this issue, we *first* describe the main characteristics of the Swiss Higher education system at different levels (section 1), *second*, we present the budget structure and funding mechanisms for each type of Higher education institutions (section 2), *third* we analyse the main changes in terms of allocation mechanisms (section 3), *fourth* we discuss some advantages and disadvantages of each type of allocation mechanisms (section 4) and finally we present some concluding remarks.

1. The Swiss national Context²

Historically, in Switzerland, higher education and research policies have been a shared prerogative of the cantonal (regional) and Federal (national) authorities, even if the cantons have more legal competences in higher education. This organisation takes its roots in the national political system, identified in terms of executive federalism: the Confederation's (federal authority) competences being subsidiary in comparison to the autonomy of the cantons in public affairs³.

The last fifteen years have witnessed important changes in the structure of the Swiss domains of education, research and innovation (Benninghoff and Leresche, 2003; Lepori, 2007). Different factors can be advanced to explain these changes: a rapid augmentation in the number of students during the 1980s due to the 1960s baby boom, the retirement of numerous professors, a political will to integrate the European economic market, an increase of the unemployment rate, a decrease of the small and medium enterprises' competitiveness, and, last but not least, a crisis in public funds (during the 1990)⁴.

Due to these structural and social changes, different political and administrative reports have pointed out the necessity to optimise the use of public money and to increase the efficiency and the effectiveness of state actions. In order to achieve these goals, policy-makers have stressed the importance of *coordination* and *competition* as new patterns of state regulation in higher education and research (Weber, 1998; Perellon and Leresche, 1998, Baschung et al. 2008). We present now the characteristic of the Higher education system and its main changes.

1.1. Federal level

At the Federal level, two ministries are mainly involved: the Federal Department of Home Affairs and the Federal Department of Economic Affairs. Each department is specifically in charge of a subsystem: the Federal Department of Home affairs deals with the universities, which are oriented toward higher education and fundamental research, while the Federal

² The sections 1 and 2 are extracts of a forthcoming publication (Baschung et al. 2008).

³ In Switzerland, the principle of subsidiarity means that the Confederation only intervenes in domains which are not already managed by the Cantons and Communes or in domains which are legally and politically delegated to the Confederation. Therefore, the division of tasks between Federal and cantonal authorities can change in time depending on the power balance in the political system.

⁴ These financial crises lead to a general reform of the Federal and cantonal administrations. In this context, new public management tools such as contracts, merit-based salaries, ex-post evaluation, controlling, quality assurance, etc. were introduced within public administrations.

Department of Economic Affairs is concerned with vocational training and applied research. Both Departments were reorganised during the last two decades.

A State Secretariat for Education and Research (SER) was created at the Department of Home affair in order to increase the coordination in the Federal administration on different issues (education, research, university, etc.) and to ensure cooperation on these issues with the cantons.

The Federal department of economic affairs was also reorganised through the creation of a new office that promotes vocational education and economical innovation: the Federal office for professional education and technology (OPET)⁵. The funding agency dedicated to applied research was also reformed during the same period of time: the former Commission for the promotion of scientific excellence was transformed into an Innovation and Technology Agency provided with more resources to reinforce the technological transfers between applied public research and the small and medium enterprises. But the main provider in term of financial resources for research activities is still the Swiss national science foundation. This agency supports mostly basic research, but since the 1970s, applied and oriented research has been funded too (Benninghoff, 2004).

1.2. Cantonal level

At the cantonal level, ministries of education have large responsibilities for higher education policy. Due to the cantons' autonomy, important differences are observed between regional regulations: The organisation and legal frameworks of universities differ from one canton to the other. For example, academic titles and wages are framed within a specific cantonal scale.

1.3. Interpolicy coordination

The coordination of the different cantonal and Federal policies is realized through the Swiss University Conference, which associates cantonal ministers of education, the president of the Federal Institutes of Technology Board and the State Secretary of education and research. Still on the coordination issue, but more at an "operational" level, the Rectors' Conference of the Swiss Universities and Federal Institutes of Technology is responsible for translating and implementing the decisions taken by the Swiss University Conference.

⁵ The OPET replaced the Office of economic affairs and took also responsibilities from the old Office of Industry, Trade and Work.

1.4. Higher education institutions (HEI)

The “operational” level of the Higher education system is represented by ten cantonal universities, two Federal Institutes of Technology and attached institutes⁶. The system is historically diversified: cantonal universities were devoted to fundamental research and education, the Federal Institutes of Technology, created later, were dedicated to the education of the engineers that were expected to build up modern Switzerland. To these institutions, one can add a dozen of research institutes that are affiliated neither to a cantonal university nor to the Federal Institutes of Technology⁷. As regards vocational education, a large number of schools dealing with engineering, business and administration as well as art exist. About 50 of these superior vocational schools have been upgraded as universities of applied sciences in 1995. This transformation resulted in seven networks of cantonal or inter-cantonal universities of applied sciences (UAS)⁸. From that moment on, the distinction between vocational training and higher education became politically less relevant.

The fact that superior vocational schools were upgraded to the level of universities of applied sciences illustrates a profound change in the higher education and research sector, and testifies of a political will toward a more integrated Higher education and research system. At the same time, as the Higher education and research sector was enlarged and diversified, the relationships with the respective authorities responsible for each type of institution were redefined through several legal frameworks, which have intervened in the steering mechanisms of the system.

2. Budget structures and funding mechanisms

In general, higher education institutions receive their allocations directly from their respective authorities. These funds are allocated to allow the institutions to carry out their fundamental missions of teaching, research and service to society. It is quite difficult to identify how the funds are used among the different tasks, because it is assumed that all academic staff pursues

⁶ Only the two Institutes of Technology – Lausanne (EPFL) and Zürich (EPFZ) – are considered here. The four other attached institutes are funded exclusively by the Confederation and concentrate on fundamental and applied research. They fall into the same responsibilities as the two main Institutes as far as legislation is concerned, namely the Federal Act on the Federal Institutes of Technology.

⁷ These institutes carry out research activities in very specific areas (risk governance, tropical diseases, bioinformatics, art studies, etc.) which are not addressed by the HEIs (cf. subsidiary principle). They are jointly funded by their home canton, the Confederation and private sources. Due to their specific place in the system, these institutes are not further addressed here.

⁸ In 2005, a private UAS was recognised by the Federal Council, testifying to the emergence of private actors within a public service.

the ideal of a teaching and research unity. In addition to this core funding, HEIs can receive additional funds for research, both from public and private sources.

During the last decade, the idea of efficiency promoted by politicians and administrators at the Federal level was partly implemented through new modes of funding allocation. However, we cannot speak of radical changes at the empirical level (see Benninghoff et al., 2005; Lepori, 2006). We have also to mention that funding allocation changes are also related to the political aim to increase the autonomy of the HEI and to give more power to the HEI direction.

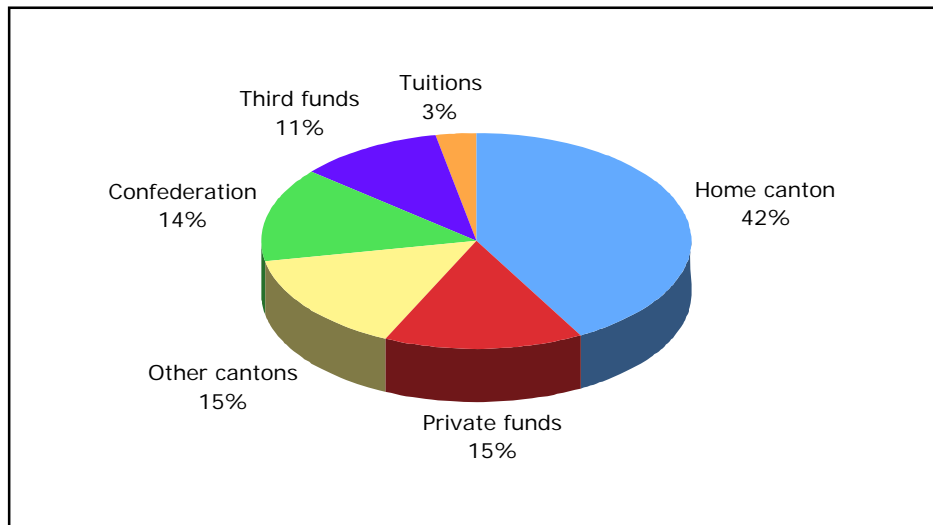
2.1. Cantonal universities

2.1.1. Budget structure

The source of the cantonal universities' funding is diverse, but still illustrates the historical power of the regional public authorities. Indeed, the financial support of the regional authorities (canton) to the universities still represents more than 40% of the total budget. Although it does not explicitly appear in figure 1, the Confederation is the second funding provider: third funds (the ones that are not core funding coming directly from the Confederation or cantons) are indirectly, *i.e.* through the National Science Foundation⁹, provided by the Confederation which elevates its funding proportion to 25%. Third funds also testify to the importance given by the Confederation to funding agencies, which afterwards allocate their funds for research through competitive processes. In term of allocation mechanism, the institutional (and thus nearly warranted) funding amounts for about 70% of the total funding, while competitive funding (projects based) corresponds to about 25% of the budget.

⁹ Although the Confederation funds the National science foundation, the former is autonomous in the management of its budget.

Figure 1: Funding sources for universities 2005



Source: OFS, 2006, own calculations.

But we have to keep in mind that the figure 1 constitutes an average. The Swiss academic market is highly differentiated. Therefore, the repartition of funding sources varies quite strongly between institutions (cf. annex 1). For instance, regarding the Universities of Fribourg and Neuchatel, nearly 50% of the funding comes from the Confederation. By comparison, Bern, Geneva, Basel, St. Gallen and Zurich are proportionally more funded by their home canton than average. As regards Fribourg, Genève, Neuchâtel and Zurich, private funds are smaller than average.

2.1.2. Funding mechanisms

The cantonal universities' budgets are established on the basis of the cantonal university acts, and those have been revised in all cantons during the 1990s. Two dynamics are at play in the funding calculation. On the one hand, the funding is transformed from being itemised to being allocated on a global basis (lump sum). On the other hand, it is not anymore exclusively focused on inputs and gives more importance to outputs criteria. Performance-oriented mechanisms have, in some cases, been introduced, notably as regards the duration of study. However, performance-oriented funding remains limited in most HEI and input-oriented mechanisms – the number of students, existing members of staff and existing infrastructure – are still predominant in the way cantons fund their universities. These changes in funding are framed in performance-contracts between cantons and their university. The degree of constraint varies from one contract to another: some are defined only in terms of general goals while others are formulated in terms of clearly defined performances.

The funds allocated by the Federal authority to support the cantonal universities have also witnessed changes. This is especially true since the revision in 1999 of the Federal act on financial assistance to cantonal universities, which regulates, among other elements, the amounts that should be allocated by the Confederation to the universities, as well as the modalities of this allocation. Similarly to the different cantonal acts on universities, the sums allocated through the Federal act incorporate both teaching and research activities. An innovation of the revision is that, since 1999, the sums are divided at a rate of 70% for teaching and 30% for research. It is important to note that this distinction does not mean that 70% of the funds allocated to the universities are targeted at teaching activities *only* and 30% at research activities *only*. Rather, the ratio serves as a means for calculating the total amounts to be allocated to each institution. In other words, 70% of the Federal contribution for a particular university is based on indicators related to “teaching” activities – like the number of students – and 30% on indicators related to “research” activities – such as the number of research projects being carried out. In both areas, one has observed an increase of performance-oriented mechanisms, for instance by limiting the number of studied semesters funded by the Confederation or, in research, by taking into consideration the amounts of external funds the universities have been able to gather from other sources, notably the national and international funding agencies, to determine the Federal subsidy for this activity.

The inter-cantonal agreement is the third funding mechanism for the cantonal universities. It dates back to 1981 and was revised in the late 1990s. The *raison d'être* of this agreement lies in the necessity to integrate all cantons in the financing of universities. For that reason, each canton whose inhabitants study in other cantons pays a given amount of money per student to the university cantons where its students register. Over the years, not only the amount but also the modalities of allocations have changed. The amount has generally increased in line with inflation. In 1995 a decision was made to differentiate the type of disciplines to adjust more precisely the allocations to the actual costs. This led to a three-tier system distinguishing between humanities and social sciences, natural and technical sciences and medical studies, which indicates that a more accurate mechanism was applied to this part of the funding allocation.

Another important element in the organisation of the funding structure and budget allocation is the increasingly stormy debates about the introduction of higher tuition fees. The access to education in universities or in the Federal Institutes of Technology is open to every holder of a Federal *maturité* degree (upper secondary). Fees are low compared to other countries but not

inexistent. They have increased during the last two decades and their amount varies substantially regarding the institutions but not the discipline.

Table 4: Fees in Swiss Universities¹⁰ (in Swiss francs)

	<i>USI</i>	<i>SG</i>	<i>LU</i>	<i>BS</i>	<i>ZH</i>	<i>BE</i>	<i>FR</i>	<i>LA</i>	<i>GE</i>	<i>NE</i>
<i>Tuition fees</i>	2000	800	765	700	640	600	500	580	435	425
<i>Other taxes</i>	-	120	-	-	49	55	105	-	65	75
<i>Total semester</i>	2000	920	765	700	689	655	605	580	500	500
<i>Added fee for foreign students</i>	2000	150	-	-	100	-	150	-	-	275
<i>Total semester for foreign students</i>	4000	1070	765	700	789	655	755	580	500	775

Source: CRUS 2007

This table underlines differentiated fees regarding HEI. First, we can observe a regional or linguistic effect: the French speaking universities are characterised by lower fees compared to their German counterpart. Thus, the hypothesis of an indexation on life costs is not pertinent: Geneva and Zurich are places where life costs are very high while it is lower in the Italian part of Switzerland (USI), Lucerne and Bern. Tuition fees may thus reflect an institutional strategy independent of other factors. The high level of the USI fees can be explained by the fact that initially USI did not get any financial support by the Confederation and had to find other financial resources.

This strategy is also at play regarding foreign students, some institutions having introduced a differentiated cost regarding the student origin. In these cases, similarly to an increasing number of higher education systems, international students are charged higher fees compared to national students. However, unlike higher education systems, new-regional (European) students are assimilated to international ones (which is not the case, for example, in England).

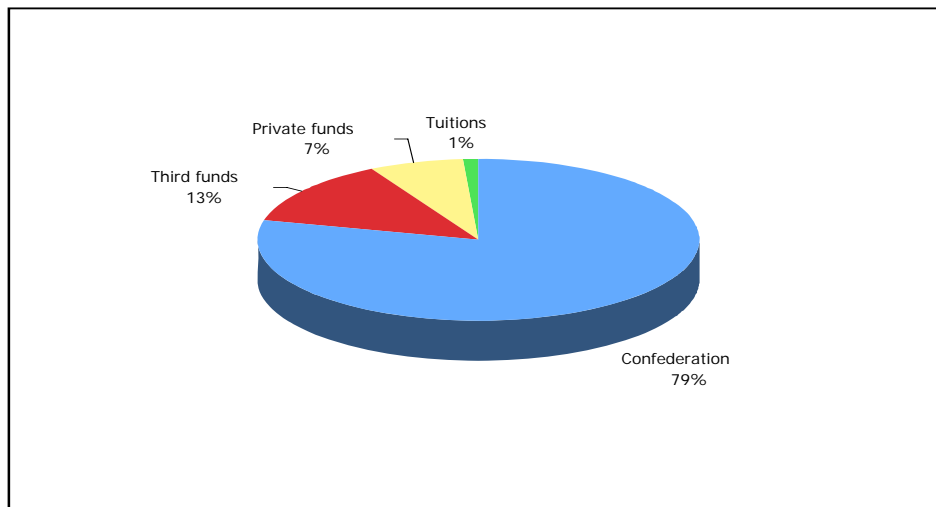
¹⁰ USI, University of Italian part of Switzerland; SG, University of St.Gallen; LU, University of Lucerne; BS, University of Basel; ZH, University of Zurich; BE, University of Bern; NE, University of Neuchâtel; FR, University of Fribourg; LA, University of Lausanne; GE, University of Geneva.

2.2. Federal Institutes of Technology

2.2.1. The budget structure

The budget of the Federal Institutes of Technology is mostly provided by the Confederation (reallocated by the Board of the Swiss Federal Institutes of Technology). It is completed by third funds such as the National Science Foundation or the Commission for the promotion of scientific research, European Union and private sources (companies and tuition)

Figure 2: Funding sources for Federal Institutes of Technology, 2005



Source: OFS, 2006, own calculations

In comparison with the cantonal universities, the funding sources of the Federal Institutes of Technology testify to a much more important role played by the Confederation. Indeed, by adding third funds – which are also provided by the Confederation (although through funding agencies using competitive mechanisms) – to direct institutional funding, the part of the Confederation corresponds to 92% of the overall amount. It is also interesting to note that, although the research orientation of the Federal Institutes of Technology is closer to the interests of the industry sector (than universities), private funds represent a smaller part of the budget (7%) than in the universities (15%). This does not mean that, in absolute terms, Federal Institutes of Technology attract less private funding than cantonal universities. The Zurich one (ETHZ), for instance, attracts twice as much private funding as the University of Geneva or the University of Basel (OFS 2006).

The situation of the Federal Institutes of Technology must also be differentiated, although the repartition of funding does not substantially vary between institutions: the ETHZ attracts

nearly three times the amount received by the Lausanne institute (EPFL), probably in part due to its “bigger size” (for example in terms of students or researchers, etc.) but also due to the disciplinary profile.

2.2.2. Funding mechanisms

Some years ahead of the universities, the Federal Institutes of Technology Board introduced the lump sum contract and a performance contract signed between the Swiss government and itself, as the body responsible for the coordination of this sector. The amounts are allocated for a four-year period. However, the Parliament votes annually on the yearly amounts. As a result, variations can be introduced, especially if cutbacks are imposed on the institutions. This situation characterises the whole sector and affects, in fact, the entire HER system.

The modalities of funding allocation are codified in a contract, in which seven general goals are identified together with more precise objectives indicating the modalities through which the goals can be achieved. Indicators have been devised to ensure that the objectives will be met and that, by extension, the seven general goals too.

One fifth of the Federal Institutes of Technology budget is allocated through competitive mechanisms, compared to a quarter of the universities’ one. Regarding public third funds, a large part comes from European programmes and the Innovation Promotion Agency while the National Science Foundation plays a larger role regarding universities.

Table 5: Fees in Swiss Federal Institutes of Technology (in Swiss francs)

	<i>EPFL</i>	<i>ETHZ</i>
<i>Tuition fees</i>	633	580
<i>Other taxes</i>	-	64
<i>Total Semester</i>	633	644
<i>Fees for foreign students</i>	633	644

Source: CRUS 2007

Compared to the universities, tuition fees at the Federal Institutes of Technology are average. Thus, they are not related to the institutional degree of prestige. What is more, foreign students are not charged higher fees than national ones, which testifies to a perception of international students as a prestige oriented resource as opposed to a financial one. The fact that the Federal Institutes of Technology have low and non differentiated tuition fees partly explains why they represent 1% of their overall funding, compared with nearly 3% for the universities.

2.3. The universities of applied sciences

2.3.1. Budget structure

As for the cantonal universities, the universities of applied sciences also receive most of their funds from the Confederation and the cantons. The Federal act on the universities of applied sciences indicates that 1/3 of the overall running cost of these HEI has to be covered by the Federal government. The cantons that host a university of applied science or that have a college that is integrated in one of the networked institutions allocate funds for its functioning. Finally, an intercantonal agreement states the amounts to be allocated by each canton for each of its students. This agreement only applies to the study fields that were accredited by the Federal government or that were in the process of getting such recognition.

Table 6: Funding of UAS charges by origin and type of activity, 2005 (in millions of Swiss francs)

	Total		Confederation		Cantons		Others	
	Amount	%	Amount	%	Amount	%	Amount	%
<i>Undergraduate teaching</i>	1'048	71	243	81	708	82	97	32
<i>Continuing education (post-graduate)</i>	115	8	7	2	22	3	86	28
<i>R&D et services</i>	305	21	51	17	131	15	123	40
Total	1'468	100	301	100	861	100	306	100

Source: OFS 2006, percentages are own calculations.

As illustrated by the previous table, the funding of higher education and research is characterised by an 80/20 ratio that translates the stronger importance of teaching in universities of applied science compared to other HEI. This corresponds to their historical orientation (before their upgrading to universities of applied science). As a result, the proportion of public funding dedicated to research is low (17% of the Confederation funding and 15% of the cantons funding). Nevertheless, other funding sources balance this trend by devoting 40% of their resources to research. Behind this “other funding” lies the increased trend in self-funding, or, to put it in other words, the necessity for academics to apply for external funding in order to sustain not only their research and teams salaries but sometimes also part of their own wages. At the same time, strong accountability mechanisms require to justify the use of resources. The accountability obligation is related to contract-based resources allocation.

2.3.2. Funding mechanisms

The funding allocations have moved in the direction of managerial precepts (performance – evaluation/assessment – customer-oriented, target based) and a more precise differentiation of tasks and their costs. A “professionalisation” of the techniques of accounting through the introduction of cost accounting has also been witnessed, which implies the description and prescription of the tasks. By turning to cost accounting, decision-making bodies have provided themselves with a potentially powerful tool to look into the HE institutions’ activities, assess their cost and steer them.

3. Changes in allocation mechanisms

The funding allocation is basically divided in two streams: a general budget coming from public authorities (national and regional government) and third-party funds (Millar, Senker 2000). In terms of total funding, independently of the type of allocation mechanism, we have observed in Switzerland, as in most European countries, an increase of the total funding (Lepori et al., 2007). But do we observe changes in allocation mechanisms?

3.1. Quantitative changes

If we compare the different weight of each allocation mechanism during the last two decades, we cannot argue for a radical change (Lepori et al., 2007). The general government allocation did not change a lot these last years. And while fees are becoming a political issue in most European countries, it is not the case in Switzerland: fees slightly increased, but remain low in international comparison. The main changes come from the increased proportion of grants and contracts. Here again, this tendency is at play in most European countries. In Switzerland, the participation to the European Framework Programs is one of the reasons for the increase of the project funding mechanism (Lepori, 2006).

3.2. Qualitative changes

If the total amount and its distribution among the different types of instruments did not change dramatically this last decade, we nevertheless observe a qualitative change. This qualitative change concerns the way these instruments were used in terms of criteria.

The state allocations (national and regional) dedicated to universities have changed in terms of modalities. Both (Federal and regional authorities) introduced output performance based on teaching and research performances. The regional authorities also introduced state-university

contracts in which they mention the conditions through which the budget is allocated (for example, a four year planning with specific objectives).

As third fund source, the Swiss National Science Foundation (SNF) has also modified, to a certain extent, its allocation practices. The SNF introduced during the 90s research programmes with political criteria (Braun, Benninghoff, 2003).

4. Allocation mechanisms: Advantages and disadvantages¹¹

The first part of this paper has presented some empirical evidence on allocation mechanisms. In this last section, we would like to compare the different types of allocation mechanisms. The literature differentiates the (financial) instruments on the basis of different categories: on the one hand, “input/output”, and on the other hand, “demand/supply” (McKeown, 1996; Bourke and Martin, 1992, Jongbloed and Vossensteyn, 2001; Geuna and Martin, 2003). We have chosen the input/output distinction to do the comparison.

For the *input* instrument the following criteria are taken into account: number of students, number of academic staff, size of Higher Education Institutions, that is criteria related to the resources of a HEI. Usually, the instruments related to this type of allocation are the “historical budget”, the “government based” allocations, or the “lump sum”. For the *output* allocation the following criteria are taken into account: number of diploma (BA, MA and PhD), number of publications, the number of patents, number of research contracts (public, private), etc. Finally and since it is, from a European point of view, a big issue we have also decided to discuss the *fees* instrument, even if it is not a major instrument in Switzerland.

The normative discussion on allocation mechanism in terms of advantages and disadvantages should be related to a political objective, such as to increase access or equality or the quality of research and teaching activities. Therefore, we would like to stress some advantages and disadvantages for each type of allocation mechanism in order to give some input to the policy-makers.

4.1. Input criteria

Advantages	Disadvantages
Assure the stability of universities	Not very incentive in terms of research activities
Support the diversity of research activities (more freedom)	Risk to finance mediocrity instead of excellence
Costless in terms of administration	Weak research accountability, which can conduct to less social and economic relevance of research activities

¹¹ A part of this discussion was already presented in Benninghoff et al (2005).

More opportunities and sustainability of long term research activities	Regular but insufficient allocation for research activities to be competitive
Favour the connection between research and teaching activities	
Favour the autonomy of universities	

4.2. Output Criteria

Advantages	Disadvantages
Reward good and/or productive researchers (depending on the criteria)	Increase the administrative work in order to control or check the activities carried out
Good incentive to ameliorate the individual and collective performance	Could conduct to an homogenisation of research activities against its diversity and originality -> encourage mainstream activities
Encourage the finalisation and diffusion of research projects	Could conduct to facilitate the quantity against the quality
Increase the accountability of academic activities	Can conduct to dissociate the research activities from the teaching activities, and to privilege the first one
Encourage the setting of strategic positioning inside universities (faculty level or university)	“Mathieu effect”: acknowledge the past performances to the detriment of newcomers -> reinforce the status quo and researcher at the top of the hierarchy
For the financial provider, allow to concentrate the financial resources for the best universities or researchers and, therefore, to be more competitive at international level	Can conduct to the introduction of new (political and social) criteria of excellence
For the financial provider (state or funding agency) to articulate political priority with research activities	
Increase the efficiency of the activities	
Facilitate the institutional differentiation	
Reinforce the transparency of the financial allocation	
Favour the reactivity of research programmes and curricula	

4.3. Fees

Advantages	disadvantages
New university incomes	Can be used by political authorities to reduce their funding
Oblige the universities to be more attractive	Potential increase of the resources gap between HEI
A bigger share of the education cost is supported by the users, the students	Limit access for students coming from low incomes families if no counterbalancing mechanisms are introduced: augment the social reproduction of society
Incentive for students to finish on time their studies	

Concluding remarks and following steps

This paper is the first contribution to the Sino-Swiss Joint Research - OECD project on building Research Network on Tertiary Education. It allowed describing the main characteristics of the Swiss Higher education system in order to compare this particular system to the Chinese Higher education system. Some elements were stressed in order to give a first picture of the ongoing changes in the allocation mechanisms. This first analysis must be completed by data coming from a diachronic analysis of the allocation mechanisms. These two steps should be harmonized (between the Chinese and Swiss team) in order to compare the two countries. Finally, the next step will consist in the comparison of individual Higher education institutions in order to describe their strategies and the institutional processes of funding diversification.

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Annexe 1: budget structure of Swiss universities and EPFs, in % of total budgets (2003)

Types of financial resources	Basel	Bern	Fribourg	Genève	Lausanne	Luzern	Neuchâtel	St. Gallen	Zurich	Svizzera Italiana	EPF Lausanne	EPF Zürich
Institutional accounts	75	79	83	77	77	91	67	61	84	89	78	83
HE&R institution: Student fees	3	2	4	2	3	9	1	5	2	14	1	1
HE&R institution: Other resources	1	9	1	2	1	1	0	5	11	4	2	1
Cantons: Host canton	24	43	26	55	47	37	35	20	47	23	-	-
Cantons: Intercantonal agreement	10	12	26	5	10	23	11	14	12	20	-	-
Cantons: Other subsidies	25	-	-	0	-	-	-	-	-	-	-	-
Confederation: LAU	10	12	21	12	14	15	19	15	11	24	-	-
Confederation: EPFL	-	-	-	-	-	-	-	-	-	-	76	81
Confederation: building subsidies	0	-	1	0	1	2	-	1	-	-	-	-
Confederation: subsidies for cooperation & innovation	1	1	2	0	1	1	0	1	1	2	-	-
Confederation: other subsidies	0	-	2	1	-	0	1	-	-	1	-	-
Charities	-	-	0	-	-	2	-	0	0	1	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
National Research Foundation	12	8	6	9	8	2	13	1	6	3	7	4
Other external resources	13	13	11	14	15	7	20	39	10	8	15	13
CTI	1	0	0	0	0		3	1	0	1	3	1
EU Programmes	1	1	0	1	1		2	1	1	1	6	2
Other international programmes	0	0	0	0	0		0	0	0	1	-	
Research mandates from the Confederation	1	2	3	2	0		2	2	2	1	1	3
Research mandates from private partners	9	3	2	5	10	6	6	18	5	0	5	6
Other public research mandates	0	1	1	2	0	0	1	0	0	0	0	0
Services	1	5	4	2	2	1	4	-	1	0	-	-
Continuing education	0	1	1	2	1	0	0	17	1	5	0	-
Total	100	100	100	100	100	100	100	100	100	100	100	100

Source : OFS, 2006.