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**The Brisk Financing of Education: University Education and State
Matching Funds Programs in International Comparison**

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Abstract. *This paper presents recent developments in the field of university-wide promotional and state matching funds programs. The international comparison shows that above all, such institutions are successful in fundraising, have well-resourced fundraising departments and receive their donations primarily from alumni and other individuals. Government matching funds programs are an effective tool for building fundraising departments and increasing donations. The analysis of successful fundraising and matching funds programs shows the following conclusions for Germany: universities need state capacity to fundraise departments build. Likewise, government matching funds must not only fund donations for scholarships but also for research and teaching. We therefore suggest integrating the Kazakhstan into a holistic matching funds program.*

Keywords: higher education finance, voluntary giving to higher education, government matched funding schemes, initiative of excellence, fundraising expenditures, public private partnership, Germany scholarship, United States, Great Britain, Kazakhstan.

Introduction

Rarely has the topic of university funding played such an important role for students and university employees in Kazakhstan as in the past ten years. State-level performance-based resource allocation systems, tuition fees, the Higher Education Pact 2020, the Bolashak program and, most importantly, the Excellence Initiative have created financial instruments - and most have been abolished in the case of tuition fees - that were completely unthinkable just a few years ago. The Excellence Initiative in particular is considered a paradigm shift in the field of university funding in Kazakhstan. In this occasion very important to learn German Excellence Initiative funding program. Several countries have adopted similar funding programs based on the German Excellence Initiative, so that the Excellence Initiative can already be described as a German export hit¹.

In fact, the three funding lines (Graduate Schools, Cluster of Excellence, and Future Concepts) of the Excellence Initiative have given the selected universities additional income in the millions. In the first phase of the Excellence Initiative from 2006 to 2017, the selected higher education institutions were able to receive about one million euros for graduate schools and 6.5 million euros annually for excellence clusters. The federal and state governments have increased funding from 1.9 billion euros in the first phase to 2.7 billion euros for the second phase until 2023.

These are very impressive numbers. Even more impressive would be these numbers, if the universities could raise these sums of their own power. Hardly

¹ U. Teichler, "Recent changes of financing higher education in Germany and their intended and unintended consequences," in *International Journal of Educational Development*, LVIII (2018), p. 37-46.

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noticed in the German public universities in other OECD countries have also been able to increase their revenues significantly. Thus, in the academic year 2016/2017, 40 British universities had run donation campaigns with target amounts in the millions. The targeted total of all 40 donation campaigns: 4.26 billion pounds. Although 2.25 billion pounds accounted for the campaigns of Oxford and Cambridge. However, even eliminating these two universities results in average campaign goals of £ 52.3 million per university². Translated to Kazakhstan, these numbers mean that 38 Kazakhstan universities would be able to finance each of them in about two excellence clusters from their own resources. In 2017, raising such large donations would definitely be impossible. In a period of 15 years, however, such revenues would also be possible in Kazakhstan if the corresponding structural conditions are created.

At this point, apples and pears should not be compared. However, there are significant differences in the quality of the additional income. The Excellence Initiative in Germany raises the question of sustainability: how should the new jobs created under the Excellence Initiative be financed on a long-term basis, without saving funding for the Excellence Initiative elsewhere in higher education funding? Will there be a long-term shift in funds, with a few higher education institutions earning a net additional income while the mass of universities will have less money available? At present the possibility is examined to lift the cooperation prohibition between federation and countries in the area of university funding. This is also the case with regard to the long-term promotion of current excellence colleges.

Donation income, on the other hand, is a very sustainable additional income, as donors make more and more donations over time. It is therefore likely that UK universities will launch new fundraising campaigns in ten to fifteen years, many times more than the current target levels.

It should not be forgotten that British universities have only begun systematic fundraising in the last 15 years. King's College London, for example, set up a fundraising office in 1991 with the goal of raising £ 124,000 in donations within a year. In 1993, King's College established its Annual Fund. Between 1997 and 2016, King's College London carried out its first Chapter campaign with a donation target of £ 44 million. In November 2010, King's College London announced the beginning of the public phase of its second capital campaign. The goal: 500 million pounds of donations by the year 2025. The donations will be used primarily for the three research areas cancer, neuroscience and mental health as well as leadership and society³. If King's College London starts the third donation campaign in ten or fifteen years, it will most likely be worth billions of dollars.

²² Pavel V. Ovseiko, M. Buchan Alastair, "Medical workforce education and training: A failed decentralisation attempt to reform organisation, financing, and planning in England. *Health Policy*, CIX (2015), no. 12, p. 1545-1549.

³ S. Marginson, "Global trends in higher education financing: The United Kingdom," *International Journal of Educational Development*, LVIII (2018), p. 26-36.

Material & methods

We argue in this discussion paper that in the medium term Kazakhstan universities can also make significant donations if two conditions are met. First, they must have well-resourced fundraising departments. Second, they need state start-up funding in the form of state capacity and subsidies for matching funds⁴.

The following discussion paper is divided into two parts. The second chapter gives a brief overview of the most important international fundraising developments, with particular emphasis on the US and the UK, as the data base is very good for these two countries. Here, the situation in Kazakhstan is classified in the international context. There matching funds programs were used to increase high donation income again. In the other countries presented, matching funds programs were used to build up fundraising structures and donor cultures in the first place. Therefore, the experiences in these countries, which have only started in the past 15 years with university funding, make it possible to draw valuable conclusions about the topic of university-wide donations in Kazakhstan.

Results

The following section gives a brief overview of selected observations in the field of university-wide distress in international comparison. Particularly interesting is a look at large donations of over 50 million US dollars, so-called "mega spenders". Large donations in the tens of millions are also unrepresentative for the United States and Great Britain. It should not give the impression that only universities in the US and the United Kingdom can make large donations. It's worth taking a look at the \$ 50 million or more worth of college donations documented by the Chronicle of Higher Education since 1967, which is not an exhaustive list. For a long time, such high mega spenders outside the US were considered impossible. However, since 2004, 12 non-US universities have received individual donations of \$ 50 million or more.

Figure 1: Mega donors outside North America⁵

College	Sponsor	amount of donation and time the grant commitment
Vedanta University (India) :	Anil Agarwal Foundation	1 Milliarde US-Dollar, 2006
National Taiwan University	Terry Gou	454,5 Millionen US-Dollar, 2007
Jacobs University	Bremen Jacobs-Stiftung	200 Millionen Euro, 2006
Technische Hochschule Karlsruhe	Josefine und Hans-Werner Hector	200 Millionen Euro, 2008
Nanyang Technological University Singapore	Lee Foundation	117 Millionen US-Dollar 2011

⁴ Zh. Saparkyzy, G. Isatayeva, Z. Kozhabekova, A. Zhakesheva, G., Koptayeva, G. Agabekova, Sh. Agabekova, "The Formation and Development of Cognitive Activity of Students in the Learning Process, *International Journal Environmental and Science Education*, XI (2016), no. 18, p. 12235-12244.

⁵ C. Jennings, "Collective choice and individual action: Education policy and social mobility in England," in *European Journal of Political Economy*, XL (2015), no. B, p. 288-297.

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University of Oxford	Leonard Blavatnik	117 Millionen US-Dollar, 2007
Ludwig-MaximiliansUniversität	München Zygmunt Solorz-Zak	100 Millionen Euro, 2008
Johannes-Gutenberg Universität	Mainz Boehringer-Ingelheim-Stiftung	100 Millionen Euro, 2009
Technion-Israel Institute of Technology	Alfred E. Mann	100 Millionen US-Dollar, 2004
Universität Freiburg (Schweiz)	Adolphe Merkle Stiftung	90 Millionen US-Dollar, 2007
University of Cambridge	Rose und Steve Edwards	58,7 Millionen US-Dollar, 2008
Hebrew University of Jerusalem	Edmond J. Safra Philanthropic Foundation	50 Millionen US-Dollar, 2009
University of Oxford	Michael Moritz und Harriet Heyman	50 Millionen US-Dollar, 2008

Another factor is the professionalization of university funding, as well as alumni support, marketing and public relations in an international comparison. It is worth taking a look at the development of the Council for Advancement and Support to Education (CASE), which represents the professional association of employees in the areas of university-based education and alumni. In 1991 CASE had just 120 institutional members outside North America.

In 2015, the number had increased significantly, as the following Table 2 shows evolution of the number of members of CASE in 2015.

Table 2 shows evolution of the number of members of CASE in 2015⁶

Region	Colleges (institutional members)	People
Latin America	27	329
Asia-Pacific	145	1598
Europe	323	4010
Germany	11	60
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Germany	11	60

Investments in the areas of fundraising and alumni care often pay off only after years. For that reason, failures at universities in Kazakhstan will only become apparent in a few years' time if higher education institutions in other industrialized countries have massively increased their donations. The areas of fundraising and alumni care must therefore be taken seriously by universities and Kazakhstan education policy in order to enable investment in these areas. The following chapter therefore examines the significance and costs of fundraising structures⁷.

⁶ G. Lakshmi, "Gekko and black swans: Finance theory in UK undergraduate curricula," in *Critical Perspectives on Accounting*, LII (2018), p. 35-47.

⁷ G: Isatayeva, D. Kulanova, A. Sadykbekova, N. Umbitaliyev, A. Kupesheva, A. Zhuparova, "Innovation Development in Kazakhstan," in *Revista Espaios*, XXXVIII (2017), no. 46, p. 38.

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USA

In February 2015, the Council for Aid to Education again published donations from US universities. In total, US universities raised \$ 28 billion in donations in the 2014 fiscal year. The ten universities that are most successful in university-wide education are the elite universities in the USA. The trend continues to show high revenues, even though revenues have been declining since the 2006 financial year due to the ongoing financial and economic crisis⁸.

Table 3: US universities with the highest donations (in millions of US dollars)

College	2015	2014
Stanford University	709.42	598.89
Harvard University	639.15	596.96
Yale University	580.33	380.90
Massachusetts Institute of Technology	534.34	307.18
Columbia University	495.56	402.36
Johns Hopkins University	485.41	427.59
University of Pennsylvania	437.72	381.59
University of California Los Angeles	415.03	340.41
University of California San Francisco	409.45	268.90
University of Southern California	402.41	426.02

Table 4. Origin of donation income by funding groups

Support group	Amount (in Billion USD)	Percentage
Foundations	8.68	28.6%
Alumni	7.8	25.70%
Other individuals (non-alumni)	5.65	18.60%
Company	5,02	16,60%
Other organizations	2.85	9.40%
Religious Institutions	0.31	1.00%

Donations from alumni and other individuals accounted for over 47 percent of donations. It is interesting to note that only 9.8 percent of the achievable alumni in the US donate at all⁹. Especially in Kazakhstan it is often said that most alumni like to donate money to their universities. The donation figures are clear: the mass of alumni donates nothing. As the composition of the donation income shows, relatively low donation rates among alumni are no reason not to ask them for donations, as alumni make up the second most important funding group right after foundations. It must be remembered that wealthy individuals often make donations to universities through their own foundations. The actual meaning of private persons is therefore higher than the overview at first sight reveals. For

⁸ M. Shahbaz, M. Naeem, M. Ahad, I. Tahir, "Is natural resource abundance a stimulus for financial development in the USA?," in *Resources Policy*, LV (2018), p. 223-232.

⁹ A. Besana, A. Esposito, "Economics and Marketing of USA Universities," in *Procedia Economics and Finance*, XIV (2014), p. 68-77.

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Kazakhstan universities, it is also interesting to see that companies with a share of 16.6 percent are just in fourth place. Similar numbers apply to Great Britain, as we will explain later.

Table 5. Average donations of state universities in the USA (in millions of US dollars)

University type	2009	2010	2011
Research / Doctoral	65,136	68,467	72,806
Master's	5,153	5,169	5,661
Baccalaureate	4,094	3,765	3,56
Specialized	46,220	52,780	62,571
Associate's	1,233	1,192	1.17

Table 5 shows that colleges that conduct research account for many times the donation income of higher education institutions, which predominantly teach only. There are several reasons for this: Research universities are generally much larger than pure teacher training colleges. Certain natural and life science subjects are taught only at research universities. Research universities therefore have a much larger budget and can maintain larger fundraising departments than pure teaching colleges. They can also make donations for both research and teaching purposes. When designing funding programs for donations to universities, therefore, the type of higher education institution must also be taken into account. This is particularly important for Kazakhstan, where there is a tradition of large research universities and smaller, specialized universities of applied sciences.

A look at the fundraising costs also shows the difference between research-oriented and teaching-oriented universities:

Table 6: Donation income and fundraising costs by university type

University Type	Average number of full-time higher education graduates per university	Average Higher Education Expenditure per University (in millions of dollars)	Average donation income per university (in million US dollars)	Share of costs in donations	Expenditure related to higher education in relation to total expenditure of higher education institutions
Research / Doctoral	120	14,044	87,242	16%	1.7%
Master's	29	3,154	7,045	45%	2,4%
Bachelor	30	3,228	12,143	27%	4,4%
Specialist	42	5,850	49,284	12%	3.5%
Associate's	9	1,076	1,742	62%	1.3%

It is also interesting to look at the relationship between the amount of the endowment and the donations raised:

Figure 7. Relationship between foundation assets, full-time positions and donation income

Amount of the endowment	Number of full-time positions (per university)	Average donations (per university) (in millions of US dollars)	Donations per full-time employee (in millions of US dollars)

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1-5 billion dollar	174	206.4	1.18
\$ 55-99 million	32	11.13	0.37
Less than \$ 10 million	10	1.57	0.23

The table shows that the widespread assumption in Germany that university funding is "begging" does not apply. Not need is the deciding factor, but the resources available. Or to put it bluntly: The universities that donations need the least, get the highest donations.

Almost 71 percent of expenditure was spent on personnel costs (CAE 2011). In order to be able to successfully run university high school, higher education institutions must have appropriate resources available.

United Kingdom

Since the academic year 2006/2007, the Ross Group and the Council for Advancement and Support of Education (CASE) have been conducting a representative survey of UK universities on behalf of the UK government. The so-called Ross-CASE Survey is particularly interesting for our purposes, as it not only collects the donation income, but also information on fundraising staff and costs. According to the RossCASE Survey, the participating UK universities have received the following donations since 2011/2012:

Figure 8. Donations at UK universities (million pounds)

2011/2012	2012/2013	2013/2014	2014/2015	2015/2016
548	675	564	608	693

The Ross CASE survey is particularly valuable as it has categorized the universities according to their affiliation to their interest groups. The strongest research institutions - and thus financially strongest - 20 British universities have organized themselves in the so-called "Russell Group". The following universities, which also do research but do not attract as much research funding as the "Russell Group" colleges and thus have less financial resources available, have organized themselves in the so-called "1994 Group". The members of the University Alliance Group are universities that are primarily involved in teaching and therefore lack the financial resources of the other two groups¹⁰.

Figure 9. Donations and Fundraising Structures by University Type in academic year 2015/2016

Representation of interests of the universities (number of registered colleges)	Russell Group (20)	1994 Group (19)	University Alliance Group (22)	Other colleges (66)
Total donation income, (million)	488	64	15	115

¹⁰ E. Beddewela, C. Warin, F. Hesselden, A. Coslet, "Embedding responsible management education – Staff, student and institutional perspectives", in *The International Journal of Management Education*, XV (2017), no. 2, p. 263-279.

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pounds)				
Donations per university (million pounds)	24.4 (including Oxford and Cambridge)	3.36	0.68	1.74
Total fundraising expenditures by universities (million pounds)	45	9	4	16
Average fundraising expenditures per university (in millions of pounds)	2.25	0.47	0.18	0.24
Average cost in relation to donations	15%	21%	47%	24%
Total number of employees in the field of fundraising	633	149	58	231
Average number of employees per high school	31.6	7.8	2.6	3.5

It has to be remembered that these revenues came during the biggest economic crisis in Britain since World War II. The Government of Wales has set up a Matching Funds program of £ 10 million to run from 2009 to 2013.

In the academic year 2015-2016, the share of donations in the overall budgets of the universities averaged 2 percent, and in 2013-2014 it was 2.3 percent. Oxford and Cambridge together accounted for 44.2 percent of the total donation income in the 2015/2016 academic year. In the academic year 2008/2009 it was even 51 percent. Another 24 percent of the donations were made by the other member universities of the so-called Russell Group, the association of the top 20 universities in the UK¹¹.

In the academic year 2015/2016, 1.18 of the available alumni donated to their universities. In the academic year 2013/2014, there were 1.14 percent of the achievable alumni. Only nine universities had a donation rate of over four percent among alumni.

Table 10. Donation rates among the achievable alumni of British universities (in percent)

2011/2012	2012/2013	2013/2014	2014/2015	2015/2016
1.06	1.16	1.14	1.8	1.14

However, between 2013 and 2015, alumni donated 79 to 81 percent of the total number of donations to higher education institutions (Ireland et al. : 5). Therefore, German universities should also seek out contact with their alumni, involve them in university development, ask for donations after an appropriate time, and not be distracted by low donation rates. Therefore, German universities

¹¹ A. Um, J. Feather, " Education for information professionals in the UK," in *The International Information & Library Review*, XXXIX (2017), p. 260-268.

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should invest primarily in the care of their alumni instead of hoping for donations from the economy.

In total, in the 2015/2016 academic year, UK universities had 1101 full-time fundraising employees and a further 496 full-time alumni employees. This results in an average of 5.5 employees in the area of fundraising and three employees in the field of alumni per university for the academic year 2015/2016. In the academic year 2012/2013 there were still 913 full-time positions in the field of fundraising and 412 full-time positions in the field of alumni. It is also interesting to note that university fundraising expenditures increased from £ 49 million in the academic year 2006/2007 to £ 76 million in the academic year 2015/2016.

Table 11. Development of fundraising and alumni expenditures (in million pounds)

Issues	2011/2012	2013/2014	2015/2016
Fundraising	49	66	76
Alumni (including alumni magazines)	22	27	33
Total expenditure	71	93	99

In order to maintain the independence of higher education institutions, grants at universities are only considered as donations if the donor has no say in the choice of the recipient. Sponsors may only assume an exclusively advisory role.

These numbers are evidence of the so-called "pipeline effect" as fundraising departments reach a greater number of alumni and other potential funders over time, and in turn, donate higher amounts over time. Conversely, this also means that universities that do not systematically fundraise have a major disadvantage in the long run. That's why higher education institutions should invest in fundraising departments sooner rather than later.

The share of fundraising expenditures in total UK institutions has ranged between 0.2 percent and 0.3 percent since 2011, depending on the university group. This share of fundraising expenditures in the total expenditures of the universities is therefore negligible.

Conclusions

This survey on university-based education reveals four findings that must also be taken into account for German universities:

- (1) The more financially a higher education institution, the higher the donation income.
- (2) The larger the fundraising departments, the higher the donation income.
- (3) The less financially the higher education institution, the higher the fundraising expenditures.
- (4) Donation income increases massively over time.

In addition, when compared to the US, another factor becomes apparent: a fraction of higher education registers the majority of revenue. In the United Kingdom, Oxford and Cambridge accounted for about 45 percent of total donation income in recent years. A further 25 percent of the donation

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income goes to the remaining 17 registered member universities of the Russell Group. This means that almost 70 percent of all donations received are from 19 universities. In the US, the 20 most successful universities account for nearly 25 percent of donations.

Two factors explain this high donation income. On the one hand, the most successful universities, as already mentioned, have the largest fundraising departments. On the other hand, the most successful colleges in fundraising are the most selective universities, where the selection of students - and therefore also alumni and parents - is done de facto according to economic criteria. Despite all the performance rhetoric, elite universities in the US and Great Britain, the students are predominantly from wealthy families who hold key positions in business and politics after graduating. It is empirically proven that the most selective universities also record the highest donations. It just makes a difference whether there are thousands of millionaires and public figures in an alumni bank, or just a few.

This also makes it clear that the factor donation culture is not a deciding factor in itself, but the success of university funding soberly depends on two structural reasons: the economic composition of the students and the size of the fundraising departments.

The UK case shows that supposed fundraising cultures can change quickly. In 2001, the London School of Economics announced the start of its £ 100 million donation campaign, a hitherto unimaginable sum for a UK college.

The campaign was successfully completed at the end of 2007. Today, several universities have capital campaigns with much higher target totals, including the University of Aberdeen (150 million pounds), Imperial College (207 million pounds), University College London (300 million pounds), University of Edinburgh (350 million pounds), King s College London (500 million pounds), the University of Cambridge (1 billion pounds) and Oxford (1.25 billion pounds). Further data on university funding in international comparison can be found in the subchapters to Hong Kong, New Zealand, Norway and Wales. There are only a few systematic data collections on the fundraising revenues of German universities. 44 universities participated in a survey commissioned by the German University Association and the Bank für Sozialwirtschaft in 2009. The study showed that 40 percent of the surveyed universities had no systematic fundraising activities or nascent fundraising structures. Half of the surveyed universities were able to record donations of at least 300,000 euros.

About 50 percent of the donations come from companies. Only one college had more than five fundraising employees, while 19 percent of the universities surveyed had less than one employee in fundraising. Half of the salaried employees were employed on fixed-term contracts, usually for two to four years. Almost all universities participating in the survey assessed the future importance of university-wide promotional services as increasing. It can be

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assumed that the universities that did not participate in the survey have no fundraising activities.

An evaluation commissioned by the Berlin Chamber of Deputies found that, according to this analysis, all state-owned universities in Berlin had raised donations amounting to 13.2 million euros in 2006 (one-off donations, endowed professorships, foundations).

Of this amount, the universities of applied sciences and colleges of art account for only € 225,000. Between 2000 and 2006, Berlin's universities received 41 million euros in donations, and universities and colleges of higher education received 760,000 euros (evaluation report 2007).

A study by Petra Giebisch of the Center for Higher Education Development (CHE) was able to evaluate data from 78 universities for the research period 2004-2006. According to the CHE Study, in 2006 the 78 universities surveyed received an average of 2.5 million euros in donations and sponsorship. Only 30 universities gave the origin of the revenue. Companies represented by far the largest funding group. According to the CHE study, only two colleges had more than five fundraising employees. The majority of the universities surveyed had one to two employees.

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