Changes of Higher Education in the Post-Soviet countries: case studies of Lithuania and Kazakhstan

Master thesis by

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June 2016

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List of abbreviations

CIS – Commonwealth of Independent States

EU – European Union

EHEA – European Higher Education Area

HEIs – Higher Education Institutions

HE – Higher Education

UNESCO - United Nations Educational, Scientific and Cultural Organisation

USSR – Soviet Union

TEMPUS – Trans-European Mobility Programme for University Studies

OECD – Organisation for Economic Co-operation and Development

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Introduction

Outline of the topic

Since all the newly established countries experienced enormous political, social, and economic changes after the political break-up of the USSR in 1990, their HE systems have also been transformed. Although the HE systems of the newly established countries shared similar characteristics in terms of structure and organisation during the Soviet period and most of them underwent quite similar reforms in the 1990s aimed at the Westernization of HE, the systems have gone in different directions during the post-Soviet era. In some countries, the systems moved relatively fast towards the Western model of HE, in others they went backwards, and in others followed entirely new trajectories. This paper seeks to analyse the changes in HE systems in former USSR countries and tries to grasp why some countries were more successful in transforming HE by adopting the Western practises and values of HE.

Literature review

The development of HE systems in the post-Soviet transition has been barely analysed. The academic debate that exists in the area could be divided into three major topics. The first is concerned with the rise of corruption and the negative effects that it has had on the development of HE systems in post-Soviet countries.[1] The authors specify that corruption is detrimental to the development of HE systems because it hinders social cohesion, undermines the impact of foreign aid intervention, and has contributed to overall deterioration in HE systems.[2] On the one hand, this emphasis on corruption as a policy issue is not unexpected,because it remains one of the most important challenges in post-Soviet countries. Unfortunately, this problem is not only restricted to the field of education. On the other hand, its importance seems to be somewhat exaggerated because it leads to an oversimplification of the HE systems in former Soviet Union countries as a topic of research or policy. This is the case partly because it carries an implicit assumption that HE systems will develop without

[1] A.L. Osipian, 'Corruption and Coercion: University Autonomy Versus State Control', *European Education*, 40:3, (2008), 27–48; Heyneman, S. P., Three universities in Georgia, Kazakhstan and Kyrgyzstan: the struggle against corruption and for social cohesion. *PROSPECTS*, 37(3), 2007, 305–318; Sadigov, T., Students as Initiators of Bribes. *Problems of Post-Communism*, 61(5),2014, 46–59; Round J. & Rodgers P., The Problems of Corruption in Post-Soviet Ukraine's Higher Education Sector. *International Journal of Sociology*, 39(2), 2009, 80-95. Make sure the referencing follows the style guide of history, see the first reference as an example.

[2] Silova I. & Steiner-Khamsi G., *How NGOs React: Globalization & Education Reform in the Caucasus, Central Asia & Mongolia*. Bloomfield, CT, USA: Kumarian Press, 2008.

obstacles once corruption is eradicated; however, some examples show the opposite case. In this regard, the case of Georgia's HE system - a positive example of overcoming systematic corruption, following the Rose Revolution of 2008 - show that deeper reforms such as legislative changes and institutional reforms are needed.[3]

Secondly, the scholars who have analysed the Russian HE system, both in the past and with regard to the current situation, state that path dependency is another significant issue to explain the backwardness of HE systems in post-Soviet countries.[4] In this case, path dependency has affected the changes to HE because some the elements of the old Soviet-style system have persisted - for example, the Russian HE system has remained very centralised, the Ministry of Education and Science plays a leading role, and some old-Soviet style educational degrees have stayed in place. However, in that case, path dependency as the contextual factor homogenises post-Soviet countries under a single explanatory factor. Even though all those countries were part of the Soviet Union, it would be wrong to assume that the influence exerted by the USSR on each country was identical; the Baltic countries, for example, were under Soviet control for about 50 years, while for the others it was more than 80. Secondly, the Baltic countries, unlike the others, were allowed to use their own language in the field of education. Therefore, it would be logical to think that the transition of HE was, in certain points, much easier in the Baltic States than in the others.

Thirdly, the academic literature on the changes to the HE systems in former Soviet countries is dominated by internationalisation.[5] By this term, we have in mind the Bologna Process, which is aimed at making HE systems compatible and enhancing their international visibility through reforms such as the introduction of the three-cycle studies system (bachelor's, master's, and PhD), a joint credit system, and mobility of students and staff. With the exception of Uzbekistan, Tajikistan, and Kyrgyzstan, all FSU countries have signed up to the Bologna Process; however, some such as the Baltic states entered the Bologna Process system in the late 1990s, while some such as Kazakhstan, Georgia, and Ukraine joined in the late 2000s. Studies that address the issues of internationalisation in accordance with the Bologna Process focus either on the different tools that have been offered to improve HEIs systems in post-Soviet

[3] Rostiashvili K., Higher Education in Transition from Corruption to Freedom of Information in Post-Soviet Georgia. *European Education*, 43(4), 2011, 26-44.
[4] Johnson, D. (ed.)., *Politics, modernisation and educational reform in Russia: from past to present*. Didcot: Symposium Books, 2011; Motova, G. & Pykkö, R., Russian Higher Education and European Standards of Quality Assurance: European Journal of Education, Part I. *European Journal of Education*, 47(1), 2012, 25–36.
[5] Kovtun, O. & Stick, S., Ukraine and the Bologna Process: A Case Study of the Impact of the Bologna Process on Ukrainian State Institutions. *Higher Education in Europe*, 34(1), 2009, 91–103; Shaw, M. A., Chapman, D. W. & Rumyantseva, N. L., The impact of the Bologna Process on academic staff in Ukraine. *Higher Education Management and Policy*, 23(3), 2012, 1–21.

countries or the challenges faced when implementing the reforms imposed by the Bologna Process.

A majority of the ideas summarised above have emerged from the scholarly debates aimed at a comparison of changes in HE systems in countries that seem more similar in terms of political, social, and economic development, like Kazakhstan, Georgia, and Ukraine.

Research question and sub-questions

The main research question that this study seeks to answer is: *how have HE systems changed within post-Soviet countries and how can these changes be explained?* Because the research question is of a rather broad nature, it is essential to narrow it down in order to define the type of changes to HE systems we want to examine. It is also necessary to specific which variables will be employed to explain these changes.

Since we are interested in the changes in structure and organization of HE system, the first part of the thesis asks: *How have HE system changes within post-Soviet countries in terms of structure and organization?* We have chosen to focus on these changes for several reasons. First of all, in the USSR, the governance of HE was divided between the State Committee of HE, the Ministry of Education, the Ministry of Health and Agriculture, and 17 other sectoral ministries. While the content and form of courses had to conform to Soviet ideology and policy, they also had to meet the needs of the command economy and the military. The number of HEIs and their types in each Soviet Republic depended on that country's production capacities and urbanization rates.[6] After the political break-up, some newly established countries experienced the transition to a market economy. Hence, HEIs had to be transferred from the restrictions of the specific labour sector (agriculture, health, industry, and transport) and needed to be reorganised so that they could better respond to market needs and compete better with HEIs elsewhere. Taking the above-mentioned points into consideration, it becomes clear why it is important to examine how these HE systems have changed in terms of structure and organisation. Secondly, since the structure and organisation in the Soviet period meant that HEIs did not have any degree of autonomy, while the centrally bureaucratic system affected the quality of HEIs, the second part of the thesis asks the question: *How have these changes to the structure and organization of HE affected the degree of institutional autonomy and quality of*

[6] Source: Project Overview, *Higher Education System Dynamics and Institutional Diversity in Post-Soviet Countries*. Available online at: <https://ioe.hse.ru/postsovedu/> [Accessed 10 May 2016];

HEIs? The question is still a part of the first sub-question as we want to know what have been the outcomes of these changes in HE system in terms of autonomy and quality of HEIs.

The variables that we will employ to explain these changes are:

1. Path dependency;
2. Connection with politics;
3. Involvement of international pressure groups (for example, the EU and the Bologna Process).

These variables emerged from the academic literature discussed above. The combination of these variables, as well as comparative approaches in completely dissimilar countries, allows us to flesh out which variables really mattered. Thus, the second part of the thesis asks: *How could the changes to HE systems be explained by path dependency, connection with politics, and the involvement of international pressure groups?*

Methodology: Case Selection and Structure

The research compares changes in the HE systems of two countries, each representing a different region. The first country is Lithuania, which is in the Baltic region, and the second is Kazakhstan, which is situated in Central Asia. Our reason for concentrating on these regions is that the majority of the academic debate (as has been previously stated) either focuses on countries within certain regions or compares countries across regions that seem to be broadly similar. Therefore, the Baltic States (Lithuania, Latvia, and Estonia) have been excluded because they do not belong to the political union of the CIS, being members of the EU. Thus, Lithuania has more EU links compared to Kazakhstan, whereas Kazakhstan has more links with Russia than Lithuania. Thus, comparing unlike with unlike may highlight factors that have been under-investigated in earlier research.

The choice to investigate the cases of Lithuania and Kazakhstan was primarily due to the fact that each country is the largest in their region in terms of both area and population (65,300 km², 2.956 million; 2.725 million km², 17.04 million retrospectively). On the other hand, the Baltic countries have developed quite similar HE systems; this has been the result of various socio-economic and political reforms that were undertaken in order to gain membership of the EU. Kazakhstan, one the other hand, is the only country in its region that is a formal member of the Bologna Process. Although other countries of the region (Uzbekistan, Kyrgyzstan, Tajikistan, and Turkmenistan) have seen a great deal of improvement within their HE systems, they remain very similar to the old Soviet-style education system. In that case, we

should not think of Kazakhstan as a country that represents the whole region of Central Asia but as the country that has become most developed and advanced in terms of socio-economic factors because Kazakhstan is a hydrocarbon exporter, and therefore enjoys significant comparative wealth.

With regard to the question of how comparable these countries are, certain clarifications are necessary. During the Soviet period, both countries functioned on the basis of single-party Communist dominance, with all political power and authority in the hands of the Communist Party. At that time, the economy was based on a system of state ownership of the means of production, collective farming, and industrial manufacturing, as well as centralised administrative planning.[7] After the political break-up, these countries took different paths. Firstly, Kazakhstan became a consolidated authoritarian regime, while Lithuania became a democracy. Secondly, Kazakhstan joined the CIS, thus maintaining its historical relationship with Russia. Conversely, Lithuania's desire to "return to Europe" was driven by a clear determination to distance the country from all previous experiences with the Soviet Union and to embrace EU standards, policies, and practises.[8] These differences have undoubtedly affected the development of HE systems in the post-Soviet period in terms of structure and organisation that has had an impact on the autonomy and quality of HEIs.

The thesis is divided into three parts. The first part analyses changes to HE in terms of structure and organisation. The second presents the outcomes of these developments in terms of the institutional autonomy and quality of HEIs. The third part employs the variables to explain these pivotal changes to HE in both countries. To do so, primary sources will be investigated, in addition to secondary sources. Primary sources include documents, policy papers, national strategies, and open data sources, e.g. the World Bank, the OECD, UNESCO, and Bologna Process reports. We have chosen to investigate these sources partly because these organisations have played a significant role in transforming HE systems in post-Soviet countries, mainly in terms of providing financial assistance. As a result, there have been reports completed in order to highlight the changes and evaluate the progress of HE reforms in the light of the economic, political, and social context of the Lithuanian environment. The reports mainly focus on issues such as the legislative framework of HE, changes to structure and organisation, the governance and management of the HE sector, funding, students, and staff mobility, and access to and equality of HE. However, not much attention has been given to discuss the degree

[7] Silova I., 'Higher Education Reforms in Global Geopolitics: Shifting Cores and Peripheries in Russia, the Baltics, and Central Asia'. Russian Analytic Digest, No 97, 2011, p. 10.
[8] Ibid.

of autonomy or quality of HEIs, besides the introduction of quality assessment and accountability. In this paper, these reports are mainly used in the first part of the thesis in order to identify changes in the structure and organisation of the HE systems in Lithuania and Kazakhstan from 1991 to the present. Such a chronological framework seems to be logical because these countries gained independence from the USSR in the 1991, while changes to the HE system are still ongoing - at least in the case of Kazakhstan, which joined the Bologna Process in 2010, while Lithuania signed up in 1999. To be more precise, regarding the changes to HE in terms of structure and organisation, we are interested in the types and numbers of HEIs, educational qualifications, and their organisation both internally and within politics.

To determine how the changes in structure and organisation of HE in both countries have affected the institutional autonomy and quality of HEIs, data from the European University Association will be used, as well as data from the QS World University Rankings. European University Association reports will be used to measure the degree of autonomy based on four dimensions – organisation, staffing, financial, and academic. Moreover, the quality of HEIs will be measured by examining the worldwide rankings of Lithuanian and Kazakh universities. In the third part of the thesis, we will first explain the changes to HEIs by investigating path dependency. In particular, we will attempt to identify which elements of the "old" Soviet HE model have a persisted over time and why this is the case. Secondly, we will examine the overall policy towards HE, with a focus on financing and political control. Thirdly, we will try to determine the influence of international pressure groups, mainly of the Bologna Process and the EU.

To sum up, first we will focus on the HE system of the USSR, then on an overview of the post-USSR HE system, then on measuring if it was successful or not in terms of autonomy and quality of HEIs, and finally we want to explain why it was successful or not.

Chapter 1: HE changes in Lithuania and Kazakhstan: structure and organisation

In this section, we will focus on how the HE systems have changed in terms of structure and organisation in Lithuania and Kazakhstan after the political break-up of the USSR in 1991. In particular, we are interested in the development of HEIs regarding the level of education and qualifications, and types and numbers of HEIs, as well as the organisation of HE both internationally and as it concerns national politics. We believe that these changes are one of the most important breakpoints that have happened due to the collapse of the USSR because the system of HE in the USSR was subjected to strict state ideological and political control, as well as having to meet the needs of the planned economy. However, we will return to this issue in the following section, where we will first discuss the model of HE systems in both countries prior to independence. That will allow us to contrast it to the changes that happened after the break-up. Moreover, we are not yet looking for the reasons behind the changes that have occurred in HE after 1991 but are merely providing the groundwork for the third part of the paper, where we will examine these causes.

Model of HE in Lithuania and Kazakhstan prior to independence

Prior to the collapse of the USSR, Lithuania and Kazakhstan followed the centralised model of the Soviet HE system. The structure of this system is set out in Table 1.

Table 1: Model of HE in the Soviet Union (1970-1990)[9]

Degree and Award Diploma	Programme Length (Years)	Institute Type	Admission Requirements
Diploma of Junior Specialist	2-4 years (technology, allied health, pre-primary teacher education)	Post-secondary non university (Teknikum)	Diploma of completion of secondary school education; or completion of basic general secondary school
Diploma of Specialist	4-6 years, depending on the specialisation	University/ Academy/Institutes/ Polytechnics	Diploma of completion of secondary school education

[9] Clark. B, 'Bologna *Inspired Education Reform in Central Asia'. World Education News & Reviews, 2015*. 2015.

Candidate of Science	3 years	Academy of Science	Diploma of Specialist
Doctor of Science	Not fixed (minimum 5 years)	Academy of Science	Candidate of Science

This table details the structure of HE in terms of programmes, length of the programmes, types of HEIs, and admission requirements. As we can see, there are four degree programmes: Diploma of Junior Specialist, Diploma of Specialist, Candidate of Science and Doctor of Science. The length of the Diploma of Junior Specialist depended on the level of education at which the student entered. Those who had only completed the basic stage of secondary cycle undertook four years of study, with the first two years at the senior secondary level, while those with a secondary school diploma undertook three years of tertiary-level study.[10]

The Diploma of Specialist required from four to six years of study, depending on the subject area, as noted in the table. Students enrolled in Candidate of Science programmes were generally on track to become researchers or professors at the university level.[11] Doctor of Science was the highest award in the Soviet system.[12] There was no fixed programme length; it could take anywhere from five to 15 years.

Regarding the types of HEIs, there were three: teknikum, special HEIs, and universities. The table below depicts how the number of HEIs changed over the years in Lithuania and Kazakhstan in the period 1940-1989.

Table 2: Number of HEIs in Lithuania and Kazakhstan[13]

Country	**1940-1941**	**1960-1961**	**1979-1980**	**1987-1988**
Lithuania	7	12	12	12
Kazakhstan	20	28	53	55

The number of HEIs in Lithuania increased from seven in the academic years 1940-1941 to 12 in 1987-1988, while the increase in HEIs in Kazakhstan in the same academic years was from 20 to 55.[14] In the academic year 1987-1988, 60,000 students studied in Lithuanian

[10] Ibid.
[11] Ibid.
[12] Ibid.
[13] Source: Project Overview, *Higher Education System…'*; Prokofiev M., P. et al., Higher Education in the USSR. *UNESCO, Educational Studies and Documents*, no. 39, 1961, p. 12.
[14] Ibid.

HEIs and 274,000 students in HEIs in Kazakhstan.[15] Regarding the number of HEIs in each country, we have already observed (in the introduction) that the number of HEIs in each Soviet republic depended on urbanisation rates and production capacities.

In both countries, because there was demand for workers to work in industries, the most common school which youths attended was the Teknikum. It was a special secondary school where students could gain a special secondary high school diploma and a special professional qualification at the same time. HEIs known as academies, institutes, or polytechnics specialised in certain fields of study such as engineering, medicine, agriculture, veterinary, education, and the arts. On the whole, universities in the Soviet Union were considered the most prestigious HE institutions, and considerable emphasis was placed on science programmes. In addition, universities were mainly focused on learning, while research was conducted by institutes that were mainly military research-orientated and controlled by the Academy of Sciences in Moscow. Moreover, even though both universities and specialised HEIs were equal to each other in terms of academic standards, admission requirements, and qualifications awarded, to enter the universities was much more difficult[16] – partly because only about 20 percent of applicants were accepted and partly because there existed some unwritten rules. For example, in the case of Lithuania, if a youth was from a family whose members were imprisoned or exiled in Siberia for various political reasons during the occupation, the chances of getting into university were zero. Moreover, if a youth came from a family whose members held important positions within the Communist Party, the chances of getting into university were much higher than those of someone else. Our conclusion is that university education in the Soviet period was to great extent an elite system and not everyone could obtain a university degree.

Furthermore, besides the general admission requirements to all types of HEIs as stated in Table 2, there were also admission quotas for the different branches of the HE specialisations, which were drawn up on the basis of the national economic plan. Thus, the HE system was heavily organised in accordance with a planned economy by producing a certain workforce quota for the different branches. Another feature of this system was the so-called job placement programmes. Since HE in the Soviet Union was free of charge, graduates had to attend these programmes for two years, whereby they were sent by the authorities to work what for the state

[15] Ibid.
[16] Source: Project Overview, '*Higher Education System…'*

demanded in different regions of the country.[17] This programme served as an organic part of the planned economy, with central planning in Soviet Union aiming at control of all economic activity in the country.[18] For that to be possible, it was also necessary to educate a certain number of professionals in different fields and distribute them according the general plan.[19] Thus, all young specialists had to start their careers where the government sent them upon graduation.[20] On the one hand, such job placement programmes were not entirely bad, since all fresh graduates were employed and paid. On the other hand, there is also the fact that such a system brought about corruption and produced serious collateral damage.[21]

A large number of special HEIs such as medical academies, veterinary academies, music academies, and art academies were a strong feature of the HE system in general in the Soviet Union, while only a few universities would be in operation.[22] Lithuania and Kazakhstan had only one active university in the country - Vincas Kapsukas State University and Kazan Lenin State University, respectively. These institutions were funded by different ministries, which meant overly complex bureaucratised governance of these institutions.[23]

While the HE system in the USSR was run by the central Ministry of Higher and Secondary Specialised Education in Moscow, in the 15 Soviet republics, including Lithuania and Kazakhstan, counterpart ministries (which were under the control of Ministry of Higher and Secondary Specialised Education in Moscow and their Republic Councils of Ministers) and other republic government ministries directly supervised the HEIs.[24] In socialist satellite countries such as Poland, central control from Moscow was less evident because the country had its own Ministry and Academy of Science.[25] Since HE, like other fields, was part of the total political and economic concern of the Soviet Communist Party and government, overall planning and control extended beyond the Party leadership and the Section of Science and Schools of the Communist Party Central Committee, downwards to Party departments with each school, and from the Government State Planning Commission in Moscow to parallel

[17] Preiherman, Y., 'Mandatory Placement: A Soviet Remnant of Belarusian Higher Education'. *Belarus Digest*, 2012.
[18] Ibid.
[19] Ibid.
[20] Ibid.
[21] Ibid.
[22] Leisyte L., p. 104.
[23] Ibid.
[24] Source: US Department of Health, Education and Welfare. Education in the USSR: Current Status of Higher Education. *OE Publication*, No. 79-19140. 1980.
[25] Leisyte L., 'The Transformation of University Governance in Central and Eastern Europe'. *Leadership and Governance in Higher Education*, Vol.1, 2006, p. 104.

bodies in the Soviet republics.[26] In such a model of governance, the power of the university was weak and meshed with the political ideology maintained by the USSR.

In the universities, the main academics in certain fields which were ideologically accepted such as chemistry, mathematics, and physics had to adhere to the political ideology and had politicised appointment and promotion procedures.[27] In other words, autonomy for academics was very limited and subject to the discretion of the political authorities.[28]Moreover, since HE in general depended on line-item budgeting,[29] which sourced entirely from the state and was relatively "worry-free", the priorities of universities and their internal governance were fully externally determined by the ministries responsible for them and the Academies of Sciences, and were politically controlled.[30]

With regards to administrative systems, a HEI was headed by a rector, who was responsible for governance in accordance with the relevant ministries in Lithuania and Kazakhstan, as well as in Moscow. Depending on the size and complexity of the HEI, the rector was assisted by two or more pro-rectors. The latter had to take care of the educational processes, scientific research, and administration and finance. The majority of the sub-divisions of HEIs were faculties, each headed by a dean, who was responsible for an established major field of study. The rectors and deans were supported by an academic council, chaired by the rector and consisting of administrative and teaching staff, student representatives, the Communist Party, trade unions, and the Communist youth organisations. The smallest administrative units of HEIs were "chairs" within each faculty, sub-dividing each field of study into a teaching staff of professors, docents, and assistants. Thus, organisation was not that very different to the prevailing models in the West.

Model of the HE system after independence: Kazakhstan

In the years 1992-2005, the model of the HE system in Kazakhstan remained essentially the same as it had been prior to impendence. Why this was the case we will discuss in the second part of the thesis. The exception was that in addition to the levels of education

[26] Ibid.
[27] Leisyte L. p. 104.
[28] Sadlak, J., In Search of the Post-Communist University – The Background and Scenario of the Transformation of Higher Education in Central and Eastern Europe. In: K. Hüfner (ed.), *Higher Education Reform Processes in Central and Eastern Europe*. Frankfurt: Peter Lang, 1995, p. 59.
[29] A budget in which the individual financial statement items are grouped by cost centers or departments. It shows the comparison between the financial data for the past accounting or budgeting periods and estimated figures for the current or a future period.
[30] Ibid.

and qualification that had existed prior to 1991, two new programmes were introduced – bachelor's and master's degree programmes. Bachelor's degree programmes were introduced in some universities in 1994, but only from 2001 did all universities in Kazakhstan start offering bachelor's degree programmes.[31] In 2010, approximately 50 percent of Kazakhstani HEIs participated in the two-cycle system of HE.[32]

Three-cycle programmes of study were gradually introduced in 2005.[33] The total number of students studying in doctoral programmes in 2009 and 2010 was 622.[34] In 2008-2009, the number of people enrolled in bachelor's programmes was 158,606, while in master's programmes there were 6,624, with 5,032 in Diploma of Specialist programmes.[35] The table below depicts what changes have been made in the HE system in Kazakhstan in accordance with the "State Education Development Programme 2005-2010" and the law "On Education" of 2007.

Table 3: Current model of Kazakhstani HE system[36]

Degree and Diploma awarded	Programme Length	U.S. Credit System adopted in 2003	Admission Requirements
Bachelor's	4 years	142-148 credits	Diploma of completion of secondary school education
Diploma of Specialist (Medical Education)	6 years	Study time is quantified in hours	Diploma of completion of secondary school education
Master's	1-1.5 years	24-36 credits	Bachelor's
	2 years	47 credits	
Doctor of Philosophy (PhD)	3 years	66 credits	Master's
Candidate of Science	2-3 years	Degree is being phased out	-
Doctor of Science	3 years	Degree is being phased out	-

As the table shows, there are four levels of HE qualifications at present in Kazakhstan:

1. Bachelor's: The duration is a minimum of four years of study. There are no three-year degrees. In order to enter this programme, a youth must provide a diploma of secondary school completion. Holders of the bachelor's degree are eligible to apply for master's programmes.

[31] Clark B., '*Bologna Inspired...*'
[32] BFUG (ES) 20_4c, *Template for Reports from Potential New Members of the Bologna Process*. 2004, p. 4.
[33] European Commission, Overview of Higher Education Systems in the Tempus Partner Countries Central Asia, Issue 5, 2011, 9.
[34] Ibid.
[35] Ibid.
[36] Clark B., '*Bologna Inspired...*'

2. Diploma of Specialist: This is the old Soviet-style qualification and has been kept, particularly for medical education. As was the case prior to independence, the programme is six years in duration and quantified in hours, rather than credits.
3. Master's: The course is one or two years. Typically, as in most European countries, science and research-based programmes are two years in length and are aimed at students who are want pursue careers in the academic field. Admission is based on the student's performance in a bachelor's degree.
4. Doctor of Philosophy (PhD): The duration of study is a minimum of three years. Admission is based on the student's performance in a master's programme. The Candidate of Science and Doctor of Science are remnants of the old Soviet system and are being phased out.

Regarding the changes in types of HEIs, these can be circumscribed into five groups: research university, national research university, university, institute, and academy. The table below summarises the key elements of each HEI. Since we do not have access to the Law on Science of 2011, which was aimed at classification of the universities, the data from the European Commission Report of Higher Education in Kazakhstan was used.

Table 4: Key elements of different types of HEIs in Kazakhstan[37]

Type of HEI	Key Elements
Research University	- Enjoy a sufficient degree of autonomy; - Public universities; - Better funding compared with other non-research universities; - Focuses mainly on first-cycle degree programmes; - Highly orientated to research activities in the field of technical sciences; - Orientated to the international environment.
National Research University	- Enjoy a sufficient degree of autonomy; - Public universities; - Better funding compared with other non-national research universities; - Focus on three-cycle programmes; - Highly orientated to research activities in the field of technical sciences.
University	- Can be a public or non-public university; - A non-public university has more operational autonomy and greater - management flexibility in some areas than a public university; however, both types of university have a lower degree of autonomy than research or national research universities; - Public universities receive less funding than national research or research - universities; non-public universities do not get funding from the government; - Both public and non-public universities focus on academic activities by - implementing three-cycle programmes; - Research activities are much lower in both public and non-public universities

[37] TEMPUS Report, '*The Higher Education System in Kazakhstan'.* Brussel, 2012, p. 45.

		in comparison to research and national research universities; - Both non-public and public universities specialise more in the social sciences and humanities.
Institute	-	A low degree of autonomy compared with research and national research institutions; - Public HEI; - Low funding compared to national research and research universities; - Specialise in different fields, ranging from petroleum engineering to pedagogy.
Academy	-	Low degree of autonomy compared with research and national research institutions; - Public HEI; - Low funding compared to national research and research universities; - Mainly offer studies in the field of arts.

This table shows that there is a separation between research universities and universities. The government has given special status to universities that basically aim to be active in the field of research. Such universities have a higher degree of autonomy and receive more funds from the government. At the moment, there are nine universities that function under National Research University status and one that functions under Research status. Both Research and National Research Universities conduct research in the field of technical science. Moreover, Research Universities focus more on first-cycle studies and National Research Universities focus on entire three-cycle programmes. A Research University is also more orientated towards the international environment than a National Research University. Universities are separated into public and non-public, of which there are 32 and 90, respectively.

Public universities receive less funding from the government than research-orientated institutions, and non-public universities do not receive any funding from the government and therefore depend largely on private money. Basically, each type of HEI has to follow the same regulations and quality standards. However, non-public universities have more autonomy than their public counterparts in organising their academic affairs. Academies and institutes have much the same status as public universities, the only difference being that they specialise in certain fields like arts and engineering. Admission to all types of HEI is carried out through the standard admission rules approved by an order of the Ministry of Education and Science, which can be amended and complemented when necessary.[38]

The HE system is run by the Ministry of Education and Science, which retains strong control over it. Internal governance of universities is based on a unitary model where there is

[38] European Commission, 'Overview of Higher Education Systems in the Tempus Partner Countries Central Asia'. Issue 5, 2011, p. 11.

only one main decision-making body. This is the Academic Council, which is appointed by the Ministry of Education and Science for three years. Elsewhere in Europe, the members of the Academic Council or Senate are elected mainly by university staff. In addition, rectors in Kazakhstan are also appointed by the same ministry. Since the rector, in turn, appoint or dismisses subordinates including deans, department chairs, and faculty staff, universities maintain a hierarchical, top-down structure, with decision-making concentrated in the hands of the rectors. Such system produces universities that concentrate more on maintaining good relations with the ministry responsible of the functioning of HE then on students or staff, since their accountability is limited, exactly as it was in the Soviet period.

Model of the HE system after independence: Lithuania

Even though some essential changes regarding structure and organisation were made in the early 1992-1993 period such the introduction of three-cycle programmes of study, the full reforms and changes to the HE system were embedded in 2000 in accordance with the Law "On Education."[39] The table below depicts the structure of HE in Lithuania from 2000 to the present day.

[39] Bologna Process National Report 2006-2008, Lithuania, p. 15.

Table 5: Current model of HE system in Lithuania[40]

Degree and Diploma awarded	Program Length (Years)	Credit System	Admission Requirements
Professional Bachelor's	3 years	180-210 credits	Diploma of completion of secondary school education
Bridge courses	1 years	At least 40 credits	Professional bachelor's or a comparable qualification
Bachelor's	4 years	210-240 credits	Diploma of completion of secondary school education
Integrated Studies (medicine, pharmacy, veterinary medicine, law, and religious studies)	5-6 years	300-360 credits	Diploma of completion of secondary school education
Master's	1.5-2 years	90-120 credits	Bachelor's degree or a comparable qualification
Doctor of Science or Doctor of Arts (PhD)	4-6 years	160 credits	Master's degree or a comparable qualification
Non-degree studies	2-6 years (residency studies)	80-240 credits	Students who have a master's in medicine
	1 year (pedagogical studies)	30-120 credits	Graduates who have a professional bachelor's/ bachelor's/ master's diploma and want to get a teaching certificate

As the table depicts, HE studies in Lithuania are organised into three cycles:

1. Professional bachelor's or bachelor's: professional bachelor's degree programmes are orientated towards preparation for professional activity and applied science research. Bachelor's degree programmes are intended to expand one's general education and provide knowledge in a certain field of science or humanities, and offer the background necessary for further study or professional activity.[41] However, after a professional bachelor's degree, students wishing to undertake a master's degree have to follow bridge courses that are designed to allow students to gain the necessary competences that were not acquired during the first-cycle studies. The length of non-professional bachelor's programmes is three years, whereas bachelor's programmes are four years. Admission to both non-professional and professional bachelor's programmes depends on performance at school.
2. Master's: just like Kazakhstan, the length of master's degree studies is from 1-2 years, depending on the specialisation. Admission depends on the student's performance at the bachelor level. In addition, students can follow combined first- and second-cycle studies

[40] Centre for Quality Assessment in Higher Education. '*System of Higher Education in Lithuania*.' 2016. Available online at: <http://www.skvc.lt/default/en/education-in-lithuania/higher> [Accessed 15 May 2016].
[41] Ibid.

and gain the degree of bachelor's and master's at the same time. In that case, after 5-6 years, a student would gain a master's diploma.

3. Doctoral studies (PhD): graduates from a master's of integrated studies may pursue their studies at the third cycle by enrolling in doctoral studies. The standard duration for this programme is four years.

Alongside bachelor's, master's, and doctoral studies are non-degree study programmes that are designed for the acquisition of qualifications in preparation for an independent practical activity (e.g. teacher-training programmes, residency studies).[42]

In terms of types of HEI, following the "Law on Higher Education" of 2002, a binary system of HE exists in Lithuania with two types of HEI: universities (universities, academies, and seminaries) which represent the university sector of HE, and colleges, which represent the non-university sector. In the terms of the former, in general there is no difference between universities, academies, and seminaries, all of which can award bachelor's, master's and PhD degrees. The universities can be divided into three groups. The first is classical universities, which offer programmes in humanities, natural science, mathematics, and social sciences. The second is technical universities, which mainly provide training in engineering, business administration, and management. The third is universities that specialise in agriculture, arts, and medicine. Research is mostly carried out by universities or research institutes.[43] After the reforms of 2002-2003, some state research institutes were linked up with universities through common university-institute research projects, papers, and joint doctoral studies.[44] For their part, colleges (the equivalent in many European countries would be applied science university) represent the non-university sector. They issue a diploma of HE and award a professional qualification after three years of study but not an academic degree, because their study programmes are mostly practically focused.[45]

At present, 49 HEIs have the right to provide HE and issue valid HE awards; 15 are state universities, seven non-state universities, 16 state colleges, and 11 non-state colleges.[46] In the academic year 2003-2004, there were 130,000 students in the universities (126,400 in the public sector and 3,600 in the private sector), and over 40,000 students in colleges (about 32,000 in the public sector and 8,300 in the private sector).[47] The total number of 170,000 students

[42] Bologna Process National Report 2009-2012, Lithuania, p. 4.
[43] Bologna Process National Report 2004-2005. Lithuania, p. 3
[44] Ibid.
[45] Ibid.
[46] Ibid.
[47] Ibid.

makes up 5 percent of the population. Both state and non-state HEIs are covered by the same legal regulations and have to meet the same quality standards.[48] However, some of the requirements for establishing and licensing institutions as well as the requirements and procedures for admission to HEIs differ, depending on their status. State funds are allocated to state HEIs only.

Regarding the governance of HE, it seems to be quite bureaucratic since different ministries are involved. The main role of the state lies with the Ministry of Education and Science, while HEIs are accountable to the Ministry of Finance for the use of budgetary allocations.[49] The expedient use of budgetary funds is monitored by the National Audit Office.[50] Other ministries are involved when discussing issues within their competence, such as the Ministry of Social Security and Labour and the Ministry of Economy. Moreover, the parliament of Lithuania distributes state budgetary allocations to public HEIs with reference to a draft prepared by the Ministry of Education and Science in accordance with the funding methodology approved by the government.[51] Public funding is allocated as a lump sum and linked to the results of the assessment of the activity of HE institutions, their research activity in particular, and quality assurance of studies.[52]

Universities in Lithuania a multiple governance structure, where decision-making is divided among three bodies: the senate, academic council and the rector. The senate has control over strategic decisions including approval for academic programmes, university strategic development project, recruitment policy for academic personnel, the approval of university budgets, and academic research matters. The senates of Lithuanian universities are appointed by university academic community. The academic council is often responsible for long-term strategic decisions such as statutes, strategic plans, the election of the rector and vice rectors, and budget allocations. The academic council represents external stakeholders and consists of 9-11 members appointed to represent students, teaching and research staff, and the Ministry of Education and Science. The rector is appointed by the Academic Council and performs a wide range of administrative functions in the university.[53]

[48] Ibid.
[49] Bologna Process National Report 2006-2008, Lithuania.
[50] Ibid.
[51] Ibid.
[52] Ibid.
[53] Ibid.

Key issues and findings

With regards to the development of HE in Kazakhstan, a number of changes stand out, namely the introduction of the three-cycle system, a significant increase of HEIs in general, and the opening of quite a number of private universities. Some elements of the old system have persisted - for example, a diploma of qualification as a specialist mainly orientated to medical education, the separation between research universities and national/teaching universities (as was common in the Soviet period), and the state authorities maintain a still heavily centralised or even, we would dare to say, hierarchical model of HE governance, in which universities have a unitary governance system. In the case of Lithuania, we also notice some changes, like the introduction of a three-cycle system, all Soviet-style degrees having been phased out, the establishment of a binary system which divides HEIs into universities and colleges (elsewhere, they would be applied scientific universities, which are orientated more towards practical skills), and an increase in HEIs as the former teknikum were reorganised into colleges. While the state authorities have reduced their power and control over the sector, the internal governance of universities is based on the dual model. Moreover, in the case of Lithuania, it has taken much less time to reform HE than in Kazakhstan. These breakpoints/changes were vital for the development of HEIs in both countries and will, therefore, serve as the basis for Chapter 2, where we will examine the cause behind these HE breakpoints.

Chapter 2: The outcomes of the changes of HE: degree of institutional autonomy and quality of HEIs

In the *Chapter 1*, we looked at the model of HE in the Soviet period and the changes of HE in terms of structure and organization in the post-Soviet period in both countries. In this chapter, we will look at the outcomes of these development of HE in terms of institutional autonomy and quality of HEIs.

Institutional autonomy of HEIs in Lithuania and Kazakhstan

In the academic literature, there is a strong belief that a high degree of autonomy is beneficial for the functioning of universities in terms of operation and competence. Autonomy, according to this theory, improves the ability of universities to adapt their programmes and courses in response to labour market needs, which in turn increases their contribution to national competitiveness.[54] A sufficient degree of autonomy means that universities can better respond to students' needs and therefore improve teaching and the learning experience of students, which could translate into increased student achievement.[55] Finally, some authors argue that universities know best how to deal with various issues and are able to decide the best solutions on their own. Since in Kazakhstan the HE system remains much more centralized and bureaucratized than that of Lithuania, we are going to look how it has affected the degree of autonomy of universities. We will do this by looking at the European University Association, which evaluates the state of autonomy of universities in 29 European countries based on four dimensions:[56]

1. *Organisational Autonomy* applies to the selection criteria, dismissal, and term of office of the rector. The university council must include external members who are appointed partly by the institutions and partly by the relevant ministry. Universities may freely decide on their academic structure and create for-profit and not-for-profit legal entities.
2. *Financial Autonomy* refers to a university's ability to decide freely on its internal financial affairs. The ability to manage its funds independently enables an institution to set and realise its strategic aims.

[54] OECD, World Bank Report, 'Reviews of National Policies for Education Reviews of National Policies for Higher Education in Kazakhstan'. 2007. p. 126.
[55] Ibid.
[56] Source: European University Association. Available online at :< http://www.eua.be/> [Accessed 15 May, 2016].

3. *Staffing Autonomy* emphasises a university's ability to decide freely issues related to human resources management, including recruitment, salaries, dismissals, and promotions.
4. *Academic Autonomy* refers to a university's ability to decide various academic issues such as student admissions, academic content, quality assurance, the introduction of degree programmes, and the language of instruction.[57]

The scoring system used by the European University Association is based on deductions. Each restriction on university autonomy is assigned a deduction value based on how restrictive a particular rule or regulation is seen to be. A score of 100 percent indicates full institutional autonomy, while a score 0 percent means that an issue is entirely regulated by an external authority or is legally prescribed. The law often grants universities a limited amount of autonomy or prescribes negotiations between universities and the government. A HE system in this case receives a score between 0 and 100 percent, depending on how restrictive its particular situation is perceived to be. Even though this methodology is used to measure the degree of autonomy in European universities, a project was recently initiated in Kazakhstan that focused on an evaluation of the current level of autonomy in state universities in accordance with the European University Association's methodology. The data from this project will be used here. This section does not seek to explain the scores; we will do that in the second part of the paper. Here, we will merely review the scores concerning the autonomy of universities in both countries.

What degree of institutional autonomy do universities in Lithuania and Kazakhstan have?

Table 6 (following page) was drawn up on the basis of the four level of dimensions of institutional autonomy in order to visualise what degree of institutional autonomy and academic freedom universities have in both countries at present. In the case for Lithuania, the data that was used for this table is taken from the European University Association website and in the case of Kazakhstan, from the article "Reforming University Autonomy in Kazakhstan".[58] Moreover, in order to compare the degree of autonomy of universities in Lithuania and Kazakhstan to universities elsewhere, we will look at universities in the United Kingdom, since UK universities are exceptionally autonomous. The United Kingdom is among the top three

[57] Ibid.
[58] Alpysbayeva M., & Akhmetzhanova A., Reforming University Autonomy in Kazakhstan. *Journal of European Higher Education Area,* Berlin, No 2, 2016, p. 27-47.

countries in the Europe where universities have a "high" degree of autonomy in all four areas of institutional autonomy. The data for the case of United Kingdom is also taken from the European University Association.

Table 6: Institutional autonomy of universities in Lithuania, Kazakhstan and United Kingdom[59]

Dimensions	**Lithuania**	**Kazakhstan**	**United Kingdom**
Organisational Autonomy			
Selection procedure for the executive head	100%	50%	100%
Selection criteria for the executive head	75%	80%	100%
Dismissal of the executive head	80%	60%	100%
Term of office of the executive head	0%	100%	100%
External members in university governing bodies	57%	37.5%	100%
Capacity to decide on academic structures	100%	75%	100%
Capacity to create legal entities	100%	50%	100%
In total:	**73%**	**64%**	**100%**
Financial Autonomy			
Length of public funding cycle	60%	66.6%	60%
Type of public funding	60%	20%	100%
Ability to borrow money	80%	66.6%	90%
Ability to keep surplus	0%	16.6%	100%
Ability to own buildings	0%	16.6%	100%
Tuition fees for national/EU students at bachelor's level/ for Kazakhstan, national students	40%	40%	40%
Tuition feels for national/EU students at master's level/ for Kazakhstan, national students	40%	40%	100%
Tuition feels for national/ EU students at doctoral level/for Kazakhstan, national students	100%	40%	100%
Tuition fees for non-EU students at bachelor's level/for Kazakhstan, oversees students	100%	40%	100%
Tuition fees for non-EU students at master's level/for Kazakhstan, oversees students	100%	40%	100%
Tuition fees for non-EU students at doctoral level/for Kazakhstan, oversees students	100%	40%	100%
In total:	**62%**	**38%**	**90%**
Staffing Autonomy			
Recruitment procedures for senior academic staff	75%	87.5%	100%
Recruitment procedures for senior administrative staff	100%	87.5%	100%
Salaries for senior academic staff	75%	87.5%	67%
Salaries for senior administrative staff	100%	62.5%	100%
Dismissal of senior academic staff	100%	100%	100%
Dismissal of senior administrative staff	100%	100%	100%
Promotion procedures for senior academic staff	57%	75%	100%
Promotion procedures for senior administrative staff	57%	75%	100%
In total:	**83%**	**84%**	**96%**
Academic Autonomy			
Overall student numbers	60%	80%	60%

[59] Source: European University Association. Available online at :< http://www.eua.be/> [Accessed 15 May, 2016]; Alpysbayeva M., & Akhmetzhanova A., 'Reforming University….'

Admissions procedures at bachelor's level	0%	33.3%	100%
Admissions procedures at master's level	100%	33.3%	100%
Introduction of programmes at bachelor's level	0%	20%	100%
Introduction of programmes at master's level	0%	20%	100%
Introduction of programmes at doctoral level	40%	20%	100%
Termination of degree programmes	100%	50%	100%
Language of instruction at bachelor's level	83%	66.6%	100%
Language of instruction at master's level	83%	66.6%	100%
Selection of quality assurance mechanisms	0%	0%	100%
Selection of quality assurance providers	0%	33.3%	100%
Capacity to design content of degree programmes	60%	75%	100%
In total:	**44%**	**51%**	**97%**

The table shows that Lithuanian universities enjoy a relatively higher degree of organisational autonomy than Kazakhstani universities; the degree of organisational autonomy in Lithuania is 73 percent, while it is 64 percent in Kazakhstan. The table also shows that Lithuanian universities have a much higher degree of financial autonomy than Kazakhstani universities; the degree of financial autonomy in Lithuania stands at 62 percent, while in Kazakhstan it is only 38 percent. In both countries, the highest degree of autonomy universities have is in terms of staffing autonomy, which in Lithuania is 83 percent, and 84 percent in Kazakhstan. Universities in Lithuania have a slightly lower degree of academic autonomy than the universities in Kazakhstan: the degree of academic autonomy in Lithuania is 44 percent, while in Kazakhstan it is 51 percent. Differently, UK universities enjoy a very high degree of autonomy in all four dimensions: organisational autonomy stands at 100 percent, financial at 90 percent, staffing at 96 percent, and academic at 97 percent.

Quality of HEIs in Lithuania and Kazakhstan

This section focuses on the quality of HEIs in Lithuania and Kazakhstan. The quality of HEIs should be regarded as the outcome of the changes in HE development that we examined in the first chapter. There are many ways to measure the quality of HEIs in both countries. For instance, we could be pick a few indicators such as the employability of graduates, students' satisfaction, and competition at the enrolment stage, among others. However, in these cases we would face many problems, particularly in the case of Kazakhstan. In the case of Lithuania, it would not be hard to find statistical data detailing the jobs graduates occupy, what salaries they are paid, unemployment duration and rates, and job search duration, partly because surveys have been carried out by universities as well as by Jobcentre. However, in the case of Kazakhstan, statistics about the employability of graduates are not reliable. For instance,

according to one set of figures in the National Education Report 2006, 99 percent of university graduates find employment with an half year[60] while according the Bologna Process national report, in the same year the figure is around 50 percent. Even though the latter figure seems plausible, there is no explanation as to how it was arrived at.[61] The universities do not show any initiative in conducting such surveys and providing an analysis of the employability of graduates, partly because a poor employment rate could lead them to lose their operating license, and therefore the 99 percent figure is widely regarded as suspect.[62]

Secondly, in order to investigate levels of student satisfaction, we could look for surveys conducted by universities. However, again in the case of the Kazakhstan, we can only find a survey conducted by Nazarbayev University, which was established just a few years ago in accordance with international bodies such as the World Bank. Moreover, it is the first university in Kazakhstan that is committed to working according to international academic standards and to be guided by the principles of autonomy and academic freedom. For these reasons, it would be wrong to use the survey conducted by this university as representing the quality of all universities in the country. In terms of enrolment, again in the case of Kazakhstan, there is no data available on the universities' websites regarding how many places are available in the different programmes, how many students applied, and what were the minimum and maximum scores of the students who entered the programmes.

Quality of universities in Lithuania and Kazakhstan based on the QS World University Rankings

Taking into consideration what has been mentioned above, we will now focus on the QS World University Rankings, which will allow evaluating the quality of HEIs in both countries in accordance with the QS World University's methodology. Even though we are aware of the criticisms of the methodology of global university rankings in general in accordance, worldwide university rankings stimulate research activity, influence decision-making, and build up public opinion. We are interested in how Lithuanian and Kazakhstani universities have climbed in the rankings, what their positions are, how their positions have changed with the years, and what the weak and strong points of the universities are. That will

[60] Damitov, B. K. et al., 'Natsionaliy doklad o sostoyanii i razvitii obrazovaniya' (National Report on the Status and Development of Education). *National Centre for Educational Quality Assessment,* Astana, 2006, p. 45.
[61] Template for Reports from Potential New Members of the Bologna Process 2010, Kazakhstan, p. 4.
[62] Ibid.

at least partly allow us to evaluate the quality of HEIs. In addition, we have chosen to focus on the QS World University Rankings because others such as the Shanghai Rankings of niversities do not feature all the universities that have been featured on the QS rankings. Unlike the Shanghai Rankings, which list the 500 leading universities in the world, the QS World University Rankings detail the 800 leading global universities, out of the total 22,239 universities worldwide. The top 400 universities are given individual ranking positions, and the remainder are ranked in groups starting from 401-450 and ending with 750-800.The evaluative methodology of QS in terms of the quality of the world's universities depends on the six performance criteria that assess universities in four areas: research, teaching, employability, and internationalisation. Each of the six indicators carries a different weight in terms of calculating the overall scores.

The indicators used for the QS World University Rankings are listed below.

1. *Academic reputation (40 percent).* This is measured by a global survey in which academics are asked to identify the institutions where they believe the best work is currently taking place within their own field of expertise. The survey aims to give prospective students a sense of consensus of opinion within the international academy community.
2. *Employer reputation (10 percent).* This is based on a global survey that asks employers to identify the universities they perceive to be producing the best graduates. The purpose of the survey is to give students a better sense of how universities are viewed in the graduate job market.
3. *Student-to-faculty ratio (20 percent).* This ratio is a simple measure of the number of academic staff employed relative to the number of students enrolled in the university. In the absence of an international standard by which to measure teaching quality, this indicator's aim is to identify the universities that are the best equipped to provide small class sizes and a global level of individual supervision.
4. *Citations per faculty (20 percent).* This measure aims to assess universities' research cited within other pieces of research. In general, the more frequently a piece of research is cited, the more influential it is. Therefore, the more frequently cited a university's published research papers, the stronger its research output. In order to collect this information, QS uses Scopus, the largest database of research abstracts and citations.
5. *International faculty ratio (5 percent) and international student ratio (5 percent).* These ratios aim to assess how successful a university has been in terms of attracting students and academics from other countries. This is based on the proportion of international students

and faculty members at the institutions. Each of these indicators contributes 5 percent to the overall ranking results.[63]

Table 7 on the next page depicts Lithuanian and Kazakhstani universities that have climbed into the QS World University Rankings from 2004-2015. The "X" in the table means that the universities did not appear among the top 800 universities in the world.

Table 7: Lithuanian and Kazakhstani universities in the QS World University Rankings[64]

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Lithuanian Universities												
Vilnius University	X	X	X	X	551+	601+	501+	551+	501+	601+	551+	501+
Kaunas University of Technology	X	X	X	X	X	X	X	701+	701+	701+	701+	701+
Vilnius Gediminas Technical University	X	X	X	X	X	X	X	701+	601+	701+	701+	701+
Vytautas Magnus University	X	X	X	X	X	X	X	701+	601+	701+	701+	701+
Kazakhstani Universities												
Al-Farabi Kazakh National University	X	X	X	X	X	601+	501+	401+	390	299	305	275
L.N. Gumilyov Eurasian National University	X	X	X	X	X	501+	451	401+	369	303	324	371
Kazakh National Technical University named after K.I. Satpaev	X	X	X	X	X	701+	601+	601+	601+	701+	601+	551+
Kazakh National Pedagogical University named after Abay	X	X	X	X	X	X	X	601+	601+	701+	651+	601+
Karaganda State University named after academician E. A. Buketov	X	X	X	X	X	701+	601+	601+	601+	701+	701+	701+
Kazakh Ablai khan University of International Relations and World Languages	X	X	X	X	X	X	X	X	X	701+	701+	701+
Kazakh-British Technical University	X	X	X	X	X	X	X	X	551+	651+	651+	701+
Auezov South Kazakhstan State University	X	X	X	X	X	X	X	X	601+	651+	651+	701+

[63] Source: QS World University Rankings Methodology. Available online at: <http://www.topuniversities.com/university-rankings-articles/world-university-rankings/qs-world-university-rankings-methodology> [Accessed 13 June, 2016]

[64] Source: Data of QS World University Rankings 2004-2015. Available online at:< http://www.topuniversities.com/university-rankings> [Accessed 15 June 2016].

JSC ‘S. Seifullin Kazakh Agro Technical University	X	X	X	X	X	X	X	X	601+	701+	701+	701+

Kazakhstani universities in the QS World University Rankings

Before 2009, no universities in Kazakhstan were able to enter the QS World University Rankings. However, from 2009 to 2015, nine universities out of 146 managed to be featured on the QS World University Rankings. In 2009, four Kazakhstani universities were listed on the QS World University Rankings (Al-Farabi Kazakh National University, L. N. Gumilyov Eurasian National University, Kazakh National Technical University named after K. I. Satpaev, and Karaganda State University named after academician E. A. Buketov). In 2011, in addition to the other four universities, Kazakh National Pedagogical University named after Abay was listed, while in 2012, three other universities (Kazakh-British Technical University, Auezov South Kazakhstan State University, and JSC ‘S. Seifullin Kazakh Agro Technical University) were placed on the ranking. In 2013, one more university (Kazakh Ablai Khan University of International Relations and World Languages) was listed on the QS World University Rankings.

Al-Farabi Kazakh National University and L. N. Gumilyov Eurasian National University, which were listed on the QS World University Rankings for the first time in 2009, have managed to improve their position in the last six years. In 2009, Al-Farabi Kazakh National University was placed in the 601+ group, while in 2015, the university managed to get to the 275 top best universities in the world. L. N. Gumilyov Eurasian National University improved from 501+ in 2009 to 371 in 2015. A decrease in position does not necessarily mean lower quality in general, but only a lower quality respective to other universities in the certain years (i.e., if other universities improved more, this could result in a lower position for a university, but it does not necessarily mean that that university is now worse). In that respect, it might be useful to track individual scores for each university, not just their rankings. The table below depicts these scores for the years 2012-2015.

Table 8: QS World University Rankings[65]

Ranking Criteria	L. N. Gumilyov Eurasian National University			Al-Farabi Kazakh National University		
	2012	2013	2014	2012	2013	2014
Academic reputation	330	330	368	317	317	259
Reputation among employers	401+	401+	401+	401+	401+	401+
Ratio of professors to students	26	26	28	79	79	116
Citation index	401+	401+	401+	401+	401+	401+
Share of international students	401+	401+	401+	386	401+	401+
Share of international teachers	401+	401+	401+	401+	368	401+

As the table shows, both universities have relatively high scores on the ratio of professors to students, which means that they have quite small classes, and so teachers are able to provide supervision to each student. A high ratio of professors to students is one of the reasons why these universities have been listed among the top 300 leading universities in the world in 2005. Moreover, in comparison with other criteria, both universities have better scores in terms of academic reputation. In the case of Al-Farabi Kazakh National University, the university managed to improve its scores from 317 in 2012 to 259 in 2014.

However, the universities were ranked relatively low in terms of citation index and the share of international students and teachers. Al-Farabi Kazakh National University has 381 international teachers out of the total 3,339, while L. N. Gumilyov Eurasian University has 389 international teachers out of a total of 3,605.[66] The low international nature of the faculty suggest that the universities are not becoming appealing prospects for international academics. With regard to the share of international students, of Al-Farabi Kazakh National University's 17,090 students, only 1,249 are international,[67] while L. N. Gumilyov Eurasian University has 501 international students out of the total 14,941. Most of the international students are from neighbouring countries.[68] Furthermore, the Kazakhstani H-index - which reflects both the

[65] Source: Data of QS World University Rankings 2014-2015. Available online at: < http://www.topuniversities.com/university-rankings/world-university-rankings/2014#sorting=rank+region=+country=+faculty=+stars=false+search> [Accessed 20 June 2016]
[66] Source: Data of QS World University Rankings 2015-2016. Available online at: < http://www.topuniversities.com/university-rankings/world-university-rankings/2015#sorting=rank+region=+country=+faculty=+stars=false+search> [Accessed 20 June 2016]
[67] Ibid.
[68] Ibid.

number of publications and the number of citations per publication – was 64 in 2015,[69] while the H-index of the countries which have some of the best universities in the world are: United States – 1,648, United Kingdom – 1,015, and Germany – 887.[70] Publications are important for both countries, and may be the most visible difference that affects the rankings. Kazakhstani and Lithuanian researchers were for a long time not encouraged to publish internationally and many did not. Even if we look at what has been published recently in Kazakhstan, much of it is not suitable for top international conferences/journals for various reasons such as topics related to the country's specific and issues, content, and presentation.

The rest of the nine Kazakhstan universities are listed as among the best 601+701+ universities in the world. Their position over the years has remained much the same in the QS ranking. The problems that keep these universities in the same position are, again, research output, which is ranked "medium" according to the QS World University Rankings, and low numbers of international students and staff.

Lithuanian universities in the QS World University Rankings

In the case of Lithuania, only four universities out of 14 appeared in the QS World University Rankings. From 2008 to 2010, only Vilnius University appeared in the ranking. In 2011, three new universities (Kaunas University of Technology, Vilnius Gediminas Technical University, and Vytautas Magnus University) emerged in the QS World University Rankings, and the situation has remained the same since then.

In fact, only Vilnius University managed to improve its position from 2008 to 2015, from 551+ to 501+. The other three Lithuanian universities on the list have maintained their position during the last few years and are among the 701+ best universities in the world.

One major problem that prevents Lithuanian universities from climbing higher on the QS World University Rankings is the low number of international staff and students. For example, Vilnius University has 67 international teachers out of 2,058, Kaunas Technology University 25 out of 902, Vilnius Gediminas Technical University 17 out of 816, and Vytautas Magnus University 46 out of 481. Regarding the number of international students, Vilnius University has 279 out of 16,632, Kaunas Technology University 459 out of 9,543, Vilnius

[69] 'A Scopus-Based Analysis of Publication Activity in Kazakhstan from 2010 to 2015: Positive Trends, Concerns, and Possible Solutions'. Available online at:< http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4689840/> [Accessed 21 May 2016]
[70] Source: SCImago Journal & Country Rank. Available online at:< http://www.scimagojr.com/countryrank.php> [Accessed 21 May 2016]

Gediminas Technical University 424 out of 9,304, and Vytautas Magnus University 275 out of 7,867.[71]

Secondly, the universities have relatively low faculty-to-student ratios (Kaunas Technology University was 49.7 percent in 2015/2016 while Vilnius University was 62 percent, according to the QS World University Rankings). This means that there were insufficient teachers for the students and that definitely has a negative impact on the quality of HE.

Employer reputation also seems to be one key issue. For example, Vilnius University's score regarding employer reputation was only 39.5 percent,[72] and in fact, this is a major problem for all Lithuanian universities. Because the majority of university graduates searching for employment are considered on the basis of their job experience, skills, and the educational institutions at which they studied, the low employer reputation of the universities may have a negative impact on graduates' employability.

Finally, even though Lithuanian research output is higher than Kazakhstan (in 2014, the H-index was 133), during the last ten years the research output has remained much the same, which is one of the reasons why the universities have not climbed higher in the ranking. In 2008, Lithuanian scholars published 2,903 papers, whereas in 2013 the number increased very slightly to 2959.[73] In the case of Kazakhstan, in the same period it there was a significant increase from 343 to 1690.[74]

To depict individual scores per university in different years according to the QS World University Rankings would be impossible, since there is no available data. Partly because the QS World Universities rank individual only the first 400 universities.

Key issues and findings

Regarding the outcomes of institutional autonomy and quality of HEIs, our expectations were that the Lithuanian HE system would be much more developed in terms of structure and organization, institutional autonomy, and the quality of HEIs than that of Kazakhstan. However, out findings in some case show the opposite.

[71] Ibid.
[72] Source: Data from the QS World University Rankings 2015-2016. Available online at: < http://www.topuniversities.com/university-rankings/world-university-rankings/2015#sorting=rank+region=+country=+faculty=+stars=false+search> [Accessed 20 June 2016]
[73] Source: Data from SCImago Journal & Country Rank. Available online at:< http://www.scimagojr.com/countryrank.php> [Accessed 21 May 2016]
[74] Ibid.

Both countries' universities have quite similar degree of autonomy in the field of staffing (Lithuania 83%, Kazakhstan 84%). While Kazakh universities enjoy higher degree of academic autonomy than universities in Lithuania (Kazakhstan 51%, Lithuania 44%). However, Lithuanian universities enjoy a slightly higher degree of organizational autonomy (Lithuanian 73%, Kazakhstan 64%) and relatively higher degree of financial autonomy (Lithuania 62%, Kazakhstan 38%).

While there is a strong belief that a high degree of institutional autonomy is a key element to enabling universities to best respond to new demands, our findings regarding the quality of HEIs show that even with a lower degree of autonomy, especially in the field of financial autonomy, Kazakhstani universities are performing better than Lithuanian universities. The question that automatically arises is why the best Kazakhstani universities provide a much higher quality of HE than the best Lithuanian universities based on the QS World University Rankings.

Chapter 3: How can the changes in HE can be explained by path dependency, connection with politics, and the involvement of international pressure groups?

The previous chapter of this paper detailed the changes in HE in Lithuania and Kazakhstan in terms of structure and organisation, as well as outlining the outcomes of these changes in terms of the institutional autonomy and quality of HEIs. The chapter seeks to explain the pivotal changes in HE and the outcomes of these changes on the basis of the three variables that have been chosen to explain the changes: path dependency, connections with politics, and the involvement of international pressure groups. The first section focuses on changes to the structure and organisation of HE. The second seeks to explain why Lithuanian universities enjoy a relatively higher degree of autonomy, as well as why universities in both countries have a low degree of autonomy in general. The third examines why Kazakhstani universities seem to be performing much better than Lithuanian universities, based on the QS World University Rankings.

3.1. Changes in HE structure and organisation in Lithuania and Kazakhstan

This aims to answer the following questions: Why was the HE system in Lithuania reformed much earlier than that of Kazakhstan? Why did Lithuania move relatively more successfully towards the Western model of HE, compared to Kazakhstan? Why does Kazakhstan have a relatively large number of HEIs, a large number of private HEIs? These questions will be investigated in this section on the basis of the three explanatory variables.

3.1.1. Path dependency as explanatory variable

How can path dependency explain the Lithuanian success in moving more successfully towards a Western model of HE, compared with Kazakhstan? Did path dependency have any impact on HEIs in Kazakhstan?

Building the HE system in the interwar period: Lithuanian 'success' and Kazakhstani 'backwardness'

This part of the paper will argue that Lithuania's experience in building a HE system during the interwar period prepared it for successfully rebuilding its HE system in the post-Soviet period and because Kazakhstan lacked such experience, its system worsened.

Both Kazakhstan and Lithuania experienced two military occupations, the first by the Russian Empire and the second by the USSR. Kazakhstan was part of the Russian Empire from 1731 to 1918, and Lithuania from 1795 to 1918. As a result of the Russian Revolution in 1917, Kazakhstan and Lithuania regained their independence in 1918. However, in the case of Kazakhstan, independence was short-lived; the country was incorporated into the USSR in 1920 and remained so for 71 years, until 1991. In the case of Lithuania, the country managed to preserve its independence until 1939 when, under the Molotov Ribbentrop Pact, Eastern Europe was divided between the USSR and Nazi Germany. At this point (1940), Lithuania became part of the USSR until the country declared its independence in 1990; thus, Lithuania was part of the USSR for 50 years.

When Lithuania and Kazakhstan regained their independence from the USSR, both countries had to rebuild everything from scratch, including their HE system. However, in the case of Kazakhstan, the country lacked the experience to re-establish its HE system because its independence during the interwar period had been short-lived and its system of HE, along with the establishment of the first HEIs, had been developed during the period of the 1930s when the country was already part of the USSR (e.g., the Taskhent Pedagogical Institute in 1926; the Zooveterinary Institute in 1929; the Agricultural Institute in 1930; the Technical Institute in 1934; Kazakh State University; the Medical Institute in 1931; and pedagogical institutes in Uraslk, Aktyubinks, Petropavlovsk, and Kustanay). Thus, from its beginnings the Kazakhstani HE system followed the Soviet model of HE in terms of centralized governance, qualifications, and structure. After the political breakup of the USSR, the HE system in Kazakhstan remained much the same as it was during the Soviet administration, partly because society still accepted the model of HE that had been in place for more than 71 years, and saw no need of reform.

In the case of Lithuania, when the country regained its independence in 1918, there was a priority to develop a certain network of national HEIs, not only for educational purposes (even though Lithuanian society at that time was fairly well educated, indicating a desire for HE) but also because of political, economic and civil developments, and the need to build a model of state governance. Immediately after the country declared its independence in 1918,

the Lithuanian State Council made efforts to restore Vilnius University (which had been established in 1579 and closed in 1832 by the Russian Empire) and adopted the Statute of Vilnius University. According to the statute, Vilnius University was to be restored on 1 January, 1919; however, the Lithuanian Government failed to enact the Act of Restoration because the capital of the country was occupied by the Red Army of the USSR and later annexed by Poland. Various foreign administrations in Vilnius tried to reserve for themselves the privilege of restoring the university.[75]

The first HEIs in Lithuania established during the interwar period (e.g., the University of Lithuania, established in 1922, and from 1930 renamed Vytautas Magnus University; the Lithuanian Agriculture Academy in 1924; and the Lithuanian Veterinary Academy in 1930) were not much different from their counterparts in Western Europe. Until the universities adopted their own statutes, they functioned on the basis of the Vilnius University Statute, adopted in 1918. This emphasised structure, organisation and internal governance, which consisted of a senate, university council, and faculty council. The university council was the highest governing body of the whole university, the senate was an executive body, and the faculty council was a decision-making body that dealt with faculty-related issues.[76] During the USSR occupation, the Lithuanian HEIs were reorganised (Vytautas Magnus University, for example, was reorganised into Kaunas Polytechnic Institute and Kaunas Medical Institute) and started to function on the basis of the Soviet HE model.

When the country regained its independence from the USSR, Lithuania was able to rely on its experience in the interwar period to rebuild the structure and organisation of its HEIs and reopen the HEIs that had been closed during the Soviet administration. By 1989, most of the Lithuanian HEIs had introduced proposals for new statutes that defined the mission of the universities, determined their structure, and regulated their activity and government. In accordance with that, the internal structure of the universities remained much the same – i.e., senate and university council, although the faculty council was changed to the position of rector.[77]

[75] During the Polish governance the Vilnius University was converted to the University Stephanus Bathores (1919–1939), while during the USSR period it was renamed Vilnius Kapsukas University (1944–1990).
[76] Lietuvos universiteto statutas, [Lithuanian University Statute] *Vyriausybės žinios*. 1922 m. balandžio 22 d. Nr. 86.
[77] Zelvys R. 'Reform of Higher Education in Lithuania: Moving towards Decentralization of State Control', *Socialiniai Mokslai*, 5(42), 2003, pp. 17–20.

Why does Kazakhstan have such a large number of HEIs?

In the first part of the paper, where we analysed the changes in HE following independence in both countries, it was noted that the increase in HEIs in Kazakhstan was quite impressive, compared with Lithuania. Today, Kazakhstan has 122 HEIs, while Lithuania has only 49. Prior to independence, Kazakhstan also had much a large number of HEIs compared to Lithuania (see table 2); Kazakhstan 55 and Lithuania 12 in the years 1987-1988. Thus, it may be that path dependence plays an essential role in this context.

It was stated before that the number of HEIs in each Soviet republic depended on urbanisation rates and production capacities. From this perspective, Kazakhstan undoubtedly had higher urbanisation rates and production capacities than Lithuania. Unlike Lithuania, which was poor in natural resources, Kazakhstan was very rich in natural resources, including oil, natural gas, uranium, and other ore deposits, which were of crucial importance to the Soviet economy, particularly during World War II. After the war, it was expected to contribute more to the industrialisation process, as a result of which the country was given more HEIs.[78]

From 1930-1940, powerful industrial centres such as those at the Karaganda coal basin, the Emba oilfield, and the Balkhash copper works were constructed.[79] To provide workers for industrial centres, a certain number of HEIs had to be established in order to train people to work there. Looking at Table 1, we can see that in the years 1940-1941, the country already had 20 HEIs. During World War II, industrialisation and the extraction of natural resources increased to support the war effort of the USSR.

Moreover, during the war many leading scientists from the European regions of the USSR were evacuated to Kazakhstan to continue their research and provide the necessary human resources and technological expertise for military industries. Many of these researchers were placed in the new HEIs that were established, where they organised institutes in a number of technical and scientific fields.[80] During the war, Candidate of Science degrees and Doctor of Science degrees were given to 130 teachers at HEIs and seven institutes of the Kazakhstan Department of the USSR Academy of Science were established. The Pedagogical Institute of Foreign Languages (1943), the Shymkent Institute of Construction Materials Technology (1943), the Conservatory (1944), and the Female Pedagogical Institute (1944) were founded in

[78] OECD, World Bank, *Higher Education in Kazakhstan*, Paris, 2007, p. 65.
[79]UNESCO, *Economic Development of Kazakhstan under Socialism*, Paris, 1963, p. 4.
[80] OECD, World Bank, Higher Education…., p. 163.

Alma-Ata. With the establishment of these new HEIs, the number of students grew from 10,400 in 1941 to 15,100 in 1945.[81]

In the post-war period, the diversification of industry within Kazakhstan led to further development, particularly in the oil extraction, chemical, metallurgical, and mining industries. This was mainly because after the war, Kazakhstan became a base for the recovery of affected areas of the USSR in terms of sending raw materials, fuel, construction materials, industrial goods, and food. In the early 1950s and 1960s, therefore, new industrial centres emerged in the country such as the Ulba Production Centre (uranium mining) and the Ekibastuz Centre (coal production). The priority for the educational establishments in these industrial centres was to train a large, specialist workforce. At the same time, the USSR government launched a number of projects in Kazakhstan, one of which was a centre for space exploration at Baykonur; at this point, training specialists in the field of space research in Kazakhstan became a Soviet priority.

Such industrial developments in the country resulted in radical reforms of education at the end of the 1950s and the beginning of the 1960s aimed at strengthening the connection between schools and industry. In 1958, the law that was duplicated in 1959 with the republican law "About Strengthening of Connection between School and Life" was passed. According to this law, compulsory eight-year education was introduced instead of seven- and ten-year education. After that, secondary school graduates were obliged to work in agricultural factories for a certain number of years, combining work and study at polytechnic schools. Entering HEIs afterwards was based on industrial experience, rather than the theoretical preparation of applicants.[82] The transition to the new Kazakhstani system was completed in 1962–1963.

The reform had mixed results. The turnover of staff in industry increased and the prestige of HE fell; scientists and the intelligentsia worked on physical, unproductive work to the detriment of their professional work. In 1964–1990, some ideas about reform were reconsidered, and compulsory ten-year education was reintroduced. During those decades, the system of HE developed gradually. In the 1960s, 1970s and 1980s, 27 institutions of HE were opened - almost as many as for the previous period (the number of HEIs in the years 1940–1941 to 1960–1961 increased from 20 to 28). The number of specialities also increased. In 1986, 550,000 students from more than 200 specialities were being trained in 55 HEIs.

[81] Kyzykeyeva A. & Oskolkova A., 'Historical Aspects of Higher Education in the Republic of Kazakhstan', *Kazakh-American Free University Academic Journal*, 3, 2011, p. 14.
[82] Ibid.

In the early 1990s, after gaining independence from the USSR, Kazakhstan had 39 public HEIs, though 16 fewer than in 1987–1988, a decrease which could be due to the fact that some HEIs were closed after independence because of low funding and low-quality education.

3.1.2. Connections with politics as explanatory variable

This section will focus on the politics – more precisely, the funding – and how it explains why it took so long to reform the HE system in Kazakhstan, while the process was much faster in Lithuania. In addition, we will consider how funding has affected the fact that Kazakhstan currently has a large number of private HEIs. Without a doubt, the modernisation of the HE system relied on the available financial resources for reformation of HE in the early 1990s because Lithuania and Kazakhstan had to deal with high inflation rates, decreased GDP and increased unemployment rates, decentralisation, the dissolution of the rouble, and the introduction of their own national currency. With regard to the fact that it took longer to reform the HE system in Kazakhstan and a relatively period in Lithuania, we are going to push this hypothesis a bit further by looking at the correlation between decreases and/or increases in public expenditure as a percentage of GDP on education in general. Public expenditure includes schools, universities, and other public and private institutions that deliver or support education services. If we can see a correlation – for example, that there was a decrease in GDP at the same time as a decrease in public expenditure on education, or the other way around – it might be reasonable to conclude that one of the reasons it took so long to reform HE in Kazakhstan was because there was no additional funding available. When the economy started to recover, GDP increased and at the same time public expenditure on education also increased, and it may be true that the idea of reforming HE became more feasible. However, it might have happened that there was an increase in GDP but not an increase in public expenditure on education or that the increase was very low. It could be that there was no one who could pay for reforming the HE system in both countries because the governments had not invested enough to change the HE system inherited from the USSR.

Correlation between GDP and public expenditure on education as a percentage of GDP: Kazakhstan

In the case of Kazakhstan, we are going to look at the GDP and public expenditure on education in the years 1990-2010, partly because we want to know if there was a decrease in GDP at the same time as a decrease in public expenditure in the period in order to argue that it took longer to reform HE due to the lack of available funding. After that, we will examine if there was an increase in GDP and at the same time an increase in public expenditure in order to argue that the country started to work on changes to the HE system when the economy started to recover and funding became available. The table below details the changes in GDP and public expenditure as a percentage of GDP in the period under investigation. The data are taken from an OECD report and the World Development Indicators 2013.

Table 9: Public expenditure on education as a percentage of GDP 1990–2010, Kazakhstan[83]

Years	Public expenditure on education as % of GDP	GDP (US$ billion)
1990	3.9	26.9
1991	2.1	24.9
1992	3.9	24.9
1993	3.0	23.4
1994	3.2	21.3
1995	-	20.4
1996	-	21
1997	4.4	22.2
1998	4	22.1
1999	3.9	16.9
2000	3.3	18.3
2001	3.2.	22.2
2002	3.2	24.6
2003	3.4	30.8
2004	3.6	43.2
2005	2.3	57.1
2006	2.6	81
2007	2.8	104.9
2008	2.6	133.4
2009	3.1	115.3
2010	3.1	148.5

The table shows that in 1990, just before the country declared independence and the collapse of the USSR, public expenditure on education was 3.9 percent, while GDP was

[83] OECD, World Bank, *Reviews for National Policies on Education: Higher Education in Kazakhstan*. Paris, 2007, p. 86; World Bank. *World Development Indicators 2013*. Washington, D.C.: World Bank, 2013.

US$26.9 billion. Following independence, public expenditure decreased from 3.9 percent to 2.1 percent, and GDP decreased from US$26.9 billion to US$24.9 billion, as a result of collapsing exports. In the years 1992–1997, we notice that public expenditure increased from 3.9 percent to 4.4 percent, while GDP slightly decreased from US$24.9 billion to US$22.2 billion. In the years 1997–2000, public expenditure on education decreased from 4.4 percent to 3.3 percent, because there had also been a decrease in GDP from US$22.2 billion to US$18.3 billion. At this point, we could argue that in the years 1992-1997, it was quite hard to work on changes to HE because there was a decrease in GDP at the same time as the decrease in public expenditure on education.

In the following years (2002-2008), the economy staged a vigorous recovery that showed an increase in GDP – in 2002 GDP was US$24.6 billion while in 2008, it was US$133.4 billion. Such a recovery was mainly led by the oil and mining sectors. However, even though there was an increase in GDP, public expenditure on education decreased; in 2002 it was 3.2 percent, while in 2008 it was 2.6 percent. From this perspective, we could argue that even if Kazakhstan was able to reform HE (bearing in mind that the economy had recovered in that period), expenditure on education remained low. Moreover, public expenditure on HE education in the year 2006 in Kazakhstan appears to be extremely low compared with other countries. For example, public expenditure on HE in the year 2006 was only 0.3 percent, below the OECD average of 1.7 percent.[84]

In the years 2009-2010, GDP further increased from US$115.3 billion to US$133.4 billion, and there was an increase in public expenditure. However, that increase was relatively low - only 3.1 percent - and remained much the same from 2010 to 2012. Thus, because there was no financial support to reform the HE system, there were no HE reforms in Kazakhstan. Public expenditure on education remained low in the country, despite the rapidly growing oil and gas revenues. However, because the HE reforms started in the years 2005-2007 and still are under way, the question arises as to who is paying for the reformation of the HE system in Kazakhstan because the country has not invested so much in HE.

Correlation of GDP and public expenditure as a percentage of GDP on education: Lithuania

In the case of Lithuania, we will do the same as above with Kazakhstan to investigate whether there is a correlation between decreases and/or increases in GDP and public

[84] OECD Report. *Education at a Glance 2006: OECD Indicators 2006*. Paris, 2006, p. 34.

expenditure on education in the period 1990-2000, because the reforms to HE in the country started in the late 1990s. The data have been taken from OECD reports and World Developments Indicators 2013.

Table 10: Public expenditure on education as a percentage of GDP in 1990–2000, Lithuania[85]

Years	Public expenditure on education as % of GDP	GDP (US$ billion)
1990	4.5	10.5
1991	-	10.3
1992	-	8.6
1993	4.6	7.4
1994	-	7
1995	5.1	7.9
1996	5.2	8.4
1997	5.5	10.1
1998	6.0	11.3
1999	6.3	11
2000	5.6	11.4

What we see in the case of Lithuania is that the country maintained a balance between GDP and educational spending in 1990. In 1990, public expenditure on education was 4.5 percent, while GDP in that year was US$10.5 billion. In 1993, public expenditure on education increased to 4.6 percent, while there was a decrease in GDP to US$7.4 billion. We can see that even though in the years 1991-1994, the country faced challenges in achieving economic stability and establishing new legal frameworks and institutional structures, the Lithuanian government invested heavily in education. Moreover, even though the HE reforms were fully implemented with the "Law on Education" in 2000, we cannot say that there were no reforms in the early 1990s. Lithuania continued to make progress on basic elements of education reform such as eliminating ideologically oriented elements within universities, developing new curricula, textbooks and teaching materials, developing more links with Western institutions, and introducing the three-cycle system.

In the year 1995, public expenditure increased, compared with 1993, and there was an increase in GDP as well. During the years 1996-1999, public expenditure on education increased from 5.2 percent to 6.3 percent, when the country also experienced the strongest period of economic revitalisation and growth since 1991, as the increase in GDP demonstrates: the GDP increased from US$8.4 billion to US$11 billion.

[85] OECD, World Bank. *Reviews for National Policies on Education: Higher Education in Kazakhstan*. Paris, 2007, p. 86; World Bank. *World Development Indicators 2013*. Washington, D.C.: World Bank, 2013.

The available data on Lithuania illustrates that investment in education was one of the main priorities of the government. Compared not only with Kazakhstan but also other post-Soviet countries, Lithuania spent a substantial proportion of its GDP on education. Therefore, we can assume that the reforms of HE in Lithuania started earlier than in Kazakhstan because the country invested more in education.

Why does Kazakhstan have a large number of private HEIs?

One of the questions raised in the first part of this thesis, where we analysed the changes in HE after the political breakup of the USSR, was why Kazakhstan has a large number of private HEIs; there are currently 32 public universities and 90 non-public universities How can that be explained? Are there any beneficial conditions related to the high number of private HE institutions?

To compensate for the low level of public expenditure, following independence the Kazakhstani government adopted a multi-pronged resource-mobilisation strategy involving three policy elements: almost universal cost-sharing in public HEIs, the privatisation of some public HEIs, and the rapid grow of HEIs.[86] The table below details the development of non-public universities in the period 1996–2005.

Table 11: The number of non-public universities in the period 1996–2005[87]

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Non-public universities	**71**	**99**	**111**	**114**	**123**	**122**	**111**	**112**	**108**	**109**

We can see that in the years 1996–2000, there was rapid growth in the number of non-public universities. Bearing in mind that in the year of independence Kazakhstan only had public universities, this increase in non-public universities in such a short period is impressive. In 1996 the country had 71 non-public universities, and by 2000 the number had increased to 123. Many of these private entities were created, at least partly, out of former state universities and institutes such as the Kazakh Institute of Management, Economics and Strategic Research and the International University of Business. However, many were created independently from

[86] OECD, World Bank Report, 'Reviews for National Policies for Education: Higher Education in Kazakhstan'. Paris, 2007, p. 75.
[87] Ibid.

scratch (e.g., the International Business Academy [IBA], the Adilet School of Law, Turan University, Kainar University, and Suleiman Demirel Turkish University). The number of private HEIs fell from 123 in 2000 to 109 in 2005, and stands at 90 in 2016. The main cause of the decline in the number of private universities seems to be the Kazakhstani government's decision to close down a number of private universities on the basis that they were not meeting quality standards or fully complying with education regulations.[88]

The fairly rapid increase in non-public universities can partly be explained by the fact that in the late 1990s, the government decided to replace the direct recurrent budget in favour of a voucher funding system that aimed to promote greater competition among HE institutions in respect to students' interests by indirectly giving public support through consumers, rather than directly to the HE institutions.[89] However, in Kazakhstan about 20 percent of students receive voucher-like education grants that they can carry with them to the public or private universities of their choice, as long as they choose to study a grant-carrying subject. Other students enrolled in HE institutions, both public and non-public, have to pay tuition fees equivalent to the amount of the education grant. The table below details the distribution of resources in terms of the number of students by the type of financial contribution, and documents the growing share of private payments in the revenues of HE in both public and non-public HEIs.

Table 12: Structure or revenues of HE institutions[90]

Year	Public resources (through vouchers/grants)	Tuition fees
2000	29.5%	71.5%
2001	23.0%	77%
2002	19.2%	80.8%
2003	17.7%	82.3%
2004	16%	84%

The table shows that in the years 2000–2004, public resources through the voucher system decreased from 29.5 percent in 2000 to 16 percent in 2004. However, there was an increase in private payments from 71.5 percent in 2000 to 84 percent in 2004. In addition, Kazakhstan has one of the highest levels of private funding in the world, compared with, for instance, Australia (34.8 percent), Canada (20.6 percent), and the United Kingdom (18.5

[88] OECD. *Competitiveness and Private Sector Development: Central Asia 2011*. 2011, p. 86.
[89] OECD. *World Bank, Reviews for National Polices for Education: Higher Education in Egypt*. 2010, p. 85.
[90] OECD, World Bank Report, 'Reviews for National Policies for Education: Higher Education in Kazakhstan'. Paris, 2007, p. 43. Ibid.

percent). Taking into consideration these data, we could argue that private HEIs rely on private funding, while both private and public HEIs compete in order to attract more students, thereby increasing their financial resources. The increase of students in private HEIs has been very significant. In the academic year 1999–2000, 94,400 students were studying in private HEIs. By the year 2004–2005, the number of students studying at private HEIs had increased fourfold to 392,200.[91]

3.1.3. Involvement of international pressure groups as explanatory variable

For several decades, the EU has been developing and implementing an integrated policy in the field of HE, forming supranational institutions of coordination and management. These processes led to the Bologna Declaration in 1999 and the initiation of the Bologna Process at the same time. Currently, the Bologna Process is the primary mechanism of HE reform in FSU countries, as well as integration initiatives. Creating a EHEA could enable the national education systems of European countries and others to adopt a positive experience of partners – enhancing the mobility of students, teachers and administrative personnel, and strengthening ties. The main arguments in favour of the reforms were the quality of education, the autonomy of universities, research autonomy, and use of new financing schemes. Moreover, EHEA promotes the mobility of students and staff, employment of graduates, and the overall development of the country members. In this section, we are interested in how international pressure groups such as the Bologna Process, the EU, and various programmes running other international pressure groups have influenced the changes to the HE systems in Lithuania and Kazakhstan.

Involvement of international pressure groups and changes to HE systems: Kazakhstan

Kazakhstan followed the same trajectory as Lithuania, signing the Bologna Declaration in 2010, but a significant time (more than a decade) later. Unlike in Lithuania, the majority of reforms of HE have been driven by its participation in the Bologna Process because until 2005, there were no significant changes in HE and the system basically remained the same as it was prior to independence. Moreover, if it were not for Kazakhstan's ambition to become one of the world's 50 richest economies, it is hard to believe that there would have been any efforts made to change the HE system at all. Therefore, signing up to the Bologna Process was

[91] Ibid.

done to make country's education internationally compatible, because doing so would add a global dimension to its programmes and at some point would make Kazakhstan more attractive to the students and academic in terms of exchange programmes.

In accordance with the requirements of the Bologna Process, a number of essential changes to HE were made in the period 2005-2010. The Kazakh government has adopted "The State Education Development Programme 2005-2010" which served as the basis for the introduction of the three-cycle HE system in 2005.[92] Further, the "Law on Education" was adopted in 2007 to ensure compatible standards.[93]

The EU was the main body that assisted in reforming HE in Kazakhstan through the framework of its TACIS, Tempus, and Bistro programmes. In general, these programmes have assisted with curriculum modernization, changes to university governance and especially towards managements of the quality and assessment system, and implementation of a credit system compatible with European universities. Even though these programmes were put in place in Kazakhstan in the mid-1990s, they did not bring about any fruitful results because there were no changes. There were 50 projects funded during the period, consisting of 22 national and 28 multinational projects.[94] Among them were 37 Joint European Projects since 2007 and 13 Structural and Complementary Measures.

Moreover, very large amounts of money allocated by the EU for projects involving Kazakh universities during the period 1995-2010. In total, these came to €28,994,523, including €6,266,000 in 1995-1999, €5,550,000 in 2000-2006, and €17,178,523 in 2008-2010.[95] The funds were highest in the years 2008-2010, just before Kazakhstan became an official signatory of the Bologna Process.

Involvement of international pressure groups and changes to HE systems: Lithuania

The reforms of HE in Lithuania were fully implemented with the "Law on Education" in 2000. This was influenced its participation in the Bologna Process in 1999 and the negotiations for accession to the EU, which started in the same year. With the accession to the EU, a similar model to Western HE systems had to be developed, which would allow for the

[92] European Commission, Overview of Higher Education Systems in the Tempus Partner Countries Central Asia, issue 5, 2011, 9.
[93] UNESCO, *World Data on Education: Kazakhstan*. *2010/2011*. 2016. Available online at: <http://www.ibe.unesco.org/sites/default/files/Kazakhstan.pdf> [Accessed 29 May 2016].
[94] National Tempus Office in Kazakhstan, 'Tempus in Kazakhstan 1995-2010'.
[95] Ibid.

mobility of students and staff, evaluations of qualifications, and increased employability prospects. However, many aspects of the Bologna Declaration, including the introduction of the three-cycle system and switching to a credit system, were implemented before that date in Lithuania. In fact, Lithuania was one of the first post-Soviet countries to introduce the three-cycle system, which it did in 1992-1993. Moreover, before it signed up to the Bologna Process in the early 1990s, a ten-point grading scale assessment system was introduced and an external assessment system for the quality of studies was introduced.[96] Therefore in the case of Lithuania, the Bologna Process played a role in strengthening activities such as quality assurance, European co-operation and integration, and the social dimension in the Lithuanian HE system.[97]

One reason why many changes were made to HE in the early 1990s was because the doors were opened for international cooperation between HEIs. The main impetus for that was the willingness to "return to Europe," which was reflected in the efforts to replace Soviet education policies and practises with European ones. In the early 1990s, therefore, many bilateral and multilateral agreements facilitated the mobility of students, and research has become widespread. In addition, a multi-country agreement was concluded to develop a project on "a common HE space" for the Nordic and Baltic countries. [98] Collaboration among the three Baltic states and international support from the Nordic countries, among others, has been especially important in terms of encouraging exchange programmes of students and staff at the university level, supporting common curriculum developments, and collaboration programmes such as the EuroFaculty (aiming at transforming the culture of teaching and learning in economics, law and, public administration/political science) and Baltech (aiming at the cooperation of technical universities in Denmark, Sweden, and Baltic countries).[99] These common projects among the Baltic and Nordic countries have influenced the changes to the HE system in Lithuania; furthermore, the country signed the Lisbon Convention in 1997, which meant that Lithuania HE diplomas became widely recognized and collaboration with universities elsewhere became easier.

The EU programmes for cooperation in the HE and research sector have had a significant influence on the reforms to and development of HE in Lithuania. The national EC-Phare programme has funded several projects that have aided the formulation of priorities in

[96] Bologna Process National Report 2003, Lithuania, p. 19.
[97] Ibid. p. 21.
[98] Nordic Council of Ministers, *Report on Potential for Creating a Nordic-Baltic Space on Higher Education and Training*', Copenhagen, 1999, p. 54.
[99] Ibid.

HE. Two – the Phare Multi-Country Programmes-Distance Education and Quality Assurance in HE - have contributed to progress in both directions. In the 1990s, Lithuania gained 30 million euros from EC-Phare programmes, a part was allocated to the reform of HE.[100]

The EU Tempus programme launched in Lithuania in 1995 has had a substantial impact on many important developments in the sector, not only in terms of staff, student and staff mobility, development of curricula, and development plans for faculties and institutions but also for the governance of HE. The EU's COPERNICUS programme for cooperation in research has aided the scientific activities of HEIs during the most difficult times of financial constraint.

The educational programmes and projects of the Council of Europe and UNESCO have widened collaboration in areas such as the introduction of the European Credit Transfer System (ETCS), the international recognition of diplomas, the creation of an international network of educational observatories, and the harmonisation of legislation. Reform has also been spurred by Lithuania's efforts to conform to international expectations such as the Convention of the Council of Europe and the UNESCO Convention on the Recognition of Qualifications concerning Higher Education in the European Region, ratified by Lithuania. Lithuania was obligated to follow the principles and procedures for recognition of diplomas and qualifications regulated by the convention.

3.2. Degree of autonomy of HEIs in Lithuania and Kazakhstan

The findings of the first part of the paper suggest that Lithuanian universities have to some degree a higher degree of autonomy compared to universities in Kazakhstan, especially concerning financial matters. This section attempts to explain why this is the case and the impact of path dependency, the involvement of international pressure groups, and connections with politics.

3.2.1. Path dependency as explanatory variable

To what extent can path dependency explain why Lithuanian universities have a higher degree of autonomy in some dimensions than universities in Kazakhstan? Furthermore, to what extent can path dependency explain the low degree of autonomy of universities in both

[100] Ibid.

countries? These questions will be investigated in this section, and we will trace which elements have persisted over time in both cases.

Path dependency: Kazakhstan

The governance of HE in Kazakhstan has not changed significantly since the Soviet era, despite the expansion of the private sector, which did not exist in the USSR. Therefore, no meaningful autonomy has been given to individual HEIs. The Ministry of Education and Science remains the central body responsible for the broader management of HEIs, as well as being the primary body for regulations in this area.[101] The self-governance of universities in Kazakhstan also remains weak, since their governing bodies such as academic councils and rectors are appointed by the relevant ministry, as was the case during the Soviet era. In Kazakhstan, there is a governing system of universities that is directly subordinated under the ministry's control, while members appointed to university governing bodies are motivated to keep good relations with the ministry in order to remain in their posts, rather than representing the interests of universities as institutions, alongside students and staff.

We have seen that Lithuanian universities have twice the degree of financial autonomy as Kazakh universities. One of the reasons for this is that Kazakhstan inherited the Soviet HE budgeting model, while Lithuania shifted towards a "progressive Western model" of HE funding. In the case of Kazakhstan, budgeting funding for HEIs is allocated in a line-item budget. The line-item budget limits universities' financial autonomy and as a result, universities have very little control over the distribution of received funding. This is primarily because they receive funding that has already been pre-allocated to cost items or activities, while unspent money at the end of academic year is to be paid back to the relevant ministry. Therefore, universities are not able to make allocation decisions, or can do so only within strict limits.[102] With this type of budgeting, the government provides a list of essential expenditures that must be covered and allocates a certain amount of funding for this purpose.

[101] Irvine et al., 'Evaluation Report: Kazakhstan National Technical University after K. I. Satpaev', 2011, p. 7.
[102] European Centre for Strategic Management of Universities, 'Funding Higher Education: A View across Europe'. Brussels, 2010, p. 56.

Path dependency: Lithuania

In the case of Lithuania, the Ministry of Education and Science remains the main governing body of HE; however, its powers appear to have been reduced when it comes to university self-governance. In this matter, the internal structure and governance relies more on democratic principles, in that the governing body of universities consist of the senate, an academic council, and rector, who are appointed by university staff and student representatives; in the case of the academic council, the Ministry of Education and Science also plays a role in its election. Such structures and organisation help to explain why Lithuanian universities have a slightly higher degree of organisational autonomy than Kazakh universities, where governance of the university and HE in general remain heavily centralised, part of the heritage of the USSR.

In contrast, Lithuanian uses a lump-sum budget, which gives universities more autonomy to address financial issues because the universities themselves are primarily responsible for dividing and distributing funding internally, according to their needs and across various units and activities. This can cover expenditure like teaching, ongoing operational costs, and research activities. Money that has not been spent by the end of year can be carried over to the following year's budget, and universities are no longer forced to pay back unspent money to the ministry. In order to determine the size of allocations, ministries negotiate annually with each individual university on the basis of universities goals and performance agreements, which are mostly been derived from quantitative indicators, for example the number of students enrolled, research activities, and output.

However, Lithuanian universities have a relatively low degree of academic autonomy, like Kazakh universities. This may be partly related to the fact that during the Soviet period, the curriculum was to a large degree state-controlled - i.e., government institutions attempted to regulate study programmes in both countries and define the requirements of other areas such as qualification standards and guidelines for doctoral degrees. Approval for study programmes remained a bureaucratic issue, with universities having to undergo a lengthy accreditation process that could take up to two years.

Staffing autonomy remains at a "medium high" level in both countries; however, some elements of the old Soviet style system have also persisted, namely involvement in determining salaries and in recruitment and promotion procedures. That is also why universities in Lithuania and Kazakhstan have a lower degree of autonomy in terms of staffing than universities in the UK, because their governments determine the salaries of senior academic staff.

Persistence of an academic 'oligarchy'

Another reason that might explain why Kazakhstani and Lithuanian universities have a much lower degree of autonomy compared to universities elsewhere such as those in the UK is that universities as institutions in these two countries are relatively weak, which is a consequence of the previous Soviet culture. In the academic literature, scholars have argued that universities as institutions, especially in post-Soviet countries, should play a more significant role in the management of academic affairs, and must do so by acquiring more autonomy. However, since there is still a strong post-Soviet academic culture, combined with strong state control, the level of autonomy in universities in both countries remains weak.

In the first part of the paper, where we discussed the HE model in Lithuania and Kazakhstan prior to independence, we mentioned that a certain academic "oligarchy" was in power in universities during the Soviet era. By academic "oligarchy," we refer to academics in areas such as mathematics, chemistry, and physics who had been ideologically accepted; however, historians were excluded from this "oligarchy," keeping in mind that large sections of history had to be rewritten following the break-up of the USSR. Thus, in the Soviet period, the autonomy of academics and students in universities was almost completely absent because their activities were subject to the discretion of political authorities.

Following independence, when the time came to reorganise universities and give them more freedom, pressure needed be exerted first and foremost by the universities themselves. However, the academic "oligarchy" persisted and as a result, for a long time there was no pressure to enhance institutional autonomy. Moreover, while this "oligarchy" was still in power, changes towards a higher degree of autonomy were slow. However, some efforts have been made in the case of Lithuania, in that universities introduced their statutes towards the end of the 1980s and the first pro-Soviet rector at Vilnius University was elected by the university council in the same year as the country gained independence.[103] What we see in the case of Kazakhstan is that a new academic "oligarchy" is being formed, because rectors and academic councils are appointed by the Ministry of Education and Science.

[103] Bumblauskas A., 'Universitetas Vytenis' [University Vytenis]. Vilnius, 2004, p. 67.

3.2.2. Connections with politics as explanatory variable

During the last decade, both Lithuania and Kazakhstan have endeavoured to reform their HE governance. One of the key elements of these reforms has been to move from the old, centralised system governance that was inherited from the USSR to a system based on more institutional autonomy, which entails universities' capacity to manage their internal academic affairs independently. However, as we have seen in Table 6, in some dimensions universities in both countries lack a high degree of autonomy. One of the reasons is that the governments of both countries maintain strict control over the HE sector and limit universities' activities in many ways. In some countries, as may be the case of Kazakhstan, governments' influence over universities is strong, in other countries mild, and in others it is negligible. The next section seeks to answer the question: how do the governments of both countries affect the degree of autonomy? We are going to examine this through the restrictions that have been imposed by the central authorities towards universities' organisation, financial, staffing, and academic autonomy.

The influence of the government and degree of autonomy of universities: Kazakhstan

In the case of Kazakhstan, the government continues to impose restrictions in order to limit university autonomy in all areas. In the terms of organisational autonomy, the selection procedures for the executive head first have to be validated by an external authority, in this case the Ministry of Education and Science. However, universities may have more freedom in the determining the selection criteria for the executive head and the dismissal of the executive head. Moreover, universities in Kazakhstan have to include external governing bodies and the relevant authorities play a leading role in the election procedures. In addition, universities cannot independently decide on their academic structures and create for-profit and not-for-profit legal entities. A for-profit entity aims to earn profit through its operations and is concerned with its own interest. Most companies involved in business are for-profit companies; this includes anything businesses such as retail stores, restaurants, insurance companies, and real estate companies, while not-for profit entities serve the public interest and do not benefit financially. Not-for-profit entities are mainly concerned with money only insofar as much as it

is necessary to keep the organisation operating; this includes organisations such as NGOs, charities, hospitals, and religious communities.

In most industrial countries, universities manage their own budgets, but do not in Kazakhstan. The low degree of financial autonomy is a serious limitation and constrains universities' capacity to use resources effectively, and imposes a high transaction cost on budgetary management.[104] We have already mentioned that Kazakhstani universities receive "line-item" budgets inherited from the Soviet system. This means that universities' budgets are tightly controlled by the relevant ministry and are approved by the central authorities, while the resources cannot be transferred to other categories.[105] There is no motivation to be efficient since savings are all returned to the relevant ministry. In addition, universities do not own their own buildings (they are owned by the Ministry of Finance) and have limited authority over their management.[106]

Universities in Kazakhstan have the authority to hire and fire faculty in an autonomous manner. However, salaries are centrally determined, while universities have the authority to supplement basic salaries.[107] The academic and administrative staff can only be promoted if there is a post available at a higher level.

In terms of academic autonomy, there are many restrictions limiting degree programmes that universities can offer students. First of all, there is a list of specialities – the so-called "national classifier of specialities" - released by the Ministry of Education and Science and endorsed by the Ministry of Trade in 2009. Universities that want to introduce new programmes must obtain a license from a corresponding department at the ministry, according to the "Law On Licensing" of 2012. To get approval for new programmes, universities have to complete a huge amount of paperwork and it can take from two-three years. This reveals the tight restrictions under which universities have to operate. Moreover, overall student numbers are restricted by government dictates that limit the number of students allowed in any given physical place.[108] Admission to bachelor's and master's programmes depends on the relevant ministry; however, universities can set fees for self-financing students, who make up the majority of students, although this is also indirectly controlled by government requirements on the amounts of resources that need to be spent per student.[109]

[104] Sagintayev A. & Kurakbayev K., 'Understanding the transition of public universities to institutional autonomy in Kazakhstan'. In European Journal of Higher Education, 2015, Vol. 5, No 2, p. 197.
[105] Ibid.
[106] Raza, R. 'Examining Autonomy…', p. 30
[107] Ibid.
[108] Ibid.
[109] Ibid.

The influence of the government and degree of autonomy of universities: Lithuania

As we observed in Table 6, the autonomy of universities in Lithuania is also limited. Even though universities have a higher degree of organisation and financial autonomy than their counterparts in Kazakhstan, the government continues to impose various restrictions to maintain control.

In the terms of organisational autonomy, although selections of executive heads do not need to be to be validated by the external authorities, there are restrictions regarding the selection criteria for the executive head, and their dismissal and terms of office. The restrictions concerning qualification requirements for the executive head are specified by law, demanding that the executive head hold a doctoral degree.[110] Further specifications include demonstrating managerial competencies or experience in pedagogy.[111] In Lithuania, the executive head's term of office is also stated in the law; it is limited to a maximum period of five years. Some external members of university governing bodies are selected by universities and others are proposed from outside, but all are appointed by the Ministry of Education and Science.

Lithuanian universities have a relatively high degree of autonomy in comparison with universities in Kazakhstan (see Table 6), and have lump-sum budgets that give more flexibility for universities in terms of autonomous divisions between their internal cost items or activities. However, this does not necessarily mean that universities are entirely free in the use of their basic funding.[112] In Lithuania, the lump-sum budget is divided into broad categories such as teaching, research, and infrastructure. As a rule, universities are unable to move funds between these categories. Furthermore, the universities in the country have the right to borrow money, but the Ministry of Education and Science distributes this loan limit among universities.[113] Universities in Lithuania have management and renting rights over their buildings, which are purchased with state money and the state retains property rights. Buildings purchased from the universities own money are their own property. There are both publicly and privately funded study places for students at the bachelor's and master's levels. An external authority decides on

[110] Estermann T., Nokkala T., & Steinel M.,'University Autonomy in Europe II The Scorecard'. Belgium, 2011, p. 15.
[111] Ibid. p. 25.
[112] Ibid. p. 39.
[113] Cotlenic A., 'Comparative Analysis of University Financial Autonomy in Lithuania, Scotland, Sweden, Denmark and Romania'. Chișinau, 2015, p. 6.

the number of the state-funded - hence tuition-free - places,[114] while universities have the right to determine the fee level for additional privately funded study places.

In terms of staffing autonomy, the law only provides general guidelines concerning the selection procedure and criteria for senior employees. As in Kazakhstan, salaries are prescribed for all or some staff, while career advancement is possible if there are available positions.

As shown in Table 6, universities have a relatively low degree of autonomy, partly because there are many restrictions. To determine overall student numbers, universities follow a split system in which public authorities decide on the number of state-funded study places, while universities set the number of fee-paying students, which enables them to influence overall student numbers. The model of admission procedures at bachelor's and master's levels are regulated by the relevant ministry through the admission council. In Lithuania, all programmes for bachelor's and master's degrees must undergo accreditation on a regular basis, and institutions are evaluated by a national quality assurance body every six years. For doctoral-level studies, universities have to obtain approval from the ministry. Just as in Kazakhstan, universities cannot select quality assurance mechanisms or quality assurance providers; in Lithuania, the quality assurance agency determines some content as part of the accreditation process.

3.2.3. Involvement of international pressure groups as explanatory variable

In this section, we will analyse the impact of the Bologna Process and Magna Charta Universitatum on university autonomy in Kazakhstan and Lithuania. Both the Bologna Process and Magna Charta Universitatum work towards giving a higher degree of institutional autonomy to universities because they believe that it is a key element to enable universities to best respond to new demands placed on them. In this section, we will focus on legislation for the institutional autonomy of universities and how these laws have influenced membership of the Bologna Process and Magna Charta.

[114] Estermann et al., p. 16.

The Bologna Process, Magna Charta Universitatum, and the autonomy of universities in Kazakhstan

"The Education Programme 2011-2020" is intended at align the country's HE system with Bologna Process regulations by 2015. Kazakhstani universities have expressed their support for the introduction of the Bologna Process, with over 60 university rectors signing the Magna Charta Universitatum. According to the Magna Charta Universitatum, HE institutions "expect their respective States and legislatures to recognise their autonomy and independence from every form of power, the freedom of their faculty members of teaching and reach, and freedom of students who entitled to an effective education."[115]

This has prompted Kazakhstan's Ministry of Education and Science to reconsider its long-standing tradition of maintaining the centralist model of institutional governance inherited from the USSR, and "The Education Programme 2011-2020" plans to grant autonomy to national research universities by 2015.[116] National universities are supposed to receive autonomy in 2016 and from 2018, all other HE institutions should be given full autonomy.[117] However, as we have seen in Table 6 (p. 29), the autonomy of research and national universities remains low especially in the field of organisational autonomy (64%), financial autonomy (38%) and academic autonomy (51 percent).

We assume that the Kazakhstani government gives a certain degree of autonomy to universities in order to meet the requirement of the Bologna Process or Magna Charta Universitatum because it is useful for the country to gain international recognition. There are several reasons to support such a perspective. First of all, the law regarding university autonomy is still in progress, and therefore the practises of HE governance still tend to follow the model of state control. Secondly, even though the "The Education Programme 2011-2020" should provide full autonomy to all universities by 2018 in accordance with the Bologna Process and Magna Charta Universitatum requirements, the Ministry of Education and Science makes it more difficult by deciding which universities are ready to be autonomous and which are not. According to the Ministry of Education and Science, autonomy can be granted to HE institutions that are able to design a sound strategy of institutional development, implement a system of shared governance, establish boards of trustees, and take-anti-corruption measures.

[115] Ibid.
[116] Decree of the President of Republic of Kazakhstan, 'State Program of Education Development in the Republic of Kazakhstan 2011-2020. Astana, 2010, No 1118.
[117] Ibid.

The Bologna Process, Magna Charta Universitatum and the autonomy of universities in Lithuania

In the case of Lithuania, it does not seem that the Bologna Process and Magna Charta Universitatum have played an important role in affecting the degree of autonomy of universities, even though the country is a signatory of both. One reason to come to such a conclusion is that the country, as has been mentioned before, signed up to the Bologna Process and Magna Charta in the late 1990s, while reforms towards institutional autonomy started in the late 1980s when universities started to define their statutes.[118] By 1989, most universities had proposals for new statutes.[119] After independence, a new "Law on Science and Studies" (number I – 1052) established university autonomy in the Lithuanian Constitution, adopted in 1992.[120] This first set of laws regarding university autonomy ensured an even higher degree of autonomy and limited government interference in many ways. However, this was changed by new sets of laws in 2000, 2008, and 2009 promoted by foreign experts, mainly the World Bank, which has stated that the universities should concentrate on implementing the HE policies designed by the Ministry of Education.[121]

The "Law on Science and Studies" gave a large degree of institutional autonomy to universities and as result, they became self-governing organisations. The law was designed in to ensure that the Ministry of Education had limited governing and policy-making power over the HE sector. In 1991, some control over universities were allocated to Parliament through the law, such as the establishment and abolition of universities, approval of the statutes of the universities, and approving new legislation in HE.[122] For academics, parliament became a venue of influence and academics were able to prevent changes to existing He governance and management structures.[123]

As result, new sets of laws on HE were passed in 2000, 2008, and 2009. These laws redistributed power between the Lithuanian state and the universities, and clearly emphasised the rights that are given to universities. According to Article 7 of the "Law on HE and Research"

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[118] OECD, *Reviews of National Policies in Education. Lithuania. Education and Skills*. Paris: OECD, 2002.
[119] Zelvys R., 'Reform of Higher Education in Lithuania: Moving towards Decentralization or State Control?'In *Socialiniai Mokslai*, 5(42), 2003, 17–20.
[120] Kralikova R., 'Transition legacies, rules of appropriateness and 'modernization agenda' translation in higher education governance in Lithuania, Romania, Slovakia'. PhD thesis, Budapest: Central European University, 2016, p. 64.
[121] Ibid. p. 46.
[122] Ibid.
[123] Ibid.

of 2009, universities enjoy an autonomy that covers academic, administrative, economic, and financial management, and is based on the principles of self-government and academic freedom.[124]

The rights guaranteed to universities are:

1. To choose study fields and forms and the development of personal, research, and experimental (social, cultural) development, professional artistic activity, and cultural and scientific knowledge communication;
2. To define a procedure of studies;
3. To fix tuition fees in accordance with the procedure laid down by this law;
4. To prepare and approve study programmes that meet the requirements laid down by legal acts;
5. To provide other education, qualification improvement, and expert services;
6. To publish studies, scientific research, and other literature;
7. To establish their own structures, internal working arrangements, and staff numbers, their rights, duties, and conditions of payment for work, position requirements, procedure for organisation of competitions to fill positions, and for performance evaluation of employees, adhering to laws and other legal acts;
8. To admit and exclude students in accordance with the procedures laid down by statutes;
9. To award students scholarships from their own or sponsors' funds;
10. To set forms of cooperation with natural and legal persons of the Republic of Lithuania and foreign countries;
11. To manage, use, and dispose of assets in the manner prescribed by this law and other legal acts;
12. To pursue economic and commercial activities that are not prohibited by law and that are inseparably connected with the objectives of activities thereof;
13. To exercise other rights laid down by legal acts.[125]

[124] Republic of Lithuania, *Law on Higher Education and Research*. Vilnius, 2009.
[125] Ibid.

3.3. Why do Kazakhstani universities provide a better quality of HE than those of Lithuania?

In this section, to explain why Kazakhstani universities are performing better on the QS World University Rankings than Lithuanian universities, we will focus on the variable: connections with politics. We have decided to exclude the two other variables - path dependency and the involvement of international pressure groups - partly because we believe that how well universities perform on global university ranking tables depends on financial possibilities, especially when it comes to attracting the international community, and thereby improving employer and academic reputations. Therefore, in this section we will investigate how funding and political controls have affected the quality of HE in Lithuania and Kazakhstan, based on performance in the QS World University Rankings.

3.3.1. Connections with politics as explanatory variable

Universities' performance on global university rankings indubitably depend mostly on financial resources, especially when it comes to research projects, attracting the international community, and employability possibilities, and secondly on the political measures that are in place to improve their position. Taking that into consideration, this section asks: how can funding and political control explain why Kazakhstani universities have a better quality of HE than Lithuanian universities, according to the QS World University Rankings?

Funding of HEIs in Kazakhstan

One reason why Kazakhstani universities provide a higher quality of HE compared with Lithuanian universities is because they have seen increases in funding in the last five years. For instance, because one of the indicators used by the QS Rankings is the number of citations per faculty, in order to increase research output the Kazakhstani government has allocated additional investments from the government budget. For example, in 2011 there was an increase in 70 percent in the overall amount of money that was allocated to research activities, or 0.17 percent of GDP.[126] By 2015, expenditure for research had reached 1 percent and by 2020, it should be at least 1.5 percent of GDP.[127]

[126] Ibid.
[127] Ibid.

In order to attract international staff, universities in the country offer quite competitive salaries; for example, in the year 2011, the salary for an assistant professor at Nazarbayev University was 68,625 euros annually or 5,718 euros per month, while a full professor's was 184,761 euros annually, or 15,396 euros per month.[128] Since these numbers seem extremely high and therefore may be unreliable because academic salaries in most developed Western countries are much lower, we looked at other universities to examine their salaries for academics. We obtained data from KIMEP University, which is a private HEI. The salary there for an assistant professor in 2010 was 73,000 euros annually or just under 6,100 euros per month, while professorial salaries were 99,500 euros annually or 8,300 euros per month.[129] However, such salaries are more in common in the country's universities that have national research university status and occupy a high position on global university rankings. In addition, the biggest national research education institutions such as Al-Farabi Kazakh National University and L. Gumilev Euro-Asian National University annually receive 881,464.99 euros from the government to invite foreign consultants and scientists with global reputations, as well as Nobel Prize winners. Bearing that in mind, it would not be surprising if there were many academics in Kazakhstan from the United States, the United Kingdom, the Netherlands, and other Western countries. At the same time, sufficient funding and competitive salaries not only increase international faculty ratios but also have positive impacts on international student ratios and academic reputations.

Furthermore, despite the fact that HE expenditure per student in Kazakhstan is very low compared with Western countries, some efforts have been made to increase it in the last few years. The amount allocated to state HEIs with national research status in 2009-2010 was 1,375 euros per student, and 1,654 euros in 2011-2012. In other HEIs, there was an increase from 651 euros per student in 2009-2010 to 888 euros in 2011-2012.[130]

Funding of HEIs in Lithuania

In the case of Lithuania, universities lack such high funding, which is partly responsible for their low position on the QS World University Rankings. Instead of increases

[128] Professorship at Nazarbayev University, 2011. Available online at: <http://perjobs.blogspot.nl/2011/03/professorship-at-nazarbayev-university.html> [Accessed 4 May 2016].
[129] Kazakhstan Institute of Management Economics and Strategic Research, 'Building World Class Business in Central Asia'. Available on-line at:<http://www.kimep.kz/files/misc/BCB_Profile.pdf> [Accessed 4 June 2016]
[130] European Commission, 'Higher Education…'

in funding for research, there has been a decrease; Vilnius University was given 28.2 million litas in 2011, and 26.9 million in 2013.[131]

Due to the low salaries, attracting foreign scientists to Lithuania to work on common projects is very difficult; even the projects financed by EU Structural Funds are unfavourable for scientists from abroad because remuneration is pegged to Lithuania salaries.[132] The minimal salary/scholarship for a PhD student is 360 euros per month. Academic staff salaries depend on the relevant university, but in general are also low. At Vilnius University, which is considered one of the best universities in the country, monthly salaries are as follows: full professor, 1,726 euros; docent, 1,087 euros; lector, 803 euros; and assistant professor, 645 euros.[133] Such low salaries have a negative impact on academic reputation, when academics worldwide identify the institutions where they believe the best work is currently being done.

Moreover, although the share of GDP allocated to HE is comparable to the European average, which is 1.3-1.1 percent per student of GPD, funding is almost four times' lower than their average Western European counterparts.[134] Hence, when it comes to expenditure per student, Lithuania could be grouped with countries like Romania, Bulgaria, and Hungary, where that expenditure was almost 2,600 euros per student in 2012. In Western European countries, expenditures per student in the same year was much higher: in the Netherlands, 9,801 euros; in the United Kingdom, 10,261 euros; and in Switzerland, 17, 496 euros.[135] Even though expenditure per student in Lithuania is higher than in Kazakhstan, there has not been any increase in the last few years.

Political control: Kazakhstan

In 2010, Kazakhstani President Nursultan Nazarbayev set targets for the country to be among the world's 50 most competitive economies by 2015. A key element to achieving this was to be the creation of a more relevant and competitive tertiary education sector. In accordance with that aim, the president stated that at least two universities should be featured

[131] Lithuanian litas was the old currency used till 2015 January, the rate of litas to Euro was around 3.34:1.
[132] IEP, 'Evaluation Report: Vilnius University', 2011, p. 4.
[133] Mrazrauskaite L., 'Mazi atlyginimai atbaibaido universitetu destytojus' [Low Salaries keeps away universities' academics]. In *Lietuvos Zinions,* 2015.
[134] Commission of the European Communities, 'European counterparts', 2005, p. 12.
[135] Data taken from the Eurostat Resource. Available online at: <http://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do> [Accessed 5 May 2016].

in the top 100 leading universities in the world by 2020; this target was also established in the "State Program for Education Development 2011-2020."[136]

To do this, the government set in place priorities to help to improve universities' position on global university rankings. To that end, decrees and ministerial orders were issued by the government to streamline publication practises. In 2001, the "Law on Science" was adopted to prioritise a new scientific direction and quality publications, and to set standards for awarding academic degrees and titles. In 2012, the Committee for Control of Education and Science issued laws that require at least one article be published in a journal with a two-year journal factor (JIF) in order to obtain a PhD degree. Such journals obtain at least two citations a year or are indexed in Scopus.[137] In addition, two or three articles published in journals with a JIF above zero are mandatory to fulfil the updated requirements for being awarded the title of associate professor or professor, respectively.[138]

Secondly, to improve the quality of scientific articles, the government has provided subsidised access to subscription databases and digital libraries such as Scopus, Web of Science, ScienceDirect, and SpringerLink for staff and students at public universities. Through this, the government aims to ensure that scholars can remain abreast of scientific developments worldwide, and enhance learning by reading quality journals. Staff and students with public university affiliations can perform searches at these databases, retrieve evidence-based references for their research papers, and improve their chances of being published in indexed international journals. These reforms were very successful, leading to an increase in articles published annually. The table below details changes in research output in the Central Asian countries in 2010-2014.

[136] Decree of the President of the Republic of Kazakhstan, 'State Programme of Education Development in the Republic of Kazakhstan 2011-2020'. 2010, No. 1118, p. 2.
[137] Ministry of Education and Science of the Republic of Kazakhstan, *Regulatory Legal Acts*. Available on-line at: <http://control.edu.gov.kz/en/regulatory-legal-acts> [Accessed 25 May 2016].
[138] Ibid.

Table 13: Research output in Central Asia, 2010-2014[139]

Country	H-index	Total documents published (1996-2014)	Annual number of published documents				
			2010	2011	2012	2013	2014
Kazakhstan	64	9,652	466	565	818	1,690	2,032
Uzbekistan	64	8,719	542	584	536	532	465
Kyrgyzstan	40	1,318	71	101	114	159	126
Tajikistan	28	1,118	78	82	115	123	83
Turkmenistan	19	284	12	33	46	17	41

This table shows that scholarly publications in Kazakhstan have risen sharply since 2011, when the above-noted set of rules was established to encourage scholars to publish more internationally. The number of reached 818 in 2012, from 466 in 2010. The following year there another doubling from the previous year, to 1,690 articles. In 2014, the number of published articles rose to 2,032. In addition, the table shows that Kazakhstani university research output is one of the highest in the region, while the H-index in both Kazakhstan and Uzbekistan is the same.

To increase the number of international students in Kazakhstani universities, the "Academic Mobility Strategy 2012" was introduced.[140] One of the aims of this policy is to increase the number of international students in Kazakhstan universities by 20 percent annually up to 2020. Currently, Central Asia plays a small role in global students flows because most international students studying in Kazakhstan are from within the region itself. According to recent figures provided by UNESCO's Institute for Statistics, 8,982 international students were hosted in Kazakhstan in the year 2012, mainly from neighbouring countries.[141] The spending of the funding is controlled by the government, which make a list of priority areas for which the funding is allocated. The priority areas are those considered to be of strategic importance for the country.

[139] Data were obtained from the SCImago Journal and Country Rank platform on May 4, 2016. Available online at: <http://www.scimagojr.com/countryrank.php> [Accessed 4 May 2016].
[140] ICF Monitor: Market Snapshot: Kazakhstan. Available online at: <http://monitor.icef.com/2014/09/market-snapshot-kazakhstan/> [Accessed 4 May 2016].
[141] Global flow of Tertiary-level students. Available online at: <http://www.uis.unesco.org/Education/Pages/international-student-flow-viz.aspx> [Accessed 4 May 2016].

Political control: Lithuania

Kazakhstan has established HE priorities that could elevate its universities into higher positions on global university rankings, but we cannot say the same about the Lithuania because there has been no effort to improve universities' positions during the last few years. However, there is an aspiration in the strategy plan "Lithuania 30" - to have at least one university among the world's top 500 universities by 2020, while by the year 2030 Lithuania should have at least one university in the top 300.[142] Such plans seem difficult because it takes many years for universities to improve their positions on worldwide university rankings. However, the case of Kazakhstan shows that it is possible for universities to improve their positions on rankings if priorities for HE are set up in accordance with the indicators used by the rankings.

Moreover, it is unclear how the Lithuanian government could achieve such goals because there is no action plan in the Lithuania 30 strategy. Indicators such as low research output, a lack of financial initiatives that impact on salaries, and research activities make it hard to develop common projects with universities in the West, and to attract foreign academics.

On Table 10, which records the annual number of academic articles published in the Baltic States in the period 2010-2014, we can see that there was no increase; there was even a slight decrease in articles published, from 2,959 in 2012 to 2,877 in 2014.

Table 14: Research output in the Baltic states, 2010-2014[143]

Country	**H-index**	**Total documents published (1996-2014)**	**Annual number of published documents 2010-2014**				
			2010	**2011**	**2012**	**2013**	**2014**
Lithuania	133	32,137	2,870	2,910	2,979	2,959	2,877
Latvia	104	14,403	1,009	1,581	1,515	1,605	1,380
Estonia	162	25,458	2,162	2,271	2,427	2,607	2,562

[142] Lietuvos Respublikos Seimo Nutarimas, 'DĖL VALSTYBĖS PAŽANGOS STRATEGIJOS „LIETUVOS PAŽANGOS STRATEGIJA „LIETUVA 2030 "PATVIRTINIMAS', 2012, Vilnius, No. XI-2015. [Decision of Lithuanian Republic Parliament, 'For a State Strategy Plan 'Lithuanian Strategy Plan' 'Lithuanian 2030' Confirmation].

[143] Data were obtained from the SCImago Journal and Country Rank platform on 4 May 2016. Available online at: <http://www.scimagojr.com/countryrank.php> [Accessed May 4, 2016].

The other two Baltic countries, Latvia and Estonia, have followed a very similar trajectory. Even though Lithuania takes a leading position in terms of the annual publication of articles, the citation impact of such publications is much lower than in Estonia. This shows that Estonian scientists publish more internationally, do so in a high-quality journals, or write on a range of topics that attracts more attention in the West. However, in Lithuania there is another problem partly related to low salaries. For example, PhD students seeking higher scholarships are forced to publish more and that results mainly in low-quality articles that are published in low quality journals such as *Pedagogika* (Pedagogy, H-index 3*), Politologija* (Political Science H-index – 1), and the *Journal of Baltic Science Education* (H-index 12).

Conclusion

Findings

The paper examined how the HE system has changed in the two post-Soviet countries – Lithuania and Kazakhstan – after the collapse of the USSR until the present day. In particular, we were interested in changes to structure and organisation of HE and what the outcomes of these changes have been in terms of institutional autonomy and the quality of universities. These changes and outcomes could be explained on the basis of three variables: path dependency, connections with politics, and the involvement of international pressure groups.

Changes to the structure and organisation of HE. The changes that stand out in the case of Kazakhstan have been: the introduction of a three-cycle system, an increase in the number of HEIs, and the establishment of private HEIs. The elements that have not charged are: a specialist diploma qualification oriented mainly to medical education; and the state authorities maintain a heavily centralized model of HE governance, in universities that still maintain the unitary system. In the case of Lithuania, the changes that stand out are: the introduction of the three-cycle system; the establishment of a binary system that divides HEIs into universities and colleges; an increase in HEIs, as well as the establishment of private HEIs; and a reduction in the power and control of the state authorities over the HE sector, while internal governance is based on the model of multiple centres of control. In addition, reforms to HE took much longer in Kazakhstan than in Lithuania.

Outcomes: Autonomy and quality. Both countries have a similar degree of autonomy in the fields of organisation ("medium high"), staffing ("high"), and academics ("medium low"). However Lithuanian universities enjoy quite a high degree of financial autonomy ("medium high"), while the same is not the case in Kazakhstan. In the terms of the quality of HE, the findings show that universities in Kazakhstan provides a better quality HE than Lithuanian universities, according to data from the QS World University Rankings.

Explaining the changes to HE: Changes to structure and organisation. The findings suggest that path dependency has played a role in rebuilding the HE system in Lithuania after independence from the USSR because the country could draw on its previous experience in the interwar period. In the case of Kazakhstan, the country lacked such experience. Secondly, path dependency can partly explain why Kazakhstan has a large number of HEIs. It is plausible that Kazakhstan expected to contribute more to the industrialisation process during the Soviet period and as a result, there were more HEIs than in Lithuania, which is poorly endowed with natural resources.

As to why it took longer to reform the HE system in Kazakhstan than in Lithuania, it seems that connections with politics played a significant role. The correlations between decrease and/or increase in GDP and public expenditure suggest that for Lithuania, investment in education has been one of the main priorities because the government has spent a substantial proportion of its GDP on education. Furthermore, the country might have been able to reform its HE earlier than Kazakhstan because such reforms depend on additional financial resources. In the case of Kazakhstan, the economy recovered quite fast in the middle of the 1990s and thus saw a significant increase in GDP, mainly due to the oil and mining sectors, but expenditure on education remained as low as in the years after independence from the USSR. In addition, it seems that low expenditure on education also plays a role, and we have also tried to explain why Kazakhstan has a large number of private HEIs. On the reason is that these HEIs are able to benefit and survive from private funds.

In the terms of the involvement of international pressure groups, it seems that the reforms of HE in Kazakhstan have been influenced by the government's plans to became one of the world's richest 50 economies, which has led to acceptance of the Bologna Process, and so the reforms of the HE system were made in accordance with the Bologna Process and EU programmes have provided financial assistance for the changes. In the case of Lithuania, the HE system was reformed before it signed up to the Bologna Process and negotiations for the accession to EU. However, the reforms were fully embedded because of the Bologna Process and negotiations for accession to the EU, with the new sets of law having been passed in 2000. The majority of the changes to HE in Lithuania were implemented in the early 1990s because the doors for collaboration were opened, with a majority of the projects being run by the Nordic countries and the EU.

Explaining the outcomes: Autonomy: The findings suggest that path dependency plays an important role in explaining the degree of institutional autonomy in both cases. For Kazakhstan, we see that path dependency had more impact than in the case of Lithuania because some elements of the old Soviet-style system have persisted, mainly concerning the line-item budget system that limits university financial autonomy, while the Ministry of Education and Science remains the primary regulatory body. For Lithuania, path dependency played a less significant role. We also looked at how the both governments have imposed restrictions that limit university autonomy in both Kazakhstan and Lithuania. In the terms of the involvement of international pressure groups, this matters more for Kazakhstan because the country had to pass a new set of laws that bring about genuine university autonomy as a criterion for participation in the Bologna Process and Magna Charta. However, the law is still yet to be

passed. It seems that the Bologna Process and Magna Charta have not had any impact on universities in Lithuania because universities introduced their statutes in the late 1980s that emphasized their autonomy. These laws were adopted in the constitution of 1992, which granted a wide degree of autonomy to universities and limited government intervention. With the laws in 2000, 2008, and 2009, power has been distributed between universities and the state.

Explaining the outcomes: Quality. The findings suggest that spending a lot of money on universities helps to bring them to high positions on global university rankings, in this case the QS World University Rankings. In the case of Kazakhstan, it seems that the government has selected a small number of universities that have a relatively high chance to become a "world-class" university and has invested a lot of money in them in order to attract international academics by paying higher salaries than they usually would, which at the same time improves academic and employer reputation. Although this also applies to the Lithuanian government, there is relatively little money allocated to universities and they cannot compete at the international level. Secondly, it could also be that whether spending is controlled by either the universities or the government is important, and that might work relatively well in centralized states such as Kazakhstan. However, to analyse this idea further, we would need to conduct more research since we currently lack that kind of information.

Thirdly, it seems that Kazakhstan has a clear action plan concerning how to place at least two universities within the top 100 global universities by academics publishing more internationally in high-quality journals and increasing the number of international students. Lithuania is also seeking to have at least one university among the 400 leading universities in the world, but it is not clear how it will achieve this because it does not have a clear action plan.

Limitations

It is quite hard to measure the quality of HE in Lithuania and Kazakhstan, especially in the case of the latter because there is a lack of reliable information. Therefore, we decided to look at global university ratings, in particular the QS World University Rankings, to measure the quality of HE in both countries. However, there are criticisms of these ratings, especially when it comes to the methodology they use to measure the quality of HEIs - for example, how publications in journals and participation in conferences can reflect the quality of HE. Furthermore, how high universities can climb in rankings very often depends on financial resources, because via higher salaries universities can attract international staff and students. Bearing this in mind, we cannot unequivocally conclude that the quality of HE in Kazakhstan is better than in Lithuania, simply because Kazakhstani universities occupy higher positions on

the QS World University Rankings. To explore the quality of HE in Lithuania and Kazakhstan in more detail, it would be necessary to conduct further research and look at indicators such as student satisfaction, the employability of graduates, and completion of degrees after enrolment.

Contribution

This paper contributes to the existing literature about the changes to HE in post-Soviet countries by combining three explanatory variables, as well as applying a comparative approach in dissimilar countries to flesh out which variables matter more than others. The findings in the case of Lithuania suggest that path dependency and connections with politics played a major role in reforming HE, while the involvement of international pressure groups was less significant because reforms to HE started in the early 1990s. This was partly because of the previous experience during the interwar period and partly because one of the country's priorities was to reform HE, which was revealed in the correlation between GDP and expenditure on education, while the Bologna Process and the EU have encouraged the country to formalise the changes in law. In the case of Kazakhstan, it seems that all three variables mattered in terms of changes to HE, perhaps due to the country's backwardness in HE because it started relatively late compared to Lithuania, and still some elements of the old Soviet HE system still persist. In the case of the involvement of international pressure groups, it seems that the Bologna Process has been main driver for HE reform.

Future research

One interesting item we have noticed is that Kazakhstani universities with a relatively lower degree of autonomy than Lithuanian universities nevertheless provide a better quality of HE, according to the QS World University Rankings. While there is a strong belief that a high degree of autonomy is good for universities, for further research we would suggest an examination of whether university autonomy really brings about higher quality in HE. Perhaps universities can do relatively well in terms of HE quality if proper policies are established by the relevant governing bodies.

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