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Accountability in education: Meeting our commitments

Accountability of higher education institutions

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Abstract

The paper covers the issues of accountability of higher education institutions (HEIs) in five countries: Brazil, Canada, Italy, Portugal, and Russia¹. National frameworks and their implementation are examined. The special focus of the review is performance-based evaluation and funding. The reflection on outcomes is followed by the recommendations to policy-makers, researchers and practitioners

Key words: accountability, higher education institution (HEI), new public management (NPM), performance evaluation, performance-based funding, quality assurance.

¹ Each of the selected states represents either the OECD group or the BRIC group. They all differ in terms of higher education governance, scopes and designs of higher education systems. From the one hand, this variety provides the notion of general trend in accountability of HEIs in higher education. From the other hand, it allows to describe the variety of approaches and outcomes with regard to national contexts.

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1. Introduction

This report compares the accountability systems of five countries from the BRIC and OECD groups, namely Brazil, Canada, Italy, Portugal, and Russia. All of these countries have expanded and reformed their higher education systems. Brazil represents an interesting example of state-market relations in higher education, since it has a large private university sector. Canada is well known for its decentralized governance of higher education due to strong federalism. Italy provides an example of how the higher education system can be changed from one where the academic community is dominant to 'new public management'. Portugal represents another example of a system that has traditionally allowed institutional autonomy within the higher education system but which is now adopting modern standards of public accountability. Russia is an example where the mechanisms of accountability are being employed to adjust the higher education system to the expectations of the society after years of ongoing reforms.

The attitudes and practices of institutional accountability vary in the selected cases, but they provide fruitful evidence for investigation of the role of accountability in the relations between the state, the market, and higher education institutions. This paper pays special attention to the performance-based approach, which has been gaining more and more adherence lately in higher education policies worldwide. Now more than 20 countries adopted performance-based funding. In the US, more than 33 states operate performance-based budgeting in higher education (Dougherty et al. 2016). Nevertheless, the share of performance-based funding in the overall volume can vary from 1% to 100% (Boer et al. 2015, Dougherty et al. 2016).

2. Campuses accountability frameworks

2.1. Types of accountability of HEIs relevant for the selected countries

In general, accountability in higher education takes a variety of forms, such as licensing, audits, accreditation programs, funding allocation mechanisms, and oversight structures (see table 2 in Salmi, 2009, p.118). With the rapid mass democratization of the higher education system, traditional approaches have given way to the '*new public management*' (NPM) paradigm. The idea of accountability moves 'from compliance with rules to the production of results' (Burke 2005, cited from Frølich 2010).

Brazil, Canada, Italy, Portugal, and Russia are high participation systems that have integrated new managerial frameworks to stimulate the productivity, transparency of governance, and funding of higher education institutions (HEIs). Performance-based funding and planning have become useful for 'instrumental economic rationality' (Alexander 2000, p.419). Performance-based accountability and performance-based funding are among the types of accountability that are relevant to the analysis of the systems in the listed countries.

Performance-based accountability is considered here as a mechanism to assess actions and progression as well as to compare institutions against each other. Its value as a replacement for (or supplement to) the accreditation process is also considered. In this report performance-based accountability is similar to performance reports that rely on information and publicity rather than funding or budgeting to encourage colleges and universities to improve their performance (Burke and Minassians 2003, p.5 cited from McLendon, Hearn, Deaton 2006). League tables and national rankings are part of performance-based accountability. In addition, the traditional accreditation system is also analyzed where required.

Fiscal incentives for the greater productivity of HEIs are also included in the concept of accountability. Performance-based funding links public resource allocation to the individual performance of HEIs. It is usually implemented through a funding formula that is tied to clear indicators. However, there are also examples of so-called performance budgeting when state officials 'consider campus achievement measured according to

performance indicators as one factor in determining allocations for public campuses’ (Burke and Minassians 2003, p.3, cited from McLendon, Hearn, Deaton 2006).

2.2. National frameworks

Brazil

In Brazil the move toward a complex and data-driven framework for higher education accountability was made with the establishment of the National System of Higher Education Evaluation (SINAES) by Law 10 861/2004. SINAES consists of three parts, including institutional evaluation, course evaluation, and student achievement assessment (ENADE exam). The guiding principle of the SINAES is to recognize the diversity of HEIs and courses:

Institutions of higher education shall be evaluated in order to identify the specialization and the significance of the activities of the institutions on the basis of principles that respect the identity and the diversity of the institutions as well as self-assessments and external evaluations. (Article 9, cited from Dias et al., 2006)

The National Commission for Higher Education Evaluation (CONAES) and the Ministry of Education’s Institute for Education (INEP) are responsible for the coordination and operation of the evaluation process.

However, the complexity of the evaluation system has necessitated reducing the procedures for filling out forms and developing indexes (Castro, 2015). Within the SINAES a committee of specialists promulgates the guidelines for self-evaluation that are used at HEIs (INEP, 2016). In 2011 the Secretary for Higher Education Regulation and Supervision (SERES) was established to evaluate private institutions (Castro, 2015).

Canada

As a country governed by a strong federal system, Canada does not have overwhelming regulations governing the accountability of higher education institutions at the national level. Basically, special agencies carry out quality assurance and accreditation procedures at the program level, e.g., Degree Quality Assessment Board in British Columbia, Campus Alberta Quality Council, Maritime Provinces Higher Education Commission in New Brunswick, Nova Scotia and Prince Edward Island (Universities Canada, 2016). They are authorized by the provincial ministries of education.

For example, in Ontario the Quality Assurance Framework sets the protocol for new program approvals, the protocol for expedited approvals, the protocol for cyclical program reviews, and guidelines for audit processes (OUCQA, 2010). Ontario Universities Council on Quality Assurance is an independent authority that approves all new undergraduate and graduate programs offered by the publicly funded universities. The Council is also responsible for auditing the quality assurance processes at each HEI every eight years, ensuring that they comply with Ontario’s Quality Assurance Framework. Very similar conditions that are governed by agencies and regulating documents are set in every province.

National regulations mostly assume the form of guidelines. The basic document in this regard is the Ministerial Statement on Quality Assurance of Degree Education in Canada, which was created by the Canadian Council of Ministers of Education in 2007 (CMEC, 2007). This guideline is designed to be used in decision making about new degree programs and new degree-granting institutions at the provincial and territorial level. It consists of three sections: Canadian Degree Qualification Framework, Procedures and Standards for New Degree Quality Assessment, and Procedures and Standards for Assessing New Degree-Granting Institutions.

Yet, due to the large autonomy that Canadian universities have, quality assurance mechanisms are the responsibility of the individual institutions or the leadership of the university sector (Jones and Nuomi, 2017).

Italy

Italian higher education is well known as a case of strong academic bureaucracy and self-governance in accordance with Clark's triangle (Clark, 1983). Nevertheless, the Italian higher education system has undergone three waves of reforms aimed at achieving greater accountability and transparency (Reale and Primeri, 2014). The new principles of greater accountability and autonomy of universities were promoted by Law 168/1989. According to Donina (2014, p.222), the Ministry of Education has maintained its position as the central authority, and academic self-governance has been maintained as the key governance approach. With the passage of the Bologna reforms and the Bassanini Law (Law 59/1997) the discourse has now been influenced by the ideas of the NPM. The principles of accountability and transparency have started to play a guiding role, while universities have gained more freedom through the decentralization of administrative power (Reale and Primeri, 2014).

The new wave started with the *riforma Brunetta* (Law 15/2009), whose introduction was conditioned by the need of greater efficiency, effectiveness, and accountability (Reale and Primeri, 2014, p.47). The basic part of the reform was intended to reduce the government's core funding (FFO) in accordance with a university's performance. Thus, performance-based funding has been implemented as a funding formula that is tied to education and research performance (Ibid).

Finally, the recent Law 240/2010 has been adopted. It is aimed at dramatically changing the traditional paradigm and improving the efficiency of Italian higher education. The main reason for the reform is to decrease the level of public funding (Donina 2014, p.222). The core issues necessitating the reform are problems with the governance of HEIs and the recruitment of academic staff. The law was intended to push forward reforms of the configuration of the Italian academic system, adopting as keywords 'efficiency', 'effectiveness', 'accountability', 'quality' and 'transparency', overcoming localism, and promoting the merit of individuals and organizations (Reale and Primeri, 2014, p.44). Moreover, the National Agency for Evaluation (ANVUR) has been established as an independent evaluation authority in accordance with European Quality Assurance guidelines (Lumino et al., 2017).

Portugal

The accountability procedures of the Portuguese higher education system include assessment and accreditation of HEIs and their education programs. In order to promote and ensure the quality of education, Portugal has created an organization that is independent of the Ministry of Education: The Agency for the Assessment and Accreditation of Higher Education - A3ES (Agência de Avaliação e Acreditação do Ensino Superior). The current status of the education system was launched by the regulatory frameworks of 2006–2007:

- Law 38/August 16, 2007, which defines the general principles governing quality assurance procedures in higher education.
- Decree-Law 74/March 24, 2006, amended by Decree-Law 107/208, June 25, 2006, which establishes the conditions for the accreditation of programs of study.
- Law 62/September 10, 2007, which establishes the legal regulations governing higher education institutions and their teaching staff.
- Decree-Law 369/November 5, 2007, which creates the A3ES and approves its statutes.

In addition to this legal framework for the assessment of higher education, Portugal requires HEIs to develop their own internal quality assurance systems (Preamble of Decree-Law 369/2007). A3ES provides support for implementing an internal assessment procedure, and it also audits the internal systems of quality assurance upon request by the HEI.

Russia

Before 1991 the Russian higher education system was under strict central control. Accountability was based on inspections of HEIs. In the 1990s HEIs gained more freedom of action, and the government's role fell into the background. The dramatic growth in the number of HEIs of different statuses and types (academies, universities, and institutes, both private and public) prompted the establishment of new mechanisms of accountability. The order of the State Committee on Higher Education of the Russian Federation of 18.04.1995 No. 507 established a national accreditation agency that promoted a kind of performance-based accountability (Navodnov and Motova, 2014). The agency arranged data collection and defined indicators for performance-assessment. The accreditation criteria were matched with types of HEIs (institute, university, academy) (Ibid).

Later, under the pressures of 'Europeanization' (primarily by participating in the Bologna process (Motova and Pykkö 2012)), the system of higher education governance was transformed. As a result, agencies external to the Ministry of Education and Science were established to promote greater accountability and transparency. The Federal Service for Supervision and Control of Education and Science (Rosobrnadzor) started to take charge of the accreditation of HEIs.

Finally, the need for greater quality and efficiency was reflected in the passage of the Law on Education (FZ183/2012) and the establishment of several federal programs. The Law established rules of transparency (for example, the requirement to post information on the websites of HEIs) and monitoring studies of the education system (Article 97). In 2013, the Decree No. 662 on the Monitoring of HEI Performance and the Education System established the main requirements for accountability in higher education.

3. Performance-based accountability

3.1. Mechanisms

Brazil

As was mentioned above, in Brazil SINAES is composed of three sections, one of which is the evaluation of institutions. The procedure takes the form of self-assessment. Institutions follow the guidelines developed by INEP. All information is available electronically (Dias et al 2006). Moreover, Brazilian HEIs participate in an annual census of higher education. According to INAP, the census has been designed as an online questionnaire. Data is collected regarding (1) the number of enrolled students and graduates, university entrance candidates; (2) information on faculty, administrators, and support staff; and (3) financial data and infrastructure (INEP, 2016). In 2008 the SINAES developed a comprehensive indicator in order to evaluate courses and institutions. It combines information from the following: 'The national exam, the accompanying student questionnaire, and the national higher education census, encompassing variables pertaining to student performance, professor degree level, the terms of professor employment, and the quality (according to student opinion) of the program's instruction and physical infrastructure. Only programs that receive a negative result for this indicator were to be reformed, thereby making the implementation of SINAES viable' (Verhine and Dantas, 2017).

Canada

Despite the fact that Canada does not conduct any overall national evaluations, calls have been made to institute performance-based accountability for HEIs. For instance, the report for the Higher Education Quality Council of Ontario (Weingarten et al., 2015) states in the preamble:

To improve Canadian postsecondary education, we must do a better job of collecting and reporting relevant, meaningful information about the state of Canadian higher education systems and institutions, their performance and their outcomes.

The report evaluates 34 quantitative indicators of higher education performance across three dimensions: access to postsecondary opportunities, the value of education for students, and the value of the provincial postsecondary system for society. The results of the study show that in all provinces postsecondary education correlates positively with labor market success, individual earnings, and citizen engagement, and its contributions to the economy. However, the provinces differ in their level of performance, and all of the provinces show room for improvement in one or more areas.

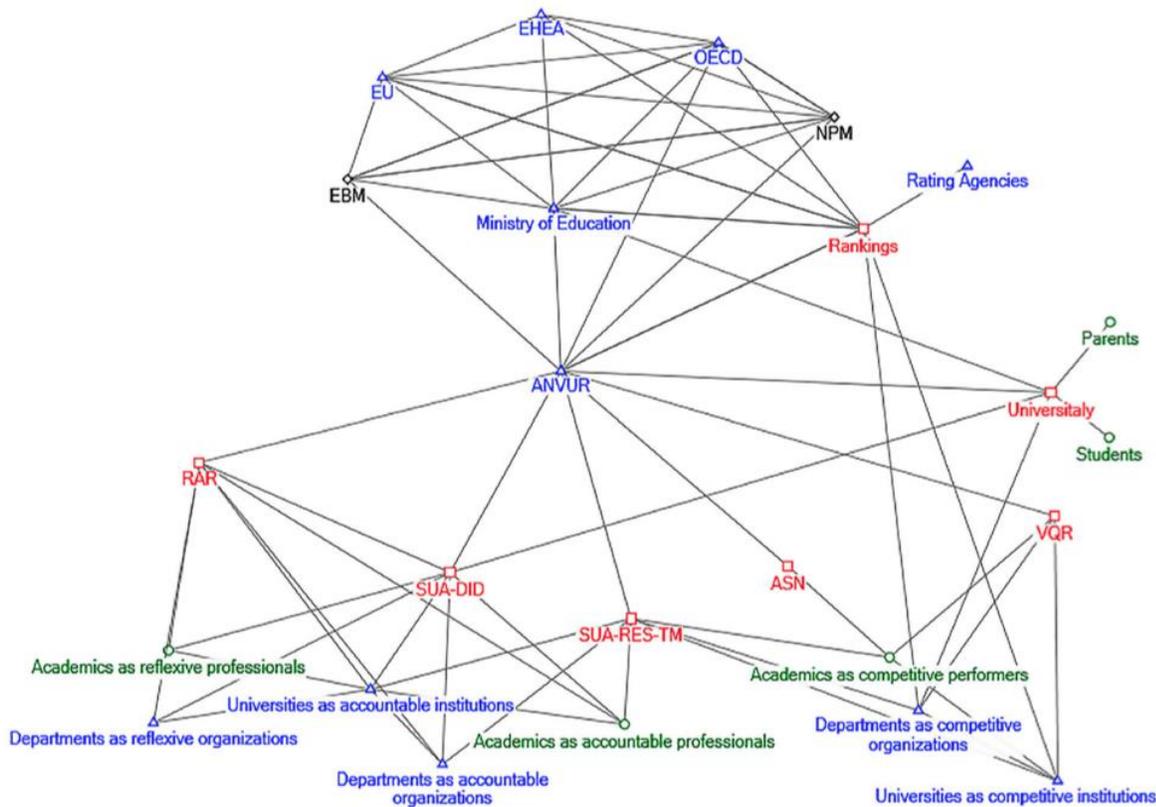
University rankings have implications for the Canadian higher education landscape. The web publication *Maclean's* issues a national ranking broken down into three categories. This ranking accounts for differences between types of institutions, levels of research funding, diversity of offerings, and breadth and depth of graduate and professional programs. The categories for institutional evaluation include: (1) the characteristics of the student body; (2) characteristics of the faculty; (3) the amount of available resources; (4) the budget spent on student services and scholarships and bursaries; and (5) reputation (Dwyer 2016).

Italy

In Italy higher education accountability transitioned to a system based on performance in 2010. Now the complex system of accountability consists of various government and external agencies that are linked with internal institutional bodies. Figure 1 shows the current assessment system in Italy (Lumino et al., 2017). Lumino et al. (2017, p.10) describes the design of the accountability system in Italy as follows:

Central to the new assessment system of Italian HE is the Self-Evaluation, Periodic Evaluation and Accreditation System (AVA), which consists of two Annual Self-evaluation Forms (SUA) that are focused on the evaluation of teaching programs (SUA-DID – implemented in 2012) and departmental research and third mission evaluation (SUA-RES-TM – implemented in 2014). The division of responsibilities between the SUA to self-evaluate teaching programs and research is the first distinctive feature of the Italian HE evaluation system, which implicitly seems to encourage institutional specialization in a particular field. This stands in sharp contrast with the public discourse on higher education, which still emphasizes that institutions are essentially similar, and that this is the distinctive feature of the avant-garde position of Italian HE in Europe (ANVUR 2014, p. 4). The AVA system, even if designed according to the ESG, embodies a wider conceptualization of quality assurance, which is intended 'to combine all the actions necessary to produce appropriate confidence that education and research processes are altogether effective for achieving the prescribed aims' (ANVUR 2013, p. 5)

Figure 1. Performance-based accountability in Italian higher education



Source: Lumino et al 2017, p.3

Data from the form SUA-DID is publicly available through the University platform, and it is aimed at informing parents and students. The data from the SUA-RES-TM form is not directly released to the public, although league tables and rankings of universities based on this data are available on the ANVUR website (Lumino et al., 2017, p.10).

According to AVA, each university goes through initial and periodic accreditation. If a university does not comply with indicators for initial accreditation and periodic accreditation, it can be closed or proposed to merge with other university. If a university complies with indicators for initial accreditation, but does not meet the requirements of periodic accreditation, it gets accreditation for limited time. If a university meets all the requirements, it gets accreditation for five years (Castagnaro 2015).

Portugal

In Portugal A3ES executes assessments of degree programs at all of the HEIs at all levels of education (associate's, bachelor's, master's, and doctoral degrees). The program evaluation procedure includes an assessment report, which is issued by a review panel. This is a team of experts who are competent in the relevant field of study. It consists of between three and five experts. After the HEI submits a self-assessment report, the panel pays a site visit, which lays the groundwork for a report. After the initial report, the HEI is given the opportunity to respond. Afterwards, the panel finalizes the report, which makes one of the following recommendations about the program: accredit, do not accredit or accredit with conditions. The agency's Administrative Council makes the final decision, which can be appealed by the institution. Both new and established programs are assessed.

Russia

Russia underwent a tremendous expansion of its higher education system in the period after the dissolution of the USSR. The number of institutions doubled in 1992-2010 (FSA 2014). The growth of the private sector and the rise of satellite HEIs (branch campuses) have made Russian higher education one of the largest systems in the world (Platonova and Semyonov, 2017). The government is not so much concerned about the growth itself, but about the increasing number of institutions that cannot provide sufficiently high quality education. Since previous attempts by the Federal Service for Supervision and Control in Education (*Rosobrnadzor*) had not resulted in any significant improvement (Karelina et al., 2016a), the Ministry launched the special annual “monitoring study of HEI performance”.

This monitoring study utilizes more than 100 parameters, which are published on the web for all to see. The performance evaluation takes into account (1) educational activities, (2) research activities, (3) international activities, (4) financial and economic activity, and (5) facilities. In some cases the monitoring study tracks additional dimensions depending on the type of institution. The assessment also considers several conditions. Firstly, those HEIs that have different features due to their specialization are specially marked according to the federal authority they are affiliated with (e.g. Ministry of Agriculture or the Ministry of Health Care). In addition, the final public assessment is based on a comparison with the regional average. Thus, the HEI need not perform better than the national average, but it should have satisfactory results in comparison with its regional peers. If an HEI underperforms across more than 4 indicators, a special commission formed by the regional and federal authorities will decide how the institution should proceed. It can decide on one of three possible options to be implemented (Karelina et al., 2016b):

1. Despite having failed a general performance evaluation, the institution has a specific educational mission that is responsible for the institution not meeting the requirements. The HEI is allowed to continue to function as it is currently constituted.
2. The HEI shows some signs of ineffectiveness, and it should optimize its activities to meet the requirements during the next evaluation cycle. As a result, the HEI must often implement a development program.
3. The HEI is generally ineffective and must be reorganized (usually through a merger with another institution)

3.2. Performance-based funding: cases of Italy and Russia

As part of the accountability reform (Sörlin, 2007) inspired by NPM, Italy and Russia have not only transformed their accreditation procedures, but they have also changed how HEIs are funded. The Italian government adopted a new funding formula in 2004 (Capano, 2010; Cattaneo, 2016). Three groups of indicators are broken down into equal thirds. They are (1) number of students, (2) results of teaching activities, and (3) the number and results of research activities. The number of students is weighted according to the different costs of programs. The results of teacher activities are measured by the number of credits and number of graduates. The later is weighted according to the time to graduation. Finally, the results of research activities are

‘measured by comparing the number of teachers and researchers (also research assistants and PhD students) with the ability to obtain research-targeted financial resources from public and private companies and organizations and the rate of success in securing research funds from the ministry’ (Agasisti, 2015).

A similar formula is used in the Russian case. According to Law FZ83, the Russian higher education is funded through allocations from the so-called normative system of per capita funding. It means that funding is allocated to a HEI in accordance with enrollment. Each student “costs” a fixed (so-called normative) amount. In accordance with the Decree N1272, since 2015 the normative amount has been determined by a formula. It includes not

only different coefficients that reflect the difference between fields of study and local contexts, but also the performance of HEIs. Performance-based funding is based on such dimensions of HEI activity as:

1. education that is measured by the average entry exam score of enrollees, and the ratio of gifted students (awardees of school academic olympiads, etc.)
2. research that is measured by the revenues from R&D per faculty member, and the number of publications in journals included in Scopus and Web of Knowledge database per 100 faculty members (point 4.2.4 of the Decree N1272).

4. Outcomes for higher education system design

Brazil

The private sector and the system of federal-regional relations both play specific roles in the Brazilian system. Tensions have resulted from the implementation of accountability frameworks. Castro (2015) states that:

Instead of controlling market behavior and making it better, the quality assurance policies provoked the capture of private higher education by investment funds and global groups.

The new regulatory regime has made it difficult for private institutions to compete for students, and they have started selling out to larger organizations.

Verhine and Dantas (2017) mention that the creation of SINAES was intended to introduce national rules of the game. However, the local authorities have ignored it. On the one hand, federal-level regulations failed to take account of local contexts and to involve local actors. However, the central government intended to introduce more effective external evaluation mechanisms for the sake of making quality assurance more transparent. As a result, no state HEI participates in all of the elements of the national evaluation systems, while all of them utilize the results of the national entrance exam (Verhine and Dantas, 2017).

Canada

Due to its federalist approach to the administration of the higher education system, Canada still has not introduced any overall national performance-based mechanisms. Despite the fact that several attempts have been made, Wenrib and Jones argue that there are no national quality assurance tools due to this federal system, arguing that this is a peripheral question for the provincial authorities. Access, tuition, and government grants dominate the agenda of discussions at that level (Weinrib and Jones 2013, p.227). Yet, several provinces (e.g., Alberta and Ontario) have built their systems of institutional performance evaluation and some forms of performance funding.

Italy

As was mentioned before, Italy has made the most impressive progress in reforming its system. It has transitioned from a system that was mostly dominated by an academic oligarchy (in Clark's terms) to a multi-layer system of accountability that is based on performance-based mechanisms. As Lumino et al. (2017) claim, the logic of contractual relations defines the current state of affairs. Universities must demonstrate the relevance of their teaching programs to the specific standards and, moreover, the value of their research. Departments within HEIs compete with each other. Academics are accountable as well, and they have become jointly responsible for the performance of their departments.

However, the outcomes of the performance-based mechanisms of funding differs between the regions. Mateos-González and Bolivaer (2016) claim, that performance-based funding increase the division between North and South. Universities are not in equal position initially, since they are embedded in the wider socio-economic environment of their macro-regions. Hence, implementation of these mechanisms reproduce institutional inequality in higher education (Mateos-González and Bolivaer 2016).

Portugal

In reviewing the reform outcomes in the Portuguese system, researchers often stress the evident movement towards the NPM approach. It includes the use of performance-based funding and a stricter system of accountability (Amaral et al., 2013). However, based on the studies of internal assessment experiences, researchers claim that a focus on quality is still not the common pattern of institutional behavior in Portuguese higher education (Tavares et al., 2016). Thus, accountability and performance-based funding mechanisms continue to be pressing concerns, but they do not have very obvious consequences for improvement.

Russia

Transparency is the most valuable outcome that monitoring studies of institutional performance have introduced to the education system in Russia. As the reporting system constitutes a form of statistical observation, it leaves very little chance for HEIs to falsify data. As monitoring studies have begun to be conducted for all higher education systems, the incentives and drivers of HEIs have changed significantly. Karelina et al. (2016b) claim that unprecedented level of openness and data availability made it possible for all the stakeholders (including governing bodies, university leaders, experts, and society) to benefit from the monitoring.

However, the university community and experts often argue that such a direct optimization measure is stressful for the system. The wave of mergers that resulted from the monitoring has influenced the higher education landscape. Between 2012 and 2016 more than 50 HEIs and 400 branch HEIs were reorganized (Platonova and Semyonov 2017). Despite the fact that access to higher education has not decreased significantly in general numbers, the consequences of this policy are still considered ambiguous.

As the reforms are very recent, studies on the effects of the monitoring and performance-based funding on access equality is lacking. Nevertheless, two effects of the new NPM system are immediate. Firstly, the reorganizations of regional HEI puts spatial equality at risk (Gromov et al. 2017), and the equality of access among population of different regions (Leshukov et al. 2016). Spatial equality of higher education is fuelled by very low inter-regional student mobility (Kashnitsky et al. 2016). Secondly, performance-based funding scheme increase the division between the elite and the mass segments. State funding concentrates on large “rich” universities, while demand-absorption universities suffer the decline of funding (Abankina et al. 2016).

5. Policy recommendations

The following conclusions should be taken into consideration when designing and implementing accountability mechanisms for HEIs, especially performance-based ones:

- Authorities should diversify policies in accordance with the variety of HEIs that exist and their missions. All of the selected higher education systems (and many others) have experienced mass democratization, which has led to significant institutional differentiation. Yet most of the current policies take a universal approach. In fact, the countries pursue efforts to carry out accountability mechanisms in accordance

with their given designs for their higher education systems. Nevertheless, they still rarely consider the fact that HEIs have different audiences, which in turn have different goals for pursuing higher education. Governments should pay more attention to more complicated tools that can be used to grasp performance differences with regard to the actual mission and intended impact that the different HEIs have on their separate communities.

- Given this differentiation, performance-based funding should take account of the differences between missions when designing financial mechanisms targeted at the university sector. It is not so obvious that the traditional logical correlation between the quantity of research and the quality of education is still valid. Thus, proposals that the aggregate efficiency of HEIs should be measured in cases where the funding depends on research intensity should be renewed. As Agasisti suggests with regard to the Italian system: *'Perhaps, a possible option to face this challenge would be to separate research and teaching funds and to distribute them according to different formulas.'* (Agasisti, 2015)
- Governments, experts, and universities should develop more metrics for evaluating the impact of HEIs. This must include more mechanisms that assess not only the contribution of higher education to economic growth and the employability of its graduates, but also to community and regional development. The contemporary human development agenda regarding higher education includes not only the issues of technological development and labor market relevance, but also the issues of equity, social coherence, and cultural capital. Higher education institutions have always played major roles in shaping this agenda. Thus, the incentives and regulations of institutional performance should embrace those dimensions.

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