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A comparative analysis: Challenges and opportunities for large higher education systems

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Foreword

The demand for higher education continues to grow. Global university enrolments are now at 180m - over a quarter of the total age cohort.

An increase in higher education enrolment provides benefits to societies generally and drives better international understanding and trust between people. However, this rapid expansion has also put pressure on funding from states, and concerns in providing quality, equity and access.

In India, the British Council has been working with policy makers related to the education sector for over 60 years. The relationship is a strong and deep one. Looking forward, by 2020, India will have the largest university age group cohort in the world, and careful management of this talent pipeline is not just an Indian concern, but a global one.

We are delighted to have co-ordinated with our colleagues and partners on this report, which makes a comparative analysis across nine countries - responsible for two thirds of all global student population. By sharing experience of these large systems, we are able to extract the common characteristics, understand the differences and from this analysis, suggest the key areas in how countries can turn the size of their higher education systems into a benefit rather than a burden.

I trust you will find this both an insightful and useful report.

Rob Lynes

Director
British Council India

Preface

The role and reach of higher education are changing rapidly. A more skilled and more knowledgeable world is emerging. Mass higher education and research science are no longer confined to North America and the English-speaking world, Western Europe, Russia and Japan. High participation higher education has been achieved, or is emerging, in every nation with a per capita income of more than about $3000 USD per annum. Further, in a growing number of countries, 'World-Class Universities', meaning institutions with research capacity in science and technology, are seen as part of the responsibility of government.

The pace of change is truly amazing. In 1972 the United States had the world's highest Gross Tertiary Enrolment Ratio (GTER) at 48 per cent, with Soviet Russia at 44 per cent. Only 19 national systems were above 15 per cent. The worldwide GTER was 10 per cent, held back by low participation in large nations such as China (3 per cent) and India (6 per cent). Forty years later in 2012 the worldwide GTER was at 32 per cent, driven by major growth of enrolments in China, India, Indonesia, Brazil and Nigeria. Almost one young person in every three now enters tertiary education, meaning programmes of two full time years or more. By 2012, 19 countries had achieved a GTER of 75 per cent, in 49 countries the GTER was over 50 per cent, and in 107 countries it exceeded 15 per cent. The worldwide GTER is now growing at the unprecedented rate of 1 per cent each year, meaning 20 per cent in 20 years.

Workforces are also growing rapidly, but educational participation is expanding faster than the economies that finance education, and graduate jobs are moving down the occupational scale. This creates strains, but workforces everywhere are becoming more capable, and populations more socially flexible and politically adept. These are strong positive outcomes.

The fluorescence of higher education has thrown up many different system configurations, especially in the large diverse systems discussed here. There is global convergence across nations on the basis of a common Anglo-American model of the large comprehensive science-based university: a template entrenched, for good or ill, by university rankings. There is less similarity in institutions of mass access, which are nuanced according to local and national contexts. Everywhere government is the key actor in system evolution, especially in planning, and in providing the 'floor' of resources and quality regulation. But all governments use much devolution, and work via partnerships with other social actors, from the family and private education to industry and new technological platforms. Over time the large systems will probably become more not less distinctive. In a high participation world models other than the Anglo-American will exercise growing influence. At the same time the different countries in a globalising world will continue to learn from each other on the basis of common appreciation and respect. This British Council report has been prepared to facilitate that processes of mutual learning through the exchange of ideas and experiences.

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Key findings

This report focuses on nine of the largest higher education systems in the world: Brazil, China, India, Indonesia, Nigeria, Pakistan, Russia, UK and USA. Together they represent two thirds of the total global student population. It assesses the distinctive opportunities and challenges facing them, providing a synthesis of nine country specific papers commissioned by the British Council in 2014.

The following characteristics are identified as common to large systems:

- Diverse institutions and diversifying modes of provision
- Blurred lines between the public and private sectors
- Calls for more effective quality assurance systems
- Concern for developing affirmative action/access policies
- Drives for linking curriculum to the knowledge economy and employability
- Focus on internationalisation
- Growing imperative of research and its concentration in select universities

However, there are also a series of divergences and points of significant difference:

- Drivers for Higher Education growth
- Effects of cultural and demographic factors
- Decision-making process and actors
- Funding models
- Role of public and private sectors in massification
- Priorities in relation to STEM and the humanities

In responding to these dynamics, the following question is posed: How can countries turn the size of their HE systems into a benefit rather than a burden? The report puts forward the following six recommendations:

1. *Ensure that expansion does not compromise quality*
2. *Adapt curricula for enhancing students' capabilities*
3. *Balance institutional autonomy with state capacity to promote equity*
4. *Promote diversity, not stratification*
5. *Ensure sustainable and equitable financing mechanisms*
6. *Foster inward and outward mobility*

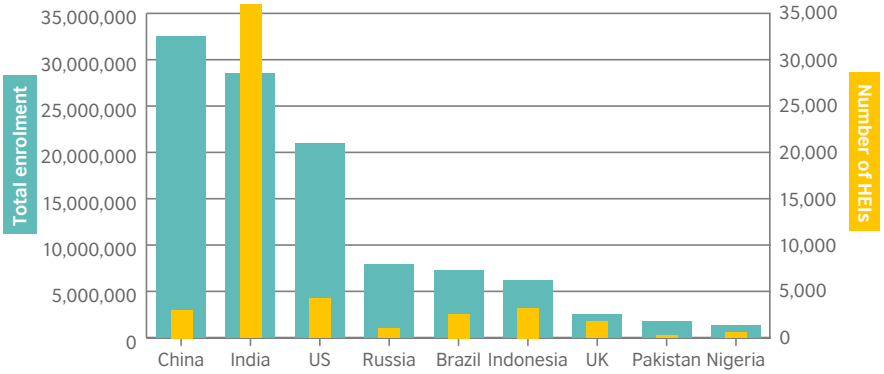
Introduction

Higher education worldwide is at a critical juncture. The university as an institution has survived close on a millennium, weathering varied political, economic and scientific changes and adapting itself to new realities. With global enrolments now at 177.6 million[1], representing over a quarter of the total age cohort, and playing a central role in countries' economic and social development, the sector has an unprecedented reach and influence in society. Yet it also faces challenges that threaten to undermine its fundamental role, or even to destroy it. As enrolments rise, it becomes increasingly hard for states to fund higher education systems and ensure equity of access. Expansion also places pressure on maintaining quality of teaching and learning. Furthermore, the commercialisation of the sector adopted as a solution to funding pressures presents its own threats to the university's role in promoting the public good.

While rapid expansion is evident across the world, global enrolments have been dominated by a small number of mega-systems. These systems have grown to huge proportions on account of their large domestic populations, as well as their attractiveness to overseas students. Within the global backdrop outlined above, systems with many millions of students face a distinctive set of challenges, but also benefit from a number of opportunities not shared with smaller systems. On the one hand, the huge size of the system makes governance highly difficult, and in particular challenges the state's role to ensure equal opportunities for all citizens. On the other hand, size allows for an enriching level of diversity, the potential funding of high impact research and a level of visibility that provides a pull for talented students and academic staff from other countries.

This report focuses on nine of these high enrolment systems: Brazil, China, India, Indonesia, Nigeria, Pakistan, Russia, the UK[2] and the USA[3] . These systems together represent two thirds of the total global student population.

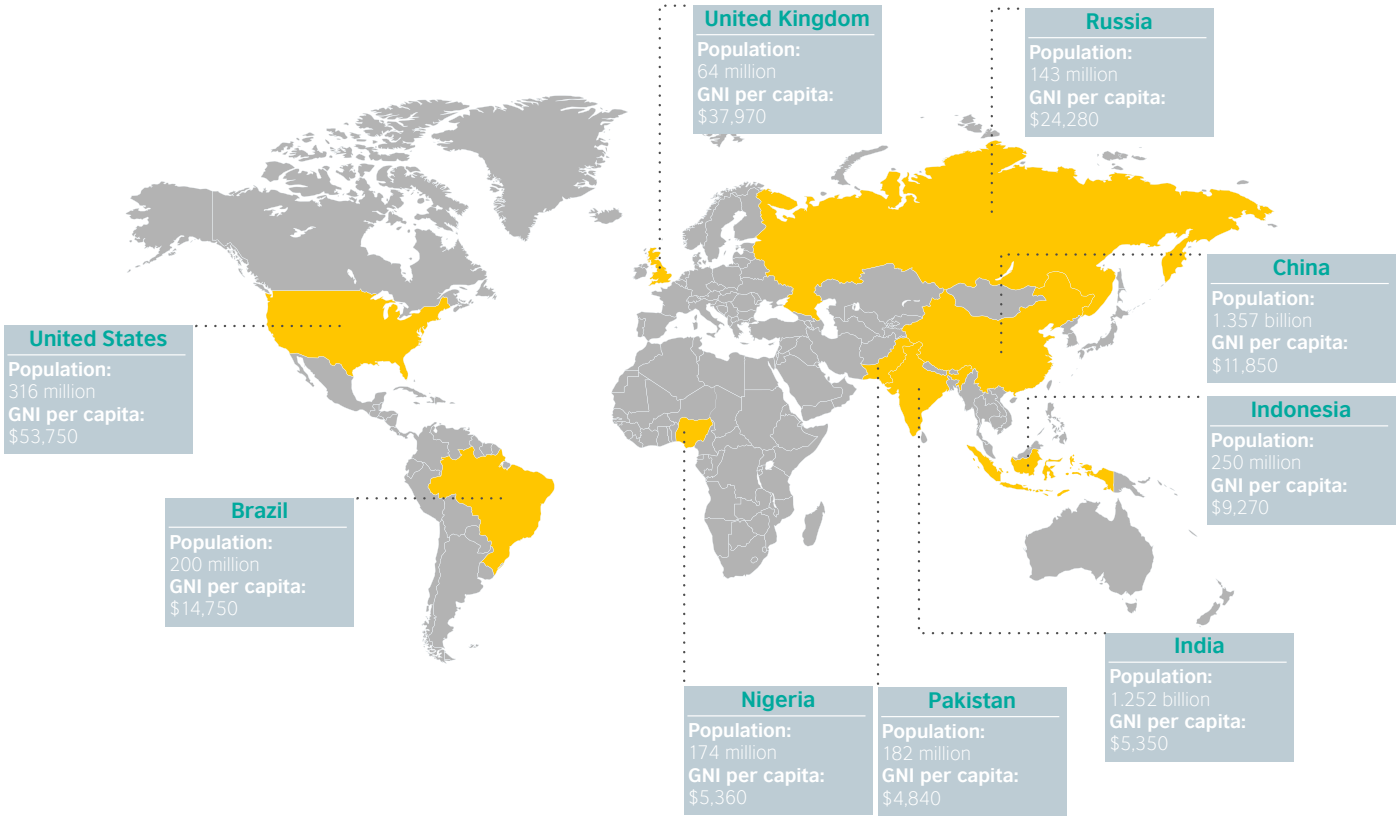
Figure 1: Total enrolments and number of HEIs[4]



The countries are located in five different continents, have widely varying political systems, educational traditions and understandings of the purpose of the university. They also differ greatly in the length of tradition of higher education, the rates of enrolment of their populations and the funds available for higher education support. Yet they share the common characteristic of sheer size, ranging from 1 million students in Pakistan to 28.5 million in India.

[1] UNESCO Institute of Statistics. (2015). "Total enrolment-Tertiary." Retrieved from <http://data.uis.unesco.org/>.
[2] The UK is comprised of the four territories of England, Scotland, Wales and Northern Ireland, each of which has distinct higher education systems. It will not be possible in this overview report to do justice to the different policies and trends in each.
[3] The top 15 countries in order of total HE enrolment are: China, India, USA, Russia, Brazil, Indonesia, Iran, Turkey, Japan, South Korea, Mexico, Germany, Argentina, United Kingdom and Thailand. UNESCO Institute of Statistics, op. cit.
[4] UNESCO Institute of Statistics. (2015). Op cit. HEIs number taken from nine country reports except for Russia, which was reported in University of Buffalo Graduate School of Education. (2010). "Higher education cost sharing in the Russian Federation." Retrieved from <http://gse.buffalo.edu/org/inthigheredfinance/files/Country_Profiles/Europe/Russia.pdf>

Figure 2: Nine featured systems country population[5] and gross-national income (GNI)[6]



By comparing the state of play in each of these countries across key spheres of the higher education sector, the report identifies the major dynamics characterising large enrolment systems in relation to smaller ones. It gauges the common trends emerging around quality assurance mechanisms, concentration of research activity, concerns about institutional rankings, and ambitions for developing 'world class' universities. It also assesses the extent to which their diverse histories, geographies, cultures and political and economic structures have led to divergences in higher education policy and practice. Finally, it assesses the distinctive ways in which countries have responded to the challenges facing them, with varying degrees of success. Juxtaposing the experiences of these systems plays an important role in developing shared learning in facing the crucial questions affecting higher education systems today.

The nine countries were identified to provide a global comparison, they cover the BRIC countries, include rapidly expanding African and South Asia states, as well as large developed systems in the West.

This initiative was put in motion by the British Council, in partnership with the Centre for Policy Research in Higher Education at the National University of Educational Planning and Administration in New Delhi and launched with a round table of senior representatives of the nine countries and World Bank at the 2014 Going Global conference in Miami. This report draws primarily on nine country papers written following this meeting, supplemented by statistical data from UNESCO and research literature. An interim conference was held in November 2014 in India and the concluding round table and the launch of this publication will be held at the 2015 Going Global conference in London.

After an overview of the national systems, there will be discussion of the key themes of massification, governance, funding, outputs of the systems and internationalisation, followed by profiles for each of the nine countries. Finally, implications are drawn out for policy and practice in large enrolment systems.

[5] *UNESCO Institute of Statistics. (2015). "Demographic and Socioeconomic Full Dataset." Retrieved from <http://data.uis.unesco.org/>. Population figures to the nearest million.*
[6] *UN Population Division. (2015). "Population-Total." Retrieved from <http://data.worldbank.org/indicator/SP.POP.TOTL>*

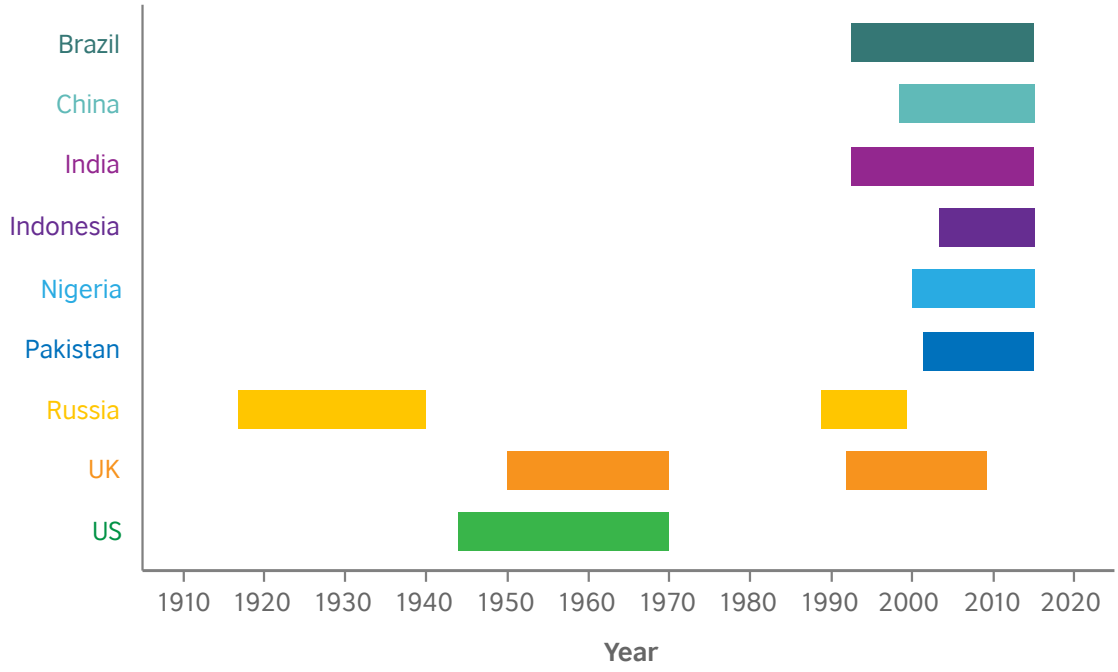
Overview of the national systems

The nine systems featured in the country case studies represent a broad array of governance models and political priorities for the education sector, grounded in their differing histories. Conditions in the higher education sector are also strongly affected by whether the country is high, middle or low income. At the same time each national system is evolving in a worldwide setting in which global agencies and models, and the cross-border movement of people and ideas in higher education, are important influences at national and local levels. In addition to historical influences of colonialism in transposing models of higher education, the country reports note the inclination of policymakers to draw from what are seen as "optimal" or successful practices in other models. The phenomenon of national systems converging in some respects, while remaining distinctive, has prompted this renewed look at the experience of large-scale massified systems on a comparative basis.

The historical legacy and contemporary developments

A primary feature of massification is the extension of participation in higher education beyond economically or culturally homogenous elites to include a greater variety of social groups. The inclusion of minority or so called "non-traditional" students presents challenges to the governance, funding and quality assurance paradigms in existence. Simultaneously, the pressures of globalisation have influenced higher education decision making in recent years. Achieving global standards in research output and quality ranking, in part in response to pressures of economic competition, and national modernisation agendas, has motivated reforms and to some extent shaped the character of national systems. This section will provide an overview of the major forces of national policies, strategies and understandings of the purposes and functions of higher education as well as the role of the public and private sectors in shaping the structure of the systems.

Figure 3: Historical periods of major expansion[7]



[7] *Data gathered from nine country reports submitted for British Council International seminar on Massification of Higher Education in Large Academic Systems*

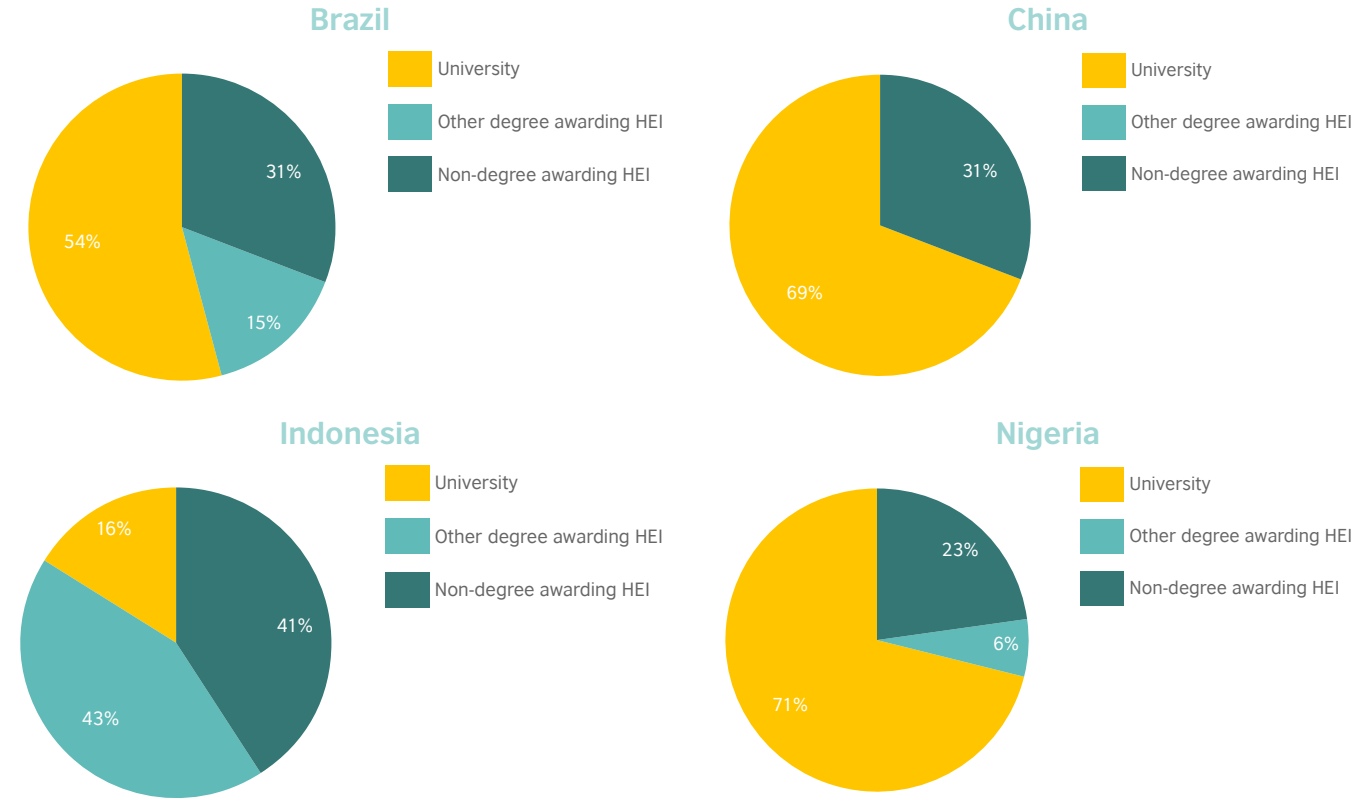
As highlighted in the above table, the cases represent a diverse sample in terms of the recency of massification, but also in the degree of massification, investment in the process, and its effects on higher education. There is considerable diversification within systems, in the extent and role of state funding, and in the mechanisms of regulation, as will be further explored in this report. Each case is unique in the foundation of its higher education system and the development of each continues to be influenced by specific cultural and political factors. Overall, the cases demonstrate a diversification of the types and missions of HEIs amid the process of widening participation beyond the young, well-educated, affluent, urban-dwelling elite which the first universities often attracted. Indeed, one of the fastest growing participant groups in some countries is that of mature students. As these students have different social responsibilities from their younger counterparts, part-time programmes, online, open or distance learning and credit for life experiences are leading topics of discussion in higher education policy and administration.

The institutional structure

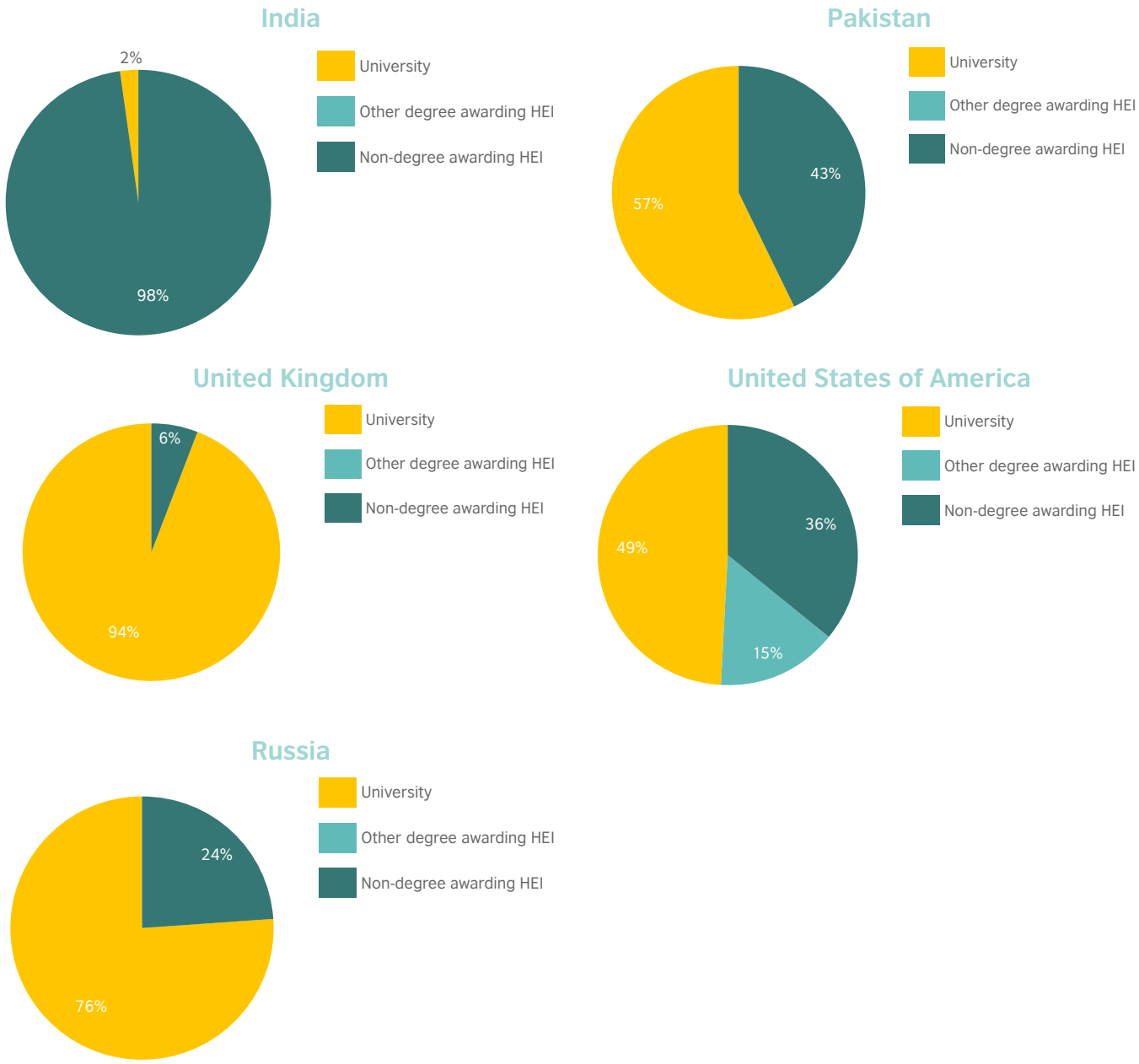
To support this variety of new participants, the cases show that systems are incorporating new HEIs offering different qualifications and serving specific participant populations. In the nine country studies, online and distance education is attracting a growing demographic of participants, with online learning offering more flexibility to working, mature or non-traditional students. India was an early adopter of this approach, opening the Indira Gandhi Open University in 1985. Other open universities have been established in many states and now account for 10-12% of India's total higher education enrolment. Indonesia's Open University came later, but already includes 11.5% of total enrolment.

The rapid growth of private or semi-private provision of higher education is also notable. In India, the recent boost in GER was largely due to private provision. In Brazil, more than three quarters of the enrolment is now in private institutions. Even in the UK, where only 9 of 166 HEIs are privately-owned, there is growth in "alternate providers," often for-profit institutions, focusing mainly on teaching. These include HEIs offering technical, 'foundation' or 'associate' level degrees (referred to depending on location and exact mandate as polytechnics, further education colleges or "2-year" colleges) and represent a fast growing set of providers worldwide, as evidenced by the charts below.

Figure 4: Enrolment by Institution Type[8]



[8] *Data gathered from nine country reports submitted for British Council International seminar on Massification of Higher Education in Large Academic Systems; No data of this type was available for India*



However, there are questions as to the relative quality of these alternative offerings of higher education as they fulfil the need for greater expansion. The rise of the "World Class University" distinction, explicitly mentioned in the case of Nigeria, but implicit in the concentration of research and post-graduate programmes in large public institutions in other cases, may evidence a desire to distinguish the leading public HEIs from for-profit or more vocational institutions with a lower reputation for quality. However, new forms of HEI organisation, and the models of governance and financing discussed in the following sections, demonstrate that the demarcation between the public and private sector with regards to higher education is increasingly blurred and contentious.

The role of the state

Overall, the dominance of the state in the development and maintenance of higher education has reduced. There is a widespread movement towards more institutional autonomy as well as more diverse provision. However, the altered role of the state is variable across countries. In Pakistan for example, the Higher Education Commission plays an active role in regulation and the direct distribution of grants; whereas in the UK, the state administers some funds in grants via an "arms length" arrangement through a council of HEIs which are autonomous. China, Brazil, India, Nigeria and the USA all operate under what can be described as a federal system of government with a central or national level and a provincial or state level. US higher education is under the aegis of the states without even a ministry-level regulatory office at the central level. China also delegates most responsibility for the management of higher education to its provinces, while mandating those provinces to maintain a regional development plan consistent with national planning. In India, states are charged mainly with supporting secondary education, though they still maintain higher education by providing 61% of its public funding. In Brazil, the federal government has the primary responsibility for higher education, but individual states also run their own universities, including some of the most prestigious in the country in the state of São Paulo. The role of the state is linked in part to the political system of the country and the dominant model of financing, but these structural frameworks are themselves sustained by prevailing ideas concerning the purpose of higher education.

The missions of higher education

The nine systems exhibit a variety of ideals regarding the purpose and function of higher education, amid widespread debate on the relevance of the sector to what is termed the 'knowledge economy'. Many of the reports grounded the purpose of higher education in economic logic, noting the contribution of higher education institutions (HEIs) to industry, national competitiveness and the promise of graduates as innovative agents of economic growth. The imperative to increase productivity through higher education is a driving force in the policies cited specifically in the case of Pakistan, India and Nigeria. Even in cases in which social cohesion and personal development are stressed as the foremost national priority, such as in Russia, the term "relevance" takes on a similar role in the discussion, implying a connection to the country's overall economic growth strategy. This is not only the case in countries confronted with dire economic situations or low incomes. The US case, for instance, cites a shift from a model of higher education in which the "whole person" development of graduates is a major outcome, towards programmes which are more specifically vocational in nature.

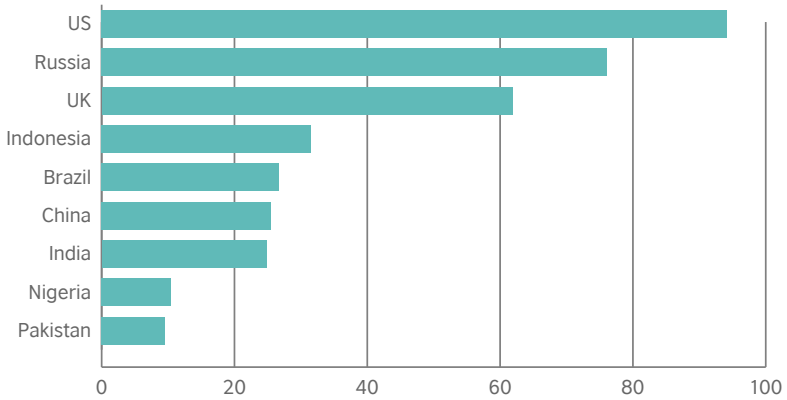
However, the absence of much opposition to this economic paradigm does not indicate that economic growth is necessarily the sole outcome desired by policymakers. Nor is this imperative articulated and understood in the same ways in all cases. Rather, the application of the relevance discourse is shaped by wider political goals, social goals, and demographic shifts, not to mention national custom. Thus while China is one of the world's leading countries in relation to the rate of economic growth, Chinese decision makers see innovation in higher education as contributing to the sustaining of well-being on a long-term basis. By contrast, the UK report cites immediate political pressure for its higher education system to demonstrate that massified higher education will not "diminish the value of a degree" as defined by the competitiveness of graduates in the present labour market.

Nevertheless, despite the unique origins, different trajectories and social/political landscapes, and varying visions that guide these nations, the common processes of massification, and the pressures of global economic competition, trigger analogous issues. The section that follows will explore the implications of demographic growth, system stratification and diversity during processes of massification.

The implications of massification

Martin Trow's well-known analysis distinguishes between three stages of the development of higher education systems: elite (up to 15%), mass (15-50%) and universal (over 50%), each with their distinctive challenges[9]. The figure below shows the current enrolment ratios for the nine countries, distributed across these three categories, with two at the elite, four at the mass and three at the universal stage:

Figure 5: Gross Enrolment Ratios by Country[10]



Expansion but persistent inequalities

Distinguishing these nine select cases from other systems worldwide is their sheer size and hence their quantity of enrolment growth in the last 75 years. At the same time, shifts in higher education have been shaped by more than just overall growth: they have been affected by demographic changes in specific segments of the population, and deliberate policy decisions to promote or limit the access of different social groups.

In the middle income countries featured in this study, better health outcomes and lower infant mortality have led to significant growth in populations of young people. Certainly, this has impacted growth of higher education, and triggered the constraints brought about by funding a rapidly growing nationwide education system from primary up to tertiary stage. These dynamics are notable for example in the case of India, a country which combines citizens educated to the highest level with a large number still lacking basic numeracy and literacy. State level data indicate considerable disparities in the expansion of higher education in India. While gross enrolment in higher education tripled in states such as Andhra Pradesh and Tamil Nadu, the rate was double in many other states, and significantly less in locations such as West Bengal. China also contends with regional disparities and a strong urban/ rural divide. While the country develops globally competitive universities on the eastern coast with Project 985, many people live in areas with little access to education, such as the ones targeted by the The Action Plan for Rejuvenating Higher Education in Middle and Western Regions. Nigeria also demonstrates wide variances, with gender parity ratios at 0.82 in lower levels of education but only 0.67 in tertiary education. In the USA, historical differences in enrolment by ethnicity are still considerable and cause tension. In the UK, as in the USA, the expansion of higher education is combined with persistent differences in participation rates according to socio-economic categories. Regardless of national GDP levels, providing inclusive education across these countries, to populations with diverse backgrounds by region, gender, and social-economic status, is a key challenge. It has promoted the development of affirmative action policies.

[9] Trow, M. (2007). Reflections on the transition from elite to mass to universal access: Forms and phases of higher education in modern societies since WWII. In International handbook of higher education (pp. 243-280). Springer Netherlands.
[10] UNESCO Institute of Statistics. (2015). "Gross enrolment ratio-tertiary." Retrieved from <http://data.uis.unesco.org/; data are most recent available for each country.>

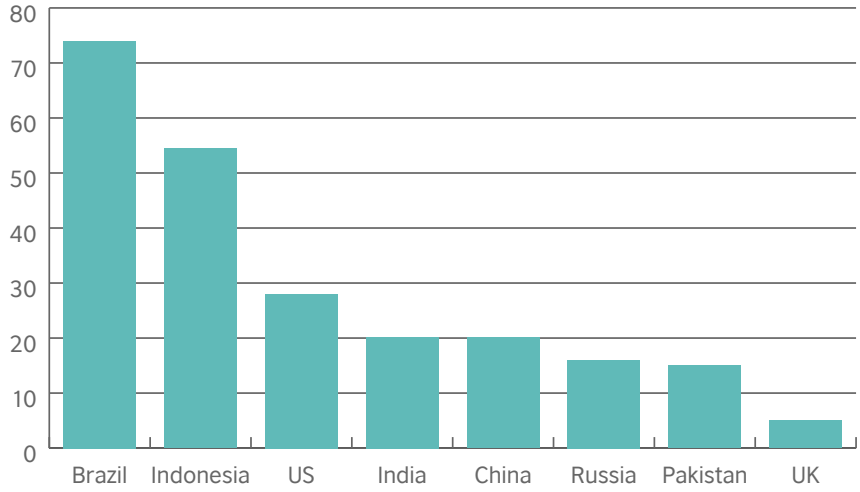
Widening participation

One area in which the state's ability to intervene has been affected is in widening participation and ensuring equity of access. Despite the promise of expansion, and increased opportunities through the private sector, as systems massify, inadequate access to HE by disadvantaged groups is a strong theme. Many governments and higher education decision-making bodies have enacted or wish to enact affirmative action policies to promote inclusive massification. However, the reports cite repeated problems in implementing successful policies, either through ineffective implementation or lack of political will. One country in which affirmative action policies have taken root is Brazil. A 2012 law requires that half of all vacancies in higher education are filled by graduates of public secondary schools. Previously these schools represented just 15% of places in universities. Further, a significant proportion of this quota is reserved for black and indigenous Brazilians, in proportion with the demographic of the state in which the HEI is located. Likewise Indonesia enacted a policy in 2010, Bidik Misi, which targets families in low income quintiles with scholarship programmes. In India, there are quotas and affirmative action policies in place for students from scheduled castes and scheduled tribes. The key concerns in countries either implementing or desiring to implement affirmative action are two-fold: how to determine the degree to which a participant is disadvantaged; and how to fairly subsidize and facilitate their access to education, which is often partly beyond state control in the case of private sector provision.

Redefinitions of the public/private interface

Demographic growth and economic growth alone are insufficient to explain the trajectories of massification in the nine systems. A key theme raised in the cases is the initial role of the state in stimulating higher education. Often, however, as systems have expanded, dependence on the state has given way to promoting investment by the private sector, albeit on the basis of policy frameworks in which the state retains some influence. In the case of four of the countries expanding recently—India, Brazil, Indonesia and Pakistan—growth in higher education enrolments has been driven primarily by the expansion of private provision. This trajectory contrasts with the earlier phase of expansion of the UK, USA and Russia, which occurred predominantly via the public sector. China has adopted a hybrid approach and Nigeria also stands apart, as a country which must cope with significant infrastructure challenges constraining the development and expansion of higher education, despite the introduction of the private sector and growth in numbers of institutions since independence.

Figure 6: Percentage of total enrolment in private HEIs[11]



[11] *Data reported in the nine country reports. Except figure for India from: British Council (2014) Understanding India: The future of higher education and opportunities for international cooperation.* http://www.britishcouncil.org/sites/britishcouncil.uk2/files/understanding_india_report.pdf

In some cases, government policy has driven the growth of higher education directly such as the US Morill Land grant act, which entailed selling government-owned land to found universities. In other cases, the role of government policy is to direct while making use of the private sector's capacity. In India, the government granted "deemed" university status to HEIs so they could set their own study programmes while still awarding recognized degrees. This mainly aided the private sector. Between 1991 and 2005, 66 of the 95 total deemed HEIs were private. Another case is Brazil's PROUNI programme, which provides tax waivers for private universities in exchange for offering free-of-charge places to low-income students. Another is the liberalisation measures in India during the 1990s, which allowed the proliferation of private 'capitation fee' colleges, mostly operating on a profit making basis.

Supply or demand led systems? Student choice or national orientations?

Another key phenomenon is the development of the quasi-market within public sectors. In this model, principles of competition and consumer choice are introduced in an attempt to expand access rapidly, incentivise quality enhancement and ensure efficiency. In the UK, for example, fees capped at £9000 have been introduced, enabled by the provision of universal government-backed loans, to be repaid only after the graduate has reached a salary threshold. Students are increasingly framed as 'consumers', exercising their choice within a market of possible course 'products', with differing economic benefits. Critics, however, have warned of threats to the long-term affordability of the model, and the potential erosion of public benefits of higher education.

The diverse forms of privatisation outlined above and channelling of funds through students not institutions, have created new challenges for central system management. While these changes may improve efficiency, they pose challenges for quality assurance and for the implementation of national policy goals. For instance, many countries are promoting STEM (science, technology, engineering and mathematics) fields as areas of critical need. In the Nigerian case, there is social preference for fields traditionally conferring prestige such as medicine, law and economics, despite the growing skills demands in engineering. A similar pattern occurred in law and economics in Russia in the late 1990s. In the USA, promoting STEM, in a system which allows students great autonomy to choose a programme, is again a challenge. These trends show that generally when systems massify and promote greater involvement of the private sector, the ability of the central government to act directly is more limited, notwithstanding differences in political organisation and national income. In a similar vein, countries such as India and China emphasize the need for research programmes and post-graduate education, but are unable to sustain the desired level of provision.

The paradigm shift away from centralised and primarily state-facilitated forms of higher education, and towards a consumer market model, is not merely the result of pressures exerted on the state by demographic growth, and an expanding participation rate. In several countries this shift gains traction from growing emphasis on the private value of education. The following section shows how this trend impacts the ways in which countries manage governance, regulation and quality assurance in their higher education systems.

Governance, regulation and quality assurance

Governance, control and autonomy

As the nine higher education systems have massified, their governance structures and regulation mechanisms have increased in complexity. Many originally followed a simple model of local/institutional level or direct national control. As they have become integrated into a larger landscape characterised by diverse institutions and more diverse populations served, the governance of the systems has shifted. In some cases, the trends in governance are predictable, along the lines of the dominant political/economic philosophy: for example, the highly autonomous HEIs in the USA, contrasting with the highly centralised Russian HEIs, where in 2013 only 7.4% of HEIs were autonomous. However, the overall trend in the nine cases, including Russia to some extent, is towards greater autonomy at the institutional level. The exception is Pakistan with its Higher Education Council, which brings together vice-chancellors, local government officials and industry experts. Overall, cost-sharing facilitates the general shift toward autonomy, as does the imperative to increase HEI ties with other external actors, such as industry,—though building these ties has often followed policy directives to foster innovation and greater relevance and adaptation to macro political and economic changes. Implicitly, greater autonomy at the institutional level also facilitates the incorporation of private provision in an HE system. Part of the complexity also results from differing traditions and histories in management and the organisation of academic personnel.

It follows that the form of autonomy at the HEI level varies greatly from case to case. In some systems, the transition to institutional autonomy has been slow or fraught with obstacles, as in the case of Russia and Indonesia. In Indonesia from 2009-2012, there was a period of legal ambiguity as to the identity of HEIs and their fiduciary status. Even in more recent years, autonomy is still interpreted with wide variation. In systems longer characterised by autonomous HEIs, such as in the USA, the local governance structure is more securely established, even where it is not codified. The common practice is a Board of Regents who oversee decision-making but are not employed by the university. Autonomy is not always simple to enact.

Brazil's system of government has some similarities to USA in its macropolitical structure, but micropolitics at the institutional level are more highly politicised. This is in part due to the prevailing governance model (varying from HEI to HEI) in which faculty and government officials interact to make decisions without a third party buffer. Even where institutional level autonomy is predominant, the surrounding political structure still affects the legal constraints and freedoms of HEIs to enact their own regulations. In the case of India, whether a Vice Chancellor is selected by the state government, the Chancellor, or a duly-constituted search committee affects institutional autonomy. Taking the US case of admission policies for universities: an individual HEI can set admission requirements such as exam scores, while the state government sets the secondary school curriculum students must complete, and the federal government has specific mandates regarding affirmative action or international student visa regulation.

The trend toward autonomy should be viewed with caution. The degree of autonomy exercised by institutions in theory is not equivalent to practice in every case. For example, Indian HEIs have a long precedent for institutional autonomy, yet prestigious universities with higher status faculty members as well as cooperation with external institutions enjoy more freedom and flexibility than less prestigious universities. For those institutions supported by states, unfunded mandates have hampered their autonomy. In Nigeria, funding constraints have limited autonomy due to a need for institutions to seek support from third party sources, such as international agencies. As these funds come with their own constraints and regulatory systems, institutions are not in practice completely autonomous.

Another sign for caution is that changes in governance structure are not always indicative of differences in regulation or auditing practices. For example, systems characterised by great institutional autonomy set various evaluation requirements. In the UK, HEIs must subscribe to the rigorous Quality Assurance Agency for Higher Education (QAA), an independent though centralised review body, exhibiting minor variations in its operating procedures, depending on which part

of the UK it is reviewing. In the USA, this function is fulfilled by regional bodies with voluntary membership. In contrast to both these examples, China, which is introducing greater self-governance of HEIs, still maintains highly centralised and state-based evaluation systems.

Quality assurance

Institutional-level autonomy, along with greater diversity of institution type, complicates the question of quality assurance across a national system, whether centralised or decentralised, as well as of international providers. In these countries, decision-makers are calling for a turn away from the status quo "one size-fits all" model of evaluation. Policy makers desire a quality assurance system which can account for the diversity in mission and characteristics of the participants, especially mature or non-traditional students who make up substantial proportions of enrolment in higher education. A more innovative and robust model of quality assurance is also needed in order to account for the greater diversity in provision of higher education curriculum, as described below.

Traditional academic organisations of faculty and department are increasingly challenged by newer modes of educational provision. In India, distance learning is monitored by a Distance Education Council (DEC) within the first Open University that provides expertise and assistance to other open and distance learning HEIs. Across the cases, Indonesia specifically cites the need for more interdisciplinary structures of study, especially where cross disciplinary boundaries would facilitate more robust research to address problems of social, political and economic progress.

Other cases more generally refer to the imperative of "innovation" in curriculum. The country cases often refer to the need for diversity in modes of delivery of curriculum, especially involving technology. Among the nine systems, there are calls for more interactive modes of learning, and, as the UK case specifically terms it, "greater student involvement." However, there is little discussion of system-wide attempts to incorporate newer or more innovative models of learning or technology use.

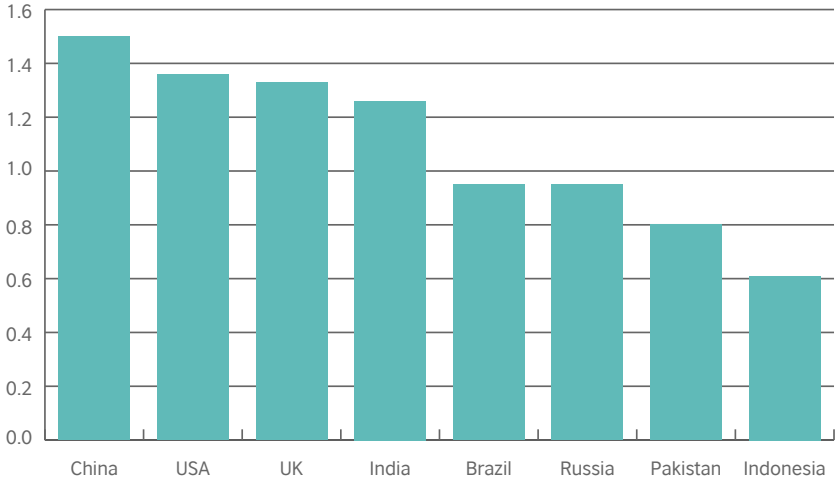
Staff, especially academic personnel, are a key concern in relation to the governance of systems. However, the recruitment, retention and decision-making power of academic staff vary greatly among the countries. In some, such as Indonesia and Brazil, public higher education staff members are considered civil servants. In terms of qualifications, the PhD has become the gold standard for qualification, leading to an increased interest in postgraduate programmes in countries such as India, Indonesia and Nigeria where in some HEIs it is still uncommon for academic staff to hold this level of qualification. In all countries support staff are a growing segment of academia. Cross-national statistics that enable comparison of staff characteristics, or staff/student ratios are currently insufficient, and these areas would merit further research to determine how political or cultural variations interact with imperatives generated by converging global standards.

Questions of governance, as well as the preceding discussions of massification, are closely intertwined with those of funding. The following section will discuss how financing methods are a key point of divergence in the nine mass systems, despite the widespread push for cost-sharing.

National financial structures

A foremost concern of all stakeholders in higher education, specifically as it expands to less commonly incorporated groups (in a context of widening participation), is financial structures. The traditional model of state supported but highly selective higher education has given way to a model of cost sharing in most countries. In China, for example, the share of public expenditure in total expenditure decreased from 91.81% in 1993 to 67.24% in 1999, then to 42.77% in 2005. At the same time, the contribution of tuition and fees to the total expenditure increased from 6.18 in 1993 to 23.35 in 1999 and to 31.05 in 2005. However, just how costs are shared, financial need assessed, and funds distributed are a key divergence point among the country cases. The following table shows the extent of state support for higher education (i.e. excluding private funds) in proportion to the size of the economy of each country:

Figure 7: Government spending on tertiary education as a percentage of GDP[12]



Note: Data are not available for Nigeria

The debates on cost sharing

One of the tensions arising from the increase in the role of the student in financing tuition fees as seen in many cases is the potential negative effects on access and equity. Global rhetoric has increasingly put pressure on governments and recast students as primarily consumers of higher education. Though students in this model have greater autonomy to choose an experience which suits their specific goals and characteristics, they also carry a heavy burden of cost. Although this proposition is attractive considering the introduction of more non-traditional students into the system, it may also prevent students from accessing higher education if they are in greater financial need or have a family to support, for instance. Families are increasingly viewed as economic agents in the matter of a student's higher education. In the cases of countries with very economically vulnerable populations, this assumption may prohibit positive economic and social benefits of higher education as a vehicle for social mobility. Concern about the risk of cost sharing to inclusivity can be seen in Brazil, in which the introduction of fees into the public sector has been strongly resisted. Even in more affluent nations such as the USA and the UK, the introduction of higher tuition fees and less government support has been met with concerns about affordability. A key challenge is also that of the sustainability of the aggregated level of student debt and concerns over the development of a higher education bubble characterised by disconnections between the quantity of loans contracted by students and the private returns they generate.

[12] *All data from UNESCO Institute of Statistics op. cit. most recent 2010 report except China, which draws from the 2008 data and spending per student and GDP from Schneider, A. (2011) "Education at a glance: China country note." OECD. Retrieved from <http://www.oecd.org/education/skills-beyond-school/48677215.pdf>*

Various forms of cost sharing

The history of cost sharing among countries which charge tuition fees varies greatly according to the relative contribution expected from students and their families and the associated financial aid. Some systems have always featured tuition fees. This is the case in the USA, but only within the last century has the government introduced support in the form of federal student loans and grants. In other systems, such as China, India and the UK, tuition fees are part of recent reform to higher education financing. In two cases, Indonesia and the UK, the student contribution is capped, by percentage of total contribution and by amount respectively. Student loan schemes are relatively common. Even where government financial support for higher education is strong, as in Russia, a loan scheme is available to aid with cost of living. In countries in which higher education is privatised, the presence of student loans schemes or scholarships can serve to subsidize further growth in the private sector. This is evident in Brazil with PROUNI scholarships, which fund a substantial number of students in for-profit HEIs.

All systems include at least a portion of funding from government, but the extent and distribution of involvement vary greatly. There are centralised models such as in China or Brazil. In Brazil, public HEIs are not permitted to charge tuition fees and government directly administers funding. Though China has liberalised funding streams and encourages public HEIs to fundraise, the provincial governments play the major role in distributing government funding. In Russia and Indonesia, public HEIs submit budgets to the government for approval in a less direct method. Other models involve specialised intermediaries, such as the Higher Education Council funding and planning committee in Pakistan, the University Grants Commission in India or the HEFCE in England, and its counterparts for the other UK countries. In Nigeria, the government funds public higher education through grants. However, since government finances are strained, international funding agencies are involved to a higher degree than in other systems.

Across the nine case studies, the trends are characterised by a decline in the government share in higher education. For example, the private share of tertiary education expenditure increased from approximately a third to more than three quarters in the UK between 2000 and 2010. (The US private funding proportion remained stable in this period at an already high level of around two thirds)[13]. The reports ascribe these declines to a variety of causes: financial crises, focus on lower levels of education, need for more flexibility and autonomy at the institutional level to name a few. In some cases, the decline in government funding has changed the character of the higher education system. In the USA for example, even "public" universities count less than 20% of their funding from the state government whose name they bear. A similar phenomenon in Indonesia led to the passing of a law whereby public HEIs may only rely on student contribution for 30% of the budget. Concerns about affordability along with declines in government spending have given rise to new financing forms and priorities. These include opening up the sector to private provision and the emergence or re-emergence of other kinds of private resources such as endowments, private research funding, commercial activities and cross border ventures. For example, public institutions are developing more entrepreneurial activities and stronger ties with the private sector in order to make up the gap in financing.

[13] *OECD (2013) Education at a Glance 2013: Highlights. OECD Publishing*

Outputs of the systems

While policy agendas have tended ed to focus on inputs such as staffing, funding and infrastructure, the country cases raise the issue of outputs as target areas for improvement or attention. The desire for greater graduate employment, more qualified academic staff, greater representation of diverse groups and greater research output were among the top priorities listed.

Graduate employability and future earnings were received significant attention in the reports, and are a key component of other national strategies for higher education to fuel economic growth. This growing concern about the efficient transition towards the labour market is in part related to the development of cost-sharing policy where both the government and the students expect economic returns from their investment. In certain cases there was optimism about the potential of certain HEIs or programmes to perform well. In the case of Indonesia, as enrolments in polytechnics grew, official graduate unemployment dropped from 14% in 2007 to 7.5% in 2014. In other cases, systems experienced a "skill mismatch" whereby the labour market demanded skills from disciplines which were not well represented among graduates. This occurred in Russia in the 1990s and also in Nigeria, with a high number of social science, medicine and humanities graduates despite a great need for technical and engineering graduates. In the USA, science, technology, engineering and mathematics (STEM) are receiving more attention because of a potential anticipated skills mismatch. Aside from contributing to the labour market, graduates in many of these systems are treated as consumers and expected to pay off their personal and government investment in their education. Data were not widely available on the graduate premium of higher lifetime earnings upon gaining a qualification. However to take the UK as an example, the premium on lifetime earnings associated with a degree is £168,000 for men and £252,000 for women, despite the increase in number of graduates. Continued belief in the private value of education across other systems and the continued investment from students and families demonstrates at least the perception of this premium, if not its existence.

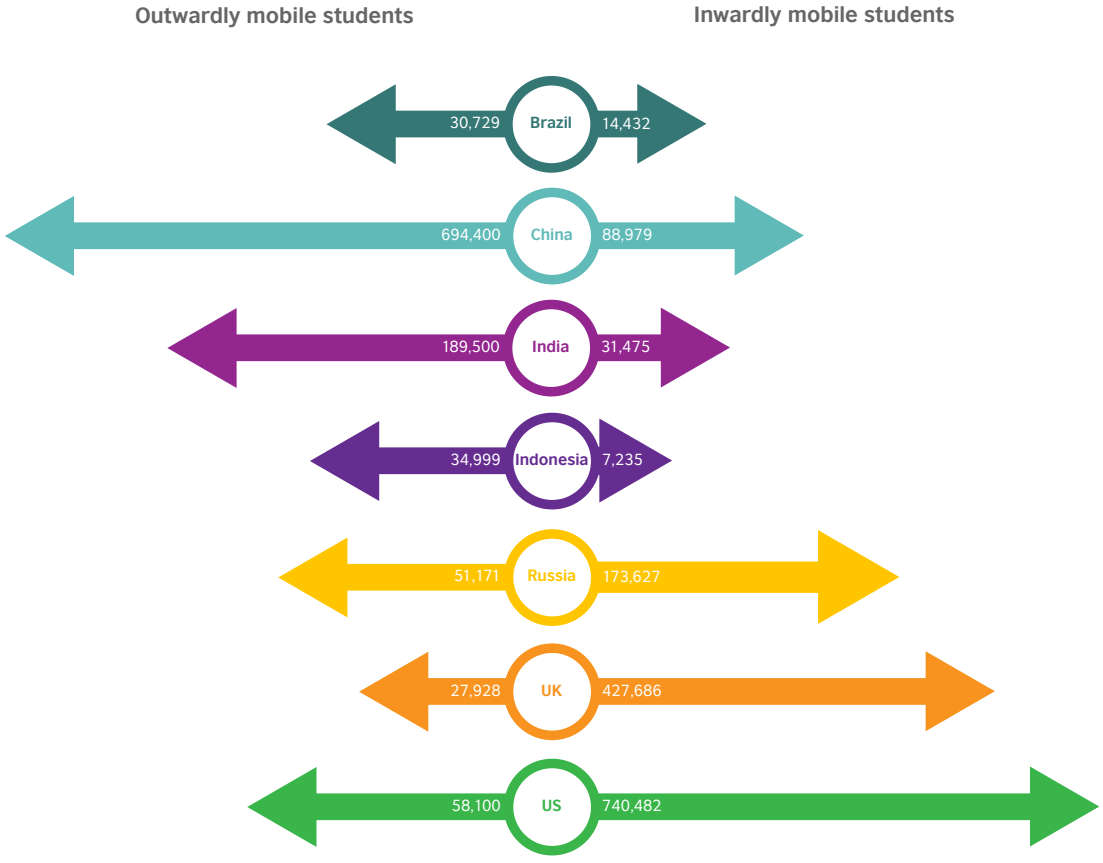
Another key output for building systemic educational quality is the presence of graduate education, notably PhD programmes. Noted for building national competitiveness and prestige, countries are targeting expanded and enhanced graduate education and better qualified staff for HEIs. Some systems have demonstrated rapid growth in PhDs awarded. In Brazil, the number of PhDs rose from around 5,000 in the year 2000 to nearly 14,000 in 2012. In the same period, Pakistani PhDs grew from 176 awarded in 2,000 to 979 in 2012. From these two examples, it is clear that the capacity for graduate education at the Master's and doctoral levels varies widely between systems. Certain systems, such as India graduate education is an area in need of growth, while in others, such as the UK, nearly a third of students are studying for postgraduate qualifications.

Despite existing capacity for graduate education, expanding research output and prestige was a common goal. Some of the countries surveyed showed great growth, though still publish less research than larger systems with greater funding resources. In 2012, Indonesia was ranked 63rd in the world for publications with 16,139 articles. Pakistan's total of research publications increased from 815 in the 2002 to 7,141 in 2013. Brazil also showed a dramatic increase from approximately 12,000 publications to 38,000 in the same period. The BRIC countries are making up an increasing share of published research worldwide. In 2011, China led with 13% of global publications, followed by India with 2.8%, Brazil with 2% and Russia with 1.6%. Due to a low percentage of research output in comparison with other systems, the government of Russia has specifically prioritised further developing world class and research universities.

Internationalisation

Among the country cases, internationalisation features as a key discussion point, although definitions of internationalisation are not always clear. Many cases do not describe policies towards internationalisation, although given the tendency toward institutional autonomy, internationalisation is often conducted at the HEI level. In US higher education, for example, internationalisation has in recent years been the province of individual HEIs under the supervision of the US State Department (foreign affairs ministry) for immigration requirements and funding of certain academic exchanges. China cites internationalisation as a major overall goal, while Russia, Pakistan and the UK define it in terms of research cooperation and inclusion of international staff and students in their higher education systems. India and Brazil include the most detailed discussions of specific internationalisation dynamics and policies. In Brazil, the Science Without Borders initiative specifically promotes a strategy of internationalisation by funding Brazilian students to study abroad. India's higher education is described as highly internationalised. Indian universities place increasing emphasis on branch campuses abroad. India also sends the second greatest number of students abroad (primarily to the USA or UK, although increasingly to other destinations) after China and welcoming about 15% of that number in foreign students.

Figure 8: Outwardly Mobile Students vs. Inwardly Mobile Students[14]



[14] *UNESCO Institute of Statistic. (2012). "International student mobility in tertiary education." Retrieved from <http://data.uis.unesco.org/>.*

A prominent trend is that high income countries are still attractive destinations for international educational exchange, while middle income countries more commonly send students abroad for studies. However, as noted in the case of China, newer opportunities for cross border research and the changing geopolitical landscape will likely reduce, or at least heavily supplement, the supremacy of the traditional destinations. The reports make little mention of other forms of internationalisation beyond student mobility, although the emergence of cross-border higher education, and the establishment of branch campuses overseas, are a key locus of activity for a number of UK and US HEIs.

There are diverse motivations for countries to internationalise their higher education systems. For countries receiving students (and staff) from overseas, the incentive lies in attracting talent, as well as creating a rich cultural and intellectual diversity on campus. Income generation is also a primary motivation in those countries such as the UK and USA in which substantial fees are charged to international students. For net exporters of students, the development of skills in certain fields or technical areas for economic growth is paramount, for example in the new mobility policy in Brazil.

The varying degrees of discussion of internationalisation in the nine systems highlight underlying dynamics which relate closely with massification. One such dynamic is the calls for more robust quality assurance which could promote cross-border transfer of qualifications and evaluation. Given that in these systems HEIs have diversified and become more autonomous and to some degree detached from direct accountability to government, massification has been accompanied by complications in establishing not only a nationwide quality assurance system, but also a nationwide internationalisation policy.

Country profiles

Brazil

Brazil's higher education system underwent slow growth through the 20th century and began a period of rapid expansion beginning in 1994. Enrolment grew 340% in the following 19 years, with 73% of students enrolling in private HEIs and half of these students enrolling in for-profit HEIs. Public HEIs are mainly administered by the federal government or one of the state governments, but there are also a few municipal institutions. The sector includes comprehensive universities, university centres (teaching universities not expected to develop graduate education or research programmes), smaller colleges/faculties and technical institutes. After many years of stagnation, federal HEIs experienced significant growth starting in 2008, after a period in which state level institutions had expanded. A great share of this growth has been the inclusion of non-traditional students, through evening programmes and distance learning. A number of government initiatives have prompted this shift in the higher education landscape motivated by national priorities to expand access. Nevertheless, the private sector continues to dominate, with three quarters of all enrolments.

The government of Brazil has actively intervened to boost the net enrolment rate by introducing actions to expand access to higher education. Among the most widely discussed are PROUNI ("University for All") introduced in 2004 and the later the Restructuring and Expansion of Federal Universities Programme (REUNI) in 2007-2008. The focus of PROUNI was on private HEIs with fiscal waiver benefits to for-profit HEIs provided they offer scholarship to low-income students. Thus, PROUNI serves as a form of affirmative action. The goal of REUNI is to bolster the federal system, by establishing campuses of existing government HEIs in interior towns and other measures to open places for students. A year later, the Ministry of Education bolstered the National Test of Secondary Education (Exame Nacional do Ensino Médio - ENEM) and made it the sole admission criterion for a new unified system of admission for federal HEIs. Concurrent with these expansion programmes, a 2012 law ensures a quota of 50% of places for graduates of state secondary schools. In addition, the law requires the enrolment of black and indigenous Brazilians proportionate to the population of the state where the HEI is located. Managing a system characterised by such rapid expansion poses unique challenges and opportunities.

Given the brisk pace of expansion focused in private HEIs, channelling funds and regulating quality system-wide is a major issue. Private HEIs have offered a flexible solution which can quickly adapt to the country's changing needs, such as offering distance learning to mature students. However, these institutions can lack an established faculty structure, relying instead of part time instructors generally lacking decision-making authority. Decisions in for-profit institutions are made more along business lines (investor return, revenue, etc.) which do not always support quality. Some for-profit HEIs are even listed on the stock exchange. One merger resulted in a company enrolling almost one million students with a market value of about US$5 billion. The private sector is still reliant on the public sector, as one third of students enrolled in private HEIs utilize the federal student loan scheme, and many more are funded by PROUNI. Despite the dependence on government funding, private HEIs remain relatively unregulated as compared with public HEIs, which challenges the maintenance of quality education.

Summary of paper by: Pedrosa, R. H. D. L. (2014) Higher Education in Brazil: A System in Permanent Change
For full length paper: www.britishcouncil.in/our-research-and-publications

China

China's higher education system has ancient roots, but experienced the majority of expansion in its current form during the latter half of the 20th century, following the Cultural Revolution. Enrolments have been growing steadily since 1999. China has now surpassed the USA in enrolments and is currently the largest higher education system, although its gross enrolment rate is only 26.7%. China's higher education system includes a major foreign exchange component. It is the third most popular destination for international students worldwide. Enrolment is concentrated in "regular" (academically-oriented) 4 or 2-3 year HEIs. Throughout this period of expansion, liberalisation measures have delegated management power to the provincial level. Provinces administer 1,623 of the 2,442 total HEIs according to 2012 official statistics. Only 708 of these HEIs are private. In addition to decision-making power, a 1998 higher education law codified cost-sharing which had already begun to take place. Government appropriations remained the major source of funding, but HEIs were encouraged to generate revenue to cover operating expenses. A number of national strategy plans have facilitated this jump to massification, with a recent focus on quality, expansion of research and national competitiveness.

The goal of boosting national competitiveness and increasing quality along with expanding access is evident in policies beginning in the 1990s and continuing to the present day.

Project 211 represents a sizeable investment in certain disciplinary areas and key universities. It has gone through three phases since 1995, encompassing 112 key universities. Project 985 took 39 of the Project 211 universities and injected more funding to bring these to the level of "world class" university, especially focused on research. At the same time, recognition of regional disparities has led to the policy of transforming undergraduate institutions in low enrolment areas into polytechnics. More recently, The National Outline for Medium- and Long-term Educational Reform and Development (2010-2020) has underscored quality assurance by proposing the establishment of specialised agencies to monitor quality in courses and across the disciplines. It also proposes exploring international cooperation but maintains that the evaluation model will have Chinese characteristics.

With the intentional emphasis on quality over a large system, the concentration on resources to promote "world class" universities primarily in the east should also allow for development of institutions in rural areas with less economic opportunity. There have been specific initiatives targeting areas which experience low enrolment, such as in the west and north. However regional disparities in enrolment persist. Spending per student demonstrates these noticeable differences. The latest available statistics show the national average is CNY 14,929 ranging from CNY 30,634 spent in Beijing and 8,103 in Guizhou Province. Across the system, maintaining adequate faculty numbers is a challenge in the face of such rapid growth. While enrolments have quadrupled, full-time faculty have increased 1.7 times. As more autonomy is delegated to institutional levels, the divergence in development of HEIs in urban centres and outlying areas is a crucial issue for overall quality.

Summary of paper by: Wang, R. (2014) A Brief Overview of Chinese Higher Education System
For full length paper: www.britishcouncil.in/our-research-and-publications

India

Though the gross enrolment rate in higher education is only 24.8%, India began a period of expansion in 1990 and enrols more students than countries with universalised systems. Among its 35,000 HEIs, India counts a range of institution types, some blurring the line between public and private sector: government universities and their affiliated colleges, "deemed" universities (operating with approval by the government's University Grants Commission but having full autonomy of admission requirements, fees and courses), capitation fee colleges (mostly for-profit private institutions) and grants-in-aid private colleges (receiving most funding from publically available grants). Massification in India is closely associated with the rapid growth in private options for higher education. Nationally, 59% of enrolment is now in private HEIs[15]. Post-independence, there was substantial government financial support for higher education and public support in line with national priorities of self-reliance and economic development. However, the system remained available only to 5% of the population. Private HEIs began to emerge in the 1970s, but these were largely grants-in-aid institutions receiving public funding. The private sector moved from managing public funds to raising revenue beginning in the 1990s. The incredible growth is easily seen in the past decade. From 2005-2006 to 2012-2013, the number of deemed universities reduced by half while private universities increased from 7 to 201. This diverse landscape of HEIs is set against a background of a populous country with large variance in educational outcomes.

Among national priorities for higher education, ensuring quality across a wide range of public and privatised institutions and efficiently channelling funding stand out. Funding from the central government goes primarily towards major public HEIs and "institutes of national importance" which develop graduate and research programmes. States make up 61% of public funding and are key actors. In order to increase accountability and simplify the myriad of bodies involved in regulation, State Higher Education Councils were introduced to distribute funding. Though proposed in the 1990s, there were only 8 SHECs in 2014, though most anticipate this to increase. However, in recognition that institutional autonomy is a major national priority in the Twelfth (Education) Plan, new modes of organisation and regulation are on the table. Among these are plans to convert affiliated colleges with good reputations into universities while dividing large universities. Over this system, two proposed independent regulatory bodies (Independent Regulatory Authority for Higher Education and National Council for Higher Education and Research) will have exclusive power to regulate new private and public HEIs in terms of accreditation and evaluation. Privatisation and a wide range of institutions are key characteristics of India's higher education system which these priorities seek to address.

Among the major challenges massification brings is maintaining national competitiveness while offering a quality but affordable education across great socio-economic divides. India's long standing central regulatory body, the University Grants Commission, is in a less favourable position to maintain regulatory standards in the face of intense privatisation. Even with the newly proposed bodies, accreditation is still a long and slow process which many HEIs can circumvent to the detriment of quality. This has resulted in court cases involving capitation fee colleges in recent years. Despite these concerns, private HEIs remain popular, because they emphasize what are seen as relevant vocationally-oriented diploma courses. Even though privatisation has greatly boosted access system-wide, these gains are not shared equally among states. States with residents of lower income and lower educational attainment focus on funding primary education. For instance, gross enrolment in higher education is at 38.2% in Tamil Nadu while only 8.2% in Jharkhand. While private options have expanded access to higher education and have addressed concerns about employability, they exist mainly in the economically stronger south.

[15] *British Council (2014) Op.cit.*
Summary of paper by: Varghese, N.V. (2014) Challenges of Massification of Higher Education in India
For full length paper: www.britishcouncil.in/our-research-and-publications

Indonesia

As a country with a large youth population, enrolment in higher education in Indonesia climbed modestly from 18.3% in 2005 to 27.1% in 2011, which is less than other countries in the region. The private sector in particular is behind the expansion, enrolling two thirds of students in the country. Out of around 3,500 institutions, only some 150 are public, managed by the Ministry of National Education and Culture for comprehensive universities and polytechnics or the Ministry of Religious Affairs for Islamic institutions. Many of the private institutions have a precarious existence because they enrol few students and depend heavily on tuition fees. Distance learning is gaining ground, with the Open University enrolling 11 percent of the total enrolment in 2012. Among this landscape of institutions, there is little differentiation by mission. Some of the large government HEIs undertake research but also short term diploma programmes whereas smaller regional universities stretch resources to undertake many academic disciplines. There is also a trend of polytechnics drifting towards general academic education rather than in technical skills. Given concerns about graduate employment and economic development, maintenance of quality alongside access is critical to the goals for higher education.

Given its demographic situation and economic development goals, the government of Indonesia has placed emphasis on research and maintaining quality while improving inclusivity. There is an apparent geographic divide, with institutions primarily located in Java and Sumatra. There are also concerns about the potential of higher education to improve social mobility. While in primary education enrolment levels are at parity, the difference between the highest income quintile to the lowest income quintile in terms of enrolment is 62%. To address this, the government of Indonesia has implemented Bidik Misi, a full scholarship programme for good performers in the last year of secondary school. It expanded from 19,444 scholarships in 2010 to 144,799 in 2013. Targeting those who do not have access to this programme and addressing mission drift of polytechnics are “Akademi Komunitas. These are 1-2 year vocational programmes beyond secondary school.

Along with inclusivity and expansion, research and innovation are major goals to be achieved through greater autonomy. The graduate unemployment rate for both diploma and degree programmes has dropped by half. However, research output is still comparatively low and perceived as irrelevant to local industry. To counter this and to foster innovation, a measure in 2012 allowed universities to change legal status so they could become autonomous and promote innovative approaches. Universities may be fully autonomous, have a degree of financial management flexibility or work as a government implementing unit. However, since commercialisation is seen as a threat, a 2012 law allows government intervention in the form of regulating tuition fees. HEIs may not collect more than 30% of the funds for their budget from students. While autonomy promotes diversification, it also limits the power of the government to organise mergers of smaller HEIs into more efficient units. Competitive public grants are being explored as a potential solution to this hurdle to greater research output.

Summary of paper by: Moelio dihardjo B. Y. (2014) Higher Education Sector in Indonesia
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Nigeria

Nigeria's system of higher education is representative of the promise of growth from a young population and expanding economy inhibited by a lack of infrastructure. The first HEI in the form commonly recognized today was established in Nigeria in 1934 and only available to the elite. Post-independence, the aim was for higher education in Nigeria to become more relevant to Nigerian goals. However this was hampered by poverty and lack of available financing in the country. As Africa's fastest growing economy, Nigeria now has more resources to devote to higher education, but still has 84% of the population living on less than US$2 per day. Nevertheless, higher education in Nigeria began ready expansion in the first decade of the new millennium with 52 universities in 2001, 80 in 2005 and 128 in 2013. Enrolments rose from 3.5% in 1985 to 4% in 1995 reaching 10% in 1999. The system of higher education comprises diverse HEIs: universities, which host research and comprehensive education, and the polytechnics, monotechnics and teacher training colleges which offer qualifications in technical and specialised fields. Across this range of HEIs, over-enrolment is a challenge as demand for places is higher than supply. Those with means can choose to study abroad, but this leaves higher education out of reach for the rest. Private HEIs are available for students in Nigeria but count for only 7.6% of the enrolment[16]. There is little data about affirmative action policies or measures to increase equitable access.

A major aim of higher education policy in Nigeria is to boost quality in its HEIs so as to stimulate the economy and enhance quality of life. Among the most critical targets is developing research and specific disciplines deemed essential for economic growth. A 2003 Education Sector Status Report showed that the higher education was not furnishing enough qualified graduates in sectors such as petroleum, gas, manufacturing, mining, tourism and information and communication technology (ICT). Among policy makers, higher education is associated with better economic growth and the development of a knowledge economy. Since higher education is valued for these reasons, there has been a push to be more selective in offering admission to boost quality. One measure taken in support of this goal is the Unified Tertiary Matriculation Examination (UTME) conducted in most universities to check performance of potential incoming students.

Among the challenges facing Nigeria during the higher education massification experience is a lack of financial and material resources. Cost sharing has been implemented in Nigeria though statistics show that private sources account for 20% of revenue while government sources can only cover an estimated 40% of the budget. Private philanthropy and contributions from international funding agencies are a revenue stream, but one which is neither stable nor in keeping with building institutional autonomy. Boosting cost effectiveness of the existing resources could be accomplished through more distance learning, but ICT infrastructure is quite limited. In order to massify and increase both equity and quality, there is a call for more innovative measures to manage cost.

[16] *National Universities Commission, 2012.*
Summary of paper by: Maiyaki C. J. (2014) Challenges of Higher Education System in Sub-Saharan Africa
For full length paper: www.britishcouncil.in/our-research-and-publications

Pakistan

Beginning in 1947, the government of Pakistan introduced a series of policies and five year plans to develop a system of higher education to build capital in line with national unity and Islamic values. Decentralisation of higher education occurred in the 1980s, but access did not begin to expand until recent years. Still the gross enrolment rate is rather low at 9.5%, although the goal is for it to increase to 12% by 2025. The system is made up of universities and their affiliated colleges, which are charged with research and comprehensive education, as well as polytechnics offering shorter cycle technical education. Affordability is a major concern for expanding access to higher education. It is estimated that 80% of families in Pakistan cannot afford to send even one child to a public university. However, restructuring measures have increased access. Enrolment has increased from 276,274 in 2002 to 1.9 million, mainly in the public sector.

A major change in the higher education system came in 2002 with the transformation of the University Grants Commission into the Higher Education Council, an umbrella governing body designed to improve educational quality. Its mission is to "facilitate institutions of higher education to serve as [engines] of socio-economic development [for] Pakistan." In line with this agenda, the HEC distributes scholarships, channels funds and supports new programming. One of its flagship programmes is the Pakistan Education and Research Network (PERN). PERN allows HEIs to connect via IP phones and video conferencing to share information. The idea of utilising technology in "smart universities" is a key strategy for boosting quality and research output in a cost-effective manner. Boosting industry and university linkage is cited as another strategy to promote higher quality education.

In order to accomplish these goals, Pakistan has enacted reforms to oversee quality assurance. A key actor in this endeavour is the 18 member "Commission," a forum for policy making regarding higher education which guides the HEC. This centralised body reports to the Prime Minister and has expert committees on accreditation and curriculum, national scholarship management, national and global competition committee for extracurricular activities and finally the finance and planning committee. On the Committee are Vice Chancellors, private sector representatives, and other international experts not belonging to either the private sector or Pakistani HEIs. This unique governance structure is designed to promote the development of education which is seen to be more relevant to economic growth.

Summary of paper by: Ahmed, M. (2014) Pakistan's National System of Higher Education'
For full length paper: www.britishcouncil.in/our-research-and-publications

Russia

In the late 19th century, Russia developed a robust higher education system modelled from German professional education. From 1917 to 1940, the number universities in the USSR grew from 150 to 481. While performing well in quality, this system was embedded in a centrally planned economy and dependent on direct orders from the state. The system was also relatively isolated from other systems in Europe, their practices and structure. The 1990s saw another period of growth in the wake of the collapse of the Soviet Union, this time under market conditions. From 1990 to 2000 the number of universities doubled from 514 to 961. However, the transition to a post-industrial economy under market conditions was led by the state though without a preliminary plan. The labour market was not aligned with the qualifications of graduates until funding and organisation for the reformed system began to stabilise by 2003. Since that time, HEIs can be seen to fall into three categories. The most prestigious are the two leading classical universities, followed by selective national research universities organised in 2008. Federal universities were organised in 2006 from the merger of regional HEIs. Other HEIs serve more local labour market needs. At the end of 2013, Russia counted 986 HEIs (40.3% of which were private) and 1482 branches (36% of which are private) within the system. Though private HEIs are numerous, they only account for 15% of enrolment. While public HEIs are primarily funded by the state, charging of fees for many students has become common during the last two decades.

Despite the introduction of marketisation during the 1990s, higher education in Russia is not highly commercialised or privatised. However, the government has been introducing measures to boost institutional autonomy with the "On Education in the Russian Federation" Law of 2012. As of 2014, only 7.4% of Russian HEIs had autonomous status, which allows flexibility in allocating funds as well as the general authority over courses, research and curriculum which is being promoted across the system.

A unique aim articulated in Russia's higher education policy is the function of higher education for social development. However, relevance to the labour market and international competitiveness are still major concerns. The 1990s saw high numbers of graduates in the humanities and social sciences, while scientific and technical disciplines were in high demand. In terms of international competition, the 5-100 programme rolled out in 2013 aims to boost international recognition of Russian research universities. Other measures to improve quality are government-led initiatives to pare down the number of university branches by 30%. A major challenge to achieving these goals is maintaining a quality standard across regions and autonomous HEIs, even though the system is not highly privatised. There is currently no single system for measuring quantitative and qualitative outcomes across the system. In 2011-2012, the Ministry of Education and Science initiated the development universal quality assurance mechanism, but in the end it was not retained or accepted in full. As the Russian higher education moves from full enrolment to boosting quality, these initiatives must take into account the transition from a state-led to a more autonomous system.

Summary of paper by: Arzhanova I. (2014) Introduction to the National System of Higher Education in Russia
For full length paper: www.britishcouncil.in/our-research-and-publications

United Kingdom

Higher education in the UK has a long history reaching back almost a millennium, but its massification occurred primarily in the mid 20th century. The need for technological advancement and the demands of an expanding population brought about changes in policy which increased the enrolment rate from 3% in 1950 to 50% in 2011. Among the most notable was granting university status to polytechnics and further education colleges in 1992.

The British higher education system currently comprises 166 HEIs and over 1600 "listed bodies" which provide postsecondary education but do not award degrees. None of the HEIs are directly run by the government. Instead they are autonomous and receive public financing through independent funding councils while retaining the freedom to implement their own programmes of study. Of the 166 HEIs, 9 are privately-owned, and so cannot access government funding except through student loans used to pay tuition fees. Prior to 1997, there were no tuition fees. However, attitudes have changed and higher education is increasingly considered a private investment rather than a public good. HEIs are now required to provide data to students on employment prospects after graduation, part of a broader shift to viewing students as consumers in recent years. Since 2010, enrolments have decreased, notably as the part time enrolments have decreased by 48%. However, the constituent territories of England, Scotland, Wales and Northern Ireland have some distinguishing features in relation to these policies, most notably in Scotland where tuition fees have not been introduced.

Priorities for higher education in the UK include increasing quality, reducing regulatory complexity and maintaining student satisfaction. These were outlined most recently in the 2012 Technical Consultation: a new fit for purpose regulatory framework for the higher education sector published by the government. The current regulatory system is managed by the Quality Assurance Agency, which reviews practice and recommends improvements in addition to HEIs' own internal systems. HEIs undergo audits by the QAA in order to receive their funds from the Funding Councils. The growth in number of HEIs and "alternative providers" accessing government student loan funding has rendered the traditional external quality assurance system less than adequate to deal with a variety of missions and participants in higher education.

Though characterised by regulated autonomy and relatively stable finance, higher education in the UK faces the challenge of boosting inclusivity. By age 19, 22.8% of those from the most disadvantaged areas enter higher education while the figure for those from advantaged areas more than 60%. Prior attainment in education has been identified as a major block to access. Ethnic disparities exist, although these have narrowed in recent years. Just about one quarter of higher education participants are black minority ethnic (BME), although acceptances of BME student have increased 74% from 2007 to 2013.

Summary of paper by: Stern, V. (2014) Introduction to the UK's Higher Education system
For full length paper: www.britishcouncil.in/our-research-and-publications

United States of America

Higher education in the United States began with a few elite institutions, but gradually expanded in the 19th century. The period of massification followed in the early to mid 20th century with technological changes, greater attainment at the secondary level and greater government support for student finance. The current system took shape from 1964-1970. The GI Bill's provision of scholarships for veterans had set a precedent at the end of the Second World War and the Civil Rights Movement began to widen access to African American students.

Throughout its history, the US higher education system has been characterised by a high degree of autonomy. Institutions fall into categories based on the mission of the institution, whether it is public or private and length of the degree. The most popular options are two-year public HEIs (34%), followed by public universities (33%) and private universities (17%). There is no central Ministry of Education which oversees the system. Instead, regional regulatory bodies comprised of HEIs which are voluntary members are charged with maintaining quality assurance. Funding streams connect HEIs to various levels of government and come with certain accountability and mandates. Federal student loans can be used in the range of HEIs whether in the public or private sector. States fund public HEIs in their territory for day-to-day operations, though their share in the budget has been declining. Students and their families, as well as fundraising by HEIs, are primary sources of funding. This is in keeping with the shifts in attitude towards the private benefits of education outweighing public benefits.

The key purpose and goal of US higher education is an ethos of educating "the whole person" across a variety of tailored programmes and institutions. As such, curricula are flexible by institution and programme and often require study outside the major discipline. However, with concerns about completion rates and graduate employment rising, there seems to be a shift towards promoting vocation skills that are easily related to the current labour market. The increasing cost of higher education and the burden on students and families has also led to increased scrutiny of programmes. There are calls for a more robust regulatory system. This system should take into account the wide range of populations served by HEIs and the new popularity of 2 year programmes, for-profit HE, and distance or alternative learning model options. However, implementing such a system would need to account for the great diversity and autonomy characterising US higher education.

A major challenge for the USA is to maintain quality and inclusivity across a range of HEIs and programmes. The 18-24 population in the USA is declining, and more attention is focused on non-traditional and mature students. However, equitable access for all ethnic and socio-economic groups has been a historical struggle for US higher education. While the proportions of African Americans and Hispanics enrolled have increased rapidly in recent years, access to the most prestigious institutions remains a challenge. Affirmative action policies are in place at many institutions, but are not systemised on a national level. Despite the availability of student loans and limited government grants, affordability is a major concern, and prevents many students of disadvantaged economic backgrounds from accessing higher education. As demographics shift, US higher education will adapt, but it is unclear how this may look due to a high level of autonomy and lack of centralisation.

Summary of paper by: Helms, R. M. (2014) Higher Education in the United States
For full length paper: www.britishcouncil.in/our-research-and-publications

Conclusion

Size is a double-edged sword. It can enable a tree to move up above its neighbours and enjoy the sunlight, and give it a thick trunk to whether storms. Yet if it is not carefully balanced its own weight may topple it, and crash down with even greater force. In the contemporary reality of global competition in higher education, large systems have a significant advantage in being able to generate the specialisation, garner the resources and nurture the international interest necessary for world-class universities. Yet without great care they can struggle to provide quality higher education en masse, leading to a stratified system in which many students (and principally disadvantaged ones) may obtain a diploma in name, but obtain little learning of worth in practice.

This final section addresses two key questions. First, what do large systems have in common, and what characteristics pull them apart? Second, how can countries turn the distinctive challenges of large systems into advantages?

Commonalities of large systems

A high degree of convergence between systems is to be expected given the forces of globalisation, in addition to any commonalities arising from the size of systems. The following major forms of convergence between the systems have been identified in this report:

- **Diverse institutions and diversifying modes of provision**

  HEIs have diversified over time to fulfil different missions and to serve new populations of students (e.g. mature and working students, those outside the capital city). HE systems are also increasingly expanding by offering new modes of provision at existing HEIs (e.g. online learning/MOOCs, part time or evening programmes), though the forms of adaptation differ between countries. Nevertheless, there is also evidence of mission drift, with technical and vocational institutions becoming increasingly similar to academic ones.

- **Blurred lines between the public and private sectors**

  There is a trend towards HEIs which are not wholly and definitively public or private (e.g. public institutions charging fees in the UK; private institutions receiving federal grants in the USA; deemed universities in India). While government financing of HE was once predominant, many HEIs and systems now have more diversified streams of income.

- **Calls for more effective monitoring/evaluating and quality assurance systems**

  The call for a more robust system of monitoring and evaluating the health of HE systems is a strong theme. A “one size fits all” model of quality assurance, as many reports describe as the status quo, is no longer deemed adequate on account of the diversity of HEIs’ missions and student populations, and the general move away from government funding (and its “built in” accountability expectation).

- **Affirmative Action/Access Issues**

  Despite the cultural and political diversity of the nine countries, inadequate access to and effective participation in HE for disadvantaged groups is a strong theme. Many countries have enacted or wish to enact affirmative action policies. However, the reports cite problems implementing adequate policies and need for more enquiry into effective affirmative action.

- **Knowledge economy, relevance and employability**

  While the knowledge economy discourse is more evident in some countries than others, the discussion of graduate employability and the relevance of the education provided to the economy is a common feature. Debates continue as to the benefits of a specified skill set as opposed to a more holistic general education model.

- **Internationalisation**

  Emphasis on internationalisation is common to all of the nine countries. The need for better and wider internationalisation was cited, primarily for economic reasons, although the activities differed by country (e.g. Science Without Borders in Brazil sends Brazilian students abroad where universities in the USA and the UK are seeking to recruit more international students).

- **Growing imperative of research**

  Research is a key concern of large HE systems, to a large extent concentrated within large, public HEIs (sometimes referred to as "World Class Universities"). When research is cited, bibliometric measures are usually used to describe output.

Differences of large systems

In addition, there are some points of significant difference, stemming from the divergent histories and traditions of the countries, as well as specific political and economic circumstances:

- **Drivers for growth**

  Expansion of the systems has been driven by different factors across the nine countries, including government policy for enhancing economic growth, demand from prospective students and institutional level incentives.

- **Effects of demographic factors**

  Conditions for higher education policy and planning are different depending on demographic factors, particularly growth in youth population. Countries such as India and Nigeria face a particular challenge in ensuring the offer keeps pace with the size of the cohort. On the other hand, in countries such as Russia, enrolments have dropped because of decreasing numbers of school leavers.

- **Decision-making process and actors**

  While in many systems individual HEIs have a great deal of autonomy, there were many models of HE governance in evidence. Depending on the country and its political system, HE is accountable to certain political bodies or actors for certain decisions. Governance within HEIs also varies, though the use of disciplinary departments is still a common feature.

- **Funding models**

  The nine systems featured in this report have a variety of models of funding from different sources and allocated in different manners, as displayed in table #. However, there is a degree of convergence here, with a strong trend towards greater proportions of private funding.

- **Role of public and private sectors in massification**

  Countries have adopted diverse strategies for facilitating rapid expansion. In Brazil and India, for example, massification has occurred primarily via the private sector, while in the UK it is through public institutions, albeit with an increasing degree of private funding, and in the USA via both sectors.

- **Priorities in relation to STEM**

  In the context of the knowledge economy, there has been global interest in developing the areas of science, technology, engineering and mathematics through universities. However, the relative emphasis on these in relation to other disciplinary areas, and the specific policies adopted, have differed between the countries.

Recommendations for managing large systems

The fundamental question for large enrolment systems is as follows: *How can countries turn the size of their HE systems into a benefit rather than a burden?* This final section will address six key points emerging from the analysis.

1. *Ensure that expansion does not compromise quality*

While all of the countries in this study either have world-class universities or are moving towards them, providing consistently high quality across the system is a harder nut to crack. Rapid expansion, often through insufficiently regulated private organisations, has led to highly uneven standards of teaching and learning, leading to poor outcomes for many students. Countries like South Korea show that high participation does not have to lead to loose quality, underfunding and neglect in mass education and vocational institutions. Quality assurance systems, academic staff development programmes and other interventions are needed to orchestrate continuing expansion without compromising quality of provision[17].

2. *Adapt curricula for enhancing students' capabilities*

Problems of graduate unemployment and dissatisfaction with graduate skills are widespread. While labour market dynamics are to a large extent beyond the reach of universities, there is much that institutions can do to prepare their students adequately for their future work. Beyond salaried employment, students must be able to acquire the capabilities they need in all areas of their lives and to make a positive contribution to society. Curricula need to be adapted to the changing nature of society, and encourage critical thinking, rather than rote learning. Strengthening STEM subjects is important, but graduates are needed in all areas, including arts and humanities.

3. *Balance institutional autonomy with state capacity to promote equity*

Governance issues are particularly critical for large and complex higher education systems. Systems need to ensure that they combine institutional autonomy with the degree of national level leverage necessary to ensure coherence and equity across the system. Affirmative action programmes have gone some way towards addressing inequalities of access, but there are still significant inequalities on the basis of gender, race/ethnicity, social class and other background characteristics.

4. *Promote diversity, not stratification*

Large systems have a distinct advantage in that size allows for a wide array of different forms of institution, in terms of mission, scope and disciplinary specialisation. Such a diversity can respond effectively to the diverse needs and interests of individual students and society. However, it is essential to guard against stratification of quality, with lower-income students being confined to lower quality provision.

5. *Ensure sustainable and equitable financing mechanisms*

Providing adequate funding for massified higher education systems is a critical challenge worldwide, particularly for low and middle-income countries, but even for OECD countries. Cost sharing, loan schemes and other devices have been implemented to ensure that constraints on public finances do not hamper expansion of the system. In seeking out innovative funding mechanisms, care must be taken not to negatively impact on equity of access, and to ensure that the public good mission of universities is not undermined.

[17] *It is important to point out that the considerations as regards the size of an institution may not be the same as those of the size of a system. Some institutions resist expansion on the basis that their quality and ethos are dependent in significant ways on their compact size and the ability to maintain close relationships and understanding across the institution. Higher education on a massive scale does not necessarily mean massive institutions, and systems may opt for a large network of smaller units.*

6. *Foster inward and outward mobility*

Fluidity of movement between institutions is central to a thriving academic environment, as seen in the earliest European universities and institutions of higher learning elsewhere in the world. Large systems have a clear advantage in providing a pull for students and staff from overseas, but should also encourage their own staff and students to be mobile and foster cross-cultural learning and interchange.

More broadly, large higher education systems should take the opportunity to learn from each other. While market mechanisms have fostered competition in certain areas between institutions, and even between countries, a thriving global higher education sector is not a zero-sum game. All countries can make steps forward through collaborating effectively and sharing learning through experiences of policy innovation at national or institutional level.

Appendix 1: Global comparative data

	Brazil			China			India			Indonesia		
Total Enrolment												
	2000	**2005**	**2012**	**2000**	**2005**	**2012**	**2000**	**2005**	**2012**	**2000**	**2005**	**2012**
TOTAL	2,781,328	4,572,297	7,241,405	7,364,111	20,601,219	32,585,961	9,404,460	11,777,296	28,568,409	3,126,307	3,662,234	6,233,984
MALE	1,219,175	2,018,120	3,106,236	----	11,127,147	16,169,145	5,852,434	7,135,720	---	1,675,406	---	3,066,596
FEMALE	1,562,153	2,554,177	4,135,169	----	9,474,072	16,416,816	3,552,026	4,641,576	---	1,450,901	---	3,167,388
Gross enrolment ratio (GER)												
	2000	**2005**	**2012**	**2000**	**2005**	**2012**	**2000**	**2005**	**2012**	**2000**	**2005**	**2012**
TOTAL	16.03	25.53	26.7	7.76	18.34	25.53	9.53	11	24.8	15.06	17.74	31.51
MALE	13.97	22.27	--	--	19.18	25.19	11.41	12.83	--	16.88	18.82	30.98
FEMALE	18.2	28.86	--	--	17.45	28.38	14.13	--	--	14.13	23.56	32.05

Source: UNESCO

	Nigeria			Pakistan			Russia			United Kingdom		
Total Enrolment												
	1999	**2005**	**2012**	**2003**	**2005**	**2012**	**2000**	**2005**	**2012**	**2000**	**2005**	**2012**
TOTAL	699,109	1,391,527	---	401,056	782,621	1,816,949	6,331,324	9,003,208	7,983,111	2,024,138	2,287,541	2,495,779
MALE	397,099	825,020	---	227,962	429,370	952,652	---	3,866,323	3,594,654	932,284	979,179	1,091,379
FEMALE	302,010	566,507	---	173,094	353,251	864,297	---	5,136,885	4,388,457	1,091,854	1,308,362	1,404,400
Gross enrolment ratio (GER)												
	1999	**2005**	**2012**	**2000**	**2005**	**2012**	**2000**	**2005**	**2012**	**2000**	**2005**	**2012**
TOTAL	6.08	10.41	--	9	4.73	9.53	55.4	72.59	76.14	58.09	58.68	61.88
MALE	6.78	12.07	--	9.74	5.06	--	53.38	61.52	67.51	53.21	49.17	52.74
FEMALE	5.36	8.66	--	9.3	4.38	--	69.28	83.96	85.05	63.01	68.48	71.05

Source: UNESCO

United States of America			
Total Enrolment			
	2000	**2005**	**2012**
TOTAL	13,202,880	17,272,044	20,994,113
MALE	5,840,759	7,387,262	9,026,499
FEMALE	7,362,121	9,884,782	11,967,614
Gross enrolment ratio (GER)			
	2000	**2005**	**2012**
TOTAL	67.85	81.32	94.2
MALE	58.51	67.72	79.14
FEMALE	77.69	95.67	110.17

Source: UNESCO

	Brazil			China			India			Indonesia			Nigeria
Educational attainment: percentage of the population age 25+ with tertiary education													
YEAR		**2012**			**2010**						**2011**		
	TOTAL	**MALE**	**FEMALE**	**TOTAL**	**MALE**	**FEMALE**				**TOTAL**	**MALE**	**FEMALE**	
% ISCED 5				5.2	5.9	4.6							
% ISCED 6	12	10.5	13.2	3.2	3.7	2.7	no available data			7.9	8.2	7.5	no available data
& ISCED 7-8				0.4	0.4	0.3							
Tertiary education expenditure as a percentage of total government expenditure													
YEAR	**1999**	**2005**	**2010**	**1999**	**2005**	**2012**	**2000**	**2005**	**2012**	**2000**	**2005**	**2012**	
%	2.53	2.28	2.39	3.03	---	---	2.86	2.10	4.30	---	---	3.11	no available data

Source: UNESCO

	Pakistan			Russia			United Kingdom			United States of America		
Educational attainment: percentage of the population age 25+ with tertiary education												
YEAR		**2012**			**2010**			**2013**			**2013**	
	TOTAL	**MALE**	**FEMALE**	**TOTAL**	**MALE**	**FEMALE**	**TOTAL**	**MALE**	**FEMALE**	**TOTAL**	**MALE**	**FEMALE**
% ISCED 5	---	---	---	58.1	55.9	59.8	7.9	7.6	8.1	9.8	8.8	10.8
% ISCED 6	5.9	7.5	4.2	0.8	0.8	0.9	16.5	16.5	16.4	20.1	20.0	20.2
& ISCED 7-8	1.7	2.1	0.7	1.1	1.2	1.2	7	7.5	6.9	11.6	11.9	11.2
Tertiary education expenditure as a percentage of total government expenditure												
YEAR	**2000**	**2005**	**2012**	**2000**	**2005**	**2012**	**2000**	**2005**	**2011**	**2000**	**2005**	**2012**
%	---	3.86	3.41	1.44	2.42	---	2.17	3.03	2.89	3.41	2.86	---

Source: UNESCO

Appendix 2: World Bank commentary

Higher education in the world has experienced in recent years a dramatic expansion, an increased diversification, and a gradual positioning from peripheral to central in the definition of public policies in governments all over the world. This especially true in the case of the most populated countries of the world in which due to the demographic pressures, the higher education sector has rapidly responded with fast, although not always properly planned, growth. In a number of cases, the growth has led to the creation of large mega-universities in which significant challenges associated with their massification are quite significant.

As emerging economies in general have made important advances towards fulfilling the Millennium Development Goals of achieving universal primary education, significant sectors of their young population in those countries now see higher education as a dream possible, although may be discouraged by the soaring cost of attending, high selectivity of institutions, limited employment opportunities, as well as other barriers. In this context, higher education can become a significant enabler of shared prosperity in those countries if it becomes more efficient, relevant, equitable, transparent, and responsive.

In the case of countries with large higher education systems, it should be noted that although challenges are unique to each of them due to the peculiarity of their higher education systems, nevertheless, there are important commonalities providing an opportunity for shared learning based on best practices and on inadequacies and mistakes to be avoided.

Knowing that higher education is fundamental to development and growth, there are a set of guiding principles that may be helpful in transitioning large higher education systems in order to make them more responsive to the needs of their local evolving economies and societies:

- Higher education should provide graduates with the skills and knowledge they need to both find and create jobs, which requires concerted action from governments to establish adequate regulatory frameworks that will expand opportunities from different public and private sources.
- Higher education should be more accessible to more people, especially in developing countries and for those currently underserved.
- Higher education should contribute more effectively to regional development by fostering innovation, as well as production/sharing of knowledge, and by actively engaging higher education institutions with business, government and community-based organizations.
- Higher education must become more efficient, affordable, technologically innovative, academically flexible, accountable/transparent, entrepreneurial, and connected to the realities of the communities in which tertiary education institutions serve and the economy.

Although there is nothing new on the aforementioned list, it is important to emphasize that the virtuous combination of all of them, will necessarily result in preparing students with ready-to-work skills thus enabling them to succeed in a changing economic reality. Also, this will greatly contribute to foster in them a strong sense of community service which eventually will make them more socially and economically responsible. In addition, by addressing social imperatives such as equitable access and involvement in regional development, higher education institutions may more effectively contribute to society at large.

Consequently, as evidence shows, some of the following areas may require greater attention by governments and institutions as they foster a more adequately planned growth of their higher education systems:

- Increasing institutional diversification (growth of non-university and private institutions) to expand coverage on a financially viable basis and establish a lifelong-learning framework with multiple points of entry and multiple pathways.
- Improving the relevance and quality of higher education, which requires to transition from a quality control-quality assurance approach towards a quality enhancement one.
- Strengthening science and technology research and development capacity in selected areas linked to a country's priorities for the development of comparative advantages.
- Promoting greater equity mechanisms intended to create and expand access and opportunities for disadvantaged students.
- Establishing sustainable financing systems to encourage responsiveness and flexibility.
- Strengthening management capacities, through such measures as introduction of management information systems, to promote improved accountability, administration, and governance and more efficient utilization of existing resources.
- Enhancing and expanding information technology and communications capacity to reduce the digital divide.

There is no question that demographic pressures will continue being the major driver for growth in higher education, especially in highly populated countries. A key principle to consider is that in addressing growth challenges, an important role not to be avoided is the one of the government. However, this is not enough: higher education institutions have too much to do on their own in becoming more efficient, more affordable, more innovative in their use of technology, more flexible in their academic offerings, more accountable and transparent to society, more entrepreneurial, and more connected to the realities of the economy and the communities in which they serve. The Ivory Tower model of a highly elitist, affordable mostly for the better-off, and isolated university is no longer sustainable.

In conclusion, strengthening the capacity of large higher education institutions to respond flexibly to the new demands of knowledge societies, is an urgent and important task that will result in long-term economic effects and the associated welfare benefits that come from sustained growth.

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