

# 1 Introduction

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This chapter provides a rationale for analysing financial and human resources in higher education, and an overview of the analytical framework proposed for conceptualising these issues in the OECD Higher Education Resources Project. Investment in higher education in OECD countries has increased substantially over the last 20 years, largely as a result of higher enrolment, increasing costs, government priorities related to skills, and research and innovation. Public authorities across the OECD regularly need to make decisions about how to mobilise, allocate and monitor the use of resources in higher education. In this context, knowledge of international trends, alternative policy approaches, and evidence from research, evaluations and the practical experience of peers in other countries can be invaluable for domestic policy making. Such information is currently dispersed and often difficult to access. The OECD Higher Education Resources Project – informed and guided by the analysis in this report – aims to respond to this situation by providing an accessible international evidence base for policy makers and targeted system-specific analyses.

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## 1.1. The purpose of this report

Higher education plays a more prominent role in the public life of countries than it once did; it serves more learners than in the past, and governments increasingly emphasise its wide-ranging contributions to economic innovation and social well-being. Along with these expanded responsibilities, higher education consumes a larger share of national income, and is subject to greater scrutiny by governments and the public, who expect higher education systems to demonstrate value for money and quality of performance.

Although investment in higher education has increased and expectations of performance have grown, policy makers, faced with decisions about how best to mobilise, allocate and monitor the use of resources for higher education systems, often find that reliable evidence about the design and effectiveness of policies (especially, evidence that is grounded in international experience) is not readily available. They face challenges in assessing policy options and justifying policy choices.

The Higher Education Resources Project aims to identify and share promising policies that public authorities can deploy to guide the mobilisation, allocation and use of resources in higher education. It will do this by analysing higher education resourcing policies in place in OECD member and partner countries and by seeking evidence on their effects, where possible, through system-specific projects and case studies. These system-specific projects – in the form of country reviews or thematic policy briefs – will be informed and structured by the analysis presented in this document.

In its discussion of resourcing higher education, this report distinguishes between three phases of resourcing policy and resource management. Resource mobilisation refers to the process of raising the funds needed to finance higher education activities. In broad terms, governments can mobilise resources for higher education by drawing on general tax revenues from public budgets; by permitting or encouraging higher education institutions to raise funds from private sources, including households; or by encouraging or requiring private entities to contribute funds to higher education institutions. Resource allocation refers to the processes through which the funds mobilised are then assigned by governments and higher education institution management to finance types of activity or beneficiary. Governments generally allocate public resources between higher education institutions and between instruction and research, for example. Higher education institutions, depending on their level of financial autonomy, may allocate revenue from all sources internally between departments and activities. Resource use refers to the final deployment of the allocated funds by the final beneficiaries - to pay for staff, buildings, goods and services – the different rules, accounting practices and reporting requirements that are associated with this deployment.

Following this introductory chapter, the subsequent chapters of this document:

- review the main questions and challenges relating to the different aspects of resourcing higher education that policy makers in OECD higher education systems face;
- identify the main policy choices that have been made in OECD member and partner countries to address these questions and challenges, along with any research-based evidence about the effects of these policy choices;
- present these challenges, policy choices and evidence in a way that will help structure and guide the data collection and policy analysis carried out in system-specific projects undertaken within the Higher Education Resources Project.

## 1.2. The scope of the Higher Education Resources Project

The Higher Education Resources Project will examine how public and private resources are mobilised, allocated and used in higher education systems. This encompasses public and private resources for the

operation of higher education institutions and public financial aid to students. For the purposes of the project, higher education institutions are defined as institutions that provide study programmes at the International Standard Classification of Education (ISCED) (2011) levels 5 to 8, i.e. short-cycle programmes, bachelor's, master's, and doctoral or equivalent degrees. In examining the resourcing of higher education institutions, the project will focus primarily on public and government-dependent private institutions, in view of the reduced role of government policy in influencing the resourcing of independent non-profit and for-profit private institutions in most higher education systems. Attention will be paid to public funding of non-profit and for-profit institutions in systems where such funding exists.

Given the high share of their revenue that higher education institutions typically spend on staff costs (salaries, social contributions, pensions, etc.), and the existence of specific regulatory frameworks applying to higher education staff in some OECD member and partner countries, the Higher Education Resources Project will devote special attention to human resources in higher education. For these reasons, the issue of human resources in higher education is the subject of a specific chapter in this document.

In view of the greater familiarity of the term “higher education”, or its equivalent in other languages, in most OECD member and partner countries, this term will be used in preference to “tertiary education” throughout the Higher Education Resources Project.

The analytical framework in this report encompasses all three of the key phases of resourcing higher education highlighted above. It thus covers the mobilisation of financial resources, including frameworks governing private revenues in higher education institutions; the allocation of public funding for students and their families; the allocation of funds for operating and capital expenditure and between teaching, research and engagement activities in higher education institutions; and frameworks for the use of resources in higher education, in particular, the rules governing human resources. The framework also considers policies for the management and responsiveness of higher education systems as a whole.

In establishing its scope, the analytical framework in this report and the Higher Education Resources Project more generally will be guided by the following points:

- The project will cover all missions of higher education institutions, but maintain a primary focus on learning and teaching. Across the member countries of the OECD, higher education institutions seek to accomplish three principal missions: i) learning and teaching; ii) research; and iii) engagement (sometimes referred to as “service” in North America). Public budgets typically provide direct support for higher education institutions through two principal funding streams – allocating funding to support teaching and, often through separate public bodies and processes, funding to support higher education research centres or research projects. Funding for engagement activities may also be provided through dedicated funding mechanisms, although these are comparatively uncommon and typically small-scale where they do exist. The project will describe trends in research funding, and the bodies and procedures used to award funding. It will note the impact and costs of research funding on human resources and instruction. However, the project will not analyse the procedures used to evaluate research projects or centres, or provide detailed recommendations to governments for the (re)design of research funding methodologies. Where relevant, the project will also cover funding beyond teaching and research, for engagement or service activities.
- The project will pay attention to the distinction between operating and capital budgets, where necessary. Some higher education systems have dedicated capital budgeting processes and funding sources distinct from operating budgets, while in other higher education systems, there is no such dedicated fund; rather, institutions are responsible for prioritising and funding capital expenditures from a single stream of revenues provided by public authorities or obtained from private sources. The project will cover, where relevant, governments' procedures to evaluate, prioritise and fund public capital spending.

- The project will examine the role of private revenues for institutions. Given the importance in some higher education systems of private funding sources (especially from household contributions), the project will examine the full range of private revenues in higher education, including revenues derived from student fees, contracts and the operation of auxiliary enterprises, endowments and donations, and the interaction of these revenues with public funding sources.
- The project will take account of the role of public funding for students and their families, including the relationship between student financial support and institutional revenue in systems where student fees exist. The project will consider government expenditures on higher education that are transferred to households through educational loans and grants, as these play a key role in making it possible for households to meet the private contributions expected of them; and for some governments, they have come to comprise an important share of public spending on higher education. The project will also examine other instruments of financial support, such as tax benefits, where these exist.
- As noted, the project will pay special attention to human resources. Human resources are not only the biggest cost item for higher education institutions, but also the essential core of the knowledge-intensive enterprise that is higher education. The project will examine the scale and profile of the entire higher education workforce (academic and non-academic staff), and its implications for cost and performance. However, it will focus in detail – and carry out policy analysis – on academic staff (those engaged in teaching, research and engagement).
- The project will also look at the broader role of governments in the management and responsiveness of higher education systems as a whole. The project will look at the methods used to enhance the responsiveness and flexibility of higher education systems to the changing needs of learners, the economy and society. Issues under analysis will include the scale of the system, its diversity, its co-ordination, and student trajectories and destinations.

### 1.3. Structuring the analysis of resourcing policies in higher education

The Higher Education Resources Project will draw on a wide range of quantitative and qualitative information and evidence to identify and analyse the relationships between the context in which higher education systems operate, policies relating to resources in higher education, and the observable outputs and outcomes achieved by higher education systems. This section explains how this relationship between resourcing policies and system outputs and outcomes is conceptualised.

#### ***The outputs and outcomes of higher education***

Higher education authorities, finance ministries, quality assurance bodies, students and families commonly desire and expect higher education systems to undertake their learning and teaching, research and engagement missions efficiently, at suitable levels of quality and relevance, and in a manner that is socially equitable. In this context:

- *Efficiency* describes the output achieved by higher education systems – in education, research and engagement – for a given level of financial and human inputs. As higher education institutions are complex organisations producing multiple outputs, measuring efficiency in higher education is challenging. Differences between higher education systems internationally further complicate cross-country comparison. However, monetary measures, such as cost per qualification awarded or cost per peer-reviewed publication, as well as non-monetary measures, such as completion rates, can be used to compare across countries. Furthermore, it is possible to trace shifts in efficiency over time.

- *Quality* describes the value of the outputs achieved, assessed against indicators or procedures that are widely agreed. Examples of quality indicators might include: for teaching, learning gains measured using recognised methods of learning assessment; for research, citations or impact factors; and, for engagement, observable effects of collaboration between higher education institutions and external partners. Such indicators are, at best, only proxy measures for the quality of higher education, but they are necessary to allow decision makers to gain a picture of the performance of higher education systems. Judgments about quality encompass the relevance of outputs achieved. High-quality instructional programmes, for example, produce graduates whose skills are highly advanced, and also relevant to the society and economy in which their skills will be put to use.
- *Equity* describes the distribution of higher education opportunities and benefits among populations of learners (by gender, socio-economic grouping, migration status, age or location, for example). Key aspects of equity include access to study opportunities, the distribution of resources during study and the outcomes graduates achieve after graduation (in terms of earnings or access to postgraduate study, for example).

In committing resources to higher education and in seeking efficiency, quality (including relevance) and equity, governments typically aim to increase the overall level of skills available to the labour market and, in so doing, generate greater prosperity and social inclusion within the societies they govern. Individuals may enrol in higher education for different reasons, but a key objective is nearly always to enhance their career (and, often, earnings) prospects. In systems where students (or their families) contribute to the cost of their education through fees, this investment is typically expected to generate a reasonable rate of return, in terms of enhanced career and earnings prospects, even if earnings are not the primary motivating factor for all students (Hilmer and Hilmer, 2012<sup>[1]</sup>). At the same time, governments invest in research to generate ideas and innovations that contribute to countries' science base and create economic value, while also increasing the innovative capacity of the workforce.

Governments observe and understand the outcomes of higher education institutions and systems imperfectly. This is because of poor or missing measurement (e.g. learning outcomes or community engagement) or uncertainty about causal relationships between resource allocation choices/policies and outcomes. For example, governments or accreditation organisations rely heavily upon proxies of the outcomes they seek; notably for instructional quality, where the qualifications of instructional staff, student-teacher ratios, hours of instructional contact, or self-reported student engagement and satisfaction substitute for well-identified causal relationships between instructional inputs, practices and learning. Nonetheless, governments must take responsibility and make decisions on the basis of the best information available. The purpose of policy research and analysis – and the OECD Higher Education Resources Project – is to help policy makers identify what is the best available evidence upon which they can base their choices.

### ***These outputs and outcomes result directly from the actions and behaviours of institutions, staff and students***

Those in charge of running higher education institutions, individual staff members working in these institutions, and the students they teach can be viewed as the principal actors involved in generating the outputs and outcomes detailed above. The activities and behaviours of these three groups – which affect the outputs achieved – are in turn influenced by a set of broader governing and steering forces. These include:

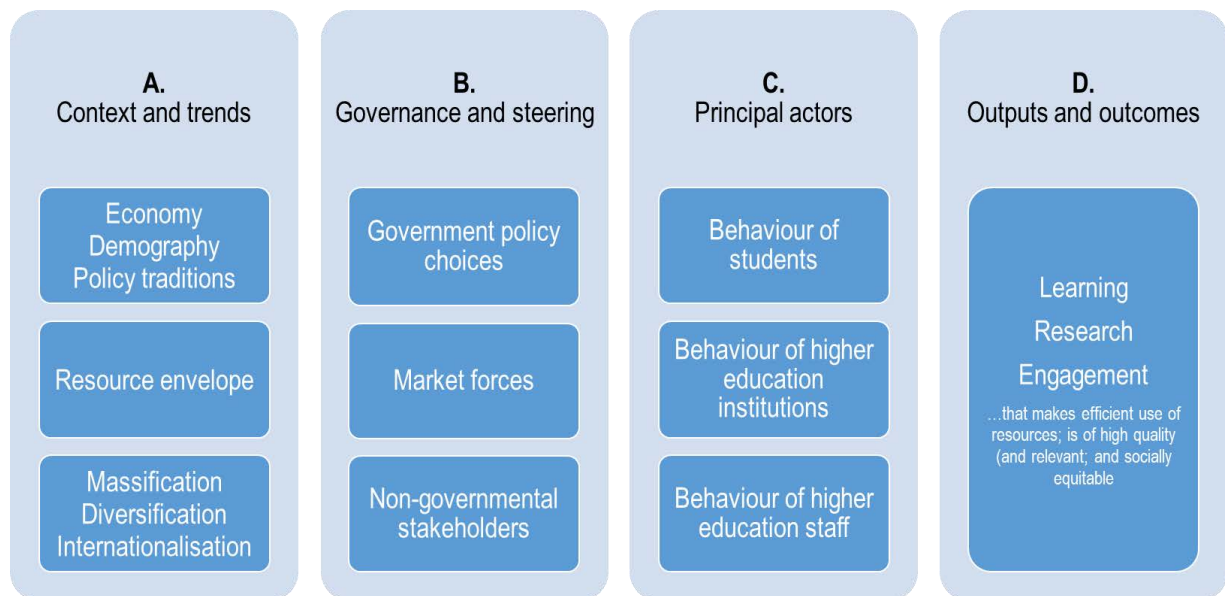
- *public policies* governing the organisation and operation of higher education systems, including policies explicitly related to resourcing, such as those setting the level, allocation and use of public funding; rules governing private funding; and policies that influence staffing;

- *actions of non-governmental stakeholder organisations* that have an influence on the operation of higher education, including employers and industry associations that may influence the design of educational programmes (notably in regulated professions) and higher education research; trade unions representing academic staff, associations of higher education employers, higher education associations and sectoral bodies (such as rectors' conferences), philanthropic foundations and student organisations;
- *market forces* affecting higher education, including the degree of competition between higher education institutions and among current and aspiring academic staff. The extent to which market-like competition between higher education institutions plays a role in higher education systems is often conditioned by public policy, but some market forces – such as the attractiveness of academic jobs relative to jobs outside of the higher education system – are at play in all systems.

In addition to these immediate governing and steering forces, broader contextual factors shape government policy, influence the actions of non-governmental bodies and affect the markets in higher education. Among the most important of these factors are the nature of the domestic economy, demographic factors and prevailing doctrines of public-sector management; existing levels and patterns of higher education resourcing and current resource availability (the “resource envelope”); and broader trends in society and the global economy. These trends include changing demand for higher education, which has driven the “massification” and diversification of systems, and the internationalisation of higher education as part of a broader process of globalisation. These contextual factors and trends also shape the actions and behaviours of higher education institutions, academic staff and students.

These elements and the potential relationships between them can be summarised in a logic model for the operation of higher education, incorporating policy related to resourcing, as represented in Figure 1.1.

**Figure 1.1. A logic model for resourcing policies in higher education**



***Different policies affect the mobilisation, allocation and use of financial and human resources in higher education to different extents***

The logic model above seeks to acknowledge that the actions and behaviours of higher education institutions, students and staff are influenced by a wide range of factors, of which policies enacted by public

authorities are only one. Nevertheless, public policy does have a profound impact on the way higher education systems operate, in particular the policies that affect the allocation and deployment of financial and human resources.

Policies affecting the allocation and deployment of financial resources in higher education (see also Section 1.5) include:

- Policies governing *who may provide higher education and where* (the network and form of institutions), including regulations establishing different types of public higher education providers and the structure of higher education-based research, or governing the operation of private higher education providers. These policies have an effect on the number of providers in the system and the level of competition between them, so not only influence the behaviour of institutions, but shape the market within which they operate.
- Policies governing *how financial resources are obtained* to fund the activities of different types of higher education providers (in particular, the role of public funding streams, funding from households and other types of private revenue) and for students (notably the role of publicly supported grants, loans, tax incentives and subsidised benefits). Although decisions about the mobilisation of financial resources form a core part of resourcing policy, as illustrated in the logic model, they are heavily conditioned by the basic availability of resources (such as tax revenue) and historical patterns of funding. Incremental changes in resource mobilisation are common, and large changes rare. See Chapter 2 for a fuller discussion of this.
- The mechanisms used to *regulate the allocation and use* of public and private revenues for the different activities and missions of higher education providers. This includes those used to allocate public funding for staff and equipment for day-to-day teaching, research and engagement activities (operating budgets) and capital investment, as well as rules governing the use of private revenue streams by higher education providers.
- The mechanisms used to allocate *financial support or benefits to students* and their families.

In the area of human resources, which absorb a large proportion of financial resources in higher education, a different balance of forces shapes the recruitment, terms of employment, compensation, evaluation and advancement of staff within higher education institutions. The scope of government policy in this area varies widely between jurisdictions, and there are important influences from stakeholder bodies (such as trade unions and professional associations) and market forces. Important steering forces include:

- *Public policies* that may govern how academic staff can be recruited, evaluated and compensated, and how they advance through the career structure, including policies implemented through employment law, and accreditation and quality assurance requirements. These public policies vary across OECD member countries, and, within national higher education systems, between different types of institution.
- *Collective agreements or conventions* within the higher education system, including wage agreements and work standards resulting from bargaining between higher education staff organisations and institutions as employers.
- *Market conditions* in the higher education sector, which affect demand for higher education staff and shape the behaviour of higher education institutions and existing and aspiring academics.

The contextual factors and mix of policies, action by non-governmental bodies, and markets that influence behaviour in higher education systems – and thus the outputs and outcomes achieved – are discussed in more detail in the next sections.

## 1.4. Contextual factors and trends influencing resources in higher education

The logic model discussed above maps the theoretical relationship between resourcing policies and the outputs and outcomes of higher education systems. Both policy making and the operation of the higher education system are influenced by: i) economic and demographic factors, ii) the broad resource envelope available for higher education in a given jurisdiction and iii) a set of dynamics internal to higher education, but influenced by broader societal trends, including large increases in student numbers (“massification”), diversification of institutions and programmes and internationalisation.

### *The economic and demographic context*

Both economic and demographic trends affect demand for higher education and the need for resources in higher education systems. The ongoing digital transformation of economies and societies in OECD countries is changing the quantity and quality of jobs, the nature of work and the skills needed to succeed in the labour market (OECD, 2019<sup>[2]</sup>). New jobs are being created as others are disappearing. Four out of ten jobs created between 2006 and 2016 were in digital-intensive sectors (OECD, 2019<sup>[3]</sup>), while, in parallel, the growth of non-standard forms of employment has accelerated. One-third of the OECD labour force is in temporary, part-time and/or self-employment, with a greater proportion of people experiencing unemployment or irregular earning patterns, and many becoming self-employed or entrepreneurs, rather than working for a single employer (OECD, 2019<sup>[3]</sup>).

Under these conditions, higher education institutions find themselves challenged to develop more flexible provision; to enhance their capacity to support the re-skilling and up-skilling of adults; and to cultivate a wider repertoire of skills, including social, emotional and other non-cognitive skills that employers report to be important.

OECD populations are ageing, and this trend will continue (OECD, 2019<sup>[4]</sup>). The old-age dependency ratio will double in the next 45 years. This increase will contribute to further pressures on public budgets to fund spending in health, long-term care and pensions. Conversely, the share of young people in the total population is declining in most countries, and the youth-dependency ratio has declined, meaning lower public spending on education and child-related benefits. However, the strong decline in the youth dependency ratio of past decades has come to an end, as birth rates have stabilised, while any falls in the overall volume of education spending cannot compensate for necessary increases in spending on older people.

However, as the economy increasingly demands more qualified workers and has less need for manual labour, the physical robustness of individuals is less important than their mental abilities. In this context, experience associated with age is increasingly valuable (Coughlin, 2017<sup>[5]</sup>). Many individuals over 65 remain in good health and actively productive, especially among the most qualified sections of the population. As the qualification level of the population increases, those over 65 become more likely to continue working, increasing overall productivity, but also demand for lifelong learning.

Demographic changes affect the size and composition of the student body, but also the age structure of staff (OECD, 2008<sup>[6]</sup>). When countries have reached high levels of participation in higher education alongside a decrease in the size of the youth population (e.g. Korea and Japan), they may experience a contraction of their higher education system. Higher education systems in most countries, however, will likely continue to expand, attracting a higher share of the traditional age cohort by widening access to under-represented groups and catering to lifelong learners and international students.



## ***Resourcing traditions and the resource envelope***

The mix of public and private resources invested in higher education – for example, whether or not public institutions charge tuition fees – and the overall level of public spending on higher education in a given jurisdiction generally reflect historical patterns in OECD countries. Although radical policy changes, such as the introduction of tuition fees (as in England or Australia) or their abolition (as in Germany) do occur, these remain the exception, with countries more generally adapting policy only gradually over time. The longstanding commitment to public higher education without fees for domestic students in Nordic countries, or the tradition of relatively high and variable fees in public universities across the United States are examples of resourcing traditions that have a profound impact on contemporary resource policies.

Equally, while step changes in the level of public resources available for higher education are possible, major spending increases usually require politically sensitive tax rises, increases in government borrowing or diversion of funds from other areas of public spending. As such, such increases are rare and the overall “resource envelope” with which higher education policy makers and higher education institutions must work typically changes only marginally from one year to the next in times of stable economic development. An exception to this pattern of stability occurs when there are major (usually international) economic shocks, and governments are forced to cut public spending radically, including on higher education. This occurred in a number of OECD member countries, including Portugal, Greece and Ireland, in the wake of the 2008 financial crisis, for example.

## ***The changing landscape of higher education***

### *Massification*

The phenomenon of higher education expansion can be traced back to the end of the Second World War and accelerated after 1960, with the development of welfare states, rising aspirations from a much higher completion rate of secondary education among the population, and the development of post-war economies and the consequent demand for higher education graduates (Scott, 1995<sup>[7]</sup>). Additionally, in some countries, governments increased research investment in universities to encourage technological development (Atkinson and Blanpied, 2007<sup>[8]</sup>).

The transition from an elite to a mass system of higher education first occurred in the US system, which was approaching the boundary between mass and universal stages in the 1970s, while others were still transitioning from elite to mass systems (Trow, 1970<sup>[9]</sup>; 1974<sup>[10]</sup>). Now, “high-participation systems” have become the norm in OECD countries (Marginson, 2016<sup>[11]</sup>). In some countries in East Asia, they may have reached saturation levels.

The World Higher Education Database lists over 19 000 higher education institutions that offer at least a bachelor’s degree or equivalent professional diploma, a figure that has increased constantly since the listing was first published in 1959 (IAU, 1959<sup>[12]</sup>). The proportion of young people (25-34 years old) with a higher education qualification in OECD and G20 countries is expected to continue to grow from around 14% in 2005 to more than 45% by 2030. However, most of the growth will occur in non-OECD G20 countries, as they catch up with their OECD peers in terms of higher education attainment (OECD, 2015<sup>[13]</sup>).

### *Diversification*

Diversification of the student population served by higher education systems has resulted from the expansion of higher education over the later decades of the twentieth century, as well as concerted efforts by governments to widen participation among under-represented groups. The target populations for widening access vary between jurisdictions, but usually include individuals from low-income backgrounds,

minority or under-represented ethnic groups and indigenous populations, older learners, migrants and those from remote or rural regions (Burke, 2012<sup>[14]</sup>).

Most governments have also aimed to diversify the institutional landscape of higher education, creating or providing funding to different types of higher education institutions (see Chapter 6). From a policy perspective, institutional diversity is often seen as beneficial. In the United States, for example, community colleges have increased access, opportunity and diversified pathways for those seeking post-secondary education. The increasing diversity of higher education institutions beyond elite institutions is visible across the OECD, where often there is a formal binary distinction between traditional research universities and institutions more focused on the practical orientation of learning, applied research, knowledge transfer and regional orientation: e.g. polytechnics in Portugal, *Fachhochschulen* in Germany, *Instituts Universitaires de Technologie* in France. (Huisman, Meek and Wood, 2007<sup>[15]</sup>)

In many OECD countries, the emergence and expansion of the private higher education sector allowed many countries to absorb rising student numbers, and in some, private institutions absorbed the majority of enrolment growth (e.g. Korea). It was also expected in some systems that the private sector would induce more competition, bring in students from a wider range of backgrounds and further diversify the system. However, the evidence has been mixed regarding the extent to which private higher education has been successful in promoting diversification (Teixeira et al., 2012<sup>[16]</sup>).

Digitalisation is changing the modes of delivery of higher education, contributing to further diversity of learners, providers and educational credentials. Digital learning is becoming part of campus-based degree programmes, and is increasingly available through online degree and non-degree programmes, including those offered by global learning platforms such as Coursera, edX, Udacity, and FutureLearn. There is evidence to suggest that digital learning is improving and that digital tools are increasingly being used in regular teaching processes (Gaebel et al., 2018<sup>[17]</sup>). Meeting the needs of more diverse learners has become an important focus of governments and education providers, and has helped emphasise the importance of teaching and learning in higher education (Gaebel et al., 2018<sup>[17]</sup>).

### *Internationalisation*

In recent decades, higher education has become increasingly globalised, and both drives and is driven by globalisation (OECD, 2009<sup>[18]</sup>). There has been an increase in cross-border education, which includes not only international student mobility, but also the provision of educational programmes and the establishment of branch campuses across international borders. Cross-border higher education has developed differently in different regions of the world, having historically been mostly policy-driven in Europe, and demand-driven in the Asia-Pacific region. North America has traditionally been able to attract foreign students without significant intervention from policy makers (OECD, 2004<sup>[19]</sup>). It remains to be seen what impact the most recent international crisis linked to the SARS-CoV-2 virus and COVID-19 disease will have on these international flows.

Where policy makers have promoted internationalisation, they have historically done so for different reasons, although there is an increasing convergence in motivations. In Europe, the creation of the European Higher Education Area and European Union funding of student and staff mobility and joint study programmes was originally driven primarily by political and cultural factors. Today, however, many European countries promote internationalisation as a means to raise revenue and attract international talent (see, for example, the Dutch higher education sector's internationalisation agenda (VSNU, 2018<sup>[20]</sup>)). In countries such as Canada, the focus has been on a skilled migration approach and attracting talented international students who will be granted the right to work as graduates in the host country. In English-speaking countries such as Australia and New Zealand, higher education is an important export industry, with internationalisation strategies closely linked with revenue-generation aims.

These approaches to cross-border higher education are not mutually exclusive. Both co-operation and competition between jurisdictions and higher education institutions exist, in an increasingly globalised market for students and staff. Mobility of staff, mostly from south to north and from east to west, is also driven by the search for better opportunities and infrastructure.

Academic research is also becoming increasingly international. Between 2005 and 2015, international collaboration on scientific research intensified considerably. Currently, around 30% of domestically authored publications in OECD countries that are indexed in the Scopus database incorporate authors with institutional affiliations in other countries or economies. The mobility of researchers may also contribute to increasing the quality of research. Higher-performing researchers have more opportunities to work in other countries' research systems; if they then return to their home country, this can provide a boost to their home country's research system (OECD, 2017<sup>[21]</sup>). International funding for university research is also growing. European Commission funds are especially important for higher education in Europe (OECD, 2017<sup>[21]</sup>).

In addition to flows of students and researchers across borders, internationalisation is an increasing element of the higher education curriculum. Higher education institutions are increasingly fostering activities that develop international understanding and skills to operate in a globalised world, to the benefit of all students, not just the mobile minority. Although a majority of institutions in Europe have reported an increase in educational provision in a foreign language (mostly English), and in the recruitment of international students (Sursock, 2015, p. 61<sup>[22]</sup>), some European countries restrict or plan to restrict the use of non-national languages in teaching.

## 1.5. The role of policy, non-governmental actors and markets

Within contexts influenced by the factors discussed above, government policy (including resourcing policies), the actions of non-governmental bodies and market forces all act to steer the day-to-day operation of higher education systems in OECD jurisdictions.

### ***Government policy and resourcing higher education***

Irrespective of existing policy traditions and constitutional arrangements, governments in OECD countries play a crucial role in governing and steering higher education systems. Governments design, implement and evaluate specific policies and programmes, with various degrees of negotiation and collaboration with higher education stakeholders, and using a range of policy levers. These policy levers are frequently categorised into four types: regulation, funding, information and organisation (Hood and Margetts, 2007<sup>[23]</sup>; Howlett, 2011<sup>[24]</sup>; van Vught and de Boer, 2015<sup>[25]</sup>).

*Regulation through legal acts*, such as higher education acts, budget acts, employment law, equal opportunities legislation and career statutes, has an impact on the mobilisation, allocation and use of resources in higher education institutions. Legislation and regulation typically set operating frameworks for higher education institutions, establishing basic rules and the rights and responsibilities of higher education providers. Budget legislation (such as annual budget acts) provides the legal basis for the allocation of public funds to higher education. Governments can also steer the system through "indirect" government regulation, where responsibility for decision-making is fully or partially delegated to non-governmental actors. An example of this would be government regulations governing collective bargaining processes led by social partners.

Although based in legislation or regulation, the *allocation of public funding* is a distinct and crucial means for government to influence the operation and development of higher education systems. Governments provide funds directly to higher education institutions or to students and households to help cover tuition

fees or living costs. Governments may allocate funds to institutions for different purposes, including core operating budgets, targeted funding for specific objectives or competitive funding for research. The level of funds awarded may be determined taking into account historical patterns of funding, current activities or performance measured through output or outcome indicators (see Chapter 4). Funding to students usually takes the form of grants or loans – or a combination of the two (see Chapter 3).

A third type of policy lever relies on the *provision of information*. Governments frequently support the collection, analysis and publication of information about higher education institutions, students and graduates. Such information may be collected, analysed and published by statistical agencies or other bodies, often making use of surveys of institutions, students and graduates. The information produced may be used for specific information campaigns designed to steer the behaviour of students and institutions. This information can also be used to shape the design, implementation and evaluation of other policies for higher education.

Finally, governments can use *procedural or organisational tools* to steer higher education systems. One aspect of this is the creation of agencies, such as funding councils, research councils, quality assurance agencies, staff development agencies, agencies promoting student mobility and umbrella co-ordinating bodies, such as national (higher) education councils. Governments also use government reviews, *ad hoc* task forces, commissions and public inquiries to convene stakeholders, identify policy solutions and develop support for specific changes.

The approaches public authorities take to policy making – and the policy levers they choose – are influenced by different political and institutional traditions in OECD member countries. In German-speaking Europe, for example, the Humboldtian tradition of academic self-government emphasises the freedom of academics from external interference, even though higher education institutions have traditionally been subject to strict administrative rules. In France and elsewhere, the Napoleonic state-steering tradition has led to a more proactive role of the state in organising and developing higher education provision. In Anglophone countries, higher education institutions have typically been strongly independent, with a mix of public and private provision and – increasingly – a competitive, market-like setting (Clark, 1983<sup>[26]</sup>; Austin and Jones, 2015<sup>[27]</sup>). In East Asia and Singapore, a distinct Confucian model of higher education has developed (Marginson, 2010<sup>[28]</sup>). Today, most systems are hybrids of those archetypes and there has been some convergence in policy approaches.

There has been a trend in many OECD countries where the state has played a strong role in higher education to reduce the scope of direct government control, with an increased institutional autonomy and a focus on steering at a distance. This shift has given institutions greater freedom to make their own decisions, including in areas of resource mobilisation, internal allocation and use, within the limits of government policies for higher education (Neave, 2012<sup>[29]</sup>). Across OECD countries, increasing public investment in higher education and greater institutional autonomy have driven efforts by governments to ensure higher education institutions account for their activities and performance. Institutions are called on to demonstrate that they perform well, deliver high-quality education and research, and contribute to good outcomes for society.

Governments have introduced a range of accountability mechanisms for institutions, including external quality assurance systems, performance metrics and reporting. Some argue that governments are seeking to shape higher education systems more actively, albeit through “steering at a distance” (Ferlie, Musselin and Andresani, 2008<sup>[30]</sup>).

### ***Non-governmental actors***

The way higher education systems operate is also shaped by non-governmental bodies and associations, including the representative associations of academics and students, social partners (such as trade unions representing staff), representative associations of higher education institutions, employers and

professional associations, education foundations, research centres and think tanks, supranational organisations, and international alliances of institutions. These stakeholder organisations are involved in agenda-setting and policy formation, and operate as communities that are conducive to policy learning that can facilitate policy implementation (Vukasovic, 2018<sup>[31]</sup>).

In some cases, international bodies play an important role in influencing the development of higher education. European integration and the Bologna process have led European systems towards the creation of a European Higher Education Area and shared standards and guidelines for quality assurance, for example (ESG, 2015<sup>[32]</sup>). Non-European regions are also introducing international modes of governance inspired by the Bologna process, such as inter-governmental arrangements in study structures, mobility and quality assurance (Chou et al., 2017<sup>[33]</sup>; Jongbloed, Enders and Salerno, 2008<sup>[34]</sup>).

Federal states also present complex environments for higher education governance due to the sharing of sovereignty between central government and the constituent political units, such as states and provinces (Marginson and Carnoy, 2018<sup>[35]</sup>). Often they set up dedicated bodies to support co-ordination across different jurisdictions, such as the Council of Ministers of Education, Canada (CMEC) or the *Kultusministerkonferenz* (KMK) in Germany (Jungblut and Rexe, 2017<sup>[36]</sup>).

### **Market forces**

In recent decades, many of the reforms of higher education, as in other public services, have introduced market-based or market-like policy instruments into the sector. They have done this by modifying institutional funding, student support and the allocation of research funding; and by introducing greater market competition in academic labour markets. The most frequent rationale advanced by proponents of these reforms has been a need to increase the economic efficiency of higher education systems by promoting institutional adaptation and innovation (Dill, 1997<sup>[37]</sup>). However, market mechanisms are also seen as a means of increasing equity by fostering higher participation, as in the reforms in the United Kingdom that removed caps on student numbers and introduced income-contingent loans.

Market forces play a role in steering higher education systems, where there is freedom for providers, in terms of market entry; price-setting and resources use; and freedom for consumers to choose provider and product based on free access to relevant information. Nonetheless, as noted, governments retain a key role, even in the most marketised systems, to set the framework conditions within which higher education institutions operate (Jongbloed, 2003<sup>[38]</sup>).

## **1.6. The structure of the following chapters**

The remaining chapters of this analytical framework are structured as follows:

- Chapter 2 discusses different approaches to mobilising financial resources for higher education – how different higher education systems bring money into the system.
- Chapter 3 discusses how governments approach the question of student fees, and the different approaches they take to providing public financial support for students.
- Chapter 4 discusses how governments allocate available public funds to higher education institutions – either through direct transfers or voucher-like systems.
- Chapter 5 examines public policies governing human resources in higher education.
- Chapter 6 discusses policy approaches that governments use to shape and steer higher education systems as a whole – and thus the pattern of resources in the system – notably though promoting diversification and concentration.

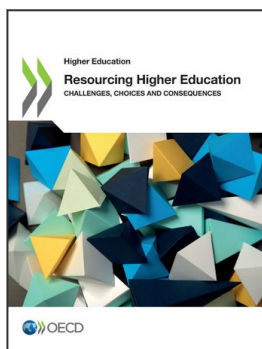
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