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The education skills trap in a dependent market economy. Romania's case in the 2000s



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ABSTRACT

We discuss the political economic development of Romania since 1989, with a focus on the evolution of higher education (HE). First, we place this evolution in the context of demand for HE by prospective students and employers, focusing on the low demand for skills in the MNC-dominated Romanian economy. Second, we provide empirical insight on indicators of quality, enrolment, and funding as key features of the HE system. We argue that Romania has evolved into a dependent market economy entrenched in a low-skills equilibrium, and that the weakness of the HE system is a key element in this process.

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1. Introduction

Even if skills acquired in communist higher education were overly specialized and not easily transferable (Boeri, 2000), the system was creating “too many rocket scientists, too few marketing experts” (Campos and Dabusinskas, 2002), and the social sciences, broadly defined, were altogether stymied, one of the advantages Romania, like other post-communist countries, inherited from the communist era was a relatively well-performing higher education sector. The level of instruction in East and Central European universities was considered comparable to that in Western Europe (Graham, 1987), at least in the hard sciences and mathematics (Tomusk, 2000, 2004). Moreover, on human capital indicators such as enrolment or average years of schooling the former communist countries ranked close to the OECD (Barro and Lee, 2001). This arguably meant that Romania, alongside other post-communist countries in Europe, commenced its transition to market economy with a relatively solid skills pool.

Higher education (HE), through the complex skills it provides, is unquestionably vital for economic success in a knowledge-based society, on both individual and aggregate level (Goldin and Katz, 2008; Krueger and Lindahl, 2001; Hanushek and Wossmann, 2010). The level of skills in an economy is *inter alia* positively correlated with the level of high value-added activities and innovation (McMullen et al., 2000). While the aggregate level of skills depends on more than higher education – it is, for example, also affected by vocational and on-the-job training – formal education remains a cornerstone.

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In the context of transition, it was widely expected that the European post-communist economies would develop towards higher value-added activities. And a superficial glance at Romania might support such an impression. Macroeconomic indicators have continued to improve since 1990, entailing a considerable increase in GDP and living standards for a majority of the population. For example, GDP/capita increased from 1600 USD in 1990 to 9500 USD in 2016 (IMF *World Economic Forum*, 2017). Successive post-communist governments have aimed to enhance competition on the education market, alongside other sectors (Dobbins, 2011). Enrolment rates in Romanian HE institutions increased from 10 percent in 1989 to 71 percent in 2009, falling back to a still high 53 percent in 2015 (UNESCO *Institute for Statistics*, 2017). This seems broadly in line with Ansell's (2010) expectation that democratization and economic openness should lead to increased enrolment in and funding for higher education.

Looked at more closely, three sets of factors combined during transition could lead us to expect a strong performance of the higher education sector in Romania since 1989: (i) The country started marketization with a solid skills pool comparable to many advanced economies, and the number of competing institutions and enrolment only continued to increase thereafter; (ii) the period witnessed substantial and continued economic growth; (iii) the country started a democratization process, which implied increased responsiveness of governments to voters, who demand possibilities for upward mobility through education. However, the expectation of a strong performance in higher education in post-communist Romania has in fact been met only partially. Instead, as we will show below, higher education quality has stagnated and even decreased, especially in technical subjects and in the hard sciences.

In this article, we analyze the role of higher education in Romania post-89 in the context of the country's broader political-economic development. We argue that Romania has evolved into a dependent market economy (DME) trapped in a low-skills equilibrium, and that the lack of quality in HE is an element of this process.¹ Operationalizing and measuring the quality of HE is a sensitive task. Evaluation procedures have not yet been developed at the European or a broader international level to assess the quality of *higher* education, as opposed to the well-known OECD PISA test for assessing education up to secondary level.² Drawing on the vast literature in education science (Harvey and Williams, 2010), we recognize that assessments of HE quality ideally should be made in a differentiated manner accounting for different stakeholders: students, employers, teaching staff, government, and different funding agencies (Harvey and Diana, 1993: 10). HE quality has been conceptualized as fitness for purpose, as value for money, or as transformative for the students (Harvey and Diana, 1993). However, given the scarcity of reliable and comparable data which could measure stakeholder-sensitive conceptualizations of HE quality in Romania (Freyberg-Inan, 2006), we must here proceed pragmatically: As will be further explained in section 3, we provide information on all possible quality indicators on which systematic data exist, while focusing most strongly on the relatively uncontroversial indicator of the ratio between absolute levels of funding and absolute levels of enrolment.

The lack of clear improvement of higher education in post-communist transition is puzzling, but this puzzle has been largely overlooked in the literature, for at least three reasons. First, the legacy of a relatively high level of instruction took some time to wear off. It was not until the 2000s that stagnation or decline became obvious to even domestic observers (*The Economist*, August 7th, 2012; Ives et al., 2017; Abbott, 2011, 2012). Second, government and education officials worked hard to project an image of success in Western-type education, both at home and abroad (Tomusk, 2000). Third, observers have often analyzed the capacity of the university system to "Europeanize" rather than its performance *per se* (Dobbins, 2011).

Our analysis draws on a variety of sources, including access to Romanian-language policy documents, analyses, and polls as well as a series of interviews with higher education officials, politicians, academics, and private sector employees in human resources departments as well as focus groups with students and recent graduates (see references section for list of interviews). Respondents were selected from the range of stakeholders relevant for HE quality: academics in public and in private universities, students and young employees as well as employees in human resources (HR) departments, domestic and multinational employers, as well as representatives of think tanks and employers' associations.

The focus groups were conducted in the first stage of the data collection process to help generate and further develop hypotheses by means of general discussion. The results of the focus group discussions then subsequently informed the semi-structured interviews. Access to interviewees was facilitated through personal connections and the promise of confidentiality. This translated into an almost 100% initial response rate. Response rates were lower once the snowball technique was used to gain access to other respondents, but remained high at ca. 70%. Only three interviews could be recorded, as this method tended to be rejected, particularly in private companies. Records of all interviews are available upon request. Interview data were coded manually as encouraged by Saldana (2009) and Leech and Beth (2002) and analyzed thematically (using codes such as hiring principles, general vs. specific skills, funding for HE, study abroad and others).

Information obtained from interviews was crosschecked with publicly available data as well as with secondary literature (Goldstein, 2002). Our narrative traces the links between the relevant actors and the process that has led to the outcomes described. We identify general trends from the interviews and find that employers are very rarely interested in specific skills acquired at university and that university professors do not seem to have any incentives to restructure skills provision at

¹ We eschew the focus on vocational training which is appropriate for other contexts (Martin and Thelen, 2007), as in Romania vocational training has all but disappeared since 1989.

² The AHELO assessment is a feasibility study developed by the OECD meant to produce an equivalent to PISA for HE. However, results will only become available in 2020, and Romania has not taken part in the feasibility study.

university. Further methodological matters are clarified in each relevant section. Before proceeding to the analysis, however, an introduction to the DME concept is in order.

Nölke and Vliegenthart (2009), drawing attention to the impact of multinational corporations (MNCs) and international financial institutions on the institutional set-up of transition countries (Bandelj, 2008; Drahokoupil, 2009; Pop-Eleches, 2009), have proposed a third political economy model next to the classic categories of coordinated vs. liberal market economy (Hall and Soskice, 2001). This model, the dependent market economy (DME), captures vital characteristics of much of post-communist Europe, and particularly of Romania. DMEs development is based on three linked factors: the presence of at least moderately skilled but cheap labor, the transfer of technological innovation within transnational enterprises, and the provision of capital via foreign direct investment (FDI). We contribute to the development of this model by focusing on the crucial role of skills formation in a DME. Given the central role of FDI in DMEs' investment conditions and corporate governance are largely controlled by foreign, often multinational corporations. The local subsidiaries of MNCs in Eastern Europe are financed internally from within the company, and innovation within these MNCs tends to be transmitted top-down within the hierarchy of the company. Multinationals do not invest much domestically in R&D; they use DMEs as assembly platforms for innovations made at global headquarters, and therefore rarely require highly skilled employees in the DME. At the same time, to attract MNCs, DME governments will keep taxes low, which limits *inter alia* public spending on education. Ready to move on when profit margins fall, MNCs will not be in favor of a generous public education system funded by high taxes, nor will they themselves invest much in education or training.

We hold that Romania is a DME as typified by Nölke and Vliegenthart (2009), but we go further in characterizing Romania's variety of capitalism as specifically a low-skills type of DME. While DMEs can also operate at a medium skills equilibrium with some competitive advantages (Noelke & Vliegenthart 2009), or evolve towards a coordinated (CME) or liberal (LME) type of political economy, neither of these trends is observable in contemporary Romania. Instead, with the end of economic transition the country emerges in a low-skills and low-productivity equilibrium which is difficult to escape. The low-skills type of a DME is shaped by three prominent factors previously unlinked in the varieties of capitalism literature which affect collective skill formation: the emigration of highly skilled individuals, low demand for highly skilled individuals in the domestic market, and a higher education system which features abet entrapment in DME status. In linking the evolution of HE to Romania's variety of capitalism, this article elaborates most fully on the last of these elements, while not leaving the others out of sight. We proceed by examining the incentive structure of (prospective) students and employers, focusing on employment and MNC business incentives, respectively. Our analysis reveals that growing enrolment in HE degree programs in Romania goes hand in hand with an increasing formalization of education, in which the actual skills transmitted do not count much for either employees or employers and incentives to invest in improvement of HE quality are low on both sides. As a result, transformative effect, as an essential feature of HE quality, is low (Harvey and Diana, 1993).

The article is structured as follows: The next section offers an overview of incentives to invest in higher education given the structure of demand for and supply of skills in the Romanian labor market. The argument is grounded in the broader analytical framework sketched above, which characterizes Romania as a dependent market economy entrenched in a low-skills equilibrium. The third section shows how the evolution of HE after 1989 is explicable within this context, before the conclusion clarifies the broader relevance of our analysis.

2. Demand and supply of skills

2.1. Student demand

In this section, we present a simplified model of the incentives of (prospective) students to invest in obtaining higher education, with the aim of explaining the observed high demand for higher education at low levels of investment in quality (see section 3 below). Understanding the motivations of students requires us to examine how they perceive their opportunities in the labor market. The decision tree below (Fig. 1) shows the most important decisions to be made by baccalaureate graduates. We have developed this decision tree based on the results of our focus group analyses and interviews, with the aim to capture students' perceptions of the incentives that determine their willingness to invest in obtaining quality HE. We also present data on objective indicators likely to affect these perceptions. We here display decisions to be made by students regarding the first-degree program attended. The sequence is repeated when decisions need to be made about successive degree programs. This figure, aims to bring order to complexity and represents a simplified version of the major options that students face. Real-life decisions are evidently not as straightforward as presented here.

Persons who have passed the baccalaureate exam are eligible to apply to universities. The *first decision* to be made is whether to go to university at all or to start working immediately. A large majority of Romanian students believe that receiving a HE degree will increase one's chances of earning good money – 80% for example, according to a representative study conducted by the Romanian Agency for Quality Assurance in Higher Education (ARACIS, 2010; Quality Barometer, Romanian Academic Society, 2013). Such findings are corroborated by the findings of our focus groups with current students. This supports the demand for HE degrees, as do various other factors supporting enrolment, discussed below.

The *second decision* to take is whether to go to university abroad or domestically. While in Western European contexts the domestic-international divide between study locations may not be the most relevant, it is highly salient in Romania, given the universal perception that studying abroad guarantees better quality at considerably higher cost. This is supported by our focus group and interview results. The resulting higher education brain drain (which also affects academic staff) contributes to the

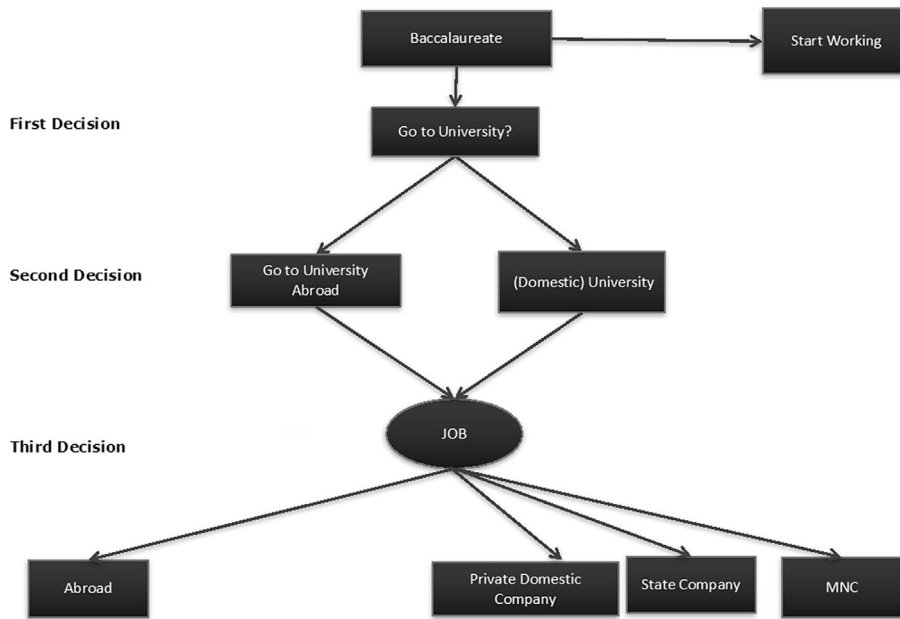


Fig. 1. Decision tree for baccalaureate graduates.

further weakening of the Romanian higher education system. According to UNESCO data, the number of outbound mobile students (ISCED³ 5 and 6) has increased by 300% between 1999 and 2016, by which time 33,000 Romanian students were studying abroad. The highest numbers of Romanian students were studying in Italy, France, Germany, the UK, and the US. These figures are striking also in comparison across the region. Only two countries have comparable numbers of students studying abroad: In Poland, their number decreased from 30,000 in 2010 to 24,000 in 2016, and in Slovakia 31,000 students were studying abroad in 2016 (UNESCO Institute for Statistics - outbound mobile students (ISCED 5 and 6, 2017).

The *third decision* is whether to work abroad or domestically after graduation, regardless of where the higher education degree has been obtained. A second wave of brain drain pulls highly skilled labour out of Romania. This is facilitated by improved access of highly qualified graduates to the European common market. Migration is attractive to very many Romanian undergraduate students. 50% of the interviewees in the *Quality Barometer* (ARACIS, 2010) declared that they intend to move to a different country, while 56% intended to study abroad. Of course, students or graduates can always make a decision to return, which has the potential to improve the pool of available skills at home. However, as this article argues, this is made less likely by the limited demand for high skills in the domestic market.

Hence, an interesting consequence of EU membership, which brings free access to the European higher education market, is that this can have the unintended negative effect of lowering incentives for demanding quality education at home and, in this way, represents a threat to the development of higher education in Romania. However, as our interviews revealed, this problem is generally not recognized by representatives of HE institutions in Romania, who instead perceive Romania's EU membership as having a positive influence on HE in the country. Competition on the European HE market takes place out of sight of the representatives of Romanian HE institutions. They focus instead on attracting as many students as possible from the already truncated pool of domestic students (Interview U5).

If students decide not to leave the country, their willingness to invest resources, including effort, in quality education declines as the opportunities they see for applying high-level skills in the labor market decline. At the same time, the easier it is to attend university (like for the lower admissions criteria, the lower tuition, and the greater possibilities to work while studying) the more students will decide to go to university in order to obtain a formal degree. Essentially, they see that obtaining a degree is relatively easy, while not obtaining one is likely to diminish their chances, given the general strive for the HE degrees and the difficulty of obtaining well-paid work without it. The combination of easy access to universities and perceived lack of opportunities in the labor market increases the likelihood that young baccalaureate graduates will decide to attend a HE institution but will not be willing to invest significant resources either towards working for a quality education or towards creating effective political demand for quality HE. In short, baccalaureate graduates feel the need to obtain formal HE degrees to improve their employment opportunities, but do not expect that it will actually improve their skills; they do not

³ The International Standard Classification of Education (ISCED) is a statistical framework for organizing information on education maintained by the United Nations Educational, Scientific and Cultural Organization (UNESCO Institute for Statistics, 2017).

expect that HE will have a transformative effect on their lives. This supports a low willingness to invest in HE and thereby a continuing low quality of output of higher education institutions.

2.2. Employer demand

The motivations of students cannot be understood without taking into account the opportunities they perceive on the labor market. These, in turn, depend on Romania's more general political economic development and the demand for skills stemming from employers. At the same time, employers are important stakeholders in the quality of HE. Their perceptions are considered in this section.

In the immediate aftermath of the fall of communism, Romanian governments and companies largely failed to realize domestic opportunities for growth. GDP declined dramatically while Romania had not yet opened up to foreign direct investment (FDI). Poor liquidity combined with the ideational dominance of the neoliberal model pushed subsequent governments to prioritize policies attracting FDI (Stark and Bruszt, 1998). As Drahokoupil (2009) shows, around the year 2000 state strategies in CEE generally converged towards competition for FDI. At the same time, foreign investors became more active in the region once countries had demonstrated consistent commitment to market economic and democratic transition over a decade. This led to foreign control of leading export industries and public utilities as well as to unprecedented levels of foreign dominance in the banking sector across the region after 2000 (Epstein, 2014).

The importance of foreign companies in Central and Eastern Europe and in Romania in particular stems from two sources: They have become a main source of capital, so their share in capital formation is high - as suggested by FDI data, but, even more importantly, they have become key employers in these economies. According to Eurostat data (Structural Business Statistics - Foreign Affiliated UNESCO Institute for Statistics, 2017), MNCs in Romania accounted for more than a quarter of business employment in 2015. Similarly, in 2015 around 23% of the value-added at factor cost in Romania was produced by MNCs (EUROSTAT, 2017). These figures are not unusual for Central and Eastern Europe but, according to Marginson and Meardi (2009), who use data from the European Industrial Relations Observatory, are higher than in any non-post-communist European country, except Luxembourg.

In Romania, foreign-owned companies and in particular MNCs have become strong in terms of turnover and profit shares as well as employment in both goods and services, for example, in public utilities, manufacturing (cement, metal, machine building, petroleum), as well as in financial brokering and trade (Chivu, 2009). They dominate especially in the category of large companies (over 1000 employees) and in services. In 2007, employment in private MNCs with more than 1000 employees amounted to 51.4% of total employment in private companies with more than 1000 employees across the economy: 41.3% in manufacturing and 64.2% in services (Chivu, 2009). MNCs attract qualified labor by means of higher salaries and higher status than those offered by domestic companies. Also, the turnover per person employed has been significantly higher in MNCs compared to total business employment: In MNCs it ranged between 112 and 104 thousand euro/year/employee between 2008 and 2010, whereas in total business employment the figures lay between 58 and 57 euro/year/employee.⁴ The revenue/employee ratio has thus at times been twice as high in MNCs as compared to total business employment (FATS statistics; EUROSTAT, 2017). This could lead one to expect that demand for the most sophisticated skills would stem from these MNCs. This also seems indicated in a survey conducted by the European Bank for Reconstruction and Development in all post-communist transition economies, which shows that the proportion of employees with higher education degrees is substantially higher in MNCs compared to domestic companies (EBRD BEEPS survey 2015). However, in Romania we can see that this has not benefited the quality of the domestic higher education system. We will now proceed to explain why.

Relevant scholarship focusing on the region has emphasized the dual role of MNCs for the development of its economies (Bohle & Greskovits 2012). According to the tenor of this literature, while they bring in much needed capital, foreign investors tend to be short-term profit oriented; they are unwilling to invest directly, or indirectly through higher taxation, into educating the labor force, while their strong position in the regional economies guarantees them preferential tax regimes and other benefits, such as discretionary exit of capital. Simultaneously, as we show below, in Romania the public education system is underfinanced, and education outcomes are correspondingly weak on the whole. The aggregate skill level of graduates of tertiary education institutions – certainly once we have subtracted those who are drawn abroad or into MNCs - is not high enough to enable significant domestic innovation. Over the past two decades, the lack of highly skilled labor combined with the lack of domestic capital have contributed to preventing home-grown economic development through domestic investment and business, turning Romania into a DME.

MNCs in Romania expect a moderately skilled workforce and are able to draw the better qualified away from domestic companies. However, within MNCs innovation tends to be transmitted top-down within the company hierarchy, rather than being achieved in the domestic subsidiary. According to the *Global Competitiveness Report* (GCR) produced by the *World Economic Forum* (2017), which rests on nationally representative samples of private companies that are comparable across countries, Romania ranks 107th among 144 economies on the combined factors innovation and sophistication – last in the EU. Local suppliers in Romania rank low in both quantity and quality. The national economy's competitive advantage

⁴ Unfortunately, more recent figures are not available.

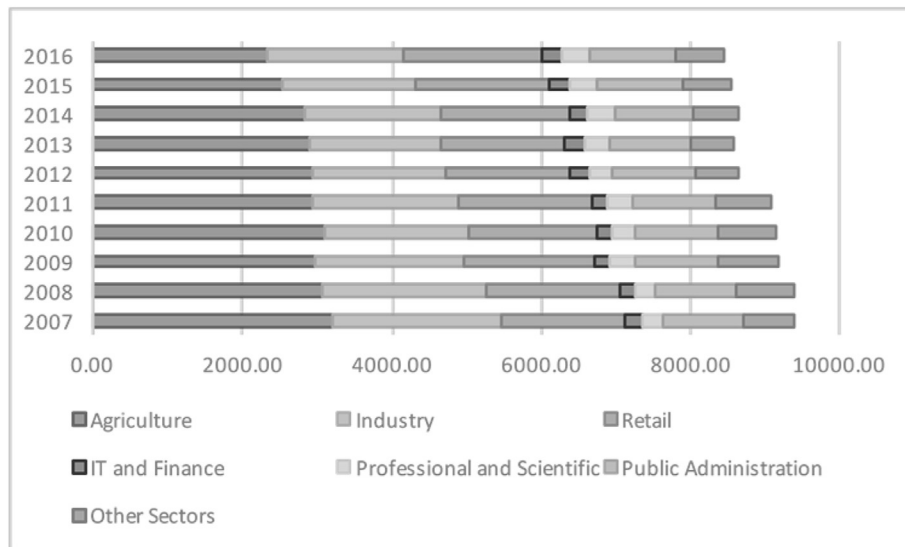


Fig. 2. Romanian employment structure.

Data: Eurostat (National Accounts), 2017; employment measured in thousands of persons.

(score of 3 out of 7; rank 104th out of 144) lies closer to low-cost products and natural resources (1) than unique products and processes (7). The country's capacity to attract or retain talent is ranked 132th out of 144 countries (GCR 2017).

According to data from the DG Research Annual Report of 2011, Romania ranked 26th in the EU-27 on share of Research and Development-related activities in GDP, 25th on the share of high-tech exports in total exports, and 27th on European patent applications. Scientists and engineers constituted a mere 4.3 percent of the labor force (18th place in the EU). Expenditure on research and development as a percentage of GDP has been lower than 0.5% between 2008 and 2016 (compared to, for example, around 1% in Poland and 1.2% in Hungary (EUROSTAT, 2017; Tarlea, 2017). Data on the percentage of GDP spent on R&D by private companies also supports the thesis of a low-skills equilibrium (Eurostat, *Structural Business Statistics*). The low skill level in the Romanian economy is also reflected in its employment structure. Next to its large agricultural sector (Romania has the highest agricultural production as part of GDP among the new EU members; see Fig. 2 below), most of which consists of small-scale agriculture, manufacture, construction, as well as wholesale and retail make up the bulk of employment. Only 1.6 percent of the labor force are categorized by the National Statistics Institute as being in professional, scientific, or technical employment. Other categories in which higher education graduates are routinely employed (public administration, health, education, IT, and finance) add up to an additional 16.4 percent. Moreover, the total number of employees has decreased between 2007 and 2016 from 9.3 million to 8.4 million people, and the sophistication level of economic activities is decreasing in Romania, unlike in the majority of the new EU member states.

But even if the actual demand for high-level skills in the labour market is relatively low, enrolment in HE remains high while formal degrees are still perceived as important by (prospective) employees and employers. In line with a Europe-wide trend, it is unlikely that enrolment rates will significantly drop, but we can already propose at this point that the demand for HE in Romania is focused more on its formal than on its substantive value. Having sketched the peculiar demand structure for HE degrees, we will now consider the supply of HE in light of these parameters.

2.3. Governmental responses to the skills demand structure

After 1989 Romania witnessed an exceptional increase in HE enrolment (see Fig. 3) (see Fig. 4).

There are several reasons for the increasing enrolment in higher education during this period. One is the growth of the student-age cohort in the 2000s. The student age cohort continued to grow until 2009, when the first cohort born after the cancellation of Romania's anti-abortion legislation came of age. In absolute terms, in 1990 the number of persons enrolled in university lay at 200,000; this had reached 900,000 in 2008 and decreased to 800,000 in 2010 (Eurydice, 2011). By now HE enrolment has stabilized at a high level which seems resistant even to a declining overall population and student age cohort.⁵

A second reason for increasing demand, which was repeatedly mentioned in our interviews with Romanian academics, is that the public administration increasingly required a tertiary education degree for positions for which secondary education degrees would have been sufficient in the past. This process has been driven by EU accession conditionality and the necessity

⁵ UNESCO data also show that between 2000 and 2010 HE enrolment in Romania increased more strongly than in any other country in the world, except Cuba and Venezuela.

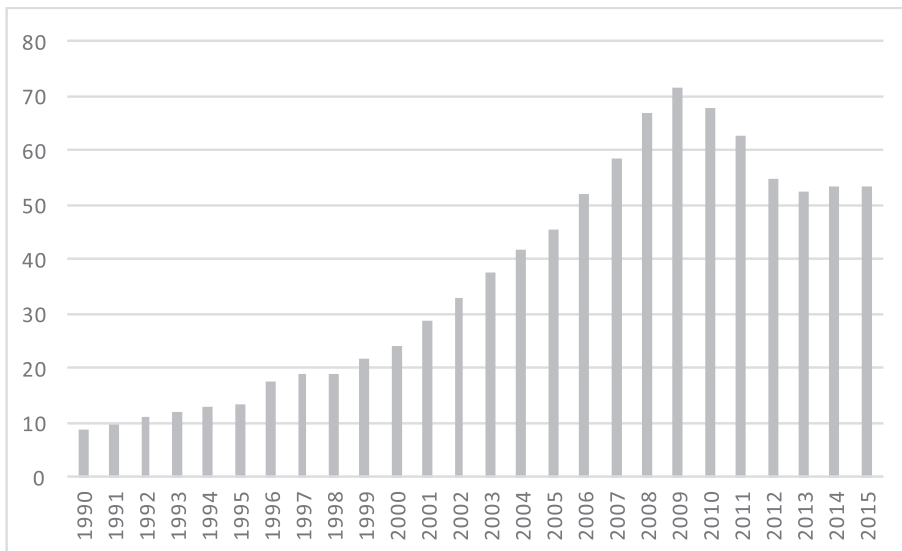


Fig. 3. Gross enrolment rates in HE, Romania.

Source: UNESCO Institute for Statistics, 2017; measured as the number of students enrolled, regardless of age, expressed as a percentage of the official school-age population corresponding to the same level of education; for HE (the tertiary level), the population is the 5-year age group starting from the official secondary school graduation age.

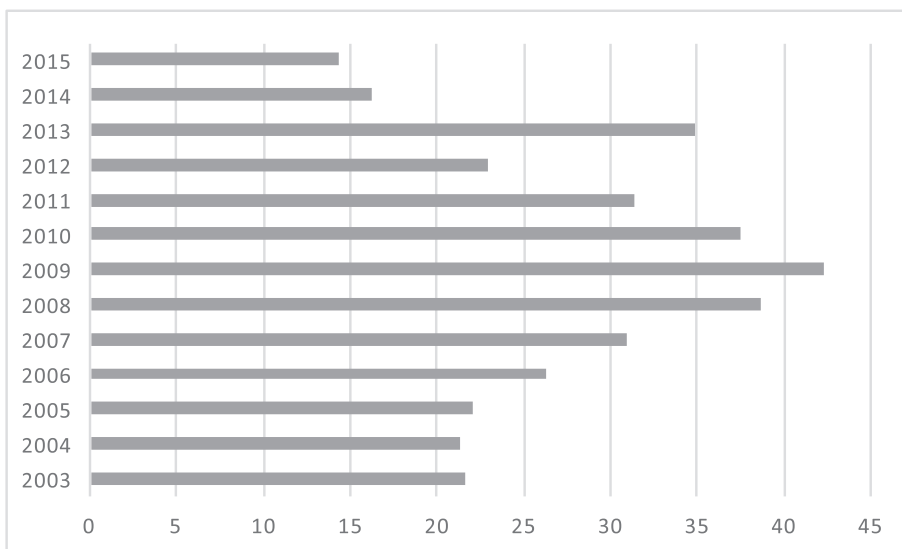


Fig. 4. Enrolment in private higher education in Romania.

Source: UNESCO Institute for Statistics, 2017; again measured as the number of students enrolled, regardless of age, expressed as a percentage of the official school-age population corresponding to the tertiary level of education.

to align the state bureaucracy with the *acquis communautaire*. It became common practice for state employees to seek degrees, mostly in business and law, to be able to keep their positions. This type of demand is, however, not created by an increasing need for skills (or a change in required skill structures), but rather by an increasing need for formal degrees. It therefore helps account for the continuing increase in demand for higher education degrees independent of the quality of the education provided.

Third, the expansion and diversification of employment opportunities in the private market also help explain the increasing demand for higher education, as many positions in international but also domestic private firms require, or are more easily accessed with, a HE degree. Fourth, and often in combination with the above reasons, the high unemployment rates that characterized much of the transition period motivated some individuals to remain in or go back to school rather than face the threat of unemployment. Fifth, the opportunity cost of attending universities has decreased during the period, as

universities have spread to more locations, long-distance learning opportunities have multiplied, and possibilities for combining work and studies have generally improved. Sixth, HE enrolment has profited from the significant drop in vocational training experienced in Romania during the same period. In comparison, “a strong and attractive vocational sector in some countries, such as Austria and Germany, helps explaining why fewer students are drawn to the tertiary education system” (Economic Policy Committee & Directorate-General for Economic and Financial Affairs 2010: 94).

A seventh factor to explain the increasing demand for higher education might be lagged demand. Study places in higher education had been kept artificially scarce during communism and were therefore overvalued at the beginning of transition. According to one university dean and MEP (Interview U4), this has led many Romanians to overlook the fact that acquiring a HE degree today does not bear the same significance as it did back in the days of the planned economy. Last but not least, eighth, Romania finds itself in a broader context of worldwide massification of tertiary education during the last decades (Interview U6). There is no reason to suspect that any of these eight factors are irrelevant for keeping enrollment in HE high during the post-1990 period, in spite of the below-documented decline of its quality.

Clearly, then, the demand for HE degrees by prospective graduates was high throughout transition. And governments responded, even if not to any real demand for high-level skills in the labor market, but to the demand for degrees by their prospective voters and by the demand generated by the MNCs in the market, as explained in the first part of the article.

At the end of 1989 HE was entirely public and centrally planned. Already in 1990, the first post-communist government provided the legislative framework that allowed the supply of HE to increase, *inter alia* by the foundation of private institutions, which spread rapidly across CEE more generally (Galbraith 2003). By 2009 Romania hosted 106 universities, 56 of them public, 50 private. In 2009, universities offered more student places than the total number of baccalaureate graduates in the country – a clear case of oversupply even given the quite consistent growth in bottom-up demand for higher education.

The expansion of supply was driven by the recognition among politicians that legislative changes to facilitate the foundation of private universities would please both prospective students and their families and education entrepreneurs. According to an expert at the Bologna Secretariat in Bucharest, private universities have had a strong lobby in the Romanian legislature and government (Interview N5 April 2012). They have also contributed rather substantially to the state budget. According to data from the Romanian Ministry of Finance, for example, the private University Spiru Haret in Bucharest made a profit of 42 million euro in 2008, 40 million euro in 2009, and 25 million euro in 2010 (*Ziarul Financiar* September 10th, 2011). The increasing supply of higher education thus opened up a new field of profit generation while responding to the demand structure sketched above.

After 2009, enrolment in private higher education started to decline. This can be explained by a) the decline in the student age cohort, which is also visible in slightly declining enrolment in public universities around the same time; b) the increasing number of students studying abroad; and c) public universities becoming able to accommodate a larger share of the students, especially by providing ‘private’ study places. The latter factor was another profit-generating part of the expansion of HE supply. Since 1993 public universities collect tuition fees according to the ‘numerus clauses’ principle. Students ranked lower on the admissions criteria or those studying for a second degree pay fees. As a result, privatization of HE as a broader trend has also encompassed public universities. Private HE in Romania is provided by both private and public institutions, and public institutions typically contain both ‘public’ (state-funded) and ‘private’ (fees paying) students.

Private universities and private study places at public universities have benefitted students who would otherwise not have been admitted to HE. Academics could supplement their earnings by taking an extra job, and education entrepreneurs founded universities to make a profit see [Kwiek, 2012](#) for an insightful view on Poland on this matter. Also important was that private HE institutions presented themselves as an alternative to public HE at a time when the privatization of state-owned companies in most sectors of the economy was publicly endorsed and officially pursued by the government. The broader context of privatization thus helps explain the uncontested emergence of private HE institutions and ‘private’ study places at public institutions.

Given the increasing demand, potential HE providers with entrepreneurial skills (and the required access to important networks) have seen opportunities in starting up private institutions as an alternative to state-financed universities. They soon outperformed public institutions in terms of enrolment levels.⁶ Their marketing strategy across the board was to compete with existing public HE institutions on the basis of lower than fee-paying positions in public universities prices; laxer entrance criteria; and the promise of passing exams more easily, rather than on exclusiveness and higher quality programs. While they increasingly represented competition for publicly funded universities, this competition failed to boost quality, as public universities by and large chose to compete with private institutions on their own terms: Public universities also moved in the direction of attracting more students and have thus become less exclusive and, increasingly, only formally quality-oriented. The alternative strategy available to public universities, one of stressing exclusivity and quality, was not chosen, as will be further discussed in the next section.

3. The political economy of HE quality

So far, we have emphasized the increasing proliferation of HE recipients in the Romanian market, analyzing the determinants of both the demand and the supply side for skills. Understanding these determinants underscores that counting

⁶ As explained above, since 2010, enrolment in these private HE institutions has started to decrease.

the number of HE degrees is a poor assessment of the state of HE in a political economy. A reasonable assessment should take into account the *quality* of HE processes and the domestic and international credibility of the degrees obtained. Marketization, democratization, and an institutional preoccupation with HE quality could conceivably have led to an increase in HE quality. However, the Romanian case does not bear out the expectation of improving quality of HE through competition and employer demand. There has been little specialization, and the quality of higher education, especially but not only in private institutions, is poor. As one of our interviewees (U5), an academic from a public university, lamented: “Engineering is decaying in Romania, while the world is becoming more technologically advanced.”

As [Jones and Radcliff \(1999\)](#) point out, there is no international consensus on what constitutes quality in HE, because the proper goals and means of such education are highly context- and stakeholder-dependent. As a result, comparing the quality of higher education in Romania over time, not to mention during and after communism, is a difficult endeavor. Also, any assessment of the quality provided by an education system must take into account the domestic as well as international institutional constraints, such as quality assurance mechanisms faced by such a system, such as the Agency for Quality Assurance in Higher Education (ARACIS, [Vlasceanu et al., 2009](#)), in Romania’s case. Our biggest difficulty for this particular article, however, is the absence of systematic over-time data. These difficulties call for a flexible approach to capturing the quality of higher education which uses multiple indicators to triangulate individual measurements and to allow for multiple comparisons, relying on different (combinations of) indicators, with a variety of other places and times.

Hence, drawing on [Tomusk \(2000\)](#) and on [Harvey and Diana, 1993](#), we here assess in brief four different factors to capture the quality of HE in Romania as it has evolved since 1989: (1) student–teacher ratio, (2) academic scholarship output, (3) students’ perceptions regarding the development of their skills in the HE system, and (4) institutional efforts to improve HE quality. Factor (1) is an input factor for HE, whereas (2) and (3) are output factors (research and teaching). Factor (4) depends strongly on the financing of HE, which is possibly the most important input factor.

First, from the points of view of both students and teachers, within certain limits, a lower student–teacher ratio improves the educational experience that can be provided. The student–teacher ratio in Romanian HE increased from 13.8 students/teacher in 1990 to 19 in 2001, 21.5 in 2005, a high of 28 in 2009 and 25 in 2010. By 2015 it had decreased to 20 due to the lower enrolment rates ([UNESCO Institute for Statistics, 2017](#)).

The second factor we consider is output of academic scholarship in the form of publications or patents and citations by other scholars. Such measurements are questionable in many ways, as the statistics in use measure directly the quantity and publicity value of certain categories of publications, rather than their quality or a scholar’s more general contribution to his or her field ([Van Vught and Ziegele, 2012](#)). Yet in the absence of other systematic data we will here report the available data on research output.

To assess research output in Romania today it is important to recognize that universities in communist CEE were generally focused relatively more on teaching and relatively less on research. This has led some scholars to conclude that Romania still employs a “teaching model” today, similarly to Bulgaria, Lithuania, or Latvia ([St. Aubyn et al., 2009](#)). But this is misleading, because after 1990 Romanian academia slowly started at least a formal reorientation towards an increasing status for research. The number of citable documents (articles, reviews and conference papers) produced by scholars affiliated with Romanian HE institutions has steadily increased, according to the SCImago database, from around 1838 documents in 1996 to 10,897 documents in 2010. Romania’s h index was 201 in 2016. This means that at least 201 articles published in Romania between 1996 and 2016 have received at least 201 citations. On this measure, Romania ranks 42nd in the world out of 238 countries, lower than, for example, the less populous Czech Republic (367 h index) or Hungary (363 h index). We can derive from the data that Romanian visible research output has increased significantly, in line with a general trend observed for all 238 countries in the ranking, but it has increased less than in other countries in the region. The relative scarcity of internationally visible research output is also documented by [Deca \(2015\)](#). Furthermore, frequent cases of academic dishonesty have damaged the reputation of Romanian research output been reported. [Ives et al. \(2017\)](#) provide a thorough discussion of this problem, also in light of the 2015 plagiarism allegations against prime minister Victor Ponta.

Third, as regards students’ views on their skills development, in a survey conducted in 2004 by Gallup for the British Council a majority of young people (age 15–35) expressed dissatisfaction with textbooks and curricula (neither modern, nor adapted to market needs), assessment methods (do not accurately evaluate knowledge), and didactic methods (do not actively involve students). Current university students, as compared to high school pupils or those who had completed their formal education, were especially critical on all counts ([Open Society Foundation, 2004](#)). The Quality Barometer on HE in Romania shows for the years 2009, 2010, and 2011 that the average confidence of students in the quality of HE in Romania is very low (4 out of 10 on a scale from 0 – no confidence to 10 – high confidence), much lower still than that of employers (7), which in turn is lower than the confidence in professors (8). Students from 40 Romanian universities were polled in 2009, 2010, and 2011. The sample was representative for students nation-wide ([ARACIS, 2010](#)).⁷

The reasons for the poor quality of HE in Romania are numerous and complex. The most frequently made argument is that the poor financing of higher education can explain its weak performance ([Miroiu and Aligica, 2008](#)). But why is then not more money being spent? Based on the demand structure explained above, we argue that governments do not have any incentives to improve the financing of higher education given the structure of the economy and the motivations of students to pursue a degree. The Romanian higher education sector has consequently been chronically underfinanced, even though the enrolment

⁷ This is the most recent available data.

continued to skyrocket. Between 2010 and 2012 about 4 percent of GDP was spent on education in general, compared to an OECD average of 6.1 percent and an EU average of 5.1 percent (in 2008, the last year for which consolidated information exists). While the Romanian Education Law (no. 1/2011, Article 8) stipulates that a minimum of 6 percent of GDP should be spent on the education system, this stipulation has so far not been implemented. As regards spending on HE more specifically, based on UNESCO data, the total expenditure on HE institutions in Romania – both public *and private* - as percentage of GDP was 0.88% in 2002, 1.24% in 2005 (of which 0.42% from private sources), and 1.61% in 2007. In comparison, in 2005 Poland was spending 1.6% of GDP on HE, Estonia 1.2%, and Lithuania 1.4%.⁸ Expenditure per student (measured as % of GDP/capita)⁹ has decreased from 32.5% in 2001 to 26.2% in 2002, 22.1% in 2004, 26.1% in 2007 and 23.4% in 2014, according to the World Bank ([World Economic Forum, 2017](#)).

Besides being low, the way in which public funds for HE have been distributed after 1989 has not created incentives to invest in improving the quality of education or research. Aiming to address the problems stemming from insufficient funding, in 1993 the government allowed public universities to collect tuition fees according to the 'numerus clausus' principle (creating 'private' study places). At the same time, in line with a Europe-wide trend, public funds started to be distributed mostly according to enrollment levels.¹⁰ Most private funds are directly enrolment-dependent, as they are collected through tuition fees from students willing to pay for their education. The main goal of HE institutions of all types has consequently become to increase enrolment. This was emphasized in our interviews as well: "Everything was about numbers, this was all that mattered" (Interview 5). Since 2002 public funds have been distributed based on a formula with both quantitative and qualitative elements. A qualitative component, referring mostly to national and international research output as well as to the capacity to attract research funding, is also part of the formula. If a faculty scores well on the quality criteria, it receives part of the funding based on this score. However, the results in terms of quality improvements have been modest, as only a very small part of the funding is being distributed this way.

Competition over students, driven by these financing mechanisms as well as oversupply of study places, instead of supporting a race to the top between institutions, has instead served to keep the price of education low. While prices in Romania have increased across the board, higher education remained relatively cheap ([Miroiu and Aligica, 2008](#)). From 1990 to 2010 tuition fees ranged between the equivalent of 300 and 500 euro per year, in private universities and paid for study places in public universities.

Still, it is puzzling that fees are low for *all* universities, that there is no differentiation, and no entrepreneurs have tried to create elite institutions. [Miroiu and Aligica \(2008\)](#) suggest that this is due to the manner in which higher education is subsidized by the state, which does not allow it to become more expensive and therefore more valuable. But this neoliberal argument cannot explain the developments in the private components of the HE sector. We argue instead that the state of HE in the country overall can be better explained by the nature of the *demand* for higher education in a low-skills DME context, to which we now return.

4. The state of higher education as a symptom: Romania as a DME at a low-skills equilibrium

In Romania, higher education is geared towards delivering low to medium quality education, while the economy is geared towards producing manufactured goods and services requiring low to medium-skills. In short, Romania is entrenched in a low-skills equilibrium. [Finegold and Soskice \(1988\)](#) used this concept in relation to the UK. This is an equilibrium state because it both reflects the scarcity of high-skilled jobs in the domestic market (given the strong role of MNCs) and serves to keep the aggregate level of skills in the domestic economy low. Highly skilled individuals can compete with non-Romanians for high-level positions in international companies or organizations. They may also aim for domestic employment, such as in the medical profession or as university professors. However, salaries in the professions are very low, especially in the public sector, which drives many top-qualified candidates away. Alternatively, they seek employment abroad, most often within the European common market, to which they now have open access ([Alexe, 2011](#)). The fact that European Union membership creates opportunities for the few highly skilled individuals to develop further abroad, through education and work, further lowers the supply of highly skilled labor at home.

Improved 'exit' options from the Romanian higher education and labor markets also reduce the pressure for change coming from voters. Successive governments have maintained the same set of parameters governing HE and its role in the political economy. They have worked to improve the opportunities for students and highly skilled individuals to leave the country, while maintaining the formation of moderately skilled individuals through a relatively egalitarian and accessible but chronically underfunded and badly regulated university system. They have simultaneously worked to attract FDI by offering a

⁸ This data is patchy, not recent, and includes private expenditures. Other reliable figures specifically for higher education or for different types of expenditure are not available, because Romania has failed to provide disaggregated data on education spending to Eurostat. According to unofficial data we obtained from Laurentiu Georgescu, expert at the Bologna Secretariat in Bucharest, public higher education expenditure as a percentage of GDP was 0.45 in 2001, 0.44 in 2002, 0.43 in 2003, 0.45 in 2004, 0.46 in 2005, 0.63 in 2006, 0.85 in 2007, 0.75 in 2008, 0.59 in 2009, and 0.48 in 2010. These figures, unlike those from UNESCO, do not include private expenditures.

⁹ Public expenditure (current and capital) includes government spending on educational institutions (both public and private), education administration as well as subsidies for private entities (students' households and other private entities).

¹⁰ This was a widespread development in CEE. However, arguably HE in Romania has evolved more strongly towards the liberal market model than in Bulgaria, Poland, or the Czech Republic ([Dobbins, 2011](#)).

fairly stable business environment and preferential taxation and regulation, reinforcing Romania's economic dependence on capital and innovation from abroad. In the process, the twin problems of stunted domestic investment and development and low investment in higher education on both the supply and the demand side remain unaddressed. There is a real risk of recursiveness, as the nature of the HE system supports entrapment in DME status, and vice versa.

We began from the premise that the political-economic implications of the deterioration of higher education in Romania since 1989 can be better understood by exploring the dynamics of demand and supply of higher education and high-level skills in the Romanian economy. We have argued that a low-skills equilibrium has emerged in the country, in which a moderately educated population is producing low value-added goods and services. This is not only a symptom of Romania's status as a dependent market economy but also helps explain the failure to overcome the quality deficiencies of the post-communist Romanian HE system.

Our analysis has shed some light on why democratization and marketization have, –contrary to Ansell's (2010) expectation, not had the effect of strengthening higher education, if the general conditions identified in this article are present. These conditions are, in short, the development of dependent market economy with an incentive structure in which those who might demand quality higher education – students, their parents, and employers – do not have sufficient incentives to do so. As a consequence, governments have little incentive to invest in this sector.

Romania has not capitalized on the advantage of beginning transition with a relatively well-educated population. Instead, higher education has stagnated or even declined, by some measures relative even to the communist period, by nearly all measures, except for enrolment levels, in international comparison. Given improved opportunities to study abroad, this leads to higher education brain drain. At the same time, Romania has evolved into a dependent market economy in which there are limited domestic employment opportunities for the highly educated, who therefore face incentives to exit also after graduation. In this context, we explain the moderate level of quality of education provided by domestic universities by two factors operating in tandem: first, the weak incentives of students (and their parents) to care about quality education, given the lack of opportunities befitting a high skill level; second, low public priority for and spending on education given this demand structure (as well as other spending priorities, constraints of fiscal discipline, and a privatization drive). To complete the picture, Romania's EU membership contributes to the reinforcement of dependency through improved access of students and highly skilled workers to the European common market. The most likely way out of the current equilibrium would be an evolution towards the liberal model (Hall and Soskice, 2001), in which universities provide general skills and job training is achieved on the spot. But without a determined reprioritization of governmental regulatory effort and spending in favor of safeguarding higher education quality, we see little hope in the country's ability to use better qualification as a route to higher economic competitiveness.

Appendix

Interviews conducted for this research

Interviews were conducted between April 2011 and September 2012, predominantly in Bucharest and Sibiu. Two interviewees were re-contacted in December 2017. The selection of interviewees covers the most relevant actor categories: professors (engaged in academic activities in public and private universities), students and young employees as well as employees in human resources departments or working in human resources companies.

Universities

- Interviewee U1. Lecturer, Alexandru Ioan Cuza University, Iasi. Kusadasi, Turkey, April 2012
- Interviewee U2. Pro-rector, Faculty of Petroleum-Gas University Ploiesti. Bucharest April 2012
- Interviewee U3. PhD candidate, Oxford University. Graduate of Babes-Bolyai University Cluj Napoca, March 2011
- Interviewee U4. Professor, University of Bucharest and (former) dean of the Faculty of Political Science; member of the European Parliament. Bucharest, several interviews between April 2011 and September 2012
- Interviewee U5. Professor, Academy of Economic Studies, Faculty of Commerce, Chair of Tourism-Services. Academy of Economic Studies, Bucharest, September 7, 2011 and December 28, 2017.
- Interviewee U6. Researcher Institute for the Quality of Life and Lecturer Faculty of Political Science. University of Bucharest, September 5, 2012
- Interviewee U7. Associate Professor, Technical University of Cluj Napoca. Cambridge, UK, March 2012
- Interviewee U8. former head of the National Statistics Institute (1996–1998), Professor of Statistics, Academy of Economic Studies. Bucharest, April 2011

Governmental institutions and non-governmental organizations

- Interviewee N1. President Dinu Patriciu Foundation – NGO focusing on education in Romania. Bucharest, April 2011

- Interviewee N2. Head of department “Orizonturi Deschise”, Dinu Patriciu Foundation. Bucharest, April 2011
- Interviewee N3. Head of the Bologna Secretariat in Bucharest 2010–2012. Several interviews and conversations in Bucharest between April 2011 and September 2012
- Interviewee N4. Programme director for educational initiatives, Romanian American Foundation. Bucharest, September 2012
- Interviewee N5. Expert, Bologna Secretariat Bucharest. Two interviews: April 2011 and March 2012
- Interviewee N6. EIU Services Manager; Senior Consultant & Researcher at Pythia International, Bucharest, April 2011
- Interviewee N7. Researcher, Institute for the Investigation of Communist Crimes and the Memory of the Romanian Exile. Bucharest, January 2012
- Interviewee N8. President, Group of Applied Economics (GEA), State Secretary Ministry of Finance 2012–2013. Bucharest, January 2012

Private companies

- Interviewee P1. Human Resources Specialist, Banca Comerciala Romana. Bucharest, September 2011
- Interviewee P2. Junior Consult at Grayling. Bucharest, Several interviews between January 2012 and September 2012
- Interviewee P3. HR Manager Resources, Continental Automotive Systems SRL Corporation, Sibiu. September 9, 2011 and December 29, 2017.
- Interviewee P4. Catalyst Solutions, HR Manager. Bucharest, September 2011
- Interviewee P5. Account Executive Saatchi & Saatchi. Bucharest. Several interviews between September 2011 and September 2012
- Interviewee P6. Oracle Corporation, HR specialist. Bucharest, September 2011

In addition, two **focus groups** with young employees and recent graduates were conducted in Bucharest and Sibiu in January 2012.

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