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**Breakthroughs in the transition from Secondary Education to Higher Education: does the labour market respond to all failures?**

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**Summary**

The decrease in the flow of students from Secondary to Higher Education which has been seen in Portugal, has been attributed by policy-makers to the attraction of the labour market for young people who should be continuing their studies.

Several other reasons, which are generally missing in the official discourse, combine to create this decrease, including the role played by the State's social action policy for Higher Education, the ongoing effects of the economic crisis on families' incomes, the level of schooling of the parents and mothers of students, among others. In addition to this set of potential explanatory causes, according to economic analyses, other psychological and sociological factors exist, which are often silenced, but which should nevertheless also be considered to achieve a thorough understanding of the dynamics of flows from Secondary to Higher Education. These factors include the motivation, commitment and self-efficiency of students.

Previous case studies of Higher Education institutions in Portugal have highlighted the relative influence of a set of factors such as those mentioned above, which leads us to defend the need for an integrated and strategic approach to these factors. This study starts with a macroeconomic and social approach, using comparative education methodology, to obtain a characterisation of the relative position of Portugal with regards to the average indicators of the above-mentioned factors (Bray et al., 2007). This approach is described in this paper, where the main result is expected to be the conclusion that, among various factors, which include the inadequacy of public policies, the decisive factors for the decline in the flow of transition to Higher Education in Portugal are economic ones and access to income, despite the fact that the current legislature of the Socialist Government, which began in 2015, proposes to develop and implement measures designed to favour this transition.

The identification of these effects, which have not been diminished or even aggravated by the present legislature, can be used to for the future conception of an analytical instrument of individual and longitudinal information found in a database of a Portuguese Higher Education institution, which will be developed during a second stage of this analysis.

**Key words:** Transition from Secondary Education to Higher Education; determinants and obstacles; economic factors and motivational factors; Portugal.

**Introduction**

In spite of sustained growth over the last decades, the percentage of Portuguese who have graduated from the 1<sup>st</sup> Cycle of Higher Education (H. Ed) is still well below the average for the EU: in 2016, 33.5% of the Portuguese population aged between 30 and 34 years old had a 1<sup>st</sup> Cycle degree, whereas the corresponding value for the Union being 39.9%, and 40% in the objectives of Europe 2020 ([www.pordata.pt](http://www.pordata.pt)). In the absence of other reasons, this alone would be sufficient to justify the relevance of the analysis of the transition between Secondary Education (S. Ed) and H. Ed in Portugal. This is all the more pertinent as the growth rate in enrolment for H. Ed has slowed down in recent years in Portugal.

Let us consider the recent information from two documents of the European Commission, *Eurostudent VI 2016-2018* and *Education at a Glance 2018*<sup>1</sup>.

One of the most striking items of the data is the high percentage of Portuguese students who say that they can only afford to study for H. Ed if they have a job: Portugal is ranked as the 5<sup>th</sup> EU Member State that most mentions this fact: 64% compared to 50% for the EU average. This is true even when Portuguese students are financially dependent on their families – which is a very frequent situation in Portugal.

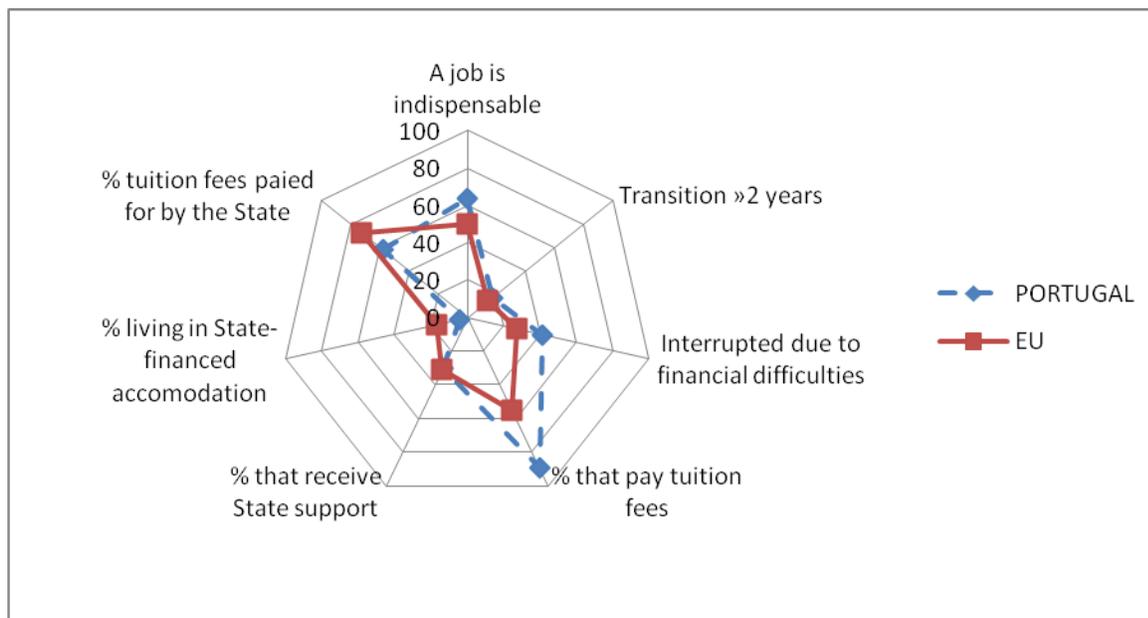
Similarly a high percentage of students delay for least two years their enrolment in the H. Ed after completing their Secondary Ed. – 17%, compared to 14% for the EU, in 2017 – it has to be admitted that these students will first have to save money by working in the labour market. This is entirely consistent with the fact that Portugal is the second Member of the EU that has greatest percentage of invoking financial difficulties as a reason for the interruption of studies: 41% compared to the Community average of 27%.

It should also be noted that the percentage of Portuguese students who pay tuition fees for H. Ed is high - 89% against the EU average of 55% in – with only about 30% receiving State support (with 31% being the corresponding average value for the EU). Furthermore, the component that weighs highest in terms of student expenditure - the cost of accommodation - is also only supported by the Government to a small degree, with a systematic and recently aggravated shortage of publicly-funded student accommodation.

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<sup>1</sup> EC (2018). *Social and Economic Conditions of Student Life in Europe*. Eurostudent VI 2016-2018.  
EC (2018). *Education at a Glance 2018*.

**Figure 1:** Some indicators for the transition from Secondary Education to Higher Education in Portugal, compared with the European Union average



Source: EC DATABASE

These are certainly the main reasons why many Portuguese students feel that they do not really belong to the academic world, but rather identify themselves essentially as workers.

The transition from S. Ed to H. Ed depends on the student's background in terms of literacy, especially of their mothers: it is a fact that having a mother with H. Ed increases the probability of continuing to H. Ed by 15% in relation to students whose mothers only have Basic Ed. (DGEEC 2018). Furthermore, a high inter-generational inertia exists with regards to the reproduction of the level of qualifications among Portuguese families, as has been widely proven.

This set of characteristics strongly conditions the equality of opportunities for the access to the H. Ed in Portugal. It is, therefore, against this background that the public policies for supporting the transition to University or the Polytechnic must be verified, as we will develop below.

### **Background for this study and the new conditions**

Previous studies carried out for Portugal have shown the importance of students' situation regarding the labour market on the outcomes of success and failure in H. Ed. The results for

ISEG were obtained, from its robust database, during the middle of a period of financial crisis, greatly reinforcing this context. Accordingly, having considered the number of additional semesters required to complete a critical subjects as an indicator of failure, we found that this was negatively associated with the level of income and literacy of the student's family of origin and that it was also greatly influenced by the specific Masters degree being studied afterwards. However, above all, we found that *the main determinant of relative success/failure is the student's work situation, with a significant proportion of them having to work in a paid job to be able afford to pay for their education costs* (Chagas Lopes & Fernandes 2010).

In another study, our objective was to identify the influence exerted jointly by the "academic" and "non-academic" factors for success of the students of the same university we were studying Mathematics. By carrying out an internationally-referenced survey of students from the same database, we also considered the influence exerted by the expectations, motivation and behaviour of the same students. We obtained equally interesting results for the very same issue that concerns us here: that students' motivation and commitment depends heavily on the expectations that both they and their parents have regarding their professional future and the expected importance of certain subjects, such as the higher socio-economic and cultural backgrounds of the family of origin, which are directly related to these students' motivation and commitment, as well as their perception of self-efficiency, have already been confirmed. However, the lowest levels of these psychological indicators were observed among student workers, whom we called "non-academics". On account of the strong conviction that the analysis of relative success in H. Ed thus depends on the integrated analysis of the influence of these two main types of factors, which confirms much of the reference literature in this subject, we may deduce a suggestion for measures of educational policy: *there is a need for a more robust Government Social Policy towards H. Ed students, especially now that the Bologna Reform imposes a heavier budgetary burden on students and their families* (Chagas Lopes & Fernandes 2012).

What role have education policies in Portugal played to alleviate the financial burden of families and students, especially those who are only able to study for Higher Education if they also work? Will we see a significant and effective improvement in this area now that a Socialist Government has been in office for three years? From the outset, the current Government has pronounced its

decided intention to recover the democratic role of education and knowledge, after the neo-liberal destruction of the previous period.

It is important, therefore, that we re-examine the State's efforts as a regulator of the educational policies that affect transition to Higher Education. However, first we will carry out a brief review of the literature that provides the theoretical background.

### **Theoretical background**

The Theory of Investment in Human Capital (TIHC), which has been in existence for more than 50 years<sup>2</sup>, has been the point of reference for the economic explanation of the reasons for studying in Higher Education. Few theories have been the subject of so much criticism and reformulation as this one has throughout the history of modern Economy ideas. For us, we have also had to teach and criticise it for decades, following its successive revisions and developments. Among these, the contribution of Belley & Lockner (2007) need to be highlighted for the clarity of how it shows the effects of the variation of family income in times of crisis on the academic success of their children, and also that of Hanushek & Woessmann (2012) which studies the quality of the school, in addition to the effect of the number of years of additional studies, as being a determinant of the results of studying for further education.

The main reason for criticism of TIHC is that the theory abstracts from almost all the extra-economic determinants that lead to the decision to pursue further studies, thus reducing the individual - the "human resource" - to the role of a rational agent who compares costs, both direct and opportunity costs, which are associated with further studies, with the additional gain that is expected to be obtained at the end of the corresponding studies. As such a gain (eventual) is deferred over time, it has to be discounted by the preference factor for the present, which, in theory, is the market interest rate.

What is the difference between this type of "investment" and the participation by an investor in any business with an expected return on capital within, say, three years? In theory, none. In reality, the difference is abysmal. First, rational expectations are a fallacy imposed by neo-liberalism in times of increasing uncertainty and complexity, such as the time in which we

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<sup>2</sup> Becker, G (1964) is considered to be the founding contributor in this field.

currently live: what is the guarantee that, after finishing the degree, that one is effectively and immediately employed and that this employment reflects the quality of the degree that has been completed, and, crucially, that the actual remuneration of this employment translates into the expected gain when the three years period is reached? For is it not prudent to assume that direct costs - for accommodation, for example - may prove to be much higher than anticipated during the "investment" decision period? The same can be said for the opportunity costs, to which we will refer to later below.

Straying slightly from the strictly economic fields, improved versions of TIHC appear, which include in the decision determinants the influence of the level of schooling of the parents and mothers of those students who decide whether to continue, or not, to Higher Education. In Portugal, several studies have shown that this influence not only exists, but that it carries considerable weight, indicating a strong inter-generational inertia in the transmission of "human capital" - or economically, as the higher education of the parents favours, in principle, a higher return from the investment by the family in the studies of the children, both from a cultural point of view, and also regarding the generation of expectations and behaviour modelling<sup>3</sup>. For it is here that we find the bridge to the indispensable opening up of the Economy, whereby the sense of identification and belonging of Higher Education, the clarity of ideas and the expectations about the studies to be carried out, among other factors, theoretically and positively depend on the parents' level of schooling.

The Theory of Self-Determination states that the intention to continue studying also depends, to a great extent, on the levels of motivation to study revealed by each individual during their Secondary Education; using longitudinal analysis methodologies to analyse the variation of the levels of students' motivation during their previous school career, they find, in most cases, that this motivation increases as the studies progress (Kyndt et al., 2015). Together with the levels of motivation, the perception of self-efficiency is important as well as it conditions the behaviours of persistence and commitment to studies, which are appropriate to each individual (Kusurkar et al., 2013; Galliot & Graham 2014; Renaud-Dube et al., 2015). Several of the aspects mentioned above have to do with the development of emotional skills and the level of maturity of emotional

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<sup>3</sup> With regards to Portugal, among others, the main studies are those of Correia, J.A. (1999), Mascarenhas, Almeida, and Barca (2005), as well as the studies carried out by the Direcção Geral de Estatísticas da Educação e Ciência (DGEEC).

intelligence in the transition between S. Ed and H. Ed (Parker et al., 2004). Accordingly, we thus find ourselves in the context of explanations of a Psychological nature.

From the point of view of Sociology, many critics of the Sociological Theory of Rational Choices have shown how these behaviours and perceptions are in turn closely associated with the individual's social and family positioning, in terms of level of income and cultural background (Keller, 2015); this is an idea that also draws inspiration from the foundations of Amartya Sen's Theory of Empowerment, which enables one to surmise that individual potentialities are not indifferent to the positioning of individuals in the enjoyment of economic and social rights other than civil and political ones (Sen 2003).

This brief review of the literature clearly demonstrates the need to consider several scientific domains and themes when analysing the processes of transition to Higher Education. We conclude it with the following question: how much of the explanations is actually explained by the Economy and, more specifically, by income and the labour market, within this complex structure of cross-determinants?

### **Methodology and Empirical Analysis**

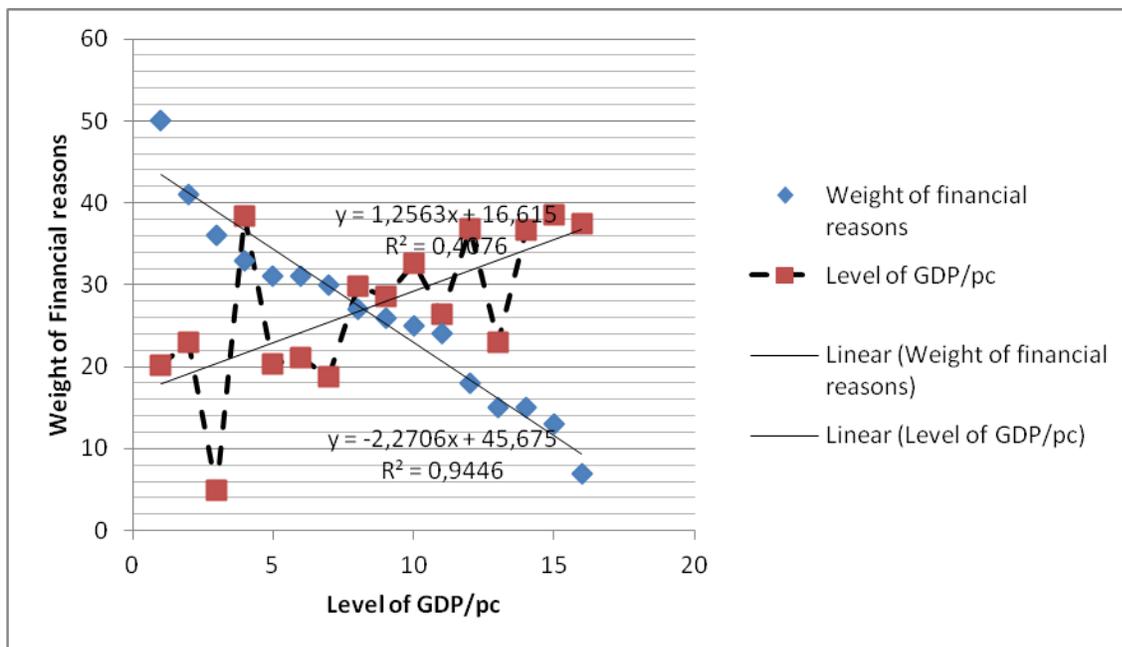
The research methodology used to study the transition from Secondary to Higher Education is of a double nature:

- In a first phase, either by the use of the methodology of comparing educational systems or by analysing trends in the evolution of time, we proceeded to characterise that transition in Portugal and to compare it internationally, based on relevant indicators and information of a macroeconomic nature (Bray et al., 2007; OECD 2018) – indeed, this Communication corresponds precisely to this stage;
- Secondly, based on individual and longitudinal information collected through a specific survey, we proceed to a more in-depth analysis, especially with regard to factors of an "extra-economic" nature. To this end, we aim to replicate the application of a survey of students' attitudes and behaviours of our research of 2012, but now with an improved version, as already mentioned.

We need to recall the data and indicators of characterisation already presented above concerning international comparisons. From their analysis, we can perceive the great importance that economic determinants currently have in the transition processes between S. Ed and H. Ed. We now examine this aspect in more depth.

At the macroeconomic level, there is a direct relationship although in inverse sense between the level of GDP/pc (GDP per capita) and financial reasons as a cause of interruption of studies:

**Figure 2:** GDP/pc and the weight of financial reasons as a cause of interruption of studies

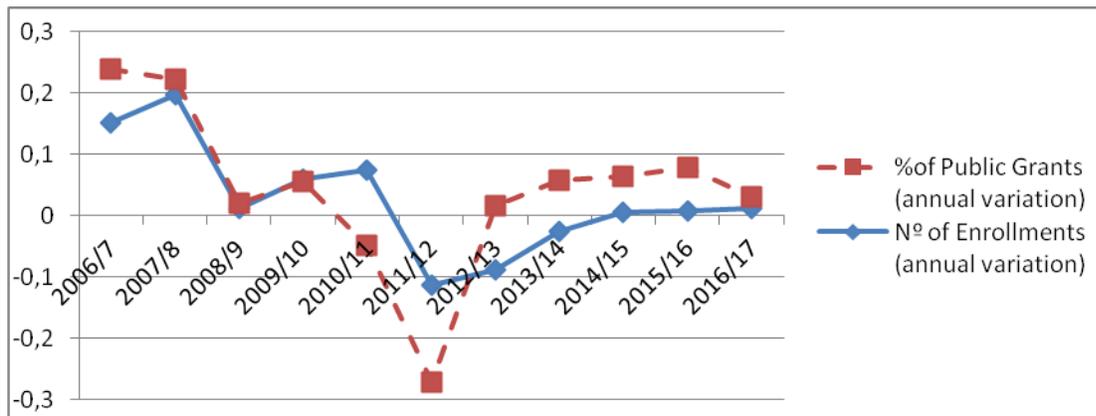


Source: EC DATABASE

The behaviour of the two trends described above, which correspond to 18 EU Member States, speaks for itself. It should be noted that this result goes in line with the need to have paid employment as a condition for continuing further study. For if it is true that family financial support reduces both effects, the truth is that in Portugal there is a much lower influence of "family financing", than in most of the other countries under analysis.

What has been the performance of the public policies for the support of continuing further study and reinforcing the level of attendance in Higher Education in Portugal? Let us consider this aspect in more detail:

**Figure 3:** The Number of Enrolments for Higher Education and the Share of Attributed Grants (annual variation)

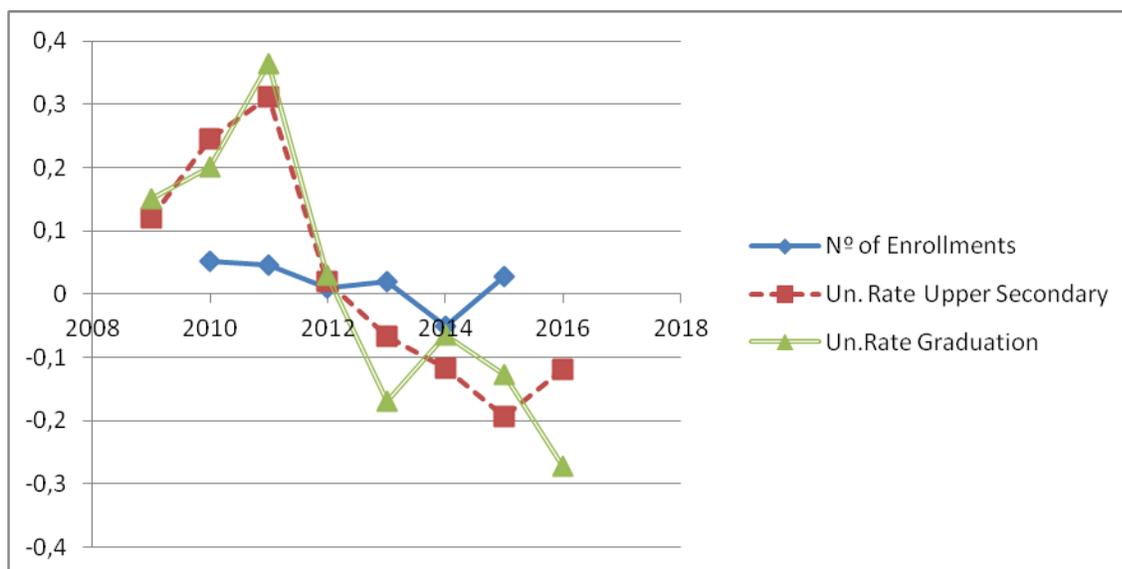


Source: PORDATA

As shown in the figure above, the evolution of the percentage of scholarships awarded in Higher Education is accompanied by a trend in the same direction of the evolution of the number of applicants enrolled, with a lag of approximately one year. It can also be observed that both indicators experienced very significant decreases with the start and evolution of the crisis, essentially between 2007/8 and 2012/13, which has recovered from then on. However, both the evolution of the amount of grants awarded and the number of students enrolled in Higher Education seem to suffer from the important effect of inertia from this recovery. The number of successively awarded grants serves as a guide for explaining the behaviour of enrolments made during the following year, as it probably influences students' expectations of funding.

It is time to look at two other aspects of TIHC: the influence exerted by the expected situation in the labour market upon completion of a degree and the decision to enrol in H. Ed in the face of a significant component of opportunity costs - namely the possibility of employment with just 12<sup>th</sup> Grade Education (Upper Secondary):

**Figure 4:** Number of enrolments in H. Ed and Unemployment (Un.) rates of those with just 12<sup>th</sup> Grade Education (Upper Secondary) and holding a Bachelors degree (20 to 24 yrs old) – annual variation



Source: OECD and EUROSTAT DATABASES

First we analyse the effect of the opportunity cost of "probability of employment with Secondary Education". According to the justification given by the current government, the higher this probability (that is, the lower the corresponding unemployment rate), the lower is the number of enrolments in Higher Education; that is to say, employment opportunities of those who just have 12<sup>th</sup> Grade Education "would compete" with enrolment for Higher Education. Figure 4 shows that this could have only been the case between 2011 and 2012, and between 2013 and 2014, and that rate of unemployment continues to decline until 2015, although from 2014 the number of enrolments in Higher Education increased again.

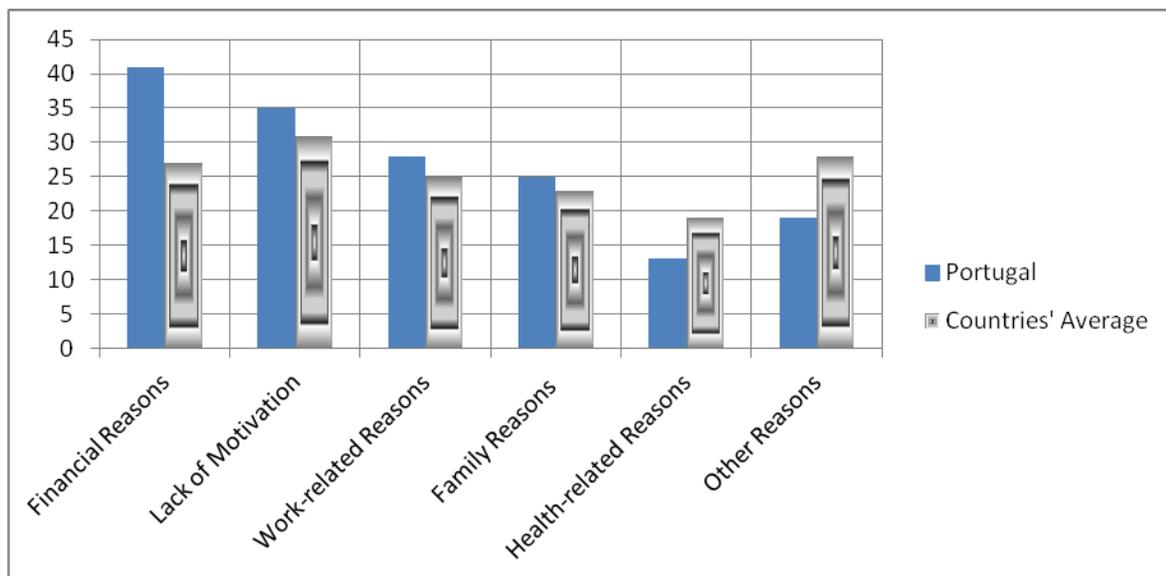
On the other hand, the number of enrolment decreased following the peaks of unemployment among graduates, as occurred between 2011 and 2012. The sustained decrease of the corresponding unemployment rate up until 2013 results in an increase in the number of those enrolled in Higher Education, with a gap of one year; however, this trend did not last very long: as from 2013 onwards, both evolutions not only oscillated, but are symmetrical with each other, as recommended by TIHC, with the adjustments overlapping in time.

It should be noted that, according to Eurostudent, Portugal is the Member State with the second highest rate of interruption of study due to financial reasons regarding students whose parents

have a Higher Education qualification. In spite of the high inter-generational inertia between parents and children with this level of education, as already mentioned above, a higher educational level of the parents does not immunise their children from the necessity to interrupt their studies due to lack of resources.

We move on to analyse the various reasons cited for the interruption of studies by Portuguese students, when compared with the average of a set of countries which, besides the U.E., also includes Switzerland and Turkey:

**Figure: 5** – Reasons for the interruption of study by H. Ed students - Portugal compared to the EU average (2016-2018)



Source: Eurostudent

Figure 5 provides the important finding that, despite the prominent weight of financial reasons, those reasons related to work and, above all, lack of motivation are prominent in Portugal, with a greater respective weight than for the average of the other countries. If work-related reasons naturally appear in a context where a very high percentage of students refer to this as a condition for continuing further study, lack of motivation already requires a more in-depth analysis.

First of all, it should be noted that the affirmation of lack of motivation affects students more whose parents' "school capital" is Higher Education: 43% compared to 31% of other students. That is to say, having parents with Higher Education does not "immunise" students against lack

of motivation - quite the contrary. What could be behind this result? Deception by parents themselves regarding their occupational situation? Conditions that are too favourable, resulting in less commitment by students from these families to study? However, the clarity of ideas regarding continuing their studies is significantly greater for students whose parents have a Bachelors degree, which could equate to having access to more information and capacity for clarification.

Being in doubt whether the continuation of studies was, or was not, the right decision, as well as the feeling of not belonging to Higher Education, occurs to a very similar level among students whose parents belong to the group of Graduates and those who do not.

Regarding the factors of motivation, doubts, and expectations, we cannot, however, advance except with other hypotheses and questions such as those already presented above. Only with individualised information collected through our own survey can we examine these factors in more depth. As we explained above, this is the challenge of the second part of this project.

### **Conclusion and proposals for Public Policies**

The analysis carried out enables us to conclude that with regards to the decision to continue studies, some of TIHC's assumptions still seem to be valid in Portugal, namely those related to the funding of direct costs and future remuneration expectations. On the other hand, the opportunity costs arising from the possible "competition" of the labour market after concluding 12<sup>th</sup> Grade Education, which is officially considered to be responsible for the decrease in applications for Higher Education, does not seem to be significant.

There is every reason to believe that the existence or scarcity of financial resources, which is essentially associated with paid work, are the main determinant of these applications, as Portuguese students have to contend with high tuition fees and accommodation costs. These costs are important, even for those students who depend on the family budget, as, since with the Bologna Reform, most of these families have to support much of the financial effort previously borne by the State regarding H. Ed.

Contrary to EU Member States as a whole, in Portugal, the lack of motivation to continue studies is only the second reason, in order of importance. Despite the inertia in transmitting educational

status among Portuguese generations, not even those children of parents who have a Bachelors degree are immune to being unwilling to continue their studies, either because they doubt the future usefulness of the same, or because they fear that they do not have sufficient self-efficiency or performance capacity to continue their studies. Only a longitudinal analysis based on individual data will enable us to analyse this factor in more depth, which is what we intend to do during the next phase.

Therefore, under these conditions, it is fundamental to question public support policies for Higher Education, as increasing the number of graduates is an objective to be pursued in governance, according to the manifesto of the Socialist government<sup>4</sup>. Just as it is also indispensable to question the teaching methodology, syllabus content, lectures organisation and, in short, everything that contributes to regaining the social value of H. Ed.

However, the recent trends in the domain of public policy is disappointing: for instead of a sustained and growing effort to fund H. Ed and a significant reinforcement of H. Ed social action policies, which needs to be expressed in a more robust and intensified policy for awarding financial grants and the provision of public student accommodation, among other, we are witnessing discontinuity, indecision, and on-the-spot decisions, along with the successive problems that arise. Rather than implement a true strategy for the development and promotion of access to Further Education, quick fixes are being put in place, which focus on the short term and there is a complete disarticulation between the various entities involved, starting with the Ministries of Education and of Science and Higher Education.

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<sup>4</sup> These marked differences between the magnanimity of the objectives presented in the ministerial manifestos of the current government and the reality of their (non) concretisation lead us to wonder whether we are not essentially witnessing mere rhetorical intention, without the manifestation of any significant practical change ...

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