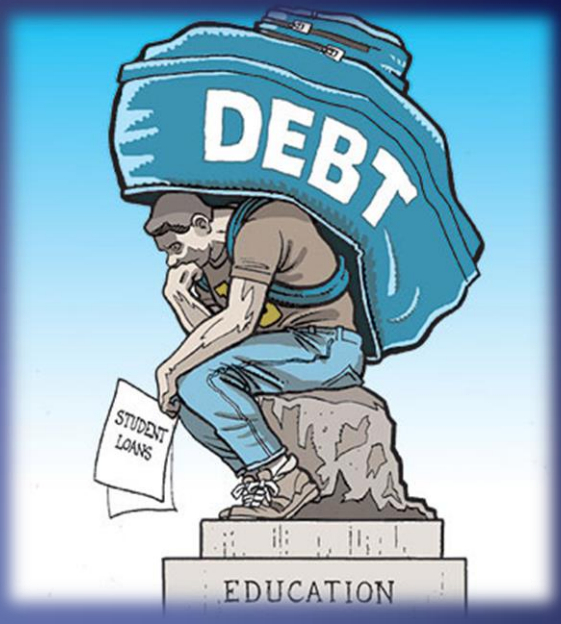

Student loans and debt aversion in Portuguese higher education

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Gabriëlla Baysoy

Master thesis Public Administration

University of Twente

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Master thesis Public Administration

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May 2014

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Preface

With this thesis, my time as a student in the University of Twente will come to an end. A period during which, not only have I learned a lot, but I had also a lot to unlearn. It was also a period during which I was able to meet a lot of people, but above all a period during which I have developed myself into the person I am today. Therefore, this thesis, the last chapter of this period, embraces many of the knowledge and skills I have gained during my studies; while writing it, I tried to study/realize whether and to what extend Portuguese prospective students are debt averse and to examine any differences among students from different groups.

My interest in higher education systems urged me to contact Prof. Hans Vossensteyn, for a graduation research abroad. After a short talk, we reached the conclusion that Portugal would be the most fitting case for my study and Prof. Luisa Cerdeira the most appropriate professional to contribute to its making. Prof. Vossensteyn assured me that I was at the right place, during my stay in Portugal and that Prof. Cerdeira would do everything to make me feel like at home, in a country that was foreign to me. Nothing has been more true. I have never regretted the choice I made to go to Lisbon and collect my data there.

Therefore, with this preface, I would like to take the opportunity to thank several people. First of all, my gratitude goes to my supervisor Prof. Hans Vossensteyn for the doors he has opened for me, the time and effort he has put into me and the patience he has shown me during the past year. Throughout the process, Prof Vossenteyn, a very good and at the same time critical supervisor, has helped me a lot to overcome any difficulties and also provided me with new perspectives and input. He also taught me to work independently.

I would also like to thank Prof. Luisa Cerdeira, for her sympathy and hospitality at the University of Lisbon. She always managed to find some time for me when necessary, despite her very busy work schedule. She helped me to translate my survey from English to Portuguese and she opened several doors for me in Portugal. She has managed to bring me in contact with the Portuguese Ministry of Education and with the various schools to which the surveys were distributed. Moreover she offered me a place at her office with Prof. Thomas Patrocinio and Prof. Belmiro Gil Cabrito. Both of them where very helpful and there were at my disposal for any questions I might had. In addition, Prof. Thomas has taught me a

lot about the Portuguese language and culture. Obrigada for that! They also helped me with the translation of my survey and the request for approval by the Portuguese Ministry of Education. For this I would also like to thank Judite Soares. She contributed at its most to make sure that the application process would be a fast pace. I would also like to thank all the Portuguese students who took some time to fill in the surveys.

I could not conclude this chapter without mentioning my second supervisor, Dr. Van der Kaap who offered me a helping hand when I found troubles analyzing my data statistically. He also offered me several insights to make my thesis a better success.

I also find necessary to deeply thank my parents. They always make me realize how important it is to study and they always taught me that with the help of God many things are possible. Finally, I would like to thank the rest of my family and friends. They have been comprehensive shown understanding for the time that this thesis has demanded from me, and besides they have always supported and motivated me. Special thanks go to the friends who did the proofreading of my thesis.

Gabriëlla Baysoy

May, 2014

Management Summary

In recent years, higher education has become increasingly important. But overall, students in many countries are progressively paying more for higher education, because of the principle of cost-sharing. These increasing costs may negatively affect the accessibility to higher education, if students are not willing to pay the extra costs. Therefore governments try to encourage students to take up student loans to study in higher education. The Portuguese case of higher education is a very interesting one. In Portugal without any grants, loans or other financial support, it is very difficult to study in higher education, particularly for lower income students. Portuguese higher education students are in a very unfavorable situation with regard to the degree of accessibility and affordability compared to other European students. Portuguese students and their parents pay much more for studying than most of the other European countries in the comparison with their median household income, because family incomes in Portugal are lower than in the other European countries. Student loans can be a good instrument for students in financial distress; loans can play helping prospective students to compensate these liquidity constraints. However, in most of the Portuguese bibliography it is assumed that Portuguese students, particularly low-income students, are debt averse and that they will not take up a loan to study. This study aims to contribute to literature whether prospective students are debt averse and what conditions can make student loans more attractive.

The first chapter of the thesis is an introductory chapter. In this chapter the main topic, the central research question and the sub questions will be introduced. The central research question is as follows; *"To what extend are prospective Portuguese students debt averse? And are there differences between students from different groups in terms of social economic background, gender, school type, geographical school location and earning expectations."* In the subsequent chapters from this thesis the sub-questions will be answered.

The second chapter gives a description of Portuguese higher education. It shows how higher education in Portugal looks like and what student financing arrangements apply to Portuguese students. In the third chapter, the theoretical framework, is shown what economic theories tell us about student choices, student loans, access to higher education and the influence of debt aversion. With relevant concepts from the behavioural economics we have formulated seven hypotheses. The hypotheses addresses the relationships between

the choice to study in Portugal with financial elements like loans, the role of debt aversion and the difference between students from different backgrounds. In the fourth chapter (the methodology), the research design is described. The research in this thesis is partly a literature review on higher education in Portugal and various theories that may help explain the phenomenon of debt aversion among students and partly a quantitative study. With the quantitative data is tried to find out to what extent there is debt aversion among students. The quantitative data is obtained through surveys among students in the final year of secondary schools.

Chapter five addresses the operationalization of the hypotheses through specific variables and provides descriptive overviews of the main outcomes of the surveys. The outcomes of the surveys are related to actual numbers in higher education in Portugal. From chapter five is concluded that for many Portuguese students it is unlikely to borrow. If they would borrow, they would prefer loans from the state over those from private banks. We also found that regardless of the fact that students perceive it very unlikely to take up student loans, they would not be very negative towards student loans with attractive repayment conditions. They are less debt averse as one would expect from the statements about likelihood to take up loans.

The sixth chapter answers the question whether debt aversion plays a role for prospective Portuguese students and if this differs for different student groups. We found that students from different SES groups have slightly different cost expectations. The differences are mainly found in the tuition fees expectations. Students from higher socio economic backgrounds expect to have higher tuition fees than lower SES students. This is in opposite direction than expected. We found also differences in the level of debt aversion between the different groups. We concluded that prospective students from low socio economic backgrounds are more debt averse than high SES students. We concluded also that public school prospective students are more debt averse than prospective students from private schools. However we rejected the hypothesis that female students, rural area students, and students with lower earning expectations are more debt averse than male students, city area students and students with higher earning expectations. Hence, we have to mention that we found some proof that in some components of debt aversion some students of those groups are more debt averse than other students. In the last chapter we conclude therefore that

debt aversion is a multi-faceted phenomenon. According the way we measure debt aversion, may determine if students are debt averse or not. However, overall we have also concluded that favorable repayment conditions and average high rates of return should offset debt aversion in Portugal. In the last part of the seventh chapter some recommendations for policy makers in Portuguese higher education concerning student loans are given.

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1. Introduction

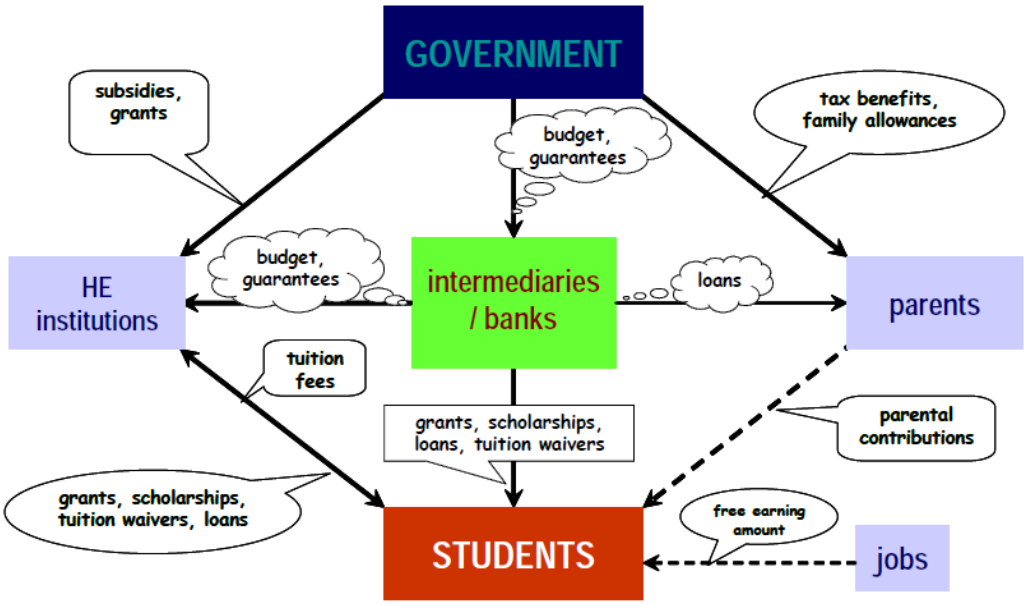
In recent years, higher education has become increasingly important. Stimulating economic growth is an important issue on the agenda of the European Union. Higher education plays an important role in stimulating economic growth (Eurydice, 2013). In addition to stimulating economic growth, higher education has many other benefits, financial and non-financial, private and social (European Commission, 2007). In most countries, student financing plays an important role in the funding of higher education, in particular for low income students (Johnstone, 2006). However governments can no longer pay all costs. In recent years, the impact of the financial crisis is really noticeable in the area of higher education. Due to governments' cutbacks, year after year, students do not have many options besides sharing the costs of higher education and of its increasing tuition fees with their parents, and by getting loans and student jobs, instead of grants (Vossensteyn, 2005). In general, according to studies students are not very price sensitive, except low SES students, but the threshold to participate in higher education must be reachable enough to ensure everyone's accessibility in Higher Education and to stimulate a highly educated population (Johnstone, 2004). The issue that we should deal with is whether the government cuts in Higher Education funding and increasing emphasis on student loans, the threshold to enter higher education is not too high to negatively affect the accessibility of higher education.

The main topics of this study are debt aversion among Portuguese prospective students and the influence of student loans and what conditions can make loans more attractive.

1.1 Developments towards cost-sharing and its potential impact on access to Higher Education

Student financing is very complex; many actors can be involved: governments, parents, higher education institutions, intermediaries, banks and the students. The figure below presents how complex student finance is. The figure shows the relation between the different actors involved in higher education and the different methods of student financing. Student financing can be provided in different ways, by direct student support like grants and scholarships (gifts), by indirect student support, such as family support (child support) and tax benefits (for students and parents), by hidden support, like no interest on loans and by support in kind such as dormitories, mensa and insurances (Vossensteyn, 2005).

Figure 1: The complexity of student financing. Vossensteyn (2012)



Many governments subsidize education at all levels, including Higher Education. These subsidies can take various forms; like basic funding to universities, grants and guaranteed or interest-subsidized loans (Eckel *et al*., 2007). In order to stimulate mass higher education with limited public budgets, governments introduce the principle of *cost-sharing*. Cost-sharing reflects the public policy change from systems where governments bear most of the costs, to systems where students and their parents have to share the costs of higher education by means of higher tuition fees and a growing reliance on loans and students jobs instead of grants (Johnstone, 2006).

Also, private Higher Education may be a way of cost sharing. Different researchers suggest that it is fair to ask students and their parents to make a contribution to the costs of higher education because of the high rates of return to Higher Education. They show rates of return from 4 percent till 30 percent (Vossensteyn, 2012). Several studies that address the phenomenon of cost-sharing indicate that it may affect the accessibility to higher education (Johnstone, 2006). Nevertheless, governments suggest that they support the opportunities to study by having various student loan schemes. In the dissertation of Vossensteyn (2005) about the perceptions of student price-responsiveness, he shows that general studies about student choices indicate that financial incentives, like tuition fees, grants and loans, hardly have any influence on participation patterns of students. A limited number of studies indicate that increasing costs for students may negatively affect the accessibility to higher

education, or at least one can speak of debt aversion among students (Vossensteyn, 2005). Whether debt aversion will in the end lead to reduced accessibility to higher education is not proven yet (CPB, 2013).

Overall, students in many countries are progressively paying more for higher education. In figure 1 we see that students can finance their higher education in different methods. Cost-sharing makes that students increasingly have to rely on the methods of student loans, self-funding (jobs) or parental contributions. These increasing costs may negatively affect the accessibility to higher education, if students are not willing to pay the extra costs. Students may choose not to enroll in higher education or prefer shorter and less expensive programs and institutions. Governments try to encourage students to take up student loans. Therefore, it is interesting to know if student loans influence prospective students in their decision to study in higher education, despite the increasing costs of higher education.

1.2 The Portuguese case of cost sharing

As we mentioned at the beginning of this chapter we see that in many European countries budgetary restrictions that took place because of the financial crisis, have led to cuts in the funding of higher education. This is exactly the case in the Portuguese higher education (Eurydice, 2013). The principle of cost-sharing is also introduced in Portugal. The Portuguese higher education system forms a very interesting issue. Portuguese students and their parents pay, for example, much more for studying than students do in most of the other European countries, in the comparison with their median household income. Furthermore we see that the differences in student choices between different Portuguese groups are very big. The introduction of new loan systems should be an answer for these issues in higher education, but in most of the bibliography it is argued that Portuguese students are debt averse and that they will not take up a loan to study (Cerdeira, 2009). This is one of the main reasons why it is interesting to know if loans have an influence on Portuguese student choices and if Portuguese students actually are debt averse.

So in Portugal without any grants, loans or other financial support, it is very difficult to study in Higher Education, particularly for lower income students. Portuguese Higher Education students are in a very unfavorable situation with regard to the degree of accessibility and affordability compared to other European students. Portuguese students and their parents

pay much more for studying then most of the other European countries in the comparison with their median household income, because family incomes in Portugal are lower than in the other European countries. On the one hand these high costs for Portuguese students may negatively affect the accessibility of higher education. Prospective Portuguese students may choose not to enroll in higher education or prefer shorter and less expensive programs and institutions. On the other hand student loans can be a good instrument for students in financial distress; loans can play a role helping prospective students to compensate these liquidity constraints (Chapman, 2005). Therefore it makes it interesting to know about the impact of student loans on Portuguese student choices. But, as we mentioned above, in most of the Portuguese bibliography it is assumed that Portuguese students, particularly low-income students, are debt averse and that they will not take up a loan to study. Whether debt aversion in the end will lead to reduced accessibility of higher education is not proven yet. Hence, with the research of this thesis next to the influence of loans on prospective Portuguese student choices, we will examine if prospective Portuguese students are really debt averse and if this differs for prospective students defined in terms of SES, gender, school type, school location and earning expectations. In the upcoming chapter it will be explained in more details why Portuguese higher education is an interesting case to study.

So with this thesis I want to add to literature to see whether prospective students are debt averse and what conditions can make student loans more attractive.

1.3 Central research question and sub questions

With this thesis we try to find out if student loans for Portuguese prospective students really influence their decision to study in higher education. We also try to draw conclusions on whether the expectations about the fact that prospective students are debt averse are right, and if this differs for students from different backgrounds. The central research question is therefore:

To what extent are prospective Portuguese students debt averse? And are there differences between students from different groups in terms of social economic background, gender, school type, geographical school location and earning expectations?

To answer this central research question, some sub-questions were formulated:

The first sub-question is: *How does higher education in Portugal look like and what student financing arrangements apply to Portuguese students?*

Most higher education systems are complex and not transparent. This analysis is envisaged to provide a clear insight in to the Portuguese higher education system. The accessibility of Higher Education can be explained by showing how Portuguese Higher education look likes and how (difficult) students can enroll for higher education.

The second sub-question is: *What does economic theory tell us about student choices, student loans and access to higher education and the influence of debt aversion?*

With this question the focus will be on the major outcomes of student choice research and the relation of student choices with loans and debt aversion. By answering the question a theoretical framework will be given based on a combination of these concepts. Through the theoretical framework a number of hypotheses will be formulated which can be tested with the empirical data.

The third sub-question is: *Does debt aversion play a role for prospective Portuguese students and does it differ for students from different backgrounds in terms of SES, gender, type of schools, geographical location and earning expectations?*

With this third question the empirical part of the research will start. This question provides insights in how the phenomenon of debt aversion among prospective Portuguese students really looks like in general and particularly regarding to studying in higher education. There will be an overview about whether there is debt aversion among upcoming students. Debt aversion will be measured with different components. With this question we will show how the different groups of students score on the different aspects of debt aversion.

The fourth sub-question is: *Under what conditions do prospective Portuguese students consider loans to be an option for financing their studies?*

With this question we want to find out under what conditions loans can be an option in Portuguese higher education. We will analyze under what conditions Portuguese students want to borrow and what their attitude is towards different kinds of loan systems.

The fifth sub-question is: *What recommendations can be made for policy making in Portuguese higher education concerning student loans?*

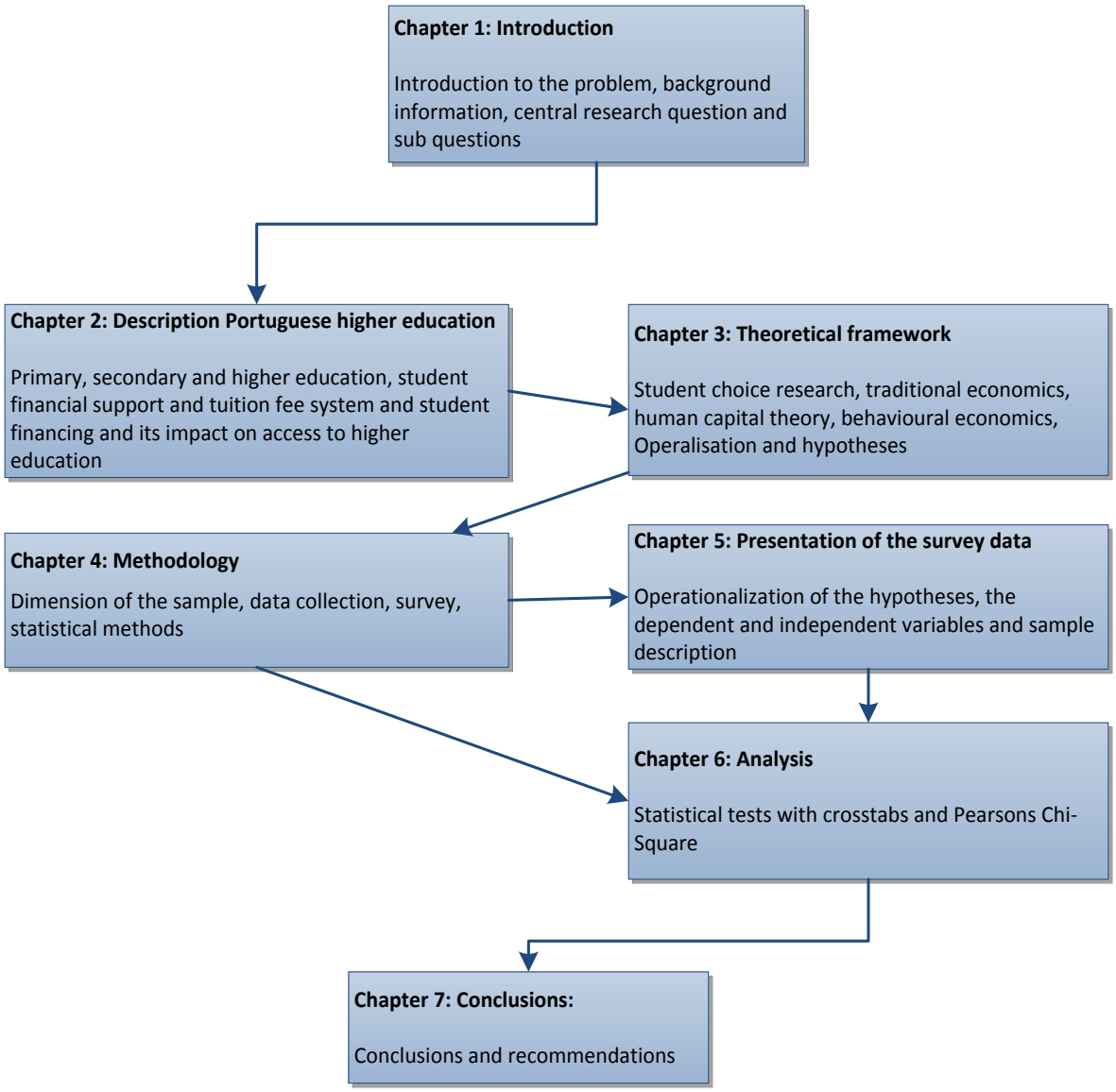
With the answers on the other research questions we give some insights in the Portuguese higher education system, economic theories on student choices, the role of debt aversion for prospective Portuguese students and the conditions under which student loans are an option in Portugal. With these analyses that will be made with the collected data, we can do some recommendations, concerning student loans for Portuguese Higher Education policymakers.

1.4 Structure of the report

This research will be partly a literature and partly an empirical quantitative study. By using the literature, we try to find answers to the first two sub-questions. We start the first part of the study with a description of the Portuguese educational system. This is followed by a description of the Portuguese student financial support and the tuition fee system. Thereafter, results from previous Portuguese research on student financing and its impact on access to higher education will be presented. The second part of the study will be an overview of different economic theories which may help explain the role of student loans, debt aversion and differences between particular categories of students in Higher Education. We also try to show the major outcomes of existing student choice research. With the quantitative data we will answer the last three sub-questions, by linking the existing literature to the collected data. Here we also try to find out to what extent there is debt aversion among students. The quantitative data will be obtained through surveys among students in the last year of secondary education in Portugal. With the data, we will explain how prospective Portuguese students think about financial incentives related to studying and if prospective Portuguese students are debt averse; we will also examine if this differs among students from different backgrounds. The survey will consist of questions on four different topics. The survey will start with some questions regarding general characteristics (questions about behavioral and background variables), followed by questions about students' Higher education aspirations and expectations. The surveys will end with questions about the students' attitude towards student loans and debt. The survey questions will be formulated by using the theoretical framework. For answering the research question it is better to do this empirical research among secondary school students instead of doing it

among current university or polytechnic students. In the latter case we would miss the group of the young people who do not have made the choice to study. Besides, these students already made the choice to study, which make it difficult to move back to the time they should choose a study. After the data analysis, this study is finalized with some conclusions and recommendations about the conditions under which loans can be an option in Portuguese Higher Education. In the figure below the content of this research is given in a short overview.

Figure 2: Thesis overview



1.5 Major concepts and definitions

In this research different concepts will be used. To prevent misinterpretation table 2 presents the major concepts with their definitions used in this study. Most definitions are the most used definitions in student choice literature.

Table 1: Major concepts and definitions in this study

Concepts	Definitions
Debt aversion	The psychic disutility of borrowing. In this thesis it is measured with students expectations for having a student loan or a student job, students attitude for taking up a loan for a house, car or higher education, the likeliness for taking up a loan in different situations, the maximum debt students are willing to accumulate for completing a higher education degree and students attitude towards different statements about loans in general and loans for studying.
Future earnings	The income students expect to earn when they enter the labour market as graduates. These can for example be starting wages of graduates, total lifetime labour income, or the maximum wage at some point in a working career. (Vossensteyn, 2005)
Grants	Generic subsidies (gifts) to groups of students that do not have to be repaid. (Vossensteyn, 2005)
Loan characteristics	Different loan characteristics about interest, repayment conditions and cancellation of debt after some years.
Socio-economic background	Indicators of the social origins of a student, including parental education and parental income. (parents occupational status) (Also used as SES)
Student choice	All choices students make related to studying, including whether or not to enroll, what (type of) institution and program to choose, whether to stay in college or to drop out, to live at the parental home or independently, to take up loans, to take a part-time job, etc. (Vossensteyn, 2005)
Study costs	All costs for a student related to following a higher education program, including tuition and other fees, study materials, and living costs like nutrition, accommodation, personal care, travelling and leisure, etc. (Vossensteyn, 2005)
Student financial support	Financial assistance to students provided by public authorities or higher education institutions agencies in order to meet the costs of study, including grants, scholarships, loans family allowances and tax incentives. (Vossensteyn, 2005)
Student Loans	Money lent to students that must be repaid, typically after the student leaves higher education. Student loans often include favorable repayment conditions.
Tuition fee (price)	The price students have to pay for enrolling in a particular study program at a particular higher education institution. Tuition fees are related to the costs of instruction. Tuition fees can cover part or total of these costs, or even more. (Vossensteyn, 2005)

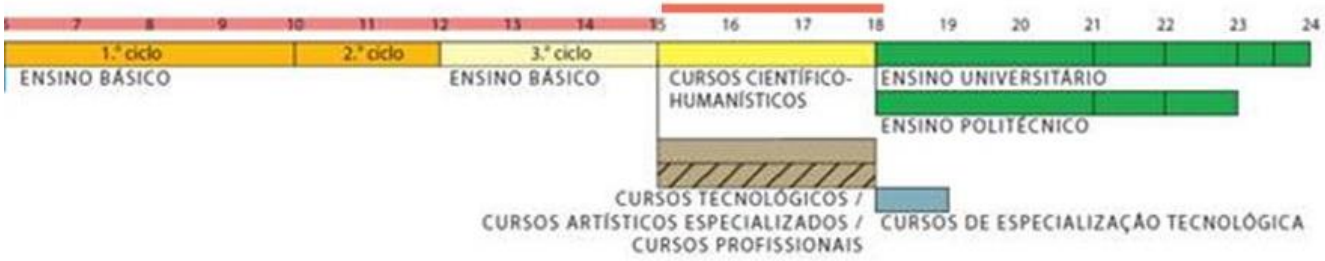
2. Description of Portuguese higher education

Like mentioned in the introduction of this thesis most higher education systems are complex and in transparent. This complexity can affect the accessibility of higher education. Cost sharing may also affect the accessibility of higher education. The obligation to student loans may reduce the accessibility, for example. But also many other factors can affect access to higher education, such as the pathways to higher education, selection, labour market conditions, etc. For these reasons we give some insights in the Portuguese education system. For example, we will show what the selection criteria are to continue higher education after secondary school. In addition, a description of the student financial support and tuition fee system will be given. Thus, with this chapter, with offering insights in Portuguese higher education, we can understand better which aspects determine the accessibility to higher education.

2.1 Portuguese primary and secondary education

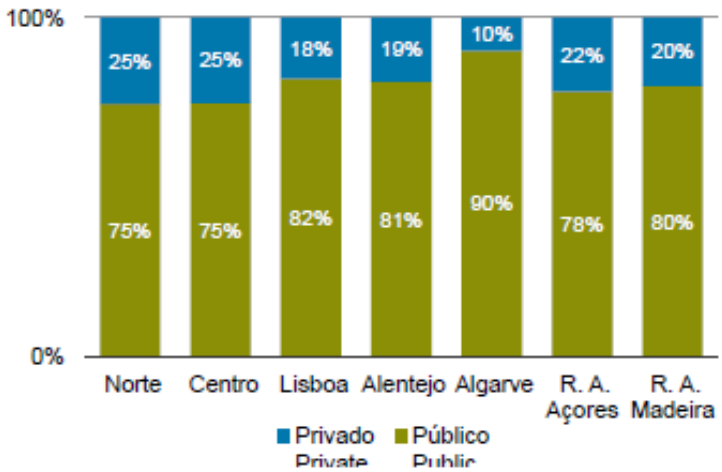
Portuguese Basic Education is universal, compulsory and free and it has a duration of nine years. In Portugal, children aged from six to fifteen are required by law to attend basic education. They can attend state schools or private schools. The basic education system in Portugal is divided into three cycles. The first cycle, which has a duration of four years, is providing a rounded education. The students have every year one single teacher. The second cycle has a duration of two school years. In the second cycle the learning process is organized into interdisciplinary areas at a basic level and with one teacher for each area. The third cycle, last three school years, is organized around a unified curriculum, including a variety of vocational areas with one teacher for each subject or group of subjects (Ministry of Education, 2006).

Figure 3: Portuguese Education system (Eurydice 2012/2013)



In this research we will collect our data at secondary schools; this is the reason why we will describe the Portuguese secondary education more extensively than the Portuguese basic education. Secondary education courses have a duration of three years and they are open to students who have obtained the basic education diploma, which they get at the end of primary education. Attendance is optional and the students are mostly aged between fifteen and seventeen years. There is a variety of secondary education available to students in Portugal. If students after secondary education want to directly enter the job market, they can choose to go to technology courses. Those who are hoping to continue in higher education are following the general courses. The curriculum is divided into subjects, with one teacher for each subject (Ministry of Education, 2006). The latest data available about the enrolled students in Portuguese secondary education are about the school year 2010/2011. At a later time in this thesis we will compare these data with our own data. In the school year 2010/2011, 440 895 students were enrolled in secondary schools, and of this group, 116 354 students (+/- 26%) where from the Lisbon area (Ministry of education, 2013). In 2011, 51% of the secondary students where boys and 49% of the students where girls (Ministry of education, 2013). Figure 4 shows the differences in percentage between students enrolled in private and public secondary education. The figure shows that there are many more students enrolled in public schools than in private schools in the whole country.

Figure 4: Students enrolled according to the nature of institution by region, school year 2010/2011 (Ministry of education, 2013)



In Portugal, all secondary schools are ranked from low quality to good quality. Many of the best ranked secondary schools in the country are private schools, as well as some of the

worst ranked secondary schools. The best ranked public and private secondary schools are those from the biggest cities; Lisbon, Porto and Coimbra. Schools from littoral areas (often big city areas) are better ranked than schools from rural and less populated regions. This secondary schools ranking is released every year in Portugal and is based on the student's average grades in the national examinations, which are used for higher education selection (Ministry of Education, 2009). The fact that the best ranked schools are from littoral areas may have to do with the fact that there are more students from higher SES groups in these littoral areas than in schools from interior regions (Ministry of Education, 2009). We will also analyze this information about the differences between the students from the different areas in a later point in this research.

In the end of the 11th grade of secondary school, students have national exams on the two specific subjects of their course. In the end of the 12th grade, the students have exams on Portuguese language and the main subject of the course. The access to higher education is made through a national process, where the students enter higher education by priority of their grades. The average of grades obtained in all subjects represents a part of the application grade to enter college. The other part is based on the grade of the specific exams that the college requested, which are related with the course the student is applying for. The average of both averages is the application grade to college. The grade is between zero and twenty and the higher it is, the better is the chance to enter. In Portugal, the percentage of secondary students who will not study in higher education is average, compared with other European countries. In 2009, 31,8% of the female and 43,8% of the male secondary students did not attend any higher education (Eurydice, 2010) (Unesco, 2014). Many of those students enter the labour market with the technology courses.

2.2 Portuguese higher education

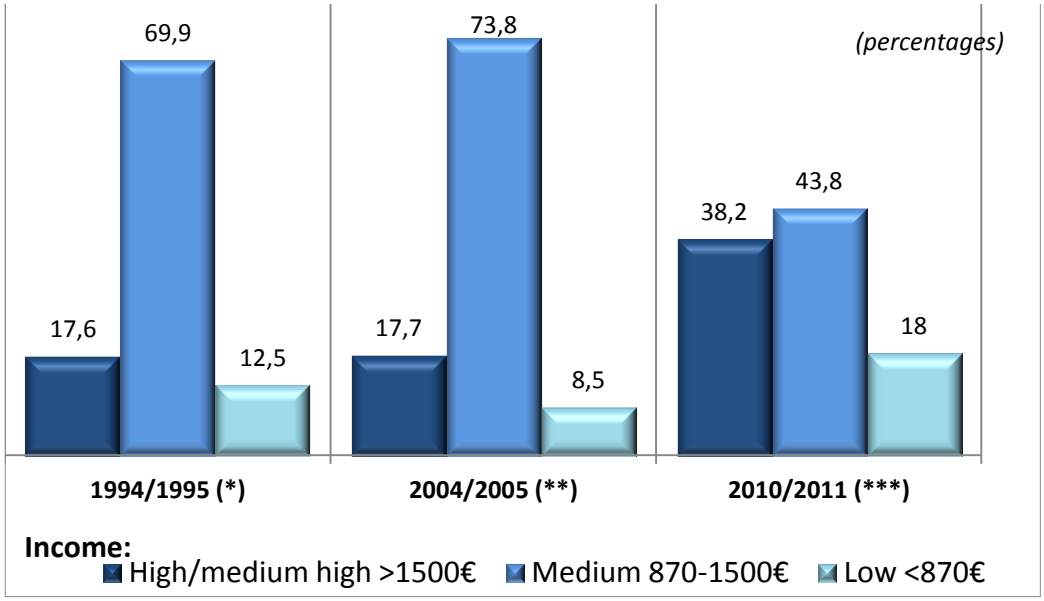
Higher education in Portugal combines university education and polytechnic education. Students in Portuguese higher education are mostly between eighteen and twenty five years old. However, people from twenty five years and older may also apply for a place in higher education even if they do not possess the necessary secondary education or equivalent qualification, on condition that they can prove that they have the necessary skills and knowledge. Both university and polytechnic institutions confer the degree of licenciado (bachelor) and mestre (master). The douter (docter) degree is conferred by universities. The

bachelor's degree has a length of 3 to 4 years in universities and in polytechnics and the masters degree has a length of 1,5 to 2 years both in universities and in polytechnics (ISCEM, year unknown).

2.3 Portuguese student financial support and tuition fee system

To understand which aspects determine the accessibility to higher education, it is good to present an overview of what financial arrangements are organized to study in Portuguese higher education. Portuguese higher education is a successful case in the scope of its growth, but also in the scope of its diversification and regionalization. Portuguese higher education was able to change (from 1980/1981 to 2007/2008) from a small system with little more than 82 thousand students to around 377 thousand students and it changed from a restricted number of universities to a varied set of institutions, distributed in a national network. In figure 5 we see that the participation of students from the wealthiest strata of society has more than doubled between 2004/2005 and 2010/2011. At the same time, there has been a spectacular decline of youth participation coming from middle-income strata in contrast to richer and poorer students. This could reflect a real increase in participation of the poorest strata, including a process of democratization of the Portuguese higher education (Cerdeira, Cabrito, Patrocinio, Machado & Brites, 2012).

Figure 5: Economic background of students in higher education. (Cerdeira, Cabrito, Patrocínio, Machado & Brites, 2012)



Introduction of tuition fees in public education did not result in a decrease of academic attendance (Cerdeira, 2009). In Portugal all Higher Education students pay tuition fees. The annual tuition fee is fixed by each public higher education institution and ranges from 630,50 euro to 1065,72 euro in the school year 2013/2014. The minimum value of the mentioned fees is calculated as a 1,3 times the national minimum annual wage. Most of the institutions apply the maximum value. All international students pay higher fees than national students (Eurydice, 2013/2014).

Costs of study

Between 2004/2005 and 2010/2011 there was also a significant increase in the costs of education and life for Portuguese students in higher education, regarding universities and polytechnic, private and public as well (Cerdeira *et al*.,2012). The costs of students in Portugal depend on multiple factors, but especially on the type of higher education institution, the accommodation and the region where the students live (Cerdeira, 2010). The average total annual costs of higher education students contain therefore large differences between students from public schools and students from private schools. The big difference is mainly due to the educational costs. Tuition fees in private universities and polytechnics are much higher than the tuition fees in public universities and polytechnics (Cerdeira, 2012). In table 2 the average total annual costs of higher education students is shown (life, education and total), in euros, in the period 2010/2011. Like we see; the total costs for private education are much higher, then the cost for public education. It is therefore explained that students in private education will take up more loans for studies, than students in public education and that the majority of low SES students goes to public education schools and thus receive more grants; besides, the total average costs of studying is also lower in public education. Studying in Portugal is a big expenditure which is difficult for low-income students. Cerdeira *et al*. (2012) argue that this embodies an obvious lack of fairness with regard to accessibility in Portuguese higher education.

Table 2: The average total annual costs of higher education students (life, education and total) in euros in the period 2010/2011). (Cerdeira, Cabrito, Patrocinio, Brites, Machado, 2012)

Type of Institution	2010/2011		
	Living costs	Education Costs	Total
Public University	4.679,00	1.263,00	5.942,00
Public Polytechnic	4.505,00	1.214,00	5.719,00
Private University	4.618,10	4.225,00	8.843,10
Private Polytechnic	5.800,00	4.608,00	10.408,00
Total (average)	4.690,00	1.935,00	6.624,00

(The numbers in table 2 and 3 are not similar because table 2 is given in euros and table 3 is given in dollars.)

In comparisons between the costs for Portuguese students in Higher Education with the results of Higher Education global study cost rankings from the OECD, we see that the position of Portuguese students is better than in countries as Canada, Australia and the USA but much worse than in other European countries, in particular when comparing with the Scandinavian countries (Usher & Medow, 2010). In table 3 we see the comparison between the total costs of study (study related costs + living expenses) and family household income in $. Reading the table we see that Portuguese higher education students are in a very disadvantaged situation in the international context, particularly when compared with their European colleagues. The total costs compared with their median income are very high comparing to the other countries. The ranking of Portuguese students, being in twelfth position, in relation to their ability to pay the costs of higher education is very low. The total costs of higher education is for Portuguese students 75,1% of median family income. After receiving grants and tax deductions, students in Portugal pay about 63 percent of their family income for higher education (Cerdeira *et al*., 2012).

Table 3: Comparison between the total costs of education (education + life) and Median Household Income in $. (Cerdeira, Cabrito, Patrocínio, Machado & Brites, 2012)

	Total costs	Median Income	%	ranking
Germany	6.250	22.020	28,4%	1º
Norway	8.096	26.623	30,4%	2º
Netherlands	10.348	28.032	36,9%	3º
Finland	7.977	21.010	38,0%	4º
France	8.047	20.650	39,0%	5º
Denmark	9.443	22.929	41,2%	6º
Sweden	9.265	20.716	44,7%	7º
Latvia	6.223	13.646	45,6%	8º
Canada	13.007	26.623	48,9%	9º
New Zeeland	10.670	19.265	55,4%	10º
England and Wales	14.844	24.652	60,2%	11º
Portugal	**9.761**	**13.000**	**75,1%**	**12º**
Australia	19.352	23.017	84,1%	13º
USA	23.615	26.990	87,5%	14º
Japan	24.802	22.790	108,8%	15º
Mexico	8.108	4.615	175,7%	16º

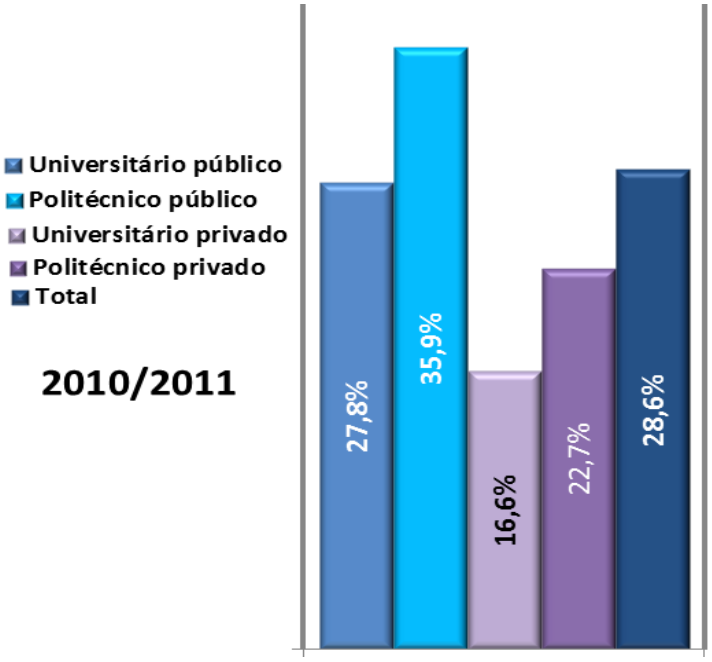
(The numbers in table 2 and 3 are not similar because table 2 is given in euros and table 3 is given in dollars.)

Student support system: grants

In Portugal the main student financial support instruments concern grants for students from lower-income backgrounds. Most of the Portuguese data suggest a relatively fair subsidization policy based on which most subsidies go to the poorest students. In Portugal student grants can be need or merit based. In school year 2012/2013 about 15 percent of students received a need-based grant. Eligibility for need-based scholarships is determined by the income of the students and his family. Need-based grants amount vary between 1065,72 and 5677,14 in the school year 2012/2014. Merit based grants are based on students' academic, artistic, athletic or other abilities. The most common merit based grants, awarded by either private organizations or directly by a student's intended college, recognizes academic achievement or high scores on standardized tests. Merit-based grants amounted 2415 euro per year in 2013/2014 (Eurydice, 2013/2014). In 2010/2011 33,6

percent of polytechnic students are grantees, while at university this percentage is 24,9 percent. The largest percentage of grantees is found in public polytechnics (35,9%) followed by the public university (27,8%)(Cerdeira *et al.*, 2012). In figure 6 these differences in grants between the different institutions are shown. In school year 2010/2011, 37 percent of the grants had an amount of 100 euro per month and only 1,3 percent are grants exceeding 600 euro per month (Cerdeira *et al.*, 2012).

Figure 6: Percentage of grantees 1994/1995, 2004/2005 and 2010/2011 by sub-system (Cerdeira, Cabrito, Patrocinio, Brites, Machado, 2012)



Student support system: loans

There are also possibilities to take up a loan to study in Portugal in two different ways. There is the old loan system, were you can take up a loan at a private bank. And the new loan program, a type of mortgage loan offered by six private banks and a public bank, with governmental guarantees and subsidized interest rates, created in 2007. In this new student loan system these loans are offered by private banks, with the state as liable guarantor, providing financial guarantees so as to facilitate credit obtaining in proper conditions. (Cerdeira *et al.*, 2012). In order to establish loan amounts, in the old and new system, banks would have to take into account the students' economic status, tuition fee value and if the student is living away from home. Loan amounts can vary from 1000 euro till 5000 euro per course attendance year, up to 25000 euro maximum (for 5 year courses) (Cerdeira, 2009). From 2004/2005 to 2010/2011, there was an increase of students (1.6% to 4.9%) who requested a loan. Students from private polytechnic and private universities contracted more loans. About 66.7% of loans are "mutual guarantee", which means that the state is the liable guarantor. There is also a group of students who take up loans from family and friends (7.8%). The average total debt after graduation for those who borrow is 9851 Euros. The older students (>30 years) are the ones with higher percentage of loans (11%). Students from a family household with lower income have a higher percentage of loans (Cerdeira *et*

al., 2012). In school year 2011/2012 only 3,66 percent of all students who were enrolled for higher education took out the loan with the governmental guarantees.

In the dissertation of Cerdeira (2008) we see that loans in Portugal can be a suitable way to share educational costs and to invest in education for a broader range of students, whose families can endure their studies at least for a part. Cerdeira (2008) suggests that the new student loan program with governmental guarantees created in 2007 is regarded as a good instrument for students in financial distress. The loans help them to meet the financial conditions required to continue studying (Cerdeira *et al*., 2012). But this does not apply to all students. The mechanism of a student loan program is regarded not to be applicable to students from lower-income backgrounds (Cerdeira, 2009), because many authors assume they are debt averse (Johnstone, 2006). Cerdeira (2008) argues that grants are very important in Portugal for low-income students to study (Cerdeira *et al.*, 2012). Cerdeira (2009) assumes that due to debt aversion low-income students will not take up a loan. But if this debt aversion really exists is not proven yet. A study by the OECD (2008) shows that loans are a good instrument to support tertiary education among middle and upper income students, but ineffective among lower income students, while the converse is true for grants. This strongly fits the Portuguese context.

In Portugal there is also indirect support, with tax benefits for parents that are provided through tax deduction on educational expenses. There is a family allowance in Portugal; this allowance is granted to families with children enrolled in Higher Education, the children being less than 24 years old, when the household income does not exceed more then 8803,62 euro per year (in 2013) and when family assets are less than 100612,80 euro in 2013 (Eurydice, 2013/2014).

2.3 Student financing and its impact on access to higher education

Cerdeira (2009) did research on the question to what extend the costs of higher education students (educational and living costs) could encourage or prevent higher education accessibility. Cerdeira (2009) argues that in order to prevent cost-sharing policy from raising equity and accessibility constraints, it is necessary that tuition fee and loan policies are supplemented by social support policies in the form of grants and subsidies. This way, the students who wish and have the ability to attend higher education may do so, regardless of their social, economic or ethnical background. Cerdeira (2009) argues that strong social

support is a cornerstone to provide equity and real higher education accessibility. But this is not the case in Portugal as one has seen.

In sum, in Portugal without any grants, loans or other financial support, it is very difficult to study in Higher Education, particularly for lower income students. Portuguese Higher Education students are in a very unfavorable situation with regard to the degree of accessibility and affordability compared to other European students. Portuguese students and their parents pay much more for studying then most of the other European countries in the comparison with their median household income, because family incomes in Portugal are lower than in the other European countries. The grant amount (average value) covers about 25 percent of the total costs of students, thus Portuguese students need also additional financial support; but still, we see that study grants are the main instruments for Portuguese students from lower-income backgrounds. Cerdeira (2009) argues that higher education equity and accessibility should be enhanced by means of a change in the funding policy of the social support, to overcome the accessibility problems. The new loan program with governmental guarantees is regarded as a good instrument for students in financial distress by helping them to have the financial conditions required to continue studying. But the loan facilities are very limited and a relatively few students make use of this loan system, which can lead to problems for the accessibility of higher education. It is therefore interesting to find out in the next chapters if there is potential for further loans and under what conditions.

3. Theoretical framework

The research into the relationship between loans, debt aversion and student choices will be based on a theoretical framework based on a combination of different theories about these concepts. This chapter will start with theories and models that are trying to explain student choice. With the student choice models we will identify background characteristics. Because the focus in the research questions is on the financial incentive of loans, economic approaches to explain student choices will be used. We will end this chapter with a number of hypotheses that can be formulated by the given literature.

3.1 Student choices

Students choice of university career is a complex, long-term, emotive decision, which many individuals make only once in their lives (Diamand *et al*., 2012). Vossensteyn (2005) gives a literature review on student choice research in his dissertation. Hossler and Gallagher (1987) divided the student choice process into three broad stages. The first is predisposition, which is the attending of higher education or taking up other activities like work. Second is learning about specific institutions and their characteristics and the last is choosing a particular higher education program, institution or mode of study and once enrolled choosing whether or not to persist.

Hossler (1999) distinguished three categories of theoretical models, which are trying to explain student choices. The first types of models are the status-attainment models. These are based on the sociological theory that student choose according to what they think it is expected from them. Students make choices based on a given set of norms and values, according to the logic of appropriateness. The sociological models use behavioral and independent background variables to explain student choices. The second models are the economic models. The economic models have the assumptions that prospective students are rational actors who make careful cost-benefit analyses. Rational decision makers take action if the marginal benefit of the action exceeds the marginal costs. Economic models used explanatory variables as monetary costs, monetary benefits and intervening non-financial actors. The third model is the information processing model or so called the combined models; they combine the ideas of the economic and sociological models. In the information processing models various choice stages and an extensive set of explanatory variables are included. (Hossler, 1999)

Vossensteyn (2005), found a host of factors that influence student choice. He argues that the several variables are dominant in most stages;

- *Students' socio-economic background (parental education, family income, ethnicity, encouragement of parents and peers);*
- *Gender: female students make different choices than male students;*
- *Students' motivation and aspirations;*
- *Students' academic ability and achievements* (Vossensteyn, 2005).

Vossensteyn (2005) also describes in his literature review the role of financial factors like tuition fees, grants and loans in student choices. In his conclusion we can see that students in general are not very responsive to price changes. Increasing or reducing tuition fees and increasing or reducing grants and scholarships hardly affects the number of students. But what we see is that students from lower socio-economic backgrounds are more sensitive to differences in tuition fees and grants than middle and higher SES students. It is in the United States where we mostly see the differences. Lower SES students seek cheaper higher education opportunities (Gandhi, 2008 & Vossensteyn, 2005). Student loans have a more ambiguous impact on student choice. They often don't have a positive impact on access, because loans provide the opportunity to meet the costs of study and to overcome cash constraints. Middle and high SES students take up loans more than low SES students. We see in the literature that students take on part-time work as a substitute to taking up loans. (Vossensteyn, 2005)

3.2 Traditional economics

This part is about the traditional economic approaches used to analyze student choice behavior, because in this thesis the focus is on what the influence of loans is; a financial (economic) instrument, on student choices. Traditional economics has been dominated by *expected utility theory*, which is based on the assumptions that decision-makers operate with complete knowledge and with unlimited capacity to evaluate risks and costs (Diamand, Jones, Vorley and Roberts, 2012). We see that a great part of the early research into student choice draws heavily on classical economic theory. Classic economic theories assume that choices are well considered and based on a stable set of well-defined preferences. In these

theories the individual rationally weighs up the potential costs and benefits of alternative decisions and chooses the option that will maximize their own long-term utility(Diamand *et al*., 2012). People will change their behaviour when the costs or benefits change; they will respond to incentives. People try to attain the highest possible utility with the least possible costs using full information on opportunities and constraints (Vossensteyn, 2005). If we link the traditional price theory with student choices, prospective students will go to study in Higher Education if they believe that the benefits outweigh the costs and if they have the means to pay for all the associated costs. In the general prices theories students will make other choices if there will be changes in tuition fees and grants. Reducing the price of education for students by providing more grants should increase the demand for education. This is also what Cerdeira (2009) concludes in her dissertation and what is already mentioned in the previous chapter.

The difference between students from poor and wealthier backgrounds is often made in the traditional economics. Students from families with more financial resources are less sensitive to tuition and student support changes than poor students. "Poorer students are much more sensitive to tuition changes than wealthy students" (Vossensteyn, 2005). That also means that students are more sensitive to the negative impact of tuition fees than to the positive impact of grants. Vossensteyn (2005) shows that in the general price theories tuition fees always reduce the consumption of education from poor students even if the extra costs are fully compensated with grants. In the general price theory one would have to offer grants that are higher than the tuition increase to overcome the negative impact of the substitution effects.

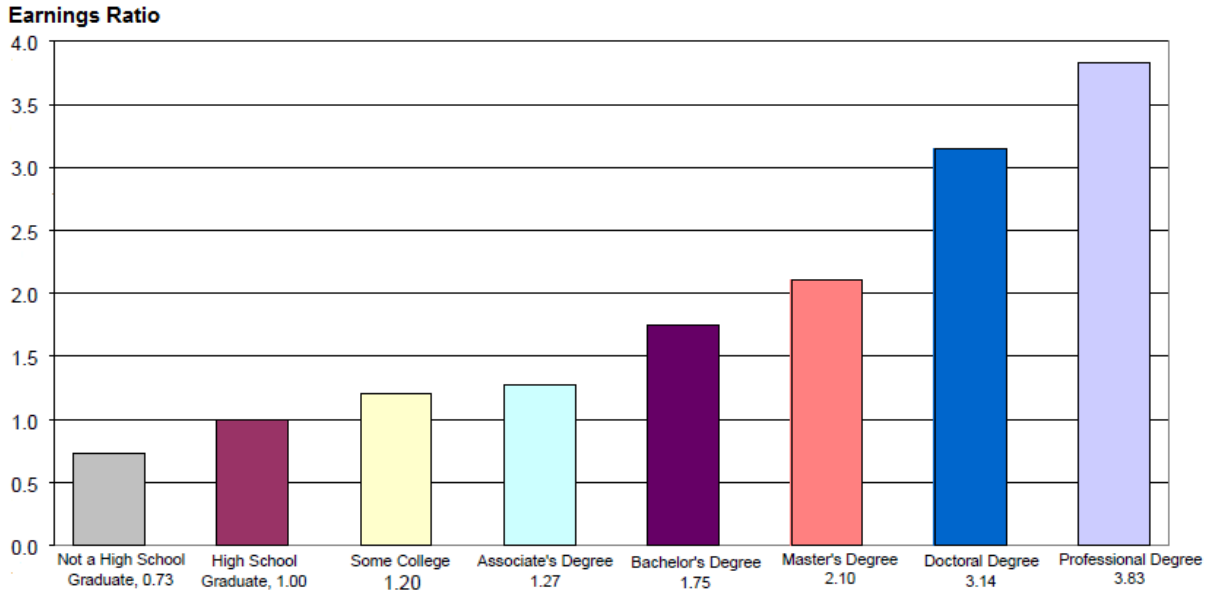
The general price theory has a few shortcomings for student choices. In the traditional economics education, it is assumed as a fully normal economic good, but in the reality this has to be considered again. The general price theory takes also only a short run perspective, while the returns and the benefits of education are spread over a very long time. In the long run, education generates utility through higher lifetime earnings, lower probability of unemployment and greater job satisfaction. Student choices are also faced with uncertainty. Individuals do not have full information on all education opportunities, like whether they will get a job that relates to their study (Vossensteyn, 2005). Thus, to analyze the Portuguese

case concerning student choices, it is better to go beyond traditional economics, because of the uncertainty that students face.

3.3 Human Capital Theory

The neo-classical assumption that people are rational utility-maximizers put forth the Human Capital Hypothesis (Gandhi, 2008). In the Human Capital Theory, education should not be subsidized because the high returns to education more than compensate for the initial costs. If students have the choice between higher education and entering the workforce, they would choose for higher education because the returns result in a higher expected state of wealth (Gandhi, 2008). In the Human Capital Theory, education is an investment in the productivity of individuals and their environment (Vossensteyn, 2005). A person who acquires more education becomes more skillful and productive, which increases earnings in the labour market later. The costs and benefits of education are like a machine over a prolonged period of time. Different studies support the Human Capital Hypothesis that college graduates enjoy high financial returns to their education. We see that the returns to education are very high. Gandhi (2008) shows that in the United States "College graduates will earn an average of about 2,6 million, or about 1 million dollars more over their working lives than high school graduates". In Figure 7 we see these differences between the rates of returns by educational level. But not all educational investments lead to high or satisfactory returns. Some graduates end up unemployed or in low paying jobs. Thus student choice is also characterized by a great deal of uncertainty and risk.

Figure 7: Expected lifetime earnings relative to a High School graduate, by education level (in 1999 dollars) (Gandhi, 2008)



With the Human capital Theory students have to be rational utility-maximizing investors and if students are rational utility-maximizing investors, they recognize the returns to education, they should matriculate even without subsidies (Gandhi, 2008). Gandhi (2008) argues that under the Human capital theory students without the funds to finance the education will simply take out loans to front the initial expense because they recognize the future financial and increased income from a higher education outweigh the current costs. Cost-benefit analysis is crucial to human capital theory; it leads to the calculation of a rate of return. It is so that the longer the period of work, the grater the returns to education will be, since the return accumulates over a longer period of time (Jackson, 2005). In the Human capital Theory the greater the returns to education, the larger the investment and the lower the net price of education for students, the larger the return and the greater demand will be. If the interest rate increases, then the demand for education should drop because the net present value of the returns is reduced. And if an individual is willing to wait for returns and the other opportunities are relatively worse than it is more likely that the individual will invest in education (Vossensteyn, 2005).

Different studies in the United States estimated the private rate of return to college. They found different rates of returns from 8% till 17 % (Gandhi, 2008). Based on the outcomes of these studies, higher education is well worth its costs. These rates of return are lower for women, because women frequently interrupt their employment careers and more often

work part-time than men. The human capital theory suggests that women should have fewer incentives to invest in education (Gandhi, 2008; Vossenstyn, 2005). Different studies show that gender is a powerful determinant of investing; women are more risk averse than men when they invest and they have different attitudes towards money and investing compared to men (Vossensteyn, 2005).

From the standpoint of Human Capital Theory, students have good reasons to invest in higher education. Vossensteyn (2005) argues that regardless of students' socio-economic status, higher education is a worthwhile investment as discounted future earnings on average easily outweigh discounted present costs.

Student choice and human capital

A point of critique on the human capital theory is that people sometimes make irrational choices. Students have to make decisions based on imperfect information, uncertainty and biased preferences which are bounded rational or subjective rational (Vossensteyn, 2005). The Human Capital Theory gives the benefits to higher education, but the Human Capital Theory fails to explain why disparities in enrollment rates between high-income and low-income students exist (Gandhi, 2008). Like Vossensteyn mentions (2005), Gandhi (2008) found disparities between different SES groups. Gandhi shows that in the United States, college enrollment rates show stark disparities by family income level. "In 2001, 80% of high-income high-school graduates aged 16-23 enrolled in college by October after their graduation, compared to only 44% of graduates from low-income families. These figures show that students do not operate within neo-classical paradigms where choices are made strictly based on financial terms" (Gandhi, 2008). The human capital theory also doesn't indicate why monetary incentives appear to have an impact on some but not on others. It is also difficult to explain the role students loans play in access to higher education. Students in many countries are reluctant to take up loans or indicate if they are debt averse, in particular, students from low SES groups. They try to prevent taking up loans by taking part-time jobs. Favorable repayment conditions and average high rates of return should offset debt aversion. Loans are expected to improve access, rather than harm it. Under the Human Capital theory, students without the funds to finance their education will simply take out loans to confront the initial expense because they recognize the future financial and they

increase income from a higher education that outweighs the current costs (Gandhi, 2008). But with student jobs students often delay the time to graduation, which substantially lowers lifetime earnings, which does not fit in the human capital model, because taking up student loans and concentrating on study often leads to higher lifetime earnings compared to getting in low paying part time jobs during studies (Vossensteyn, 2005).

3.4 Behavioural economics

Models from traditional economics, like the expected utility theory fail to account for much of the actual observed behavior of people in the real world, which deviates from the expectations of rationality (Diamand *et al.,* 2012). In contrast with traditional economics, behavioural economics from Tversky and Kahnemann (2002), proposes the alternative model of *prospect theory*, which offers a modification to the ideal model of a purely rational decision-maker, by recognizing that our capacity for *rationality is bounded* and that our decision-making is also characterized by *non-rational behavior* (Diamand *et al*., 2012). A number of important behavioural factors have a strong influence on decision making. Tversky and Kahneman (2002) argue with the behavioural economics that human behaviour often deviates from rational behaviour, but in a systematic way. Behavioural economics focuses on questions of why individuals in various decision-making settings act in a seemingly non-economic and non-rational way. Behavioural economics addresses choice under uncertainty and the decision to attend higher education is characterized by a great deal of uncertainty and risk. With the behavioural economics we can explain why (prospective) Portuguese students from different groups appear to respond differently to financial incentives.

The key point of behavioural economics is integrating psychological phenomena in economic reasoning. It uses a variety of psychological concepts and phenomena, which explain human decision making and its deviation from rationality. Not all the concepts used by behavioural economists are directly relevant for this research. Therefore we will mention only the concepts that are relevant concerning student choices to study in Higher Education. These concepts and phenomena are bold in the upcoming text.

Entering Higher Education represents a case of substantial change for prospective students. Individuals tend to embrace the **status quo bias** because change involves uncertainty and may lead to sacrifices (Vossensteyn, 2005). Student choice is decision-making under

uncertainty, neither the costs nor the benefits of various options can be known with certainty, and they will depend on many factors outside the individuals control (Diamand *et al.,*2012). Diamand *et al*.(2012) give an example of this uncertainty with the individuals wage on graduation. The individuals wage on graduation which is likely to be at least three and half years from the initial higher education choice, will depend on the state of the labour market when they graduate. Another example the authors give is that for most students the utility derived from higher education is acquired through the process of learning new things, yet the details and the impact of the learning process can never be known in advance (Diamand *et al.,* 2012).

Rules of thumb address individuals' tendency to employ standard responses in repetitive or similar looking decision situations, reducing complexity. According to the rule of thumb higher education is perceived less as an investment than other durable needs. This means with the rules of thumb students are more likely to invest for a car or a house than for Higher Education (Vossensteyn, 2005).

The phenomenon of **reference levels** specifies the relationship between the context of a decision situation and the observed behavior, especially with relation to financial evaluations. Reference levels can be important for student choice by valuating costs and subsidies and assessing the influence of peers (Vossensteyn, 2005). The principle of **diminishing sensitivity** points at additional explanations for differences in price responsiveness across students with different background characteristics (Vossensteyn, 2005). This means that the utility of tuition fees and grants is lower for students from poor backgrounds because students will take their actual income from their family which is a reference for the evolution of present and future costs and benefits of attending Higher Education. Thus students differ in their responsiveness to tuition fees and scholarships if their actual income situations, or from their parents, is different. Behavioural economics suggest that students from lower SES-backgrounds are more likely to overestimate present costs and benefits and to underestimate their future income relatively to other students. This means that tuition fees are likely to have a stronger negative impact on the enrolment decisions of low-income rather than high-income students, whereas grants and scholarships are more likely to persuade poor students to enroll in higher education. The benefits of

Higher Education are lower for women than for men. Financial incentives therefore are likely to have a stronger impact on female rather than male students (Vossensteyn, 2005).

The difference between students' choices can also be explained by **the influence of peers**. Students likely take into account the opinions of their peers in making their choices with relation to higher education participation and financing it (Vossensteyn, 2005). For lower SES-students it might be more seen as "normal" not to enroll for higher education; students are therefore more likely to attend higher education if their peers are positive about it or if those peers have also attended college.

Gandhi (2008) describes **loss aversion** as losses that generate more disutility than equivalent gains do utility, such that people exhibit biases against losses like out of pocket expenses and debt. In the literature we see that people are twice as displeased with losses as they are pleased with equivalent gains. Kahneman and Tversky (2000) argue that people are loss averse in the sense that they systematically weigh losses more heavily than gains and attach low weights to outcomes that are probable rather than certain. When loss aversion is at work, people focus on potential losses and downplay the foregone benefits resulting from limiting that loss, especially if the opportunity benefits are off-screen (Gandhi, 2008). Loss aversion means people prefer foregoing gains and accepting opportunity costs over realizing the gains and incurring a loss (Gandhi, 2008, p.139).

In the context of education financing, Gandhi (2008) shows that loss aversion also manifests itself as debt aversion, the psychic disutility of borrowing. He argues that like the irrational aversion to losses, students with debt aversion internalize a non-financial cost of debt that results in a psychological debt burden. Potential students may tend to underestimate the rates of returning to Higher Education participation and the extent to which this tendency systematically varies across different groups of potential students may affect widening participation (Kahneman and Tversky, 2000). Students faced with the opportunity to incur a debt feel more displeasure than they feel pleasure from the resulting gains from a higher education. If students were strictly rational, they would not hesitate to incur debt because the returns to a higher education are more than sufficient to pay of student loans (Gandhi, 2008, p.139&140).

Many recent studies indicate that students are debt averse, especially lower SES and female students (Vossensteyn, 2005). Based on the phenomena of **reference levels** and **diminishing sensitivity**, one can expect that debt aversion will differ across the various socio-economic groups. In many publications we see that students from poorer backgrounds are more debt averse than those from other social classes (Callender and Jackson, 2005; Vossensteyn, 2005; Gandhi, 2008). Callender and Jackson (2005) are showing that debt aversion is a factor in prospective students' decisions regarding their choice of university. It is an important factor among low-income students for picking a university in which the cost of living was lower, which was near their home and whose prospects of term-time employment were good (Callender and Jackson, 2005). Callender and Jackson, (2005) argue that the fear of debt aversion deter low-income students from higher education. In Callender and Jacksons opinion, students debt need to be deterrent because Higher Education is a good investment while the costs of borrowing through students loans are reasonable and the repayments generally affordable. Callender and Jackson (2005) assumed that students are willing to take out student loans, and to accumulate debts, because they know they will benefit financially and personally from going to university. It is supposed that students will view student loans as a type of long-term investment in their future with minimal financial risks, but in England, this is only confirmed for middle and upper income students and not confirmed for students from low SES backgrounds.

Gandhi (2008) argues that debt aversion affects all students, and that it operates more heavily on high school students with jobs or students relying on expected income from a job after graduation. Gandhi shows that when high school students have to choose between matriculation into the workforce or into a higher education institution, students that rely on current or proximate incomes will register greater disutility from losing income than they will feel utility from the distant returns of higher education. "Debt-averse students will be more willing to accept the opportunity cost of refusing to take on debt to finance college that they will be willing to incur the debt itself" (Gandhi, 2008, p.139 &140).

In Canadian research, they found a statistical significant for debt aversion. The researchers found a little support that a person who is debt averse is less likely to take up education financing if it comes in the form of a loan. The authors argue that high debt loads do not limit willingness to take up student loans but rather act as an indication of a general positive

attitude towards debt. The authors do not see debt aversion as a barrier to invest in higher education (Finnie, Sweetman and Usher, 2009).

Eckel, Johnson, Montmarquette and Rojas (2007) found a strong relationship between the willingness to invest in Higher Education and the demographic factors of income, age, employment status, risk seeking and patience and ability. They argue that risk averse persons are less likely to take up any form of education financing. Field (2006) found also evidence for debt aversion. She argues that behaviour is consistent with utility being negatively affected by carrying debt loads. Behavioural economics models suggest that individuals attach a negative value to a debt position over and above its negative monetary value (Field, 2006).

In Dutch research it was found that borrowers have higher levels of risk attitudes than non-borrowers. This means that they are more willing to take risks. Borrowers are less debt averse than non-borrowers, this is also found for the borrowers' parents. Borrowers in the Netherlands are also somewhat less likely to have a part-time job (Oosterbeek and Van den Broek, 2008). In the Netherlands, parents' income has a negative effect on borrowing. Children from more affluent families receive more financial support from their parents and are therefore less inclined to take up a loan (Oosterbeek and Van den Broek, 2008). Oosterbeek and Van den Broek (2008) found also a positive effect on student attitudes towards risk. "Students who are more prepared to take risk are more likely to borrow." Earnings prospects influence also borrowing decisions. Students with better earnings prospects are more likely to borrow. Oosterbeek and Van den Broek (2008) show that debt aversion is a very important determinant of actual borrowing behaviour. Students with a high debt aversion are less likely to take up a loan (Oosterbeek and Van den Broek, 2008).

An economic factor that explains some part of students' unwillingness to borrow is their attitudes towards risk. Several economists have argued for income contingent loans. Under income contingent loans, students repay their debts as a percentage of their annual income until they have repaid the entire amount they borrowed. This should eliminate all risks involved in taking up loans (Oosterbeek and Van den Broek, 2008).

Intertemporal choice refers to the phenomenon that individuals attach relatively higher weights to short-run benefits and costs than to long-run ones. Students choice of university

career is a complex, long-term, emotive decision, which many individuals make only once in their lives. Behavioural influences can result in choices that do not maximize long-term utility for the individual involved (Diamand *et al*., 2012). Behavioral economists argue that students behave irrationally, and as a result, value money now more than later (Gandhi, 2008, p.134). In reality we see that upcoming students reveal systematic deviations from the standard economic view of rational decision-making, especially when faced with complex decisions and a large degree of uncertainty. Diamand *et al.*(2008) argue that this non-rational behavior may have important consequences for the higher education sector as a whole as well as for the broader economy and society.

Gandhi (2008) argues that behavioral economic theories suggest that students' failure to invest is irrational and that up-front subsidies may best combat such irrationality. Behavioral economic theories suggest that because students are debt averse and myopic, they will value front-loaded subsidies more than the delayed subsidies provides through loans (Gandhi, 2008. p.138). This is also what Cerdeira (2009) suggests for the Portuguese students.

3.5 Conclusion and hypotheses

We can conclude that many theoretical models are trying to explain student choices. Because the focus in the research questions is on the financial incentive of loans, the economic approaches to explain student choices are used. Traditional economics as the general price theory are difficult to use because they assume full rationality and student choices are faced with uncertainty. Students do not have full information. The human capital theory also assumes that people are rational utility-maximizers. This means that in the human capital theory prospective students will choose to study instead of entering the workforce, because the high returns to education more than compensate for the initial costs. But a point of critique on the human capital theory is that people sometimes make irrational choices, prospective students have to make decisions based on imperfect information, uncertainty and biased preferences which are bounded rational or subjectively rational. The Human Capital Theory also fails to explain why disparities in enrollment rates between high-income and low-income students exist. Besides, the Human Capital Theory is not mentioning debt-aversion as a problem among prospective students. Because of these reasons we use the behavioural economics. Behavioural Economics recognizes that our

capacity for rationality is bounded and that our decision-making is also characterized by non-rational behavior. With behavioural economics we can explain why students from different groups appear to respond differently to financial incentives. With behavioural economics we can explain differences between different groups of students in Portugal using the outcomes of Portuguese research on student choices.

A limited number of hypotheses has been selected, which will be empirically tested based on the theoretical framework. With the hypotheses we try to answer the research questions. The hypotheses make statements about prospective Portuguese students. The statements are based on the data conducted by surveys among 250 Portuguese prospective students. The selected hypotheses address the relationship between the choice to study in Portuguese Higher education with financial elements like loans, the role of debt aversion and the difference between students from different social backgrounds. The following paragraphs show the major concepts of Behavioral economics and the relation to the formulated hypotheses. With bullet points we will give the phenomena and their expected impact on students' choice in the Portuguese situation

- **Loss aversion** means that people prefer foregoing gains and accepting opportunity costs over realizing gains and incurring a loss. So, loss aversion tells us that students give more weight to the negative impact of tuition fees than to the positive impact of grants.

- **Reference levels** specify the relationship between the context of a decision situation and the observed behavior, especially with relation to financial evaluations. Reference levels are important for students' choice by valuating costs and subsidies and assessing the influence of peers.

- **Diminishing sensitivity** explains the differences in price responsiveness across students with different background characteristics. The phenomena of reference levels and diminishing sensitivity explain for example why students from low SES backgrounds are more debt averse then students from high SES backgrounds.

- **Intertemporal choice** refers to the phenomenon that individuals attach relatively higher weights to short-run benefits and costs than to long-run ones. By

overestimating present cost and benefits students are attracted to the immediate gratifications of for instance part-time work during study. These attitudes are strengthened by loss aversion.

- **The influence of peers** can also play a role because friends and family of low SES students, students from rural areas and students from public schools did less often attend higher education; they are likely to negatively influence student choices.
- With **debt aversion** prospective students may tend to underestimate the rates of return in terms of higher salary to higher education participation. Interest rates and repayment conditions may reduce debt aversion under prospective students.

This leads to the following hypotheses.

Hypothesis 1: Prospective students from lower socio-economic backgrounds expect to have higher tuition fees and higher living costs than middle and higher SES Students.

Hypothesis 2: Prospective students from low socio-economic backgrounds are more debt averse than high SES students.

Hypothesis 3: Female prospective students are more debt averse than male prospective students.

Hypothesis 4: Prospective students from public schools are more debt-averse than prospective students from private schools.

Hypothesis 5: Prospective students from rural areas are more debt averse then students from main city areas.

Hypothesis 6: Prospective students with higher earning expectations after graduation are less debt averse than students who expect to earn less after graduation.

Hypothesis 7: Prospective students who indicate to be less likely to take up student loans are more sensitive to the conditions of student loans, such as interest rates and repayment conditions.

4. Methodology

This research is partly a literature review on higher education in Portugal and various theories that may help explain the phenomenon of debt aversion among students and partly a quantitative study. With the quantitative data we tried to find out to what extent there is debt aversion among students. The quantitative data is obtained through surveys among students in the final year of secondary schools (see appendices 1). The survey questions are formulated on the basis of the theoretical framework outlined in the previous chapter. For answering the research question it is better to keep this research by secondary school students instead of by current university or polytechnic students, because we are interested whether prospective students are debt averse. The survey is translated to Portuguese to avoid language problems for the respondents.

4.1 Dimension of the sample

Data-collection

We want to make a statement about all prospective students in Portugal, but because it is impossible to approach all secondary education pupils in Portugal, a sample will be drawn from this target population. The sampling frame is the complete list of students in the last year of secondary schools in Portugal. Thereby we will consider the various types of students and schools. The division into different groups is necessary because we expect to see differences between students from the different groups. For example, the expectation is that women are less likely to take up student loans because of debt aversion, or students from rural areas have another opinion about studying in higher education, because parents from rural areas are generally less educated and poorer than people from the big cities. We did our research in three schools in the big cities and three in the rural areas. We will employ a two stage sampling procedure. First we select a number of schools and within these schools all the last year students will be asked if they want to fill in the surveys. The research will be conducted at public and private representative schools in coastal areas (big cities) and rural regions, to make also statements about differences in students from different regions. In total we did our research at 6 schools, 4 public schools and 2 private schools. The data collection is done with an online survey only visible for the selected prospective students. In total, 242 students filled out the survey; 122 of them where boys and 120 of them where girls. These numbers are representative, because like we mentioned in the

second chapter of this research, in the last years, approximately 51% of the secondary students where boys and 49% of the students where girls. In our research, 56% of the prospective students are from a public school and 44% are from a private school. This is not representative with the exact total students in Portugal, because in reality there are much more students enrolled in public schools than in private schools but we need this division to make also reliable statements about private education students.

Figure 8: Overview selected schools in Portuguese map

A: Colégio Moderno (private)
B: Escola secundária com 3ºciclo do Entroncamento (public)
C: Colégio do Sagrado Coração de Maria - Lisboa (private)
D: Escola Secundária D. Afonso Henriques (public)
E: Agrupamento Escolas Morgado de Mateus (public)
F: Escola secundaria de Lisboa (public)

	Public schools	Private schools
Coastal area/ Big city	2	1
Inland	2	1

Goals and design of the survey

With the survey we tried to achieve some insights in the thoughts of prospective students about student loans as a means to pay for higher education costs. In this study we will make use of multivariate research questions. Multivariate research questions involve a relationship between two or more variables, just like in our study. The rule is the larger the number of variables in a research question, the greater the numbers of respondents have to be (Dijkstra & Smit, 1999). In this study there are many variables that will be examined;

therefore, upfront, we wanted at least 200 students to respond. For the data collection we will use an online expanded survey. These surveys will be conducted in groups in the graduation classes of secondary schools. Most of the questions in the survey consist of multiple choice questions divided in an ordinal scale. An ordinal scale is one in which the numbers in the scale represent rank orderings rather than raw score magnitudes (Pagano, 2010). An example is the likeliness to take up a loan, in a five points scale from very likely to very unlikely. With an ordinal scale we can use different components to measure one variable.

The survey is designed to retrieve information on different components of this study: students background variables, explanatory (independent economic) variables and dependent variables on debt aversion. The first collect various demographic and socioeconomic factors (Behavioural and background variables), such as age, gender, income and family characteristics, and other independent variables about students. These factors are independent variables to explain student choices. With these general characteristics we can find statistic correlations between these independent variables with the dependent variables. The second components are the explanatory variables used in economic models. These variables include perceptions about monetary costs as tuition fees, net tuition fees (tuition fees minus Financial support), other study costs (books and equipment), and costs of living, monetary benefits expected on future earnings like grants and scholarships. In this second part of the survey the prospective students were asked about their higher education aspirations and expectations and about their ideas about student financing. With these questions we can explain student choices and how these prospective students think about financial elements related to studying. These questions also contain questions about future job opportunities and future expected salaries.

The last element focused on debt and debt aversion, the dependent variables of this study. We construct a few variables to measure aspects of debt aversion. We tried to find out the prospective students' attitude towards student loans and if they are debt averse. It is aimed to demonstrate whether there is a correlation between the students' background and the role of debt aversion in student choices. The variable debt aversion also includes questions designed to measure the person's attitude towards borrowing. We include elements of willingness to take on additional debt to a student loan. A person who is debt averse will, for

example resist borrowing for an unexpected expenditure. If there is debt aversion among the prospective students, we show if this differs for students from different SES backgrounds. Finally with the results of the survey we try to show under what conditions student loans can be an option for Portuguese students.

4.2 Statistical methods

In this thesis we used different statistical methods to analyze the data and the expected relationships. First we gave descriptive statistics from the variables we used in the questions. For each of these variables we gave the statistics about the number of observations, the relative frequency distribution over intervals, the mean scores and the standard deviation. With these statistics we could say something about the representativeness of our sample and we could give some first insights about the prospective students' expectations and thoughts. With the Pearsons Chi-square test we tried to determine whether two or more distributions (populations) differ from each other. With the Pearsons Chi-Square we have tested all 7 hypotheses. With crosstabs-analysis the percentage ratios are shown and the direction from the relation can be found in these crosstabs. After this we made also use of the bivariate analyses One way Anova F test when possible, but use of it was very minimal, because the measure levels were too high for the amount of respondents we had. After the individual testing of the various aspects of debt aversion we also tried with factor analysis to identify for the large number of observed variables a smaller number of underlying variables. And with reliability we tried to find correlations between the different questions. Reliability means that a measure, in this case a questionnaire, should consistently reflect the construct that it is measuring. In this case a student should get the same score in a questionnaire if they complete it at two different points in time or by asking it in different questions. However we saw that factor analysis was not useful, when we tried to combine the different variables and thereafter when we tested them with different tests (crosstabs, univariate, bivariate, multivariate), there were none or very strange outcomes. Therefore we have chosen not to use these results in the analysis. Different ways to ask about debt aversion were leading to different answering patterns. Therefore it was not possible to take the different components, indicators, of debt aversion together and hence we have not used multivariate analysis. To make use of multivariate analysis a larger group of respondents is also necessary.

5. Presentation of the survey data

This chapter addresses the operationalization of the hypotheses through specific variables and provides descriptive overviews of the main outcomes of the surveys. Response rates and thematic presentations will be given. We will relate the outcomes of the surveys to actual numbers in higher education in Portugal.

5.1 Operationalization of the hypotheses

For the empirical analysis the hypotheses are operationalized in specific variables. We will start the operationalization of the variables with the dependent variables. Each hypothesis has one dependent variable. Hypotheses two, three, four and five have the same dependent variable, which is debt aversion. The independent variables of the first five hypotheses are background variables. In the next part an overview of the dependent, the independent variables and the background characteristics will be given, as also the way the variables are measured.

The dependent variables

In hypothesis 1 the dependent variable is **students' expectations of the amount of tuition fees and living costs.** This dependent variable indicates how students estimate the costs of higher education. If students have other expectations, it can lead to other study choices, such as choosing not to study, choosing a different program or institution, or taking a student job to finance their higher education. Prospective students were asked what they expect to pay as tuition fees for their envisaged studies and what they expect to pay for living costs. The questions were asked as ordinal variables in a five point's scale, which means that there is a clear ordering of the variables. The possible answers in euros were chosen from Portuguese literature about the costs of studying in Portugal.

Debt aversion is the dependent variable in four of the seven hypotheses of this research (hypotheses 2, 3, 4, 5 and 6). This variable indicates whether prospective students are debt averse. In the survey many questions help to define the dependent variable debt aversion. With a factor analysis we tried to identify for this large number of observed variables a smaller number of underlying variables. And with reliability we tried to find correlations between the different questions. However we have encountered that it was not possible to combine different aspects of debt aversion, because in most of the components it was

particularly important to leave the components separately, because the components where testing debt aversion in different situations and had another meaning, and in the others the components did not correlate enough. To measure students' debt aversion, students were asked different questions. The first question we asked students was if they are planning to take up a student loan while studying; yes or no. The second question measuring debt aversion is the amount of the student debt that students are willing to accumulate at maximum for completing a higher education degree. The students could choose from an ordinal measurement level with 7 answering possibilities from €0 to €20.000 or over. In the third group of questions we asked the students basic attitude towards borrowing from very positive to very negative (5 possibilities) in three cases; taking up a loan for a house, a car or higher education. The next question related to debt aversion asked: Would you take up a loan in the following of six situations?: 1) if no other support is available; 2) if you also get a grant 3) if the loan is offered by family/friends 4) if the loan is offered by a private bank 5) if the loan is offered by the government or 6) if your parents are not willing to support you. The situations were put in an ordinal measurement level with a 5 points scale from very likely to very unlikely. Another question we asked to measure debt aversion among students was if they could respond to some statements, also in a 5 points scale through which they could indicate if they strongly agree up to strongly disagree with the statements. The last question asked that can be seen as a control question for debt aversion is if the students expect to have a part-time student job while studying, because the earnings of a student job can be a substitution for a student loan.

In the last hypothesis (7) the dependent variable is **the sensitivity to the conditions of student loans**. This variable addresses whether prospective students are sensitive to student loan conditions and to what extent this differs among students who indicate to be less likely to take up student loans. The sensitivity to the conditions of student loans is measured with the question: What characteristics can make a loan attractive? In this question we gave the students seven different possibilities such as no interest, low interest or a long repayment period. The characteristics were put in an ordinal measurement level with a five points Likert scale from very attractive to unattractive.

The Independent variables

One of the most important independent variables in the hypotheses is **the socio economic background** of the students. This variable is the independent variable in hypothesis one and two. To measure the socio economic background of the students, the students were asked how they rate their family net household income per month and what their parents' highest educational diploma attained is. The variable socio economic background is divided into three categories, low, middle and high. A student can be classified as a low SES student if both parents are not higher educated than secondary education and/or if their family household income is below 870 euro. A student is a middle SES student if both parents are at least secondary school educated and if their family household income is between 870 euro and 1500 euro, if one of the parents went to higher education, and if their family household income is between 870 euro and 1500 euro. The high SES students are those whose parents are both higher education educated and/or those who rate their family household income above 1500 euro. In our sample we found that from the 242 students, 90 students belong to the low SES group, 49 students belong to the middle SES group and 102 students belong to the high SES group (table 4). The high socio economic background group has a very strict criterion, because we measured students' family household income, by asking the prospective students what they expect their household income is. This is probably not the real amount of students' family household income; therefore we have chosen to have a strict criterion to exclude students who have higher ideas from the reality. We still see that 42% of the students in our sample belong to the high SES group; this is due to the fact that in our sample half of the students are from private schools and high SES students go more often to private schools. The crosstabs between family household income and students' parents' educational level is given in table 5.

Table 4: Descriptives SES

		Frequency	Percent
	Low	90	37,2
	Middle	49	20,2
	High	102	42,1
	Total	241	99,6
Missing		1	,4
Total		242	100,0

Table 5: Crosstabs highest educational level parents and family household income

highest educ. level mother			family household income			Total
			below <870 euro	between 870 and 1500 euro	above >1500	
non	highest educ. level father	non	2	1		3
		basic education	LOW 1	LOW 0		1
		Total	3	1		4
basic education	highest educ. level father	non	0	1	0	1
		basic education	9	15	4	28
		secondary education	LOW 2	LOW/ 2	LOW/ 3	7
		higher education	0	MIDDLE 1	MIDDLE 1	2
		Total	11	19	8	38
secondary education	highest educ. level father	basic education	2	5	3	10
		secondary education	LOW 3	LOW/ 9	LOW/ 10	22
		higher education	1	MIDDLE 1	MIDDLE 12	14
		Total	6	15	25	46
higher education	highest educ. level father	basic education	0	2	3	5
		secondary education	LOW 1	MIDDLE 3	HIGH 18	22
		higher education	0	4	81	85
		Total	1	9	102	112
	Total		21	44	135	200

Total is not 242 because of the "missing" group; family household income or educational level parents unknown

Gender is the independent variable in hypothesis three. Like mentioned in previous chapters is it known that males and females behave differently and have different opinions and expectations concerning student choices and career opportunities. One can say the same about the other independent variables **school type**, public or private (hypothesis 4) and **school area**, rural or main city area (hypothesis 5).

In hypothesis 6 the independent variable is the **earning expectations** of the prospective student. This independent variable will be measured with the survey questions what the students expect to earn at the beginning of their career and at the end of their career and with the control question where the students have to agree or disagree with the statement that students will get well paid jobs after graduation. This variable will be divided into two groups; the group with high earning expectations and the group with low earning expectation. The group of students with the high earning expectations are those students who expect to earn at least 870 euro at the beginning of their career and at least 1500 at the end of their career and those who (strongly) agree that students get well paid jobs after graduation. The students with low earning expectations are the students who expect to earn less than 870 euro at the beginning of their career and less than 1500 at the end of their career and those who (strongly) disagree that students get well paid jobs after graduation.

With these conditions we found 117 students belonging to the students with low earning expectations and 98 students belonging to the students with the high earning expectations.

The last variable **is the likeliness to take up student loans**. Students are likely to take up student loans if they want to take up a student loan, or if they are (very) positive towards a loan for studying in higher education, or if the students answer in question 23 (Would you take up a loan in the following situations?) likely to very likely in at least three from the 5 loan situations. Students are unlikely to take up student loans if they do not meet the conditions to be likely to take up student loans. It is for 92 students likely that they will take up a student loan and for 142 students unlikely.

5.2 Sample description

In table 6 one can see the basic sample characteristics of the conducted research. Our sample consists for 50,4 percent of male students and 49,6 percent of female students. In this research 56 percent of the prospective students are from a public school and 44 percent from a private school. This is like we mentioned in the methodological chapter not representative with the exact total students in Portugal, because in reality there are much more students enrolled in public schools than in private schools but to make also reliable statements about private education students we need this division. In our data from the 242 students, 19 students' (7,9%) ethnicity is non Portuguese, which means that at least one of the parents is born outside Portugal; most of them are coming from Portuguese speaking countries such as Angola, Mozambique and Brazil. Portuguese literature shows fewer proportions, ranging between 3% and 4% (Eurostat, 2013). However the proportions are higher in coastal/big city areas, this can explain why we find a bigger proportion in this study, because in our study 132 students are from the coastal/big city areas. Approximately half of the students' father or mother has a degree in higher education. This is much higher than what is shown in Portuguese statistics; 28% of Portuguese people between 25 en 34 years (Eurostat, 2013). Like we mentioned is this, due to the fact that in our sample half of the students are from private schools. So we have to mention that this can have a positive impact on the results in this research concerning likelihood to continue studying, more realistic future expectations and debt aversion. Approximately half of the students' parents have a household income higher than 1500 euro per month. The division in household

income is the same as reported in most Portuguese literature on these issues (Cerdeira, 2009).

Table 6: general characteristics

	Intervals	Frequency	Percent	Missing	Mean	Std. Deviation
Gender	man	122	50,4		1,50	0.501
	woman	120	49,6			
school	Colégio Moderno	83	34,3		2,48	1638
	Escola secundária com 3ºciclo do Entroncamento	82	33,9			
	Colégio doSagrado Coração de Maria	23	9,5			
	Escola Secundária D.Afonso Henriques	15	6,2			
	Arupamento de Escolas Morgado mateus	13	5,4			
	Escola secundaria de Lisboa	26	10,7			
Type of school	Public	136	56,2		1,44	0.497
	Private	106	43,8			
Age	16	1	0,4	1	3,63	0,736
	17	112	46,3			
	18	108	44,6			
	19	13	5,4			
	20	7	2,9			
Ethnicity	Portuguese	223	92,1		1,08	0,270
	Non Portuguese	19	7,9			
Highest educ. Level father	non	4	1,7	1	3,22	0,866
	basic education	57	23,6			
	secondary education	61	25,2			
	higher education	119	49,2			
Highest educ. Level mother	non	5	2,1		3,32	0,856
	basic education	47	19,4			
	secondary education	56	23,1			
	higher education	134	55,4			
Family household income	Below <870 euro	21	8,7	42	2,57	0,676
	Between 870 and 1500 euro	44	18,2			
	Above > 1500 euro	1358	55,8			
		200	82,6			

Table 7, showing data on prospective students' aspirations, indicates that only 2,9% of the respondents do not want to continue education with a study in Higher Education. This is very low compared with the data of other studies that show that from secondary education pupils only 30,4% of the females and 42% of the males want to continue in higher education, as showed in Chapter 2 (Ministry of education, 2013). There is no explanation found for this big difference, except the fact that we have more private school students in our sample than the real number of private school students. The type of higher education where the students

want to go, public or private, is on the other hand similar to the exact numbers of students in higher education. The disciplines the students choose to go are well divided.

Table 7: Higher education aspirations and expectations

	Intervals	Frequency	Percent	Missing	Mean	Std. Deviation
Continue higher education	Yes	210	86,8	25	1,03	0,177
	No	7	2,9			
	Unknown	24	9,9			
Type of higher education	Public polytechnic	16	6,6	42	2,95	0,663
	Private polytechnic	1	0,4			
	Public university	160	66,1			
	Private university	23	9,5			
	unknown	40	16,5			
Higher education direction	Medicina, Medicina Dentária e Farmácia	16	6,6	34	4,95	2,545
	Artes, Humanidades, Línguas	26	10,7			
	Ciências Sociais e Direito	26	10,7			
	Gestão e Ciências Computacionais	42	17,4			
	Educacão	3	1,2			
	Engenharia e outros Cursos Técnicos	41	16,9			
	Enfermagem e outras Profissões de Saúde	12	5,0			
	Ciências	8	3,3			
	other	34	14,0			
	unknown	31	12,8			

From table 8 one can see prospective students' ideas about student financing. Within the sample, 12,8 % of the students expect to pay less than €500 per year as tuition fees, 37,2% expect to pay between 500 euro and 1000 euro, 30,6% expect to pay between 1000 and 1500 euro and 17,8% of the students expect to pay more than 1500 euro tuition fees per year. As mentioned in chapter two; the annual tuition fee by each public higher education institution is between 630,50 euro and 1065,72 euro in the school year 2013/2014. Most of the institutions adopt the maximum value (Eurydice, 2013/2014). This means that within the sample approximately 17,8% of the students expect to pay more tuition fees than the actual amount of tuition fees. In the sample, 45,9% of the students expect to live independent from their parents during studying. This proportion is much higher than the actual number of students who live without their parents. Statistics in the study of Cerdeira (2009) show that the highest percentage of higher education students who in 2010/2011 lived away from their parents are among the students from public universities, this is 29 percent. Students from private universities study mostly from (their parents) home; only 11% of private university students live independent from their parents (Cerdeira, 2009). The students in the sample have good expectations of the actual living costs. In school year 2010/2011 the actual average living costs per month was 390 euro, with higher averages for private schools

(434,09) than for public schools (382,67) (Cerdeira, Cabrito, Patrocinio, Brites, Machado, 2012). Almost half of the students in our sample expect to pay between 250 euro and 500 euro as living costs, 21,9% expect to pay less than 250 euro, 25,2% expect to pay between 500 and 1000 euro and only 5,4 percent expect to pay more than 1000 euro living costs. This does not really differ for students who expect to live with or without their parents, the numbers are well divided. The only big difference is between the students who expect to pay less than 250 euro. From these 53 students there are 36 students who expect to live with their parents and only 17 students who expect to live independent from their parents. Our sample consists for 48,8 % of students who expect to receive a scholarship for studying in higher education. The reality is that in school year 2010/2011, 33,6% of polytechnic students where grantees and 24,9% of university students, so these numbers are much lower than the expectations of the students from our sample. The expectation of getting a grant can explain why much more students expect to live without their parents during studying than the actual number of students who live without their parents. The expectations of the monthly value of the grant are pretty good divided compared with the actual amounts of school year 2010/2011, like we have shown in chapter two. For example in school year 2010/2011, 37% of the grants had an amount of 100 euro per month and 1,3% were grants exceeding 600 per month. In our sample, 19% expect to have a grant less than 100 euro and 5% expect a grant more than 600 euro per month. Only 2,5% of the students in the sample expect to have a student loan and they expect an average loan of 307,14 euro per month. In 2010/2011, 4,9% students of higher education students had a loan with an average of 205,23 euro per month. Half of the students in the sample expect to have a student job while studying, actual numbers are unknown. The students in the sample expect to earn on average 867,83 euro per month in the first job after graduation and on average 2933,25 euro at the end of their career. The earning expectation from the students at the beginning of their career is comparable with the exact numbers. In Portugal the gross annual earnings per employee are less than 10000 euro in 2011 (Eurostat, 2013). The outcomes of different statements, concerning the dependent variables debt aversion and the sensitivity to the conditions of student loans will not be discussed in this part of the thesis, but in the next chapter with testing the hypotheses of this thesis.

Table 8: Prospective Portuguese students' ideas about student financing

	Intervals	Frequency	Percent	Missing	Mean	Std. Deviation
Expected tuition fees year	Less than 500	31	12,8	4	2,54	,935
	Between 500 euro and 1000 euro	90	37,2			
	Between 1000 euro and 1500 euro	74	30,6			
	More than 1500 euro	43	17,8			
Expected living situation	Live with parents	128	52,9	3	1,46	,500
	Live independent from parents	111	45,9			
Expected living costs	< 250 euro	53	21,9	4	2,14	,825
	Between 250 and 500 euro	111	45,9			
	Between 500 and 1000 euro	61	25,2			
	>1000 euro	13	5,4			
Expect to receive scholarship	Yes	118	48,8	2	1,51	,501
	No	122	50,4			
Monthly expected scholarship	Less than 100 euro	46	19,0	107	2,40	1,306
	Between 101 and 200 euro	29	12,0			
	Between 201 and 400 euro	32	13,2			
	Between 401 and 600 euro	16	6,6			
	More than 600 euro	12	5,0			
Expect to have student loan	Yes	6	2,5	1	2,25	,488
	No	169	69,8			
Expected loan (per month)	200 euro	3	1,2	235	307,14	123,924
	250 euro	1	0,4			
	400 euro	2	0,8			
	500 euro	1	0,4			
Expect to have a student job	Yes	120	49,6	2	1,50	,501
	No	120	49,6			
Expect to earn in first job after graduation				34	867,837	406,4645
Expect to earn end of career				30	2933,25	1916,204

5.3 Description of the dependent variables

Debt aversion

From table 9 one can see the descriptive data from the questions which measure the dependent variable debt aversion. In our sample only 6 prospective students expect to have a student loan for studying, against 169 prospective students who do not expect to have a student loan and 66 who do not know it yet. The maximum student debt the students are willing to accumulate for completing a higher education degree is low in our sample. Almost 50 % of the students do not want a student debt over 2500 euro. From the literature which is discussed in chapter 3 it is plausible to believe that the prospective students do not want to take up loans because they are debt averse. We therefore see in our sample that 62,8% of the prospective students (strongly) agree that it frightens them to take up a loan for studying in higher education. However, we also see that 43,8 % of the students (strongly) disagree

with the statement that borrowing is basically wrong and only 18,6 % of the prospective students agree with this statement. In the following chapter we will try to confirm this possible debt aversion among different groups with statistical analysis. In the descriptive data we see that prospective students' attitude towards borrowing for a house and higher education in our sample is more positive than negative, their attitude for a loan for a car is more negative than positive. The prospective students do not consider it (very) likely that they would take up a loan in different situations. However, 83,9 % (strongly) agree that higher education basically is a good investment. Furthermore we also see that the majority of the students see a loan as a good investment to participate in higher education. If the prospective students could take up a loan with no other support we see that the average of the students do consider it between likely and unlikely. This is remarkable because in this situation, the mean is second closest to likely compared with the other situations and this could mean that students are more likely to take up loans if there is no other support available. This is emphasized in the latter situation where the students were asked if they would take up a loan if their parents are not willing to support them. For 49,2% it is (very) likely that they would take up a loan in this situation, compared to 22,7 % (very) unlikely. As shown in chapter 3 we found that most of the parents support their children to study in higher education. It is therefore possible that the students do not plan to take up loans, because their parents support them or because they can finance their higher education with other sources. For example exactly half of the students expect to have a student job while studying. If the students could take up a loan with a grant, 162 students consider it as (very) unlikely in contrast to 17 students who consider it as (very) likely. It is also more unlikely (37,6 %) than likely (30,6 %) for the prospective students to take up a loan offered by friends or family. It is also more unlikely than likely that students will take up a loan that is offered by a private bank; 54,1% of the students consider it as (very) unlikely, compared to 13,2 who consider it as (very) likely. Even taking up a loan offered by the government is more unlikely (51,6%) than likely (19,7%) for the prospective students. A reason that the students do not want to take up loans in the different situations can be, because they do not expect to get well paid jobs after graduation. In our sample 29% of the students (strongly) disagree with the statement that students get well paid jobs after graduation and only 21,1% (strongly) agree.

Table 9: Descriptives of the components of the dependent variable debt aversion

	Intervals	Frequency	Percent	Missing	Mean	Std. Deviation
expect to have student loan	yes	6	2,5	1	2,25	0.488
	no	169	69,8			
	unknown	66	27,3			
max. student debt completing HE degree	0 euro	45	18,6	3	2,80	1,525
	2500 euro	69	28,5			
	5000 euro	70	28,9			
	7500 euro	18	7,4			
	10 000 euro	17	7,0			
	15 000 euro	15	6,2			
	20 000 euro or over	5	2,1			
attitude loan for a house	Very positive (1)	30	12,4	7	2,69	1,166
	Positive (2)	89	36,8			
	Positive/negative (3)	68	28,1			
	Negative (4)	20	8,3			
	Very negative (5)	28	11,6			
attitude loan for a car	Very positive (1)	6	2,5	7	3,45	1,009
	Positive (2)	27	11,5			
	Positive/negative (3)	102	42,1			
	Negative (4)	55	22,7			
	Very negative (5)	45	18,6			
attitude loan for HE	Very positive (1)	43	17,8	7	1,241	1,241
	Positive (2)	60	24,8			
	Positive/negative (3)	73	30,2			
	Negative (4)	31	12,8			
	Very negative (5)	28	11,6			
would you take up a loan with no other support	Very likely (1)	40	16,5	9	2,91	1,357
	Likely (2)	60	24,8			
	Likely/unlikely (3)	59	24,4			
	Unlikely (4)	29	12,0			
	Very unlikely (5)	45	18,6			
would you take up a loan with a grant	Very likely (1)	6	2,5	9	4,05	1,051
	Likely (2)	11	4,5			
	Likely/unlikely (3)	54	22,3			
	Unlikely (4)	57	23,6			
	Very unlikely (5)	105	43,4			
would you take up a loan offered by family/friends	Very likely (1)	21	8,7	10	3,21	1,237
	Likely (2)	53	21,9			
	Likely/unlikely (3)	67	27,7			
	Unlikely (4)	39	16,1			
	Very unlikely (5)	52	21,5			
would you take up a loan offered by a private bank	Very likely (1)	9	3,7	10	3,72	1,138
	Likely (2)	23	9,5			
	Likely/unlikely (3)	69	28,5			
	Unlikely (4)	55	22,7			
	Very unlikely (5)	76	31,4			
would you take up a loan offered by the government	Very likely (1)	15	6,2	9	3,60	1,259
	Likely (2)	33	13,6			
	Likely/unlikely (3)	60	24,8			
	Unlikely (4)	47	19,4			
	Very unlikely (5)	78	32,2			
would you take up a loan if your parents are not willing to support	Very likely (1)	59	24,4	8	2,62	1,335
	Likely (2)	60	24,8			
	Likely/unlikely (3)	60	24,8			
	Unlikely (4)	22	9,1			
	Very unlikely (5)	33	13,6			
Borrowing is basically wrong	Strongly agree (1)	18	7,4	8	3,34	1,113
	Agree (2)	27	11,2			
	Agree/disagree (3)	83	34,3			

	Disagree (4)	69	28,5			
	Strongly disagree (5)	37	15,3			
You should always safe up first before buying something	Strongly agree (1)	188	77,7	7	1,26	0,583
	Agree (2)	34	14,0			
	Agree/disagree (3)	11	4,5			
	Disagree (4)	2	0,8			
	Strongly disagree (5)	0	0,0			
HE is a good investment	Strongly agree (1)	136	56,2	10	1,55	0,748
	Agree (2)	67	27,7			
	Agree/disagree (3)	27	11,2			
	Disagree (4)	1	0,4			
	Strongly disagree (5)	1	0,4			
A loan for participating in HE is a good investment	Strongly agree (1)	50	20,7	8	2,30	0,978
	Agree (2)	92	38,0			
	Agree/disagree (3)	73	30,2			
	Disagree (4)	10	4,1			
	Strongly disagree (5)	9	3,7			
Student loans allows students to pay for the costs of studying	Strongly agree (1)	51	21,1	10	2,18	0,849
	Agree (2)	102	42,1			
	Agree/disagree (3)	66	27,3			
	Disagree (4)	12	5,0			
	Strongly disagree (5)	1	0,4			
Students get well paid jobs after graduation	Strongly agree (1)	8	3,3	9	3,13	0,931
	Agree (2)	43	17,8			
	Agree/disagree (3)	112	46,3			
	Disagree (4)	50	20,7			
	Strongly disagree (5)	20	8,3			
When you get a job after graduation it is fair to repay part of HE costs	Strongly agree	53	21,9	8	2,30	1,014
	Agree	89	36,8			
	Agree/disagree	70	28,9			
	Disagree	12	5,0			
	Strongly disagree	10	4,1			
Having to take up a loan for studying in HE frightens me	Strongly agree	86	35,5	8	2,12	1,082
	Agree	66	27,3			
	Agree/disagree	56	23,1			
	Disagree	20	8,3			
	Strongly disagree	6	2,5			
expect to have a student job	Yes	120	49,6	2	1,50	0,501
	No	120	49,6			

The sensitivity to the conditions of student loans

The sensitivity to the conditions of student loans is measured by the question what characteristics can make a loan attractive. The majority of the prospective students in our sample indicate that the given loan characteristics are (very) attractive. No interest is the most attractive loan characteristic for the students. From table 10 we see that 59,9 % of the prospective students indicate that a loan with no interest is very attractive and 20,9 % indicate it as attractive, only 4,5 % indicate it as unattractive and very unattractive. The total is not 100%, because there is also a group who choose neutral and because of the missing values. A loan with low interest is also indicated as a highly attractive alternative. Only 9,1% in our sample indicate that a loan with low interest is (very) unattractive, in comparison with 62,5% of the students who indicate it as (very) attractive. Other characteristics as a long

repayment period, no or low repayment if income is low, a fixed repayment schedule and cancellation of the remaining debt after some years are also seen as more attractive than unattractive; these numbers are between 25,3% and 40,5% who indicate it as (very) attractive and 14,1 % and 23,6 % who indicate it as (very) unattractive. A loan with a short repayment period is the only characteristic which is indicated more (very) unattractive (44,2%) than (very) attractive (17,4%).

Table 10: Descriptives of the dependent variable the sensitivity to the conditions of student loans

	Intervals	Frequency	Percent	Missing	Mean	Std. Deviation
No interest	Very attractive (1)	145	59,9	12	1,61	0,986
	Attractive (2)	50	20,7			
	Attractive/unattractive (3)	24	9,9			
	Unattractive (4)	2	0,8			
	Very unattractive (5)	9	3,7			
Low interest (inflation rate)	Very attractive (1)	36	14,9	13	2,34	0,980
	Attractive (2)	115	47,5			
	Attractive/unattractive (3)	56	23,1			
	Unattractive (4)	9	3,7			
	Very unattractive (5)	13	5,4			
Short repayment period	Very attractive (1)	12	5,0	13	3,50	1,168
	Attractive (2)	30	12,4			
	Attractive/unattractive (3)	80	33,1			
	Unattractive (4)	46	19,0			
	Very unattractive (5)	61	25,2			
Long repayment period	Very attractive (1)	35	14,5	13	2,75	1,169
	Attractive (2)	63	26,0			
	Attractive/unattractive (3)	80	33,1			
	Unattractive (4)	27	11,2			
	Very unattractive (5)	24	9,9			
No or low repayment if income is low	Very attractive (1)	35	14,5	15	2,81	1,124
	Attractive (2)	60	24,8			
	Attractive/unattractive (3)	75	31,0			
	Unattractive (4)	27	11,2			
	Very unattractive (5)	30	12,4			
Fixed repayment schedule	Very attractive (1)	19	7,9	14	2,95	0,992
	Attractive (2)	42	17,4			
	Attractive/unattractive (3)	115	47,5			
	Unattractive (4)	34	14,0			
	Very unattractive (5)	18	7,4			
Cancellation of remaining debt after some years	Very attractive (1)	28	11,6	18	2,71	1,0159
	Attractive (2)	63	26,0			
	Attractive/unattractive (3)	99	40,9			
	Unattractive (4)	14	5,8			
	Very unattractive (5)	20	8,3			

From the description of these dependent variables, we can conclude that for many Portuguese students it is unlikely to borrow. If they would borrow, they would prefer loans from the state over those from private banks. What we see in Portugal is that student loans are organized by private banks, so this can be a major explanation for low trust in borrowing

and debt aversion. We also see that regardless of the fact that students perceive it very unlikely to take up student loans, they would not be very negative towards student loans with attractive repayment conditions. They are less debt averse as one would expect from the statements about likelihood to take up loans.

6. Students' cost expectations, debt aversion and the sensitivity to the conditions of student loans

This chapter tests the hypotheses formulated in Chapter 3. In this analysis the main question to be answered is whether debt aversion plays a role for prospective Portuguese students and if this differs for different student groups. A description of the variables is already given in the previous chapter. In section 6.1 the results from Chi-Square tests will be shown. This chapter ends with an overall conclusion.

6.1 Testing the hypothesis

There are different possibilities to analyze relationships between different data. In the analysis of the data from this research we will use mainly Chi-square tests (crosstabs analysis).

- Pearsons Chi-square test: A statistical test to determine whether two or more distributions (populations) differ from each other. With crosstabs the percentage ratios are shown. The direction from the relation can be found in these crosstabs.

The significant difference or exceedance probability (p-value) indicates whether or not a difference arose by chance. For the analysis in this study we used an exceedance probability of 5% (P <0,05), then one can speak about a significant outcome. When we talk about a marginally significant than the p-value is between 0,05 and 0,1, everything above 0,1 is not significant. In addition we used pluses and minuses to show if the direction of the difference was positive(+) as formulated in the hypotheses or negative(-) in opposite direction from the hypotheses.

6.1.1 SES and higher education costs expectations

In the first hypothesis we expected that students from lower socio-economic backgrounds expect to have higher tuition fees and higher living costs than middle and higher SES students. With the One-Way Anova (F) analysis we tried to find out if there is a statistically significant difference between our group means. In the first analysis between the socio economic background (SES) (combined parental income and education) and students expectations for the total costs for higher education (living costs and tuition fees) we can see from appendix 2 that the significance level is 0,076 which is below 0,1 and higher than 0,05 and therefore there is a marginally significant difference in students social economic

background and the expectations they have from higher education total costs. We have chosen to take the expected total costs together because we saw with crosstabs that the different costs are related to each other. But with the One-Way Anova (F) test we can not say anything about the direction of the relationship and about the differences in the expectations for the tuition fees and living costs, so we conducted the Pearson Chi Square test for the two different variables. The Chi-square test is a statistical test to determine whether two or more distributions (populations) differ from each other. With this test we found that students' social economic background and the expectations they have from higher education tuition fees is marginally significant. From the results we also saw that there is no significance relation between the social economic background and the expected living costs. Remarkable is that students from high SES background, contrary to what is formulated in the hypothesis, expect to have higher costs (in particular tuition fees) than low SES students. From appendix 2 this direction can be seen.

Table 11: Pearsons Chi-square tests, relation higher education costs expectations and SES

independent variables **dependent variables; higher education costs expectations**	**Hyp 1: SES**	
Expectations		
Tuition fees	-	MS
Living costs		NS

Significance levels: MS= 0,05 < X < 0,01 = marginally significant, NS = ≤0,05 = not significant; - = difference in negative direction

Based on this analysis we can conclude that students from different SES groups do have slightly different cost expectations. These differences are mainly found in the expectations students have from the tuition fees. Students from higher socio-economic backgrounds expect to have higher tuition fees than lower SES students, this is opposite than the formulated hypothesis. And the different cost expectations are overall not significant, so we conclude that the first hypothesis that students from lower socio-economic backgrounds expect to have higher tuition fees and higher living costs than middle and higher SES students can be rejected.

6.1.2 Debt aversion and the dependent variables

Table 12 shows the significances of the Chi-square test between the different components of debt aversion and the different dependent variables from hypotheses two until six. The table highlights the conclusions between these relationships. Extensive tables are given in appendix 2. Based on the significant relationships and on the direction of the relationship we will accept or reject our hypotheses. A hypothesis will be accepted if there are at least in seven from the 21 components significances and if none of all significances are in opposite direction. The first component (the expectation of having a student loan) will be disregarded, because from the total group of respondents only six students expect to have a student loan. This number is too small to base our conclusions on it. In the following paragraphs the hypothesis will be discussed one by one.

Table 12: Pearsons Chi-Square tests, relation debt aversion and independent variables

independent variables dependent variables; Debt aversion	Hyp 2: SES		Hyp 3: Gender		Hyp 4: School type		Hyp 5: Location		Hyp 6: Earning expectations	
Expectations										
Expect to have student loan	-	***	-	NS	-	***	-	*	+	*
expect to have a student job	+	*	+	NS	+	NS		NS	+	*
Attitudes loan										
for a house	+	NS		NS	+	NS	+	*		NS
for a car	+	MS		NS	+	MS		NS		NS
for higher education		NS		NS		NS		NS		NS
Taking up a loan in different situations										
with no other support	+	NS	-	NS		NS		NS	-	NS
with a grant		NS		NS		NS		NS		NS
offered by family/friends		NS	-	*		NS		NS	+	NS
offered by a private bank	+	*	-	NS	+	MS	+	**	-	NS
offered by the government	+	NS		NS	+	NS	+	MS		NS
if your parents are not willing to support	+	***	+	MS	+	***	+	***	+	NS
max. student debt completing HE degree		NS	+	**		NS		NS		NS
Statements:										
Borrowing is basically wrong	+	*		NS	+	*	+	NS		NS
You should always safe up first before buying something		NS	+	*		NS	-	*	+	MS
HE is a good investment	+	**		NS	+	***	+	***		NS
A loan for participating in HE is a good investment	+	***		NS	+	MS	+	NS	-	MS
Student loans allows students to pay for studying	+	MS	-	MS	+	MS	+	*		NS
Students get well paid jobs after graduation		NS	+	*	+	NS		NS	+	MS
When you get a job after graduation it is fair to repay part of HE costs		NS	+	NS		NS		NS	-	NS
Having to take up a loan for studying in HE frightens me		NS	+	*	+	NS	-	NS		NS

Significance levels: ***= 0,001, **=0,01, *=0,05, MS= 0,05 < X < 0,01 = marginally significant, NS = ≤0,05 = not significant; + = difference in positive direction, - = difference in negative direction

*We indicated also some cases by plusses and minuses where there was no statistical significance, but where we still saw some meaningful differences in the crosstabs.

Social economic background (SES)

The second hypothesis that was formulated was that prospective students from low socio economic backgrounds are more debt averse than high SES students. In the relation between the components of the dependent variable debt aversion and the different SES groups we found in 9 from the 20 components a (marginally) significant difference in the different SES groups. There is a statistical difference in the expectations for having a student loan in the different SES groups, prospective students from lower SES groups expect more often to have a student loan than high and middle SES students, this is in opposite direction than the formulated hypothesis, even though we have to emphasize that the numbers of students who expect to take up a loan are very low. There is also a significant relationship in the prospective students' expectations to have a student job; this difference is between low and high SES students, low SES students expect more often to have a student job while studying compared with high SES students. Except for a loan for a car there are no significance differences in prospective students' attitudes for having a loan. Higher SES students are marginally more negative for having a loan for a car than low SES students. However what we also see in the crosstabs is that students from high SES groups are more negative for a loan for higher education than low SES students, this is in opposite direction than we expected. But this difference in not significant. However there is a statistically significant difference in prospective students' attitudes in the different SES groups for taking up a loan offered by a private bank and if students' parents are not willing to support. Low SES students' attitude towards a loan offered by a private bank and if students' parents are not willing to support is more negative than high SES students' attitude. Remarkable is that large numbers from the middle and high SES groups indicate that it is (very) likely that they would take up a loan if their parents are not willing to support. So we can draw from this that almost all the prospective students from these groups expect that their parents will pay for the costs of studying. There is a statistically significant relation in prospective students' opinion about higher education as a good investment and a loan for higher education as a good investment. In both cases high SES and middle SES students agree more than low SES students that higher education and a loan for higher education is a good investment, so the issue is less financial to them. The statement borrowing is basically wrong is also significant. High SES students disagree more that borrowing is wrong than low SES students. In addition

high SES students agree marginally significantly more that student loans allows students to pay for studying. So what we see is that the different groups think different about money.

The rest of the components are not significant. But still we see some things to mention. There is for example no significant difference in the statement that students get well paid jobs after graduation, but almost all students agree with this and this is contrary to the fact that higher education is regarded as a good investment. We also see a contradiction in the fact that many students (strongly) agree that having to take up a loan for higher education frightens them, but they almost all agree, even the low SES students, that when you get a job after graduation it is fair to repay part of the costs. There are also no significant differences in the different SES groups in taking up a loan in the following loan situations; with no other support and with a grant. But in these cases there is something remarkable. What we see is that in these cases it is more likely to borrow for middle SES students than for high en low SES students. We also did not found significance in students' attitude for a loan for higher education. This is very strange because we found a significance in the statement that a loan for participate in higher education is a good investment. Therefore we examined whether there is coherence between those two statements with a crosstab, and indeed we saw coherence. But those two didn't correlate enough to combine them to one component.

As mentioned before we found in 8 from the 20 components of the variable debt aversion positive (marginally) significant differences. This means that there are definitely differences in the level of debt aversion between the different SES groups. The significances are all pointed in the right direction. Based on the analysis we will therefore accept the hypothesis that prospective students from low socio economic backgrounds are more debt averse than high SES students. For the other 11 components of debt aversion we didn't find significances, this shows that debt aversion is a multi-faceted phenomenon, so it depends how one measures debt aversion, to conclude if students are debt averse or not.

Gender

Our next hypothesis was that female prospective students are more debt averse than male prospective students. In the Chi-square analysis between gender and debt aversion, we found only in seven from the twenty components of debt aversion statistical significant differences or marginally statistical significances. These significances are mainly found in

other aspect than in the Chi-square tests with the different SES groups. There is a significant relationship with two of the six debt aversion components of different loan situations; if a loan is offered by family or friends and if students' parents are not willing to support. It is more likely for male students to take up a loan if students' parents are not willing to support than for female students. It is remarkable that female students are more likely to take up a loan offered by family or friends than male students. This is interesting, because this confirms literature, from for example the behavioural economics, that men are more risk taking than women. The maximum debt students are willing to accumulate for completing a higher education degree is statistically related to gender. Again we see that male students are more risk-taking, because they are willing to accumulate more debt to study in higher education. As expected, female students are statistically more sensitive to safe money before buying something than male students. In addition, higher education is statistically more frightening for female students than for male students. There is also a significant relationship showing that female students disagree more than male students that student loans allow students to pay for studying, so this is opposite to the formulated hypotheses. However there is also significance found in the statement that students get well paid jobs after graduation. Male students agree more than female students that students get well paid jobs after graduation, this can explain why in the cases above female students are less risk taking, because they expect lower salaries after graduation. In the crosstab gender with earning expectations we also see that proportionality female prospective students have lower earning expectations then male prospective students.

Based on this analysis we also see differences between male and female prospective students in the way they are debt averse. In some cases we see that male prospective students are more risk-taking and therefore less debt averse than female prospective students. However because these positive significances are only found in five from the twenty components and because we also found significances in opposite direction we will reject the hypothesis that female students are more debt averse than male students.

School type; public or private schools

The fourth hypothesis that was formulated in chapter three is that prospective students from public schools are more debt-averse than prospective students from private schools. In the Chi-square crosstabs analysis between school type (public or private) and debt aversion

we found in nine components of debt aversion (marginally) statistical significances. There is a significant relationship with the expectation students have to have a student loan. Students from public schools expect more often to have a student loan, than students from private schools. It should be mentioned that only 6 students in our sample expect to have a student loan. Private school students are statistically more positive for having a loan for a house and for a car. There is also a significance relationship in the likeliness to take up a loan offered by a private bank; it is more likely to take up a loan offered by a private bank for private school students than for public school students. A significance relationship is also found with taking up a loan if students' parents are not willing to support. In this case students from private schools are more willing to take up a loan. Besides, we see that students from public schools agree more that borrowing is basically wrong. The relation with students opinion that higher education is a good investment and that a loan for participating in higher education is a good investment is also highly significant. Students from private schools agree more than students from public schools that higher education and a loan for higher education are good investments. There is a marginally significant relationship with students' opinion that student loans allows students to pay for studying, private school students agree more in this than public school students. There are no significance relationships with the other components of debt aversion.

Just like in the Chi-Square tests with SES we found for school type in eight from the twenty components of debt aversion positive (marginally) significant differences. We see that students from private schools in these eight components are less debt averse than students from public school. Besides we did not find any relation in opposite direction than the formulated hypothesis. We therefore accept the hypothesis that prospective students from public schools are more debt averse than prospective students from private schools.

It is notable that there are similarities in the significances from SES and school type. This is understandable because, as we mentioned in the theoretical chapter of this thesis, most of the high SES students are going to private (secondary) schools. This is in our own data verified with the crosstab below. There we see that only 7 students from the low SES students are going to a private school and only 23 students of the high SES students are going to a public school. It is logical that there are more high SES students going to public schools than low SES students that are going to private schools, because it is more difficult

for a low SES student to pay the higher costs for a private school. The variables SES and type of school are not merged because a high SES student does not necessarily go to a private school or the other way around (as one also can see from table 13).

Table 13: Crosstab; type of school and SES

		SES			Total
		Low	Middle	High	
Type of school	public	83	30	23	136
		34,4%	12,4%	9,5%	56,4%
	private	7	19	79	105
		2,9%	7,9%	32,8%	43,6%
Total		90	49	102	241
		37,3%	20,3%	42,3%	100,0%

Geographical location; rural or city area

In the fourth hypothesis we expected that prospective students from rural areas are more debt averse than students from main city areas. We found that school location is also a strong explanatory variable, having a (marginally) significant relationship with eight from the twenty components of debt aversion. Students from rural areas expect more often to have a student loan, than students from city areas. However this is not seen in the other components of debt aversion. For example we see that students from city areas agree more that student loans allow students to pay for the costs of studying. Besides, students from city areas are significantly more positive to a loan for a house than students from rural areas. Moreover, we see a statistically significant relationship if students get the possibility to take up a loan by a private bank, if a loan is offered by the government or if students' parents are not willing to support them. In these cases it is more likely that students from city areas would take up a loan to study in higher education than students from rural areas. Therefore, we also see that there is a highly significant relationship with the statement that higher education is a good investment, where students from city areas more agree in this. Striking proves the significance relationship with the statement that you should always safe up before buying something, because this relationship is in opposite direction. Students from city areas agree more with this statement.

We found for school location 8 significances, however we see that 2 significances are in opposite direction than the formulated hypothesis. We therefore will overall reject the hypothesis that students from rural areas are more debt averse than students from main city areas. However we want to emphasize that in certain cases there is a significant proof that students from rural areas are more debt averse than students from city areas. It all depends on the way debt aversion is measured.

Earning expectations

The last hypothesis formulated with debt aversion was that; prospective students with higher earning expectations after graduation are less debt averse than students who expect to earn less after graduation. The results related to prospective students earning expectations reveal only a small number of significance relationships with the components of the dependent variable debt aversion. Statistical significances are found in students expectations from having a student loan and a student job while studying. The statement "you should always safe first before buying something" is also statistical significant. The statements; "a loan for participating in higher education is a good investment" and "Students get well paid jobs after graduation" are marginally significant. Students with high earning expectations expect more often to have student loans and less often to have student jobs than students with low earning expectations. This can be explained by the fact that students with low earning expectations take a student job to finance higher education, because they don't expect they can repay a loan after graduation. This also explains why students with lower earnings expectations more agree with the statement that you always safe up first before buying something. However, it goes against the fact that in our sample students with high earning expectations disagree more that a loan to participate in higher education is a good investment. However these students with low earning expectations agree more than students with low earning expectations that students get well paid jobs after graduation.

So we found only some evidence that students with lower earning expectations are more debt averse than students with high earning expectations. In a single case we found even evidence in the opposite direction. Therefore we will reject the hypothesis that students with higher earning expectations after graduation are less debt averse than students who expect to earn less after graduation.

Nevertheless is it interesting to make from this variable a dependent variable and test this with crosstabs with the Chi-square test with the other independent variables; SES, gender, school type and school location. It is in fact to be expected that students from different groups do have different earning expectations. But in the Chi-square tests we could not find any statistical significance for earning expectations with the variables SES, gender, school type and school location. The crosstabs between the earning expectations and the independent variables are given in appendix 3.We see some differences in the crosstabs, but these are minimal. What we see for example is that low SES students, public school students and female students do have slightly lower earning expectations. As we mentioned; these differences are not significant, however this can be an explanation for the fact that these students are more debt averse than high SES students, private school students and male students.

6.1.3 Student loan conditions and the likeliness to take up a loan

The seventh hypothesis that was formulated was; prospective students who indicate to be less likely to take up student loans are more sensitive to the conditions of student loans, such as interest rates and repayment conditions. This seventh hypothesis on loan characteristics and the likeliness to take up a loan is also tested with the Pearson Chi-square. Table 9 shows that 5 of the 7 characteristics of the dependent variable are statistically significant. There is no significance difference in the distributions of the characteristics; a loan with no interest and a loan with a short repayment period. A loan with no interest is very interesting for all prospective students, those who are likely to take up a loan and those who are unlikely to take up a loan for studying in higher education and there is no significance relationship between those. A short repayment period is not interesting for both groups of students. However a loan with low interest is more attractive for students who are more likely to take up a student loan than for students who are unlikely to take up a student loan, therefore there is a significance relationship. Also a long repayment period is more attractive for students who are likely to take up a student loan. It is therefore logical that if income is low, no repayment or a low repayment is also more attractive for those students who are likely to take up a loan. The same is true for a fixed repayment schedule and cancellation of the remaining debt after some years. It is striking that in all five cases the significance levels are (very) high, as one also can see from appendix 2.

Table 14: Pearsons Chi-Square tests, relation loan characteristics and the likeliness to take up a loan

dependent variables; Loan characteristics	independent variables Hyp 7: likeliness to take up a loan	
No interest		NS
Low interest	+	*
Short repayment period	+	NS
Long repayment period	+	***
No or low repayment if income is low	+	**
Fixed repayment schedule	+	**
Cancellation of remaining debt after some years	+	***

Significance levels: ***= 0,001, **=0,01, *=0,05, NS = ≤0,05 = not significant

+ = difference in positive direction

Based on this analysis we can conclude that students who indicate to be less likely to take up student loans are more sensitive to the conditions of student loans. This means that the hypothesis can be accepted. A loan with no interest is interesting for all students. A loan with a short repayment period is only interesting for some students.

It is also interesting to know if there are differences between the different groups of students and the sensitivity to the conditions of student loans. Because in the literature they argue many times that low income families have lower income expectations and that they are debt averse and therefore they are more critical to the borrowing conditions. Therefore we did also a Chi-square test between the loan characteristics and all the independent variables. With SES and gender we did not find any significance. But with school type and school location we found in four from the seven loan characteristics statistical differences. It is more interesting for students from private schools and students from city areas to take up a loan with no interest, low interest, a short repayment period and with cancellation of the remaining debt after some years than for students from public schools and rural areas. With this we can say again that those students are more positive for taking up loans and less critical to the borrowing conditions. Only the independent variables with significances are given in the table below. The crosstabs are given in appendix 3.

Table 15: Pearson Chi-square test: relation loan characteristics and school type and school location

independent variables dependent variables; Loan characteristics	school type		school location	
No interest	+	MS	+	***
Low interest	+	***	+	**
Short repayment period	+	**	+	*
Long repayment period		NS		NS
No or low repayment if income is low		NS		NS
Fixed repayment schedule		NS		NS
Cancellation of remaining debt after some years	+	*	+	**

Significance levels: ***= 0,001, **=0,01, *=0,05, NS = ≤0,05 = not significant

+ = difference in positive direction, - = difference in negative direction

6.2 Overall conclusion

From the descriptive data we have seen that just like it is mentioned in the Portuguese literature, it is very unlikely for many Portuguese students to borrow. However, students do prefer loans from the state over those from private banks which can be an explanation for low trust in borrowing and debt aversion. Regardless the fact that students perceive it very improbable to take up students loans, they are not negative towards students loans with attractive repayment conditions. In addition, they are also less debt averse as one would expect from the statements about the possibility to take up loans.

Overlooking the results from the crosstabs analysis, the following conclusions can be drawn: students from different SES groups have slightly different cost expectations. The differences are mainly found in the tuition fees expectations. Students from higher socio economic backgrounds expect to have higher tuition fees than lower SES students. This is contrary to what is formulated in the first hypotheses. However, these private education students have a more realistic view of the actual tuition fees. This can mean that if low SES students see real fee levels, they will be further deterred. From the tests between the different components of debt aversion and the variables SES, gender, school type, school location and earning expectations, we could accepted two hypotheses and rejected three. There are definitely differences in the level of debt aversion between the different SES groups. Prospective students from low socio economic backgrounds are more debt averse than high SES students. We can also conclude that public school prospective students are more debt

averse than prospective students from private schools. The hypothesis that female prospective students are more debt averse than male prospective students is rejected, however we do see in some cases that male prospective students are more risk-taking and therefore less debt averse than female prospective students. The hypothesis that students from rural areas are more debt averse than students from city areas is also rejected. But also in this case we have to mention that we found in some debt aversion component proofs that students from rural areas are more debt averse than students from city areas. The hypothesis that students with higher earning expectations after graduation are less debt averse than students who expect to earn less is rejected. The last hypothesis that students who indicate to be less likely to take up student loans are more sensitive to the conditions of student loans than the students who are likely to take up student loans is accepted.

In addition to the rejection or acceptance of the hypotheses there is also other interesting information seen. We found for example similarities in the significances from SES and school type with the components of debt aversion. Most of the high SES students are going to private (secondary) schools. One could also expect that students from different groups do have different earning expectations. But in the Chi-square tests we could not find any statistical significance for earning expectations with the variables SES, gender, school type and school location. We found some differences in the crosstabs, but those where minimal. What we saw for example is that low SES students, public school students and female students do have slightly lower earning expectations. This can be an explanation for the fact that these students are more debt averse than high SES students, private school students and female students, so maybe is debt aversion leading to lower income expectations. We also found that it is more attractive to students from private schools and students from city areas to take up a loan with no interest, low interest, a short repayment period and with cancellation of the remaining debt after some years, than to students from public schools and rural areas. Bearing this in mind we can say again that those students are more positive for taking up loans and less critical to the borrowing conditions. However we could not find any statistical difference when testing the borrowing conditions with SES and gender.

7. Conclusions and recommendations

7.1 Introduction

In the past chapters the role of the central variables have been assessed for the prospective students in Portugal. The literature review and the empirical research have provided answers to the following four sub questions:

1. *How does higher education in Portugal look like and what do student financing arrangements apply to Portuguese students?*
2. *What does economic theory tell us about student choices, student loans and access to higher education and the influence of debt aversion?*
3. *Does debt aversion play a role for prospective Portuguese students and does it differ for students from different backgrounds in terms of SES, gender, type of schools, geographical location and earning expectations?*
4. *Under what conditions do prospective Portuguese students consider loans to be an option for financing their studies?*

The findings for these four sub question can now be joined together to come to an answer to the main question of this master thesis;

To what extent do student loans lead to debt aversion among prospective Portuguese students from different groups in terms of social economic background, gender, school type, geographical location and earning expectations?

In the following paragraph the main question will be answered. Thereafter some recommendations will be made.

7.2 To what extend do student loans lead to debt aversion among prospective Portuguese students from different groups?

To come to an answer to the central research question, first we have described the descriptive data from our research. Here we saw a number of striking features. Prospective Portuguese students have generally good expectations from the actual costs of studying. Only 18% of the students expected to pay more tuition fees that the actual amount of tuition fees in Portugal. However Portuguese prospective students do not have a good picture if they would get a grant or not. Much bigger is the number of students expecting a grant, than the actual number of students who get one. This could have major implications for student

choices. Students may choose at the end not to enroll for the university or polytechnic they want or not to enroll at all for higher education, because of the costs of higher education, which they perhaps cannot pay without a grant. In Portugal, in much literature they often argue that reducing the price of education for students by providing more grants should increase the demand for education; this is confirmed for a part. The big number of expected grantees can therefore also explain why many more students expect to live without their parents during studying than the actual number of students who live without their parents. What we also see is that the amount of students (97%) planning to study in higher education is higher than the actual amount of students that are going. So the prospective students want to study in the first place, but in a later stadium, they run into problems, probably because they do not have the amount of money they expected, or because they did not passed the secondary school exams. Half of the students expect to have a student job while studying, as a substitute to taking up loans.

From the description of the dependent variables, we can conclude that for many Portuguese students it is unlikely to borrow. If they would borrow, they would prefer loans from the state over those from private banks. What we see in Portugal is that student loans are organized by private banks, so this can be a major explanation for low trust in borrowing and debt aversion. We also see that regardless the fact that students perceive it very unlikely to take up student loans, they would not be (very) negative towards student loans with attractive repayment conditions. Interest rates and repayment conditions may reduce debt aversion under prospective students. They are less debt averse as one would expect from the statements about likelihood to take up loans. A caveat that must be made is that it is very difficult to say if Portuguese prospective students are really debt averse. With this study we have found that the way we measure debt aversion determines if we can say whether a student is debt averse or not. What is seen for example, is that almost all students agree that students get well paid jobs after graduation and this is contrary to the fact that higher education is regarded as a good investment. Seen is also the contradiction that many students (strongly) agree that having to take up a loan for higher education frightens them, but they almost all agree that higher education is a good investment and that when you get a job after graduation, it is fair to repay part of the costs; even the low SES students agree with this. So it is indeed very difficult to determine whether Portuguese prospective students

are debt averse. We also see that Portuguese students consider it as likely to take up loans if there is no other support. In Portuguese data it is found that parents support their children to study in higher education. It is therefore possible that Portuguese students do not take up loans, because their parents support them or because they can finance their higher education with other sources. Half of the students expect to have a student job while studying. Another explanation for not taking up loans is that Portuguese students are afraid that they cannot afford to pay the loan back, because many of the Prospective students disagree that students get well paid jobs after graduation. One could expect from the phenomena from the behavioural economics; the thumb of rules that students are more likely to invest for a car or a house than for higher education; this however is not found.

From the analysis we have seen that students from different SES groups do have slightly different cost expectations. Students from higher socio economic background expect to have higher tuition fees than lower SES students. This is opposite than what one can expect from the behavioural economics. Behavioural economics suggest that students from lower SES backgrounds are more likely to overestimate present costs. From the analysis we have seen that even low SES groups do have a good expectation from the actual costs of higher education. However, we found in 9 ways of measuring debt aversion, that students from lower SES groups are more debt averse than students from higher SES groups, but in the eleven other cases we did not find significant differences in the way the students from the different groups are debt averse. In addition it is remarkable that there are differences for the different SES groups when a loan is offered by a private bank or if students' parents are not willing to support. It is more likely that high SES students would take up a loan in these situations, therefore we can conclude that it does not matter for a high SES student if a loan is offered by a private bank or by the government, but that is does matter for a low SES student, who prefer loans from the state over those from private banks. High SES students 'parents also support their children in financing their higher education, therefore they do not need loans, but they would take up loans if they need it, because they are less debt averse. In some cases we also found that male prospective students are more risk-taking and therefore less debt averse than female prospective students. However the differences are too small and some of the differences are in opposite direction, therefore we concluded that overall there are no differences in debt aversion between male and female students. Found

is also that students from public schools are more debt averse than students from private schools; this is logical because private school students are often high SES students. This may be due to the influence of peers. Those peers can play a role, because low SES students and private school students 'family attended less often higher education and therefore they are likely to negatively influence them. There is also some proof that students from rural areas are more debt averse than students from city areas; however we found also proof in 2 cases regarding the opposite direction. Therefore we have concluded that there are no differences in debt averse between students from rural areas or city areas. The hypothesis that students with higher earning expectations after graduation are less debt averse than students who expect to earn less after graduation is also rejected. However we found a little support that low SES students, public school students and female students do have slightly lower earning expectations. This can be an explanation why we found more debt aversion for these groups of students.

As expected from the literature, it is found that students who are more likely to take up student loans are more sensitive to the conditions of student loans. Loans with no interest are appealing to all students and loans with a short repayment period are not appealing to any student. From the literature, one could also expect that some groups of students are more critical to the borrowing conditions. However, there is no significant difference found with SES and gender. But with school type and school location there is a statistical difference found in the majority of the borrowing conditions. It is more interesting for students from private schools and students from city areas to take up a loan with no interest, low interest, a short repayment period and with cancellation of the remaining debt after some years than for students from public schools and rural areas. So these students are more positive for taking up loans and less critical to the borrowing conditions. However, overall we can conclude that favorable repayment conditions and average high rates of return should offset debt aversion. But in Portugal, we see a very low rate of return, because the salaries are low and the expected Portuguese students have a good image of these rates of return.

7.3 Recommendations

The last sub question that was formulated was as follows:

What recommendations can be made for policy making in Portuguese higher education concerning student loans?

In this last part of the thesis we will answer this research question. In public administration, which includes application-oriented sciences, this study can be used next to the understanding and explanation from using of theories, which is also to be used for the practical application of the gained knowledge. With use of this study some recommendations can be made regarding not only Portuguese policymakers, but also policymakers in general and further research on debt aversion and student loans. In the following part the recommendations are given and explained in bullet points.

- This first recommendation refers particularly to Portuguese policy makers. What we see in Portugal is that almost all Portuguese students see higher education as a good investment. But for some groups of students it is very difficult to study, because of the high costs compared with their families' median household income. We also see that Portuguese students do not want to take up loans. However, they answer very positive in the statement that you should always safe up first before buying something. In the Portuguese case it is therefore a very good idea to create so called "saving plans". Portuguese students namely want to save before purchase and do not want to take up loans. These saving plans could therefore provide a solution for the students that want to go to higher education, but cannot go and do not want to take up loans.

- Debt aversion does not have to be seen as a barrier to invest in higher education. Therefore, if policymakers still want to stimulate loans, it is better to organize student loans by the government rather than by private banks. Found is that if student would borrow, they would prefer loans from the state over those from private banks, especially low SES students. What we see in Portugal is that student loans are organized by private banks, so this can be a major explanation for low trust in borrowing and debt aversion. We also see that regardless of the fact that students

perceive it very unlikely to take up student loans, they would not be (very) negative towards student loans with attractive repayment conditions. So there is potential for further loans if the loans. Loans offered by the state with favorable repayment conditions and interest rates would stimulate students more to take up a loan to study.

- An important outcome from this research is that according to the way we measures debt aversion, we may determine if students are debt averse or not. It shows that debt aversion is a multi-faceted phenomenon. There is no unambiguous meaning of the concept debt aversion. Policymakers can therefore influence the outcomes from different studies in the way which is beneficial for themselves. In the literature, someone can found many researchers that suggest that (some groups of) students are debt averse. In our research we found that it whether you will find if a student is debt averse or not depends on how you ask the student regarding debt aversion. It is therefore very difficult to say if students are debt averse or not. A recommendation for policymakers and researchers is therefore that they shall only define if students are debt averse or not by measuring it in different ways. The stamp of debt aversion should therefore not be placed too quickly.

- It would be ideal if this research would be conducted again, as a panel study. Panel studies are a particular design of longitudinal study in which the unit of analysis is followed at specified intervals over a long period, often many years. The key feature of panel studies is that they collect repeated measures from the same sample at different points in time. In this case the follow-up study should take place one year later, with the same students, but now including also questions about which choices the students have actually made. In that case one can also draw (more) conclusions about student choices. Furthermore in case this study is conducted again, it would be better to have more respondents. With more respondents there can be done (more) multivariate tests. With the multivariate tests someone can also examine whether students are debt averse in some points and if there are differences between, for example, male low SES students and female low SES students. In the research of this particular thesis the group of respondents was too small.

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Appendix 1: Questionnaire

General characteristics

1. Gender:
    - Man
    - Woman
2. School: (list with own selected schools)
3. Type of tertiary school:
    - public
    - private
4. Age
    - 15
    - 16
    - 17
    - 18
    - 19
    - 20
    - other
5. Education level:
    -
    -
    -
6. Ethnicity
    -
    -
7. What is the highest educational diploma attained by either your mother of father
    - None
    - Basic education
    - General secondary school
    - Vocational secondary education
    - Polytechnic degree
    - University degree

8. How do you rate your family household income per month net (father and mother together)
    - below <870 euro
    - between 870 and 1500 euro
    - above >1500 euro
    - unknown

Higher education aspirations and expectations

9. Do you want to continue your education with a study in Higher Education
    - yes
    - no
    - unknown

10. To what kind of Higher Education do you want to go?
    - public polytechnic
    - private polytechnic
    - public university
    - private university
    - unknown
11. If you want to continue your education in Higher Education, in which direction do you want to go?
    - Medicina, medicina Dentaria e Farmacia
    - Artes, Humanidades, linguas
    - Ciencias Sociais e Direito
    - Gestao e ciencias computacionais
    - Educacao
    - Engenharia e outros cursos technicos
    - Enfermagem e outras profissoes de saude
    - Ciencias
    - unknown

Ideas about student financing

12. What do you expect to pay as tuition fees (year) for your envisaged studies?
    - Less than 500 euro
    - Between 500 euro and 1000 euro
    - Between 1000 euro and 1500 euro
    - More than 1500 euro
13. What do you expect as living situation when studying?
    - Live with parents
    - Live independent from parents
14. What do you expect to pay for living costs per month?
    - < 250
    - Between 250 and 500 euro
    - Between 500 and 1000 euro
    - > 1000 euro
15. Do you expect to receive a scholarship?
    - Yes
    - No
16. How much do you expect to receive per month?
    - Less than 100 euro
    - Between101 and 200 euro
    - Between 201 en 400 euro
    - Between 401 and 600 euro
    - More than 600 euro
17. Do you expect to be eligible for a student loan?
    - Yes
    - No
    - Unknown

18. If yes, how much do you expect to borrow per month?

……

19. Do you expect to take a part-time student job while studying?
    - Yes
    - No
20. How much do you expect to earn in your first job after graduation? (net per month)

……

21. What do you expect to earn at the end of your career? (net per month)

……..

Attitude towards student loans

22. What is your basic attitude towards borrowing in the following cases?

	Very positive				Very negative
Take up loans for a house	0	0	0	0	0
Take up loans for a car	0	0	0	0	0
Take up loans for studying in Higher Education	0	0	0	0	0

23. Would you take up a loan in the following situations?

	Very likely				Very unlikely
If no other support is available (no grants)	0	0	0	0	0
If you also get a grant	0	0	0	0	0
If the loan is offered by familie/friends	0	0	0	0	0
If the loan is offered by a private bank	0	0	0	0	0
If the loan is offered by the government	0	0	0	0	0
If your parents are not willing to support you	0	0	0	0	0

24. What characteristics can make a loan attractive?

	Very attractive				Un-attractive
No interest	0	0	0	0	0
Low interest (inflation rate)	0	0	0	0	0
Short repayment period	0	0	0	0	0
Long repayment period	0	0	0	0	0
No or low repayment if income is low	0	0	0	0	0
Fixed repayment schedule	0	0	0	0	0
Cancellation of remaining debt after say 15 or 20 years	0	0	0	0	0

25. How much student debt is the maximum you are willing to accumulate for completing a Higher Education degree?
    - 0
    - 2500
    - 5000
    - 7500
    - 10 000
    - 15 000
    - 20 000 or over

26. Can you respond to the following statements?

	Strongly agree				Strongly disagree
Borrowing is basically wrong	0	0	0	0	0
You should always safe up first before buying something	0	0	0	0	0
Higher education is a good investment	0	0	0	0	0
Taking up a loan to participate in Higher Education is a good investment	0	0	0	0	0
Student loans allows students to pay for the costs of studying	0	0	0	0	0
Students will get well paid jobs after graduation	0	0	0	0	0
When you get a good job after graduation it is fair to repay part of the Higher Education costs	0	0	0	0	0
Having to take up a loan for studying in Higher Education frightens me	0	0	0	0	0

Appendix 2: Crosstabs Pearson Chi-Square; hypotheses one to six

Table 2.1: Hypothesis 1: Higher education costs expectations (total) between different SES levels (One Way ANOVA (F)

	Intervals	N	Mean	Std. Deviation	Std. Error
Social economic background F-value: 2,602 Sig.: 0,076	Low Middle High Total	90 49 102 241	2,2278 2,3367 2,4608 2,3485	,75014 ,68760 ,67738 ,71216	,07907 ,09823 ,06707 ,04587

Table 2.2: Hypothesis 1: Crosstabs expected tuition fees with SES (Pearson Chi-Square)

		SES			
		Low	Middle	High	Total
expected tuition fees year Pearson Chi-Square Sig.: 0,07	less than 500	6	4	11	31
		18,0%	8,2%	11,0%	13,0%
	between 500 euro and 1000 euro	36	21	33	90
		40,4%	42,9%	33,0%	37,8%
	between 1000 euro and 1500 euro	18	19	37	74
		20,2%	38,8%	37,0%	31,1%
	more than 1500 euro	19	5	19	43
		21,3%	10,2%	19,0%	18,1%
expected living costs Pearson Chi-Square Sig.: 0,267	< 250 euro	22	12	19	53
		24,4%	24,5%	19,2%	22,3%
	between 250 and 500 euro	49	20	42	111
		54,4%	40,8%	42,4%	46,6%
	between 500 and 1000 euro	15	14	32	61
		16,7%	28,6%	32,3%	25,6%
	>1000 euro	4	3	6	13
		4,4%	6,1%	6,1%	5,5%

Tables 2.3: Hypothesis 2: Crosstabs debt aversion and SES (Pearson Chi-Square)

		SES			
		Low	Middle	High	Total
expect to have student loan Pearson Chi-Square Sig.: 0.000	yes	4	0	2	6
		4,4%	0,0%	2,0%	2,5%
	no	52	28	89	169
		57,8%	57,1%	87,3%	70,1%
	unknown	34	21	11	66
		37,8%	42,9%	10,8%	27,4%
expect to have a student job Pearson Chi-Square Sig.: 0,031	yes	52	27	41	120
		58,4%	55,1%	40,2%	50,0%
	no	37	22	61	120
		41,6%	44,9%	59,8%	50,0%

		SES			
		Low	Middle	High	Total
attitude loan for a house Pearson Chi-Square Sig.: 0,215	very positive	10	6	14	30
		11,4%	12,5%	14,1%	12,8%
	positive	26	21	42	89
		29,5%	43,8%	42,4%	37,9%
	positive/negative	29	13	26	68
		33,0%	27,1%	26,3%	28,9%
	negative	6	5	9	20
		6,8%	10,4%	9,1%	8,5%
	very negative	17	3	8	28
		19,3%	6,2%	8,1%	11,9%
attitude loan for a car Pearson Chi-Square Sig.: 0,078	very positive	4	0	2	6
		4,5%	0,0%	2,0%	2,6%
	positive	8	6	13	27
		9,1%	12,5%	13,1%	11,5%
	positive/negative	42	25	35	102
		47,7%	52,1%	35,4%	43,4%
	negative	13	10	32	55
		14,8%	20,8%	32,3%	23,4%
	very negative	21	7	17	45
		23,9%	14,6%	17,2%	19,1%
attitude loan for HE Pearson Chi-Square Sig.: 0,268	very positive	13	14	16	43
		14,8%	29,2%	16,2%	18,3%
	positive	21	11	28	60
		23,9%	22,9%	28,3%	25,5%
	positive/negative	34	12	27	73
		38,6%	25,0%	27,3%	31,1%
	negative	10	8	13	31
		11,4%	16,7%	13,1%	13,2%
	very negative	10	3	15	28
		11,4%	6,2%	15,2%	11,9%

		SES			
		Low	Middle	High	Total
would you take up a loan with no other support Pearson Chi-Square Sig.: 0,471	very likely	12	11	17	40
		14,0%	23,4%	17,0%	17,2%
	likely	17	15	28	60
		19,8%	31,9%	28,0%	25,8%
	likely/unlikely	28	9	22	59
		32,6%	19,1%	22,0%	25,3%
	unlikely	11	4	14	29
		12,8%	8,5%	14,0%	12,4%
	very unlikely	18	8	19	45
		20,9%	17,0%	19,0%	19,3%
would you take up a loan with a grant Pearson Chi-Square Sig.: 0,384	very likely	2	2	2	6
		2,3%	4,3%	2,0%	2,6%
	likely	3	3	5	11
		3,5%	6,4%	5,0%	4,7%
	likely/unlikely	25	10	19	54
		29,1%	21,3%	19,0%	23,2%
	unlikely	14	11	32	57
		16,3%	23,4%	32,0%	24,5%
	very unlikely	42	21	42	105
		48,8%	44,7%	42,0%	45,1%
would you take up a loan offered by family/friends Pearson Chi-Square Sig.: 0,813	very likely	7	7	7	21
		8,1%	15,2%	7,0%	9,1%
	likely	18	8	27	53
		20,9%	17,4%	27,0%	22,8%
	likely/unlikely	26	14	27	67

		30,2%	30,4%	27,0%	28,9%
	unlikely	15	8	16	39
		17,4%	17,4%	16,0%	16,8%
	very unlikely	20	9	23	52
		23,3%	19,6%	23,0%	22,4%
would you take up a loan offered by a private bank Pearson Chi-Square Sig.: 0,041	very likely	1	4	4	9
		1,2%	8,5%	4,0%	3,9%
	likely	4	3	16	23
		4,7%	6,4%	16,0%	9,9%
	likely/unlikely	24	14	31	69
		28,2%	29,8%	31,0%	29,7%
	unlikely	19	12	24	55
		22,4%	25,5%	24,0%	23,7%
	very unlikely	37	14	25	76
		43,5%	29,8%	25,0%	32,8%
would you take up a loan offered by the government Pearson Chi-Square Sig.: 0,194	very likely	5	4	6	15
		5,8%	8,5%	6,0%	6,4%
	likely	7	5	21	33
		8,1%	10,6%	21,0%	14,2%
	likely/unlikely	24	12	24	60
		27,9%	25,5%	24,0%	25,8%
	unlikely	14	10	23	47
		16,3%	21,3%	23,0%	20,2%
	very unlikely	36	16	26	78
		41,9%	34,0%	26,0%	33,5%
would you take up a loan if your parents are not willing to support Pearson Chi-Square Sig.: 0,000	very likely	16	10	33	59
		18,6%	20,8%	33,0%	25,2%
	likely	11	16	33	60
		12,8%	33,3%	33,0%	25,6%
	likely/unlikely	27	15	18	60
		31,4%	31,2%	18,0%	25,6%
	unlikely	11	3	8	22
		12,8%	6,2%	8,0%	9,4%
	very unlikely	21	4	8	33
		24,4%	8,3%	8,0%	14,1%

		SES			
		Low	**Middle**	**High**	**Total**
max. student debt completing HE degree Pearson Chi-Square Sig.: 0,937	0	0	0	1	1
		0,0%	0,0%	1,0%	0,4%
	0 euro	20	7	18	45
		22,5%	14,3%	17,6%	18,8%
	2500 euro	28	13	28	69
		31,5%	26,5%	27,5%	28,7%
	5000 euro	24	15	31	70
		27,0%	30,6%	30,4%	29,2%
	7500 euro	6	5	7	18
		6,7%	10,2%	6,9%	7,5%
	10000 euro	5	5	7	17
		5,6%	10,2%	6,9%	7,1%
	15000 euro	4	4	7	15
		4,5%	8,2%	6,9%	6,2%
	20000 euro or over	2	0	3	5
		2,2%	0,0%	2,9%	2,1%

		SES			
		Low	**Middle**	**High**	**Total**
Statements: Borrowing is basically wrong Pearson Chi-Square Sig.: 0,021	strongly agree	13	1	4	18
		14,9%	2,2%	4,0%	7,7%
	agree	5	8	14	27
		5,7%	17,4%	13,9%	11,5%
	agree/disagree	35	18	30	83

		40,2%	39,1%	29,7%	35,5%
	disagree	21	12	36	69
		24,1%	26,1%	35,6%	29,5%
	strongly disagree	13	7	17	37
		14,9%	15,2%	16,8%	15,8%
	strongly agree	67	37	84	188
		76,1%	80,4%	83,2%	80,0%
Statements: You should always safe up first before buying something	agree	16	6	12	34
Pearson Chi-Square		18,2%	13,0%	11,9%	14,5%
Sig.: 0,485	agree/disagree	5	3	3	11
		5,7%	6,5%	3,0%	4,7%
	disagree	0	0	2	2
		0,0%	0,0%	2,0%	0,9%
	strongly agree	37	29	70	136
		42,5%	63,0%	70,7%	58,6%
	agree	31	14	22	67
Statements: HE is a good investment		35,6%	30,4%	22,2%	28,9%
Pearson Chi-Square	agree/disagree	17	3	7	27
Sig.: 0,010		19,5%	6,5%	7,1%	11,6%
	disagree	1	0	0	1
		1,1%	0,0%	0,0%	0,4%
	strongly disagree	1	0	0	1
		1,1%	0,0%	0,0%	0,4%
	strongly agree	9	18	23	50
		10,2%	39,1%	23,0%	21,4%
	agree	31	15	46	92
Statements: A loan for participate in HE is a good investment		35,2%	32,6%	46,0%	39,3%
Pearson Chi-Square	agree/disagree	36	11	26	73
Sig.: 0,001		40,9%	23,9%	26,0%	31,2%
	disagree	5	2	3	10
		5,7%	4,3%	3,0%	4,3%
	strongly disagree	7	0	2	9
		8,0%	0,0%	2,0%	3,8%
	strongly agree	14	13	24	51
		16,1%	29,5%	23,8%	22,0%
	agree	41	17	44	102
Statements: Student loans allows students to pay for the costs of studying		47,1%	38,6%	43,6%	44,0%
Pearson Chi-Square	agree/disagree	26	9	31	66
Sig.: 0,117		29,9%	20,5%	30,7%	28,4%
	disagree	6	5	1	12
		6,9%	11,4%	1,0%	5,2%
	strongly disagree	0	0	1	1
		0,0%	0,0%	1,0%	0,4%
	strongly agree	2	0	6	8
		2,3%	0,0%	5,9%	3,4%
	agree	12	10	21	43
Statements: Students get well paid jobs after graduation		14,0%	21,7%	20,8%	18,5%
Pearson Chi-Square	agree/disagree	47	23	42	112
Sig.: 0,383		54,7%	50,0%	41,6%	48,1%
	disagree	16	9	25	50
		18,6%	19,6%	24,8%	21,5%
	strongly disagree	9	4	7	20
		10,5%	8,7%	6,9%	8,6%
	strongly agree	19	8	26	53
		21,8%	17,4%	25,7%	22,6%
	agree	35	20	34	89
Statements: When you get a job after graduation it is fair to repay part of HE costs		40,2%	43,5%	33,7%	38,0%
Pearson Chi-Square	agree/disagree	27	14	29	70
Sig.: 0,758		31,0%	30,4%	28,7%	29,9%
	disagree	4	1	7	12
		4,6%	2,2%	6,9%	5,1%
	strongly disagree	2	3	5	10

		2,3%	6,5%	5,0%	4,3%
Statements: Having to take up a loan for studying in HE frightens me Pearson Chi-Square Sig.: 0,827	strongly agree	35	16	35	86
		40,2%	34,8%	34,7%	36,8%
	agree	22	13	31	66
		25,3%	28,3%	30,7%	28,2%
	agree/disagree	23	11	22	56
		26,4%	23,9%	21,8%	23,9%
	disagree	4	5	11	20
		4,6%	10,9%	10,9%	8,5%
	strongly disagree	3	1	2	6
		3,4%	2,2%	2,0%	2,6%

Tables 2.4: Hypothesis 3: Crosstabs gender en debt aversion (Pearson Chi-Square)

		Gender		
		Man	**Woman**	**Total**
expect to have student loan Pearson Chi-Square Sig.: 0,273	yes	2	4	6
		1,6%	3,4%	2,5%
	no	91	78	169
		74,6%	65,5%	70,1%
	unknown	29	37	66
		23,8%	31,1%	27,4%
expect to have a student job Pearson Chi-Square Sig.: 0,302	yes	57	63	120
		46,7%	53,4%	50,0%
	no	65	55	120
		53,3%	46,6%	50,0%

		Gender		
		Man	**Woman**	**Total**
attitude loan for a house Pearson Chi-Square Sig.: 0,199	very positive	15	15	30
		12,6%	12,9%	12,8%
	positive	50	39	89
		42,0%	33,6%	37,9%
	positive/negative	27	41	68
		22,7%	35,3%	28,9%
	negative	13	7	20
		10,9%	6,0%	8,5%
	very negative	14	14	28
		11,8%	12,1%	11,9%
attitude loan for a car Pearson Chi-Square Sig.: 0,308	very positive	3	3	6
		2,5%	2,6%	2,6%
	positive	15	12	27
		12,6%	10,3%	11,5%
	positive/negative	45	57	102
		37,8%	49,1%	43,4%
	negative	34	21	55
		28,6%	18,1%	23,4%
	very negative	22	23	45
		18,5%	19,8%	19,1%
attitude loan for HE Pearson Chi-Square Sig.: 0,164	very positive	24	19	43
		20,2%	16,4%	18,3%
	positive	32	28	60
		26,9%	24,1%	25,5%
	positive/negative	29	44	73
		24,4%	37,9%	31,1%
	negative	20	11	31
		16,8%	9,5%	13,2%
	very negative	14	14	28
		11,8%	12,1%	11,9%

		Gender

		Man	Woman	total
would you take up a loan with no other support Pearson Chi-Square Sig.: 0,192	very likely	15	25	40
		12,7%	21,7%	17,2%
	likely	29	31	60
		24,6%	27,0%	25,8%
	likely/unlikely	29	30	59
		24,6%	26,1%	25,3%
	unlikely	17	12	29
		14,4%	10,4%	12,4%
	very unlikely	28	17	45
		23,7%	14,8%	19,3%
would you take up a loan with a grant Pearson Chi-Square Sig.: 0,547	very likely	2	4	6
		1,7%	3,5%	2,6%
	likely	6	5	11
		5,1%	4,3%	4,7%
	likely/unlikely	25	29	54
		21,2%	25,2%	23,2%
	unlikely	26	31	57
		22,0%	27,0%	24,5%
	very unlikely	59	46	105
		50,0%	40,0%	45,1%
would you take up a loan offered by family/friends Pearson Chi-Square Sig.: 0,024	very likely	7	14	21
		5,9%	12,3%	9,1%
	likely	30	23	53
		25,4%	20,2%	22,8%
	likely/unlikely	29	38	67
		24,6%	33,3%	28,9%
	unlikely	17	22	39
		14,4%	19,3%	16,8%
	very unlikely	35	17	52
		29,7%	14,9%	22,4%
would you take up a loan offered by a private bank Pearson Chi-Square Sig.: 0,255	very likely	3	6	9
		2,5%	5,3%	3,9%
	likely	8	15	23
		6,8%	13,2%	9,9%
	likely/unlikely	35	34	69
		29,7%	29,8%	29,7%
	unlikely	33	22	55
		28,0%	19,3%	23,7%
	very unlikely	39	37	76
		33,1%	32,5%	32,8%
would you take up a loan offered by the government Pearson Chi-Square Sig.: 0,746	very likely	6	9	15
		5,1%	7,8%	6,4%
	likely	15	18	33
		12,7%	15,7%	14,2%
	likely/unlikely	31	29	60
		26,3%	25,2%	25,8%
	unlikely	27	20	47
		22,9%	17,4%	20,2%
	very unlikely	39	39	78
		33,1%	33,9%	33,5%
would you take up a loan if your parents are not willing to support Pearson Chi-Square Sig.: 0,122	very likely	24	35	59
		20,2%	30,4%	25,2%
	likely	33	27	60
		27,7%	23,5%	25,6%
	likely/unlikely	27	33	60
		22,7%	28,7%	25,6%
	unlikely	14	8	22
		11,8%	7,0%	9,4%
	very unlikely	21	12	33
		17,6%	10,4%	14,1%

		Gender		
		Man	Woman	Total
max. student debt completing HE degree Pearson Chi-Square Sig.: 0,011	0	1	1	2
		0,8%	0,8%	0,8%
	0 euro	25	20	45
		20,5%	16,8%	18,7%
	2500 euro	31	38	69
		25,4%	31,9%	28,6%
	5000 euro	34	36	70
		27,9%	30,3%	29,0%
	7500 euro	5	13	18
		4,1%	10,9%	7,5%
	10000 euro	16	1	17
		13,1%	0,8%	7,1%
	15000 euro	7	8	15
		5,7%	6,7%	6,2%
	20000 euro or over	3	2	5
		2,5%	1,7%	2,1%

		Gender		
		Man	Woman	Total
Statements: Borrowing is basically wrong Pearson Chi-Square Sig.: 0,855	strongly agree	10	8	18
		8,5%	6,9%	7,7%
	agree	15	12	27
		12,7%	10,3%	11,5%
	agree/disagree	43	40	83
		36,4%	34,5%	35,5%
	disagree	34	35	69
		28,8%	30,2%	29,5%
	strongly disagree	16	21	37
		13,6%	18,1%	15,8%
Statements: You should always safe up first before buying something Pearson Chi-Square Sig.: 0,031	strongly agree	87	101	188
		73,7%	86,3%	80,0%
	agree	24	10	34
		20,3%	8,5%	14,5%
	agree/disagree	5	6	11
		4,2%	5,1%	4,7%
	disagree	2	0	2
		1,7%	0,0%	0,9%
Statements: HE is a good investment Pearson Chi-Square Sig.: 0,504	strongly agree	69	67	136
		59,5%	57,8%	58,6%
	agree	31	36	67
		26,7%	31,0%	28,9%
	agree/disagree	16	11	27
		13,8%	9,5%	11,6%
	disagree	0	1	1
		0,0%	0,9%	0,4%
	strongly disagree	0	1	1
		0,0%	0,9%	0,4%
Statements: A loan for participate in HE is a good investment Pearson Chi-Square Sig.: 0,442	strongly agree	27	23	50
		23,1%	19,7%	21,4%
	agree	42	50	92
		35,9%	42,7%	39,3%
	agree/disagree	38	35	73
		32,5%	29,9%	31,2%
	disagree	7	3	10
		6,0%	2,6%	4,3%
	strongly disagree	3	6	9
		2,6%	5,1%	3,8%
Statements: Student loans allows students to pay for the costs of studying	strongly agree	17	34	51
		14,7%	29,3%	22,0%
	agree	55	47	102

Pearson Chi-Square Sig.: 0,064	agree/disagree	47,4% 35 30,2%	40,5% 31 26,7%	44,0% 66 28,4%
	disagree	8 6,9%	4 3,4%	12 5,2%
	strongly disagree	1 0,9%	0 0,0%	1 0,4%
Statements: Students get well paid jobs after graduation Pearson Chi-Square Sig.: 0,05	strongly agree	2 1,7%	6 5,2%	8 3,4%
	agree	28 23,9%	15 12,9%	43 18,5%
	agree/disagree	48 41,0%	64 55,2%	112 48,1%
	disagree	28 23,9%	22 19,0%	50 21,5%
	strongly disagree	11 9,4%	9 7,8%	20 8,6%
Statements: When you get a job after graduation it is fair to repay part of HE costs Pearson Chi-Square Sig.: 0,360	strongly agree	26 22,0%	27 23,3%	53 22,6%
	agree	51 43,2%	38 32,8%	89 38,0%
	agree/disagree	29 24,6%	41 35,3%	70 29,9%
	disagree	6 5,1%	6 5,2%	12 5,1%
	strongly disagree	6 5,1%	4 3,4%	10 4,3%
Statements: Having to take up a loan for studying in HE frightens me Pearson Chi-Square Sig.: 0,042	strongly agree	33 28,0%	53 45,7%	86 36,8%
	agree	35 29,7%	31 26,7%	66 28,2%
	agree/disagree	32 27,1%	24 20,7%	56 23,9%
	disagree	14 11,9%	6 5,2%	20 8,5%
	strongly disagree	4 3,4%	2 1,7%	6 2,6%

Tables 2.5: Hypothesis 4: Crosstabs school type (public/private) and debt aversion (Pearson Chi-Square)

		Schooltype		
		Public	**Private**	**Total**
expect to have student loan Pearson Chi-Square Sig.: 0,000	yes	6 4,4%	0 0,0%	6 2,5%
	no	76 55,9%	93 88,6%	169 70,1%
	unknown	54 39,7%	12 11,4%	66 27,4%
expect to have a student job Pearson Chi-Square Sig.: 0,362	yes	71 52,6%	49 46,7%	120 50,0%
	no	64 47,4%	56 53,3%	120 50,0%

		Schooltype		
		Public	**Private**	**Total**
attitude loan for a house Pearson Chi-Square Sig.: 0,122	very positive	17 12,9%	13 12,6%	30 12,8%
	positive	43 32,6%	46 44,7%	89 37,9%
	positive/negative	43	25	68

		32,6%	24,3%	28,9%
	negative	9	11	20
		6,8%	10,7%	8,5%
	very negative	20	8	28
		15,2%	7,8%	11,9%
attitude loan for a car Pearson Chi-Square Sig.: 0,115	very positive	5	1	6
		3,8%	1,0%	2,6%
	positive	16	11	27
		12,1%	10,7%	11,5%
	positive/negative	62	40	102
		47,0%	38,8%	43,4%
	negative	23	32	55
		17,4%	31,1%	23,4%
	very negative	26	19	45
		19,7%	18,4%	19,1%
attitude loan for HE Pearson Chi-Square Sig.: 0,716	very positive	24	19	43
		18,2%	18,4%	18,3%
	positive	32	28	60
		24,2%	27,2%	25,5%
	positive/negative	44	29	73
		33,3%	28,2%	31,1%
	negative	19	12	31
		14,4%	11,7%	13,2%
	very negative	13	15	28
		9,8%	14,6%	11,9%

		Schooltype		
		Public	**Private**	**Total**
would you take up a loan with no other support Pearson Chi-Square Sig.: 0,452	very likely	22	18	40
		16,9%	17,5%	17,2%
	likely	30	30	60
		23,1%	29,1%	25,8%
	likely/unlikely	39	20	59
		30,0%	19,4%	25,3%
	unlikely	15	14	29
		11,5%	13,6%	12,4%
	very unlikely	24	21	45
		18,5%	20,4%	19,3%
would you take up a loan with a grant Pearson Chi-Square Sig.: 0,356	very likely	5	1	6
		3,8%	1,0%	2,6%
	likely	7	4	11
		5,4%	3,9%	4,7%
	likely/unlikely	33	21	54
		25,4%	20,4%	23,2%
	unlikely	27	30	57
		20,8%	29,1%	24,5%
	very unlikely	58	47	105
		44,6%	45,6%	45,1%
would you take up a loan offered by family/friends Pearson Chi-Square Sig.: 0,928	very likely	11	10	21
		8,5%	9,7%	9,1%
	likely	32	21	53
		24,8%	20,4%	22,8%
	likely/unlikely	37	30	67
		28,7%	29,1%	28,9%
	unlikely	22	17	39
		17,1%	16,5%	16,8%
	very unlikely	27	25	52
		20,9%	24,3%	22,4%
would you take up a loan offered by a private bank Pearson Chi-Square Sig.: 0,087	very likely	5	4	9
		3,9%	3,9%	3,9%
	likely	8	15	23
		6,2%	14,6%	9,9%

	likely/unlikely	42	27	69
		32,6%	26,2%	29,7%
	unlikely	26	29	55
		20,2%	28,2%	23,7%
	very unlikely	48	28	76
		37,2%	27,2%	32,8%
would you take up a loan offered by the government Pearson Chi-Square Sig.: 0,141	very likely	10	5	15
		7,7%	4,9%	6,4%
	likely	13	20	33
		10,0%	19,4%	14,2%
	likely/unlikely	38	22	60
		29,2%	21,4%	25,8%
	unlikely	23	24	47
		17,7%	23,3%	20,2%
	very unlikely	46	32	78
		35,4%	31,1%	33,5%
would you take up a loan if your parents are not willing to support Pearson Chi-Square Sig.: 0,001	very likely	32	27	59
		24,4%	26,2%	25,2%
	likely	21	39	60
		16,0%	37,9%	25,6%
	likely/unlikely	42	18	60
		32,1%	17,5%	25,6%
	unlikely	14	8	22
		10,7%	7,8%	9,4%
	very unlikely	22	11	33
		16,8%	10,7%	14,1%

		Schooltype		
		Public	**Private**	**Total**
max. student debt completing HE degree Pearson Chi-Square Sig.: 0,566	0	0	2	2
		0,0%	1,9%	0,8%
	0 euro	25	20	45
		18,5%	18,9%	18,7%
	2500 euro	43	26	69
		31,9%	24,5%	28,6%
	5000 euro	38	32	70
		28,1%	30,2%	29,0%
	7500 euro	9	9	18
		6,7%	8,5%	7,5%
	10000 euro	8	9	17
		5,9%	8,5%	7,1%
	15000 euro	8	7	15
		5,9%	6,6%	6,2%
	20000 euro or over	4	1	5
		3,0%	0,9%	2,1%

		Schooltype		
		Public	**Private**	**Total**
Statements: Borrowing is basically wrong Pearson Chi-Square Sig.: 0,05	strongly agree	15	3	18
		11,5%	2,9%	7,7%
	agree	12	15	27
		9,2%	14,4%	11,5%
	agree/disagree	50	33	83
		38,5%	31,7%	35,5%
	disagree	34	35	69
		26,2%	33,7%	29,5%
	strongly disagree	19	18	37
		14,6%	17,3%	15,8%
Statements: You should always safe up first before buying something Pearson Chi-Square Sig.: 0,257	strongly agree	100	88	188
		76,3%	84,6%	80,0%
	agree	23	11	34
		17,6%	10,6%	14,5%

	agree/disagree	6	5	11
		4,6%	4,8%	4,7%
	disagree	2	0	2
		1,5%	0,0%	0,9%
Statements: HE is a good investment Pearson Chi-Square Sig.: 0,000	strongly agree	58	78	136
		44,6%	76,5%	58,6%
	agree	48	19	67
		36,9%	18,6%	28,9%
	agree/disagree	22	5	27
		16,9%	4,9%	11,6%
	disagree	1	0	1
		0,8%	0,0%	0,4%
	strongly disagree	1	0	1
		0,8%	0,0%	0,4%
Statements: A loan for participate in HE is a good investment Pearson Chi-Square Sig.: 0,093	strongly agree	21	29	50
		16,0%	28,2%	21,4%
	agree	50	42	92
		38,2%	40,8%	39,3%
	agree/disagree	47	26	73
		35,9%	25,2%	31,2%
	disagree	6	4	10
		4,6%	3,9%	4,3%
	strongly disagree	7	2	9
		5,3%	1,9%	3,8%
Statements: Student loans allows students to pay for the costs of studying Pearson Chi-Square Sig.: 0,096	strongly agree	21	30	51
		16,4%	28,8%	22,0%
	agree	59	43	102
		46,1%	41,3%	44,0%
	agree/disagree	39	27	66
		30,5%	26,0%	28,4%
	disagree	9	3	12
		7,0%	2,9%	5,2%
	strongly disagree	0	1	1
		0,0%	1,0%	0,4%
Statements: Students get well paid jobs after graduation Pearson Chi-Square Sig.: 0,770	strongly agree	5	3	8
		3,9%	2,9%	3,4%
	agree	20	23	43
		15,5%	22,1%	18,5%
	agree/disagree	64	48	112
		49,6%	46,2%	48,1%
	disagree	29	21	50
		22,5%	20,2%	21,5%
	strongly disagree	11	9	20
		8,5%	8,7%	8,6%
Statements: When you get a job after graduation it is fair to repay part of HE costs Pearson Chi-Square Sig.: 0,735	strongly agree	28	25	53
		21,5%	24,0%	22,6%
	agree	49	40	89
		37,7%	38,5%	38,0%
	agree/disagree	41	29	70
		31,5%	27,9%	29,9%
	disagree	8	4	12
		6,2%	3,8%	5,1%
	strongly disagree	4	6	10
		3,1%	5,8%	4,3%
Statements: Having to take up a loan for studying in HE frightens me Pearson Chi-Square Sig.: 0,395	strongly agree	52	34	86
		40,0%	32,7%	36,8%
	agree	36	30	66
		27,7%	28,8%	28,2%
	agree/disagree	32	24	56
		24,6%	23,1%	23,9%
	disagree	8	12	20
		6,2%	11,5%	8,5%

	strongly disagree	2 1,5%	4 3,8%	6 2,6%

Tables 2.6: Hypothesis 5: Crosstabs school location (rural/city) and debt aversion (Pearson Chi-Square)

		School location		
		Rural	City	Total
expect to have student loan Pearson Chi-Square Sig.: 0,016	yes	4 3,6%	2 1,5%	6 2,5%
	no	67 60,9%	102 77,9%	169 70,1%
	unknown	39 35,5%	27 20,6%	66 27,4%
expect to have a student job Pearson Chi-Square Sig.: 0,897	yes	54 49,5%	66 50,4%	120 50,0%
	no	55 50,5%	65 49,6%	120 50,0%

		School location		
		Rural	City	Total
attitude loan for a house Pearson Chi-Square Sig.: 0,017	very positive	12 11,3%	18 14,0%	30 12,8%
	positive	30 28,3%	59 45,7%	89 37,9%
	positive/negative	40 37,7%	28 21,7%	68 28,9%
	negative	8 7,5%	12 9,3%	20 8,5%
	very negative	16 15,1%	12 9,3%	28 11,9%
attitude loan for a car Pearson Chi-Square Sig.: 0,297	very positive	3 2,8%	3 2,3%	6 2,6%
	positive	9 8,5%	18 14,0%	27 11,5%
	positive/negative	51 48,1%	51 39,5%	102 43,4%
	negative	20 18,9%	35 27,1%	55 23,4%
	very negative	23 21,7%	22 17,1%	45 19,1%
attitude loan for HE Pearson Chi-Square Sig.: 0,699	very positive	19 17,9%	24 18,6%	43 18,3%
	positive	27 25,5%	33 25,6%	60 25,5%
	positive/negative	33 31,1%	40 31,0%	73 31,1%
	negative	17 16,0%	14 10,9%	31 13,2%
	very negative	10 9,4%	18 14,0%	28 11,9%

		School location		
		Rural	City	Total
would you take up a loan with no other support Pearson Chi-Square Sig.: 0,670	very likely	18 17,3%	22 17,1%	40 17,2%
	likely	22 21,2%	38 29,5%	60 25,8%
	likely/unlikely	29 27,9%	30 23,3%	59 25,3%
	unlikely	13	16	29

		12,5%	12,4%	12,4%
	very unlikely	22	23	45
		21,2%	17,8%	19,3%
	very likely	2	4	6
		1,9%	3,1%	2,6%
	likely	6	5	11
		5,8%	3,9%	4,7%
would you take up a loan with a grant	likely/unlikely	29	25	54
Pearson Chi-Square		27,9%	19,4%	23,2%
Sig.: 0,325	unlikely	20	37	57
		19,2%	28,7%	24,5%
	very unlikely	47	58	105
		45,2%	45,0%	45,1%
	very likely	9	12	21
		8,7%	9,3%	9,1%
	likely	24	29	53
		23,3%	22,5%	22,8%
would you take up a loan offered by family/friends	likely/unlikely	30	37	67
Pearson Chi-Square		29,1%	28,7%	28,9%
Sig.: 0,996	unlikely	18	21	39
		17,5%	16,3%	16,8%
	very unlikely	22	30	52
		21,4%	23,3%	22,4%
	very likely	4	5	9
		3,8%	3,9%	3,9%
	likely	5	18	23
		4,8%	14,1%	9,9%
would you take up a loan offered by a private bank	likely/unlikely	35	34	69
Pearson Chi-Square		33,7%	26,6%	29,7%
Sig.: 0,014	unlikely	18	37	55
		17,3%	28,9%	23,7%
	very unlikely	42	34	76
		40,4%	26,6%	32,8%
	very likely	5	10	15
		4,8%	7,8%	6,4%
	likely	10	23	33
		9,6%	17,8%	14,2%
would you take up a loan offered by the government	likely/unlikely	34	26	60
Pearson Chi-Square		32,7%	20,2%	25,8%
Sig.: 0,090	unlikely	18	29	47
		17,3%	22,5%	20,2%
	very unlikely	37	41	78
		35,6%	31,8%	33,5%
	very likely	23	36	59
		21,9%	27,9%	25,2%
	likely	16	44	60
		15,2%	34,1%	25,6%
would you take up a loan if your parents are not willing to support	likely/unlikely	36	24	60
Pearson Chi-Square		34,3%	18,6%	25,6%
Sig.: 0,002	unlikely	12	10	22
		11,4%	7,8%	9,4%
	very unlikely	18	15	33
		17,1%	11,6%	14,1%

		School location		
		Rural	**City**	**Total**
	0 euro	23	22	45
		21,1%	16,9%	18,8%
max. student debt completing HE degree	2500 euro	36	33	69
Pearson Chi-Square		33,0%	25,4%	28,9%
Sig.: 0,595	5000 euro	25	45	70

		22,9%	34,6%	29,3%
	7500 euro	8	10	18
		7,3%	7,7%	7,5%
	10000 euro	8	9	17
		7,3%	6,9%	7,1%
	15000 euro	7	8	15
		6,4%	6,2%	6,3%
	20000 euro or over	2	3	5
		1,8%	2,3%	2,1%

		School location		
		Rural	**City**	**Total**
Statements: Borrowing is basically wrong Pearson Chi-Square Sig.: 0,188	strongly agree	12	6	18
		11,5%	4,6%	7,7%
	agree	12	15	27
		11,5%	11,5%	11,5%
	agree/disagree	40	43	83
		38,5%	33,1%	35,5%
	disagree	27	42	69
		26,0%	32,3%	29,5%
	strongly disagree	13	24	37
		12,5%	18,5%	15,8%
Statements: You should always safe up first before buying something Pearson Chi-Square Sig.: 0,056	strongly agree	77	111	188
		73,3%	85,4%	80,0%
	agree	21	13	34
		20,0%	10,0%	14,5%
	agree/disagree	5	6	11
		4,8%	4,6%	4,7%
	disagree	2	0	2
		1,9%	0,0%	0,9%
Statements: HE is a good investment Pearson Chi-Square Sig.: 0,001	strongly agree	45	91	136
		43,3%	71,1%	58,6%
	agree	40	27	67
		38,5%	21,1%	28,9%
	agree/disagree	17	10	27
		16,3%	7,8%	11,6%
	disagree	1	0	1
		1,0%	0,0%	0,4%
	strongly disagree	1	0	1
		1,0%	0,0%	0,4%
Statements: A loan for participate in HE is a good investment Pearson Chi-Square Sig.: 0,197	strongly agree	16	34	50
		15,2%	26,4%	21,4%
	agree	41	51	92
		39,0%	39,5%	39,3%
	agree/disagree	39	34	73
		37,1%	26,4%	31,2%
	disagree	4	6	10
		3,8%	4,7%	4,3%
	strongly disagree	5	4	9
		4,8%	3,1%	3,8%
Statements: Student loans allows students to pay for the costs of studying investment Pearson Chi-Square Sig.: 0,015	strongly agree	13	38	51
		12,7%	29,2%	22,0%
	agree	52	50	102
		51,0%	38,5%	44,0%
	agree/disagree	29	37	66
		28,4%	28,5%	28,4%
	disagree	8	4	12
		7,8%	3,1%	5,2%
	strongly disagree	0	1	1
		0,0%	0,8%	0,4%
Statements: Students get well paid jobs after graduation	strongly agree	3	5	8
		2,9%	3,8%	3,4%

	agree	16	27	43
		15,5%	20,8%	18,5%
	agree/disagree	50	62	112
		48,5%	47,7%	48,1%
	disagree	25	25	50
		24,3%	19,2%	21,5%
	strongly disagree	9	11	20
		8,7%	8,5%	8,6%

		School location		
		Rural	**City**	**Total**
Statements: When you get a job after graduation it is fair to repay part of HE costs Pearson Chi-Square Sig.: 0,517	strongly agree	22	31	53
		21,2%	23,8%	22,6%
	agree	40	49	89
		38,5%	37,7%	38,0%
	agree/disagree	34	36	70
		32,7%	27,7%	29,9%
	disagree	6	6	12
		5,8%	4,6%	5,1%
	strongly disagree	2	8	10
		1,9%	6,2%	4,3%
Statements: Having to take up a loan for studying in HE frightens me Pearson Chi-Square Sig.: 0,200	strongly agree	45	41	86
		43,3%	31,5%	36,8%
	agree	29	37	66
		27,9%	28,5%	28,2%
	agree/disagree	23	33	56
		22,1%	25,4%	23,9%
	disagree	6	14	20
		5,8%	10,8%	8,5%
	strongly disagree	1	5	6
		1,0%	3,8%	2,6%

Tables 2.7: Hypothesis 6: Crosstabs earning expectations and debt aversion (Pearson Chi-Square)

		Earning expectations		
		Low	High	Total
expect to have student loan Pearson Chi-Square Sig.: 0,045	yes	2	4	6
		1,7%	4,1%	2,8%
	no	77	76	153
		65,8%	77,6%	71,2%
	unknown	38	18	56
		32,5%	18,4%	26,0%
expect to have a student job Pearson Chi-Square Sig.: 0,05	yes	65	42	107
		56,0%	42,9%	50,0%
	no	51	56	107
		44,0%	57,1%	50,0%

		Earning expectations		
		Low	**High**	**Total**
attitude loan for a house Pearson Chi-Square Sig.: 0,401	very positive	18	11	29
		15,4%	11,3%	13,6%
	positive	49	35	84
		41,9%	36,1%	39,3%
	positive/negative	25	32	57
		21,4%	33,0%	26,6%
	negative	9	8	17
		7,7%	8,2%	7,9%
	very negative	16	11	27
		13,7%	11,3%	12,6%
attitude loan for a car	very positive	4	2	6

Pearson Chi-Square Sig.: 0,461		3,4%	2,1%	2,8%
	positive	17	8	25
		14,5%	8,2%	11,7%
	positive/negative	43	44	87
		36,8%	45,4%	40,7%
	negative	27	25	52
		23,1%	25,8%	24,3%
	very negative	26	18	44
		22,2%	18,6%	20,6%
attitude loan for HE Pearson Chi-Square Sig.: 0,585	very positive	25	17	42
		21,4%	17,5%	19,6%
	positive	34	21	55
		29,1%	21,6%	25,7%
	positive/negative	30	31	61
		25,6%	32,0%	28,5%
	negative	14	15	29
		12,0%	15,5%	13,6%
	very negative	14	13	27
		12,0%	13,4%	12,6%

		Earning expectations		
		Low	**High**	**Total**
would you take up a loan with no other support Pearson Chi-Square Sig.: 0,194	very likely	25	10	35
		21,4%	10,3%	16,4%
	likely	28	28	56
		23,9%	28,9%	26,2%
	likely/unlikely	30	25	55
		25,6%	25,8%	25,7%
	unlikely	11	15	26
		9,4%	15,5%	12,1%
	very unlikely	23	19	42
		19,7%	19,6%	19,6%
would you take up a loan with a grant Pearson Chi-Square Sig.: 0,983	very likely	3	2	5
		2,6%	2,1%	2,3%
	likely	6	5	11
		5,1%	5,2%	5,1%
	likely/unlikely	28	22	50
		23,9%	22,7%	23,4%
	unlikely	28	21	49
		23,9%	21,6%	22,9%
	very unlikely	52	47	99
		44,4%	48,5%	46,3%
would you take up a loan offered by family/friends Pearson Chi-Square Sig.: 0,184	very likely	14	5	19
		12,0%	5,2%	8,9%
	likely	22	28	50
		18,8%	28,9%	23,4%
	likely/unlikely	37	26	63
		31,6%	26,8%	29,4%
	unlikely	19	13	32
		16,2%	13,4%	15,0%
	very unlikely	25	25	50
		21,4%	25,8%	23,4%
would you take up a loan offered by a private bank Pearson Chi-Square Sig.: 0,378	very likely	7	2	9
		6,0%	2,1%	4,2%
	likely	13	9	22
		11,2%	9,3%	10,3%
	likely/unlikely	37	26	63
		31,9%	26,8%	29,6%
	unlikely	23	27	50
		19,8%	27,8%	23,5%
	very unlikely	36	33	69
		31,0%	34,0%	32,4%

would you take up a loan offered by the government Pearson Chi-Square Sig.: 0,498	very likely	10	5	15
		8,5%	5,2%	7,0%
	likely	14	18	32
		12,0%	18,6%	15,0%
	likely/unlikely	31	22	53
		26,5%	22,7%	24,8%
	unlikely	26	18	44
		22,2%	18,6%	20,6%
	very unlikely	36	34	70
		30,8%	35,1%	32,7%
would you take up a loan if your parents are not willing to support Pearson Chi-Square Sig.: 0,157	very likely	35	18	53
		29,9%	18,6%	24,8%
	likely	24	33	57
		20,5%	34,0%	26,6%
	likely/unlikely	30	22	52
		25,6%	22,7%	24,3%
	unlikely	11	9	20
		9,4%	9,3%	9,3%
	very unlikely	17	15	32
		14,5%	15,5%	15,0%

		Earning expectations		
		Low	**High**	**Total**
max. student debt completing HE degree Pearson Chi-Square Sig.: 0,544	0 euro	18	20	38
		15,4%	20,6%	17,8%
	2500 euro	38	21	59
		32,5%	21,6%	27,6%
	5000 euro	32	33	65
		27,4%	34,0%	30,4%
	7500 euro	11	6	17
		9,4%	6,2%	7,9%
	10000 euro	8	7	15
		6,8%	7,2%	7,0%
	15000 euro	7	8	15
		6,0%	8,2%	7,0%
	20000 euro or over	3	2	5
		2,6%	2,1%	2,3%

		Earning expectations		
		Low	**High**	**Total**
Statements: Borrowing is basically wrong Pearson Chi-Square Sig.: 0,626	strongly agree	11	7	18
		9,4%	7,1%	8,4%
	agree	9	13	22
		7,7%	13,3%	10,2%
	agree/disagree	44	32	76
		37,6%	32,7%	35,3%
	disagree	36	29	65
		30,8%	29,6%	30,2%
	strongly disagree	17	17	34
		14,5%	17,3%	15,8%
Statements: You should always safe up first before buying something Pearson Chi-Square Sig.: 0,137	strongly agree	99	72	171
		84,6%	73,5%	79,5%
	agree	13	18	31
		11,1%	18,4%	14,4%
	agree/disagree	5	6	11
		4,3%	6,1%	5,1%
	disagree	0	2	2
		0,0%	2,0%	0,9%
Statements: HE is a good investment Pearson Chi-Square Sig.: 0,587	strongly agree	68	61	129
		58,6%	62,9%	60,6%
	agree	32	26	58
		27,6%	26,8%	27,2%

	agree/disagree	15	9	24
		12,9%	9,3%	11,3%
	disagree	1	0	1
		0,9%	0,0%	0,5%
	strongly disagree	0	1	1
		0,0%	1,0%	0,5%
Statements: A loan for participate in HE is a good investment Pearson Chi-Square Sig.: 0,100	strongly agree	34	15	49
		29,1%	15,5%	22,9%
	agree	45	39	84
		38,5%	40,2%	39,3%
	agree/disagree	28	35	63
		23,9%	36,1%	29,4%
	disagree	5	5	10
		4,3%	5,2%	4,7%
	strongly disagree	5	3	8
		4,3%	3,1%	3,7%
Statements: Student loans allows students to pay for the costs of studying Pearson Chi-Square Sig.: 0,793	strongly agree	29	19	48
		24,8%	19,8%	22,5%
	agree	50	44	94
		42,7%	45,8%	44,1%
	agree/disagree	31	27	58
		26,5%	28,1%	27,2%
	disagree	6	6	12
		5,1%	6,2%	5,6%
	strongly disagree	1	0	1
		0,9%	0,0%	0,5%
Statements: Students get well paid jobs after graduation Pearson Chi-Square Sig.: 0,071	strongly agree	8	0	8
		6,9%	0,0%	3,7%
	agree	20	21	41
		17,2%	21,4%	19,2%
	agree/disagree	52	50	102
		44,8%	51,0%	47,7%
	disagree	23	20	43
		19,8%	20,4%	20,1%
	strongly disagree	13	7	20
		11,2%	7,1%	9,3%
Statements: When you get a job after graduation it is fair to repay part of HE costs Pearson Chi-Square Sig.: 0,418	strongly agree	29	20	49
		24,8%	20,4%	22,8%
	agree	45	35	80
		38,5%	35,7%	37,2%
	agree/disagree	35	30	65
		29,9%	30,6%	30,2%
	disagree	3	8	11
		2,6%	8,2%	5,1%
	strongly disagree	5	5	10
		4,3%	5,1%	4,7%
Statements: Having to take up a loan for studying in HE frightens me Pearson Chi-Square Sig.: 0,355	strongly agree	50	31	81
		42,7%	31,6%	37,7%
	agree	26	32	58
		22,2%	32,7%	27,0%
	agree/disagree	27	25	52
		23,1%	25,5%	24,2%
	disagree	10	8	18
		8,5%	8,2%	8,4%
	strongly disagree	4	2	6
		3,4%	2,0%	2,8%

Table 2.8: Hypothesis 7: Crosstabs loan characteristics and likeliness to take up a loan (Pearson Chi-Square)

		Likeliness loans		
		Likely	Unlikely	total
loan characteristics: no interest Pearson Chi-Square Sig.: 0,438	very attractive	57	88	145
		63,3%	63,3%	63,3%
	attractive	22	27	49
		24,4%	19,4%	21,4%
	attractive/unattractive	9	15	24
		10,0%	10,8%	10,5%
	unattractive	1	1	2
		1,1%	0,7%	0,9%
	very unattractive	1	8	9
		1,1%	5,8%	3,9%
loan characteristics: low interest Pearson Chi-Square Sig.: 0,033	very attractive	18	18	36
		20,2%	12,9%	15,8%
	attractive	50	64	114
		56,2%	46,0%	50,0%
	attractive/unattractive	18	38	56
		20,2%	27,3%	24,6%
	unattractive	2	7	9
		2,2%	5,0%	3,9%
	very unattractive	1	12	13
		1,1%	8,6%	5,7%
loan characteristics: short repayment period Pearson Chi-Square Sig.: 0,150	very attractive	4	8	12
		4,5%	5,8%	5,3%
	attractive	16	14	30
		18,0%	10,1%	13,2%
	attractive/unattractive	29	50	79
		32,6%	36,0%	34,6%
	unattractive	22	24	46
		24,7%	17,3%	20,2%
	very unattractive	18	43	61
		20,2%	30,9%	26,8%
loan characteristics: long repayment period Pearson Chi-Square Sig.: 0,001	very attractive	19	16	35
		21,1%	11,6%	15,4%
	attractive	31	32	63
		34,4%	23,2%	27,6%
	attractive/unattractive	29	50	79
		32,2%	36,2%	34,6%
	unattractive	9	18	27
		10,0%	13,0%	11,8%
	very unattractive	2	22	24
		2,2%	15,9%	10,5%
loan characteristics: no or low repayment is income is low Pearson Chi-Square Sig.: 0,008	very attractive	18	17	35
		20,2%	12,4%	15,5%
	attractive	29	31	60
		32,6%	22,6%	26,5%
	attractive/unattractive	30	44	74
		33,7%	32,1%	32,7%
	unattractive	8	19	27
		9,0%	13,9%	11,9%
	very unattractive	4	26	30
		4,5%	19,0%	13,3%
loan characteristics: fixed repayment schedule Pearson Chi-Square Sig.: 0,01	very attractive	7	12	19
		7,9%	8,7%	8,4%
	attractive	24	18	42
		27,0%	13,0%	18,5%
	attractive/unattractive	46	68	114
		51,7%	49,3%	50,2%

	unattractive	9	25	34
		10,1%	18,1%	15,0%
	very unattractive	3	15	18
		3,4%	10,9%	7,9%
loan characteristics: cancellation of remaining debt Pearson Chi-Square Sig.: 0,001	very attractive	16	12	28
		18,2%	8,8%	12,5%
	attractive	29	34	63
		33,0%	25,0%	28,1%
	attractive/unattractive	39	60	99
		44,3%	44,1%	44,2%
	unattractive	3	11	14
		3,4%	8,1%	6,2%
	very unattractive	1	19	20
		1,1%	14,0%	8,9%

Appendix 3

Table 3.1 Crosstabs earning expectations and independent variables

		EARNINGEXPECTATIONS		
		Low	High	Total
SES	Low	48	28	76
		22,3%	13,0%	35,3%
	Middle	23	21	44
		10,7%	9,8%	20,5%
	High	46	49	95
		21,4%	22,8%	44,2%
	Total	117	98	215
		54,4%	45,6%	100,0%
Type of school	public	66	47	113
		30,7%	21,9%	52,6%
	private	51	51	102
		23,7%	23,7%	47,4%
	Total	117	98	215
		54,4%	45,6%	100,0%
Gender	man	56	54	110
		26,0%	25,1%	51,2%
	woman	61	44	105
		28,4%	20,5%	48,8%
	Total	117	98	215
		54,4%	45,6%	100,0%
schooltyperuralcity	rural	49	38	87
		22,8%	17,7%	40,5%
	city	68	60	128
		31,6%	27,9%	59,5%
	Total	117	98	215
		54,4%	45,6%	100,0%

Table 3.2: Crosstabs loan characteristics and school location

		schoollocationruralcity		Total
		rural	city	
loan characteristics: short repayment period Pearson Chi-Square Sig.: 0,030	very attractive	3	9	12
	attractive	9	21	30
	attractive/unattractive	42	38	80
	unattractive	15	31	46
	very unattractive	32	29	61
loan characteristics: no or low repayment is income is low Pearson Chi-Square Sig.: 0,143	very attractive	10	25	35
	attractive	23	37	60
	attractive/unattractive	39	36	75
	unattractive	14	13	27
	very unattractive	14	16	30
loan characteristics: long repayment period Pearson Chi-Square Sig.: 0,141	very attractive	16	19	35
	attractive	20	43	63
	attractive/unattractive	38	42	80
	unattractive	14	13	27
	very unattractive	14	10	24
loan characteristics: cancellation of remaining debt Pearson Chi-Square Sig.: 0,004	very attractive	9	19	28
	attractive	20	43	63
	attractive/unattractive	47	52	99
	unattractive	10	4	14
	very unattractive	14	6	20
loan characteristics: fixed repayment schedule Pearson Chi-Square Sig.: 0,145	very attractive	5	14	19
	attractive	15	27	42
	attractive/unattractive	51	64	115
	unattractive	18	16	34
	very unattractive	11	7	18

loan characteristics: low interest Pearson Chi-Square Sig.: 0,009	very attractive	18	18	36
	attractive	39	76	115
	attractive/unattractive	28	28	56
	unattractive	7	2	9
	very unattractive	9	4	13
loan characteristics: no interest Pearson Chi-Square Sig.: 0,001	very attractive	50	95	145
	attractive	29	21	50
	attractive/unattractive	14	10	24
	unattractive	2	0	2
	very unattractive	7	2	9

Table 3.2: Crosstabs loan characteristics and type of school

		Type of school		Total
		public	private	
loan characteristics: short repayment period Pearson Chi-Square Sig.: 0,020	very attractive	4	8	12
	attractive	15	15	30
	attractive/unattractive	51	29	80
	unattractive	18	28	46
	very unattractive	39	22	61
loan characteristics: no or low repayment is income is low Pearson Chi-Square Sig.: 0,863	very attractive	20	15	35
	attractive	30	30	60
	attractive/unattractive	44	31	75
	unattractive	16	11	27
	very unattractive	16	14	30
loan characteristics: long repayment period Pearson Chi-Square Sig.: 0,120	very attractive	21	14	35
	attractive	27	36	63
	attractive/unattractive	50	30	80
	unattractive	14	13	27
	very unattractive	16	8	24
loan characteristics: cancellation of remaining debt Pearson Chi-Square Sig.: 0,026	very attractive	15	13	28
	attractive	28	35	63
	attractive/unattractive	56	43	99
	unattractive	11	3	14
	very unattractive	16	4	20
loan characteristics: fixed repayment schedule Pearson Chi-Square Sig.: 0,415	very attractive	10	9	19
	attractive	19	23	42
	attractive/unattractive	65	50	115
	unattractive	19	15	34
	very unattractive	13	5	18
loan characteristics: low interest Pearson Chi-Square Sig.: 0,001	very attractive	26	10	36
	attractive	50	65	115
	attractive/unattractive	32	24	56
	unattractive	7	2	9
	very unattractive	12	1	13
loan characteristics: no interest Pearson Chi-Square Sig.: 0,060	very attractive	71	74	145
	attractive	31	19	50
	attractive/unattractive	17	7	24
	unattractive	2	0	2
	very unattractive	7	2	9