The last 22 years of student lending – Analysis of the socio-economic impact of the student loan product family

Bálint Duráczky[1]

Abstract

The Student Loan Center was established 22 years ago by the first civic government with the aim of increasing access to higher education. The measure was particularly important in channeling talented students from poor financial circumstances into higher education. Over the past two decades, both higher education and the socio-economic environment surrounding higher education have changed considerably. The aim of this study is to examine the extent to which student loan instruments have been able to maintain their effectiveness over this period. Through a historical overview and the presentation of results from questionnaire data collection, the study demonstrates that student loan products have adapted to the changing environment by introducing and adapting existing products, and that they are still very popular among higher education students.
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Introduction

The Hungarian form of student lending was established in 2001 by Hungary's first civilian government. Over the past 22 years, the system has undergone a number of changes and the introduction of several new products in order to meet its original objectives in a changing higher education and social environment. The aim of the Student Loan Centre is to ensure the widest possible access to higher education, thus reducing the inequalities of opportunity that result from social inequalities.

1 Károli Gáspár Reformed University, Faculty of Humanities, Department of Sociology, Assistant Professor

From the very beginning, the Student Loan Centre was founded on four principles that still characterise the product family today.

The creators of the student loan scheme set out the following expectations:

- Student loans should be universal, i.e. available to everyone on the same terms.
- The maximum student loan amount should be such that it can already provide a significant contribution to the living and study costs of students.
- Repayments should be made in line with expectations, which requires both a sustainable repayment burden and an efficient collection mechanism.
- The student loan system should not be a direct burden on the budget, i.e. it should be self-sustaining and self-financing in the long term. State Audit Office 2008]:

In its design, the creators of the Student Loan Centre saw the fulfilment of these four expectations as a way of ensuring that the financial service would serve the wider access to higher education in a sustainable and effective way.

The focus of this study is on these two concepts: durability and efficiency. The aim of the analysis is twofold: first, to provide a historical overview of how the service has remained a popular service for higher education applicants over the past decades; and second, to provide data-based evidence that student lending is an effective tool for the development of the national economy through increasing social mobility. In the first case, the data sources are the changes in the Higher Education Act and the introduction and transformation of student loan products. In the second part, the analysis is based on a series of questionnaire surveys carried out by the Student Loan Centre among its own clients or a representative sample of the population.

History of student lending from 2001 to today

When it was founded in 2001, the Student Loan Centre was a response to the state of higher education at the turn of the millennium. It took into account the experience of selection in previous years (see. Nyüsti 2012; Polónyi 2012; 2018) and was in line with the funding environment, the admission system (Pogácsás-Dióssy-Vona 2017), the expansionary processes (Híves-Kozma 2014) and the economic climate of the millennium. Of these – being an intervention instrument of a material nature – it is of particular importance that the loan form, now known as the Free Use Student Loan1 but initially the only product, was created under a higher education law that defined a significantly different form of reimbursement. The Higher Education Act, which entered into force in 2005, also defined two other forms of funding, the fee-based and the state-subsidised forms. Although students who had to pay for their studies, the fee was set at a minimum of 50% of the total cost of the course, so it did not necessarily mean that the full tuition fee was passed on to the student. In this context, the student loan, later identified as Student Loan1, was a discretionary student loan, primarily intended to cover the increased living costs associated with fee-free higher

education, such as the purchase of study aids or the additional costs of meals, travel and housing associated with the new living situation (Kovács 2017). At that time, the number of students fully funded by the state far exceeded the number of places that also required reimbursement. However, the Higher Education Act adopted in 2011 has led to significant changes in this area. The National Higher Education Act, which is still in force today, has changed the funding framework and created three different reimbursement models. It distinguished between the state scholarship form, which was essentially the same as the previous state-subsidised form, the state part-scholarship form, which was similar to the previous cost-reimbursement framework, and created the self-financing form, which effectively required full student financing of the cost. In particular, the introduction of self-financing has had a negative impact on the accessibility of humanities and social sciences courses,[2] as the number of fully publicly funded student places in these fields has decreased significantly (Polónyi 2010; Polónyi 2012)). It is easy to see that the reduction of fully state-funded places has been accompanied by increased competition between students, which has reduced the chances of disadvantaged groups to access higher education, giving a greater role to selection based on origin, social and financial characteristics (Hegedűs 2016). The introduction of full co-payment would have resulted in the loss of the free student loan, as the maximum amount that could be claimed would not have been sufficient to cover the co-payment and living costs. Therefore, without the introduction of a new product, the target market would have suffered a significant decline of around 30%. The adaptability of the student loan product family and its role in supporting higher education is demonstrated by the introduction of the interest-free Student Loan2 in 2012, which was introduced alongside the free-use Student Loan1, allowing the financing of the cost price only, with the cost price being paid immediately to the higher education institution on behalf of the student who is liable for the fee (Berlinger-Megyeri 2015; Kovács 2017). The resulting self-payment system is key in three respects. On the one hand, the product has enabled the Student Loan Centre to continue to meet the market demand for financing. On the other hand, student lending has reinforced its role in social mobility by counteracting the selective effect of the government's decision by achieving deferred compensation. Thirdly, it has become even more integrated into the higher education system, as it has become a direct funder of higher education.

In addition to changes in higher education legislation, the product also had to respond to changes in the socio-economic climate. Equal opportunities are ensured throughout the whole process of lending, as there are only three normative conditions for borrowing: student status, Hungarian citizenship, and age under 45. This quasi-subordinate access has remained unchanged over the last two decades, but the

2 The new legislation took away the right of higher education institutions to set the framework numbers and introduced sectoral management control from 2011. The government penalised training programmes that were considered redundant from a labour market point of view or had too high an output in the given field more severely by not offering state scholarships.

interest rate on the Student Loan1, with the initial low interest rate on the Student Loan2 and then the interest-free rate, has also changed along the same principles[3], but – following the changing socio-economic climate. The interest rate on the free-use Student Loan1 ranged between 8% and 12% in its first decade (2001-2012), then, following the changes in the interest rate environment, it fell below 2% in 2017 and rose to 4.99% from 1 July 2022, also in line with the high interest rate environment. Due to the further drastic deterioration of the interest rate environment, the interest rate could have exceeded 10%, but the Hungarian Government extended the interest rate freeze to this product as well, which increased the interest rate on the free-use loan to only 7.99% from 1 July 2023. [4]

The Student Loan2 , i.e. a loan for out-of-pocket expenses only, has followed a significantly different interest rate path. From an initial interest rate of 2% in 2017 to 0% today, the product has maintained its interest-free status. Therefore, the Student Loan2 has become a deferred cost-plus payment system over the last 6 years and the state will continue to operate it despite the economic climate change in the early 2020s, continuing to assume the full cost of the interest.[5]

In addition to the introduction of the Student Loan2, two other product types should be mentioned. The Student Loan Plus, which aimed to provide one-off, interest-free, interest-free support of up to half a million forints in a crisis situation caused by the coronavirus epidemic. The other product is the Training Loan, which initially also provided free and conditional funding for vocational and adult education and training[6]. These are worth briefly mentioning because they show that a credit structure based on fixed principles can be flexibly adapted to other forms of education and can respond quickly to socio-economic crisis situations that would prevent students in higher education from continuing their studies, especially because of their high exposure.

A summary of the history of student lending through its products demonstrates that, despite changing environmental influences, the Student Loan Centre, which manages the product line, has sought not only to maintain but also to expand its market (since a significant shrinkage of the customer base would not only mean the failure of the product, but also the failure to achieve its social objectives). As an integral part of the higher education system, the Centre has always responded well to the

3 The principle of interest calculation:
- the average interest rate calculated from the cost of funds involved in financing the student loan scheme for the financial year in question,
- a risk premium to cover the default of the single risk pool of students,
- a premium to cover the operating costs of the student loan scheme.

4 See information and articles published on the Student Loans website – https://diakhitel.hu/aktualitasok/

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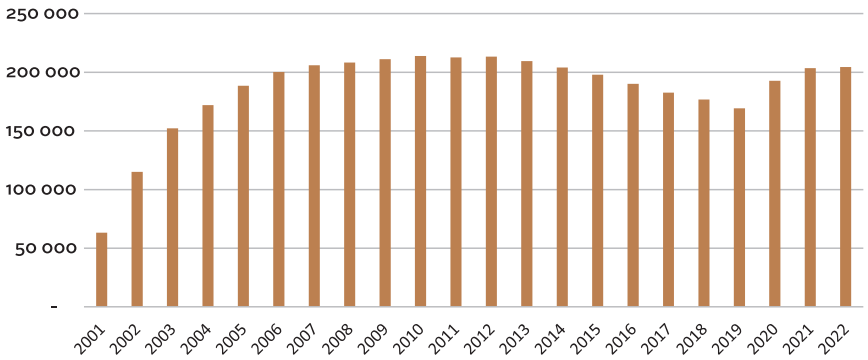
6 During the deteriorating economic situation, the open-ended form was discontinued at the turn of 2021 and 2022, while the restricted-use form remained available interest-free.

challenges and needs of the higher education system, as evidenced by the fact that even in the most difficult years, the number of new contracts of the Student Loan Centre Zrt. increased by 23 000 between 2019 and 2022[7].

Figure 1: Cumulative contract number: Student Loan1, Student Loan2, Student Loan Plus



Source: Diákhitel Központ,, own editing

Social impact of student loans

If we want to look at the social impact of student loans, we must first look in more detail at the positive impact of student loans not only on individuals, but on Hungarian society as a whole. An earlier section of the study argued that the introduction of the cost price has raised the already high social threshold for higher education. This is harmful not only in terms of fairness and equal opportunities, but also in terms of the use of resources in society, as it is not talent but social status that determines access to higher education. Increasing mobility is in the interest of society as a whole, since if the opportunity to develop talent to the fullest is a function of social status, the labour market will be deprived of a pool of workers whose skills and abilities, with appropriate training, could have predisposed them to high value-added positions (Stiglitz 2015; Hajdú-Huszár-Kristóf 2019; Güell et al. (2018). Although student lending is designed to meet a societal goal, it works through lending contracts with individuals, and in addition to improving the quality of life of individuals, graduates also result in lower costs and higher returns for society. Therefore, the social and individual dimensions of student lending as a tool of government intervention can only be technically separated.

7 See the data:https://diakhitel.hu/aktualitasok/szazezreket-nyerhetnek-a-diakhitelesek-ha-figyelnek-a-reszletekre/

At the societal level, the effectiveness of student loans is demonstrated by the fact that students who would otherwise have dropped out of higher education start or continue their studies, or that those who take out student loans are better able to concentrate on their studies. The potential contribution of student loans to social mobility is important from a social justice perspective, but also to highlight the higher productivity of graduates as a result of the unleashing of skills through training (Chevalier et al. 2013). For individuals, the average quality of life of graduates exceeds the welfare opportunities of non-degree holders in several dimensions. Graduates have higher employment rates, higher average incomes, higher life expectancy and higher life satisfaction on average than those with any level of education (Dear-Henderson-Korten 2002).

The 22-year history of the Student Loan proves that the demand for the product is not only unbroken, but also growing, driven by an expanding product range and more favourable conditions than the economic climate. However, the fact that a product is capable of promoting equal access does not mean that this is actually happening. The original concept of student loans was to enable those who, due to their socio-economic situation, would not be able to do so, to obtain a degree. Therefore, the direct, individual benefit of student loans is best captured in the wage advantage, namely the wage differential between those with a high school diploma and those without. In Hungary, the average gross earnings of people with a degree are far higher than those of people with secondary education. If we look at university, i.e. master's degree level, the highest educated group earns on average approximately twice as much as the income of those with a secondary education. The wage advantage is reduced but not lost when looking at bachelor or equivalent qualifications. In this case too, the wage advantage over secondary education varies between 180-280 thousand HUF, depending on the professional qualification.

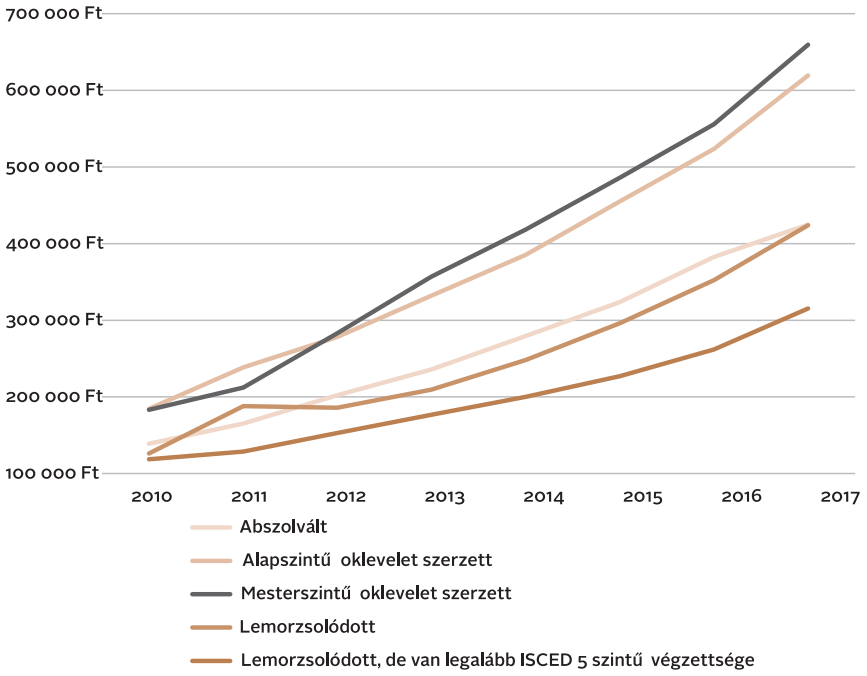
Table 1: Evolution of the graduate wage premium (source: KSH)

	Secondary education with A-levels without vocational qualifications	Upper secondary education with vocational qualification	Higher education college or bachelor's degree	Higher education University or Master's degree
2019	332 949	342 152	479 312	655 758
2020	359 652	370 167	524 796	695 768
2021	386 755	403 231	556 828	798 218
2022	433 321	480 964	664 508	936 528

In the case of student loans, we tend to forget that this can not only be an intervention to bridge the social situation gap at the time of application, but can also be a solution for interruptions in education due to unexpected life changes during training (Durászky 2023). It is therefore also worth showing the wage advantage between drop-outs and graduates. Studies are available that specifically address this issue. The general conclusion of the empirically based findings is that ex-students who start but do not complete their bachelor's degree can find employment on higher

earnings terms than those who did not go to university. The ceteris paribus comparison shows that the labour market also rewards training that is not completed (Ghignoni et al., 2019; Luckman & Harvey, 2019; Schnepf, 2017). Little information is available on the details of the mechanism of action, but there are several studies available that analyse comparative data from European countries. Berlingieri and Bolz (2020), drawing on aggregate data from 18 countries, find that early school leavers earn 8% more than those who do not continue their education after upper sec-

Figure 2: Gross income among those who completed their education in 2009/2010 for bachelor's degree programmes in the field of IT, based on completion of education and further higher education



Source: own editing based on the Higher Education Analysis Reports (2021)

ondary school, but 25% less than graduates. In addition to international research, it is also worth mentioning the studies published in the periodical Higher Education Analysis Reports. Although the IT field is in a special situation in terms of drop-out rates, it is now well known that it has a high drop-out rate due to employment. For this reason, the conclusions that can be drawn from the data in Figure 1 are particularly important. The chart shows how the average income of students who completed their training in 2009/2010 varies by type of training completed between 2010 and 2017. According to some analyses, by 2017 there was already a shortage of 22,000

IT professionals[8], which suggests that if there is any training where it is worthwhile to get a job before graduation, even at the cost of dropping out, it is in IT.
However, the data show that the pay gap for early leavers is significant, and increasing over the years. While at the beginning of the period it was HUF 50,000, by the end of the seventh year it had swelled to over HUF 200,000. Of course, the data series on computer scientists cannot be used to draw a general conclusion for higher education as a whole, but it is another piece of the mosaic that, looking at the domestic context, leads to a result that is in line with the international data.

Statistics on the wage advantage show that in cases where without student loans studies would either not have started or would have ended in drop-outs, the individual – and we will see later in the paper – social and economic benefits of student loans are extremely high. However, it is not clear how much of a gap the student loan solution fills, i.e. the number of students who would not have been able to continue their studies without it.

Who is eligible for student loans

There are several data sources available to describe the population of student loan borrowers. One of the most informative of these is the representative survey of internet users conducted in 2018 and 2020 on behalf of the Student Loan Centre Zrt. In the 2020 database, there were 690 respondents who took out Student Loan 1 and 567 who took out Student Loan 2. The overall consensus among respondents is that student loans were essential for the majority of respondents to pursue their studies. The statement *"If there was no student loan, I would have had to stop my higher education"* was agreed by nearly two thirds of respondents in 2018 and nearly three quarters in 2020 for Student Loan2 and 50% of respondents in both years for Student Loan1. The statement *"Without the student loan, I would not be able to pay my fees"* also has a very high rate of agreement among those who have a Student Loan2 in both years (2018:74%; 2020:63%), while the rate of agreement for Student Loan1 rises to a slightly lower level of around 40% (2018:42%; 2020:39%). However, the block of questions points out that student loans can have a positive impact on the living conditions or studies of students and their families in many other ways. Relieving parents of the burden of financial contributions was mentioned by many for both loan products, as was a typical response that it was also an effective means of reducing the

8 According to the research results of the "Labour Market Survey" carried out by eNET Internet Research and Consulting Ltd. on behalf of the consortium of KIFÜ, ITM and IVSZ, within the framework of the GINOP-3.1.1 project "Encouraging and supporting cooperation between educational institutions and ICT enterprises", the estimated 22 thousand IT specialists shortage in 2017 will double by 2022. Research shows that higher education output is failing to keep pace with the growing labour market demand, which is both encouraging IT training outside higher education and encouraging drop-outs within higher education.

time spent working while studying. In addition, there was also a majority consensus on the indispensable role of student loans in choosing the institution, degree course or training programme of your choice. The responses show that the free Student Loan1 contributed more to financial freedom and the interest-free Student Loan2 contributed more to achieving their learning goals.

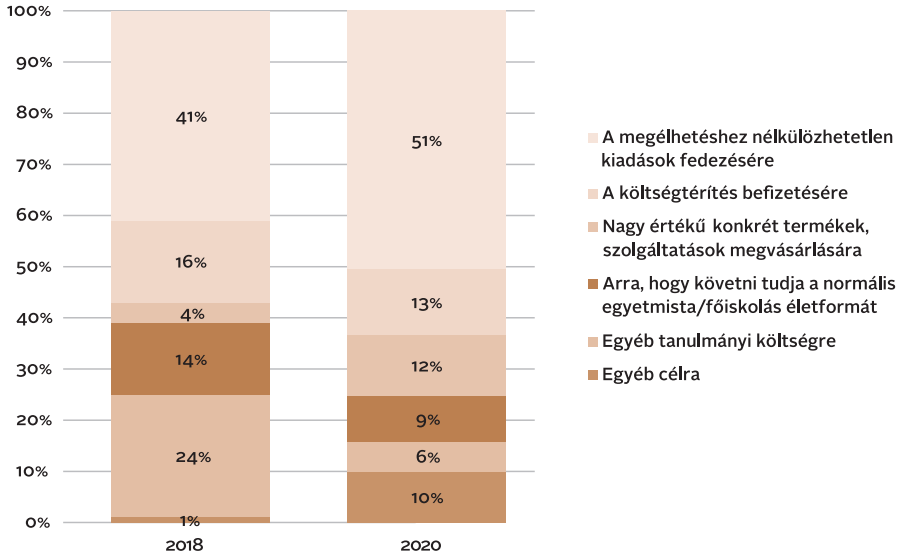
Table 2: Prevalence of life situations related to student loan borrowing

		Student loans1 N_{2018}=671 N_{2020}=690	Student loans2 N_{2018}=341 N_{2020}=567
The student loan allows/makes it possible for my parents to support me with less.	2018	77%	77%
	2020	81%	69%
Student loans allow/allow me to work less.	2018	58%	49%
	2020	72%	61%
The student loan allows/allowed me to attend full-time rather than evening or correspondence courses.	2018	54%	not relevant
	2020	52%	not relevant
The student loan allows/allowed me to go to a cost-reimbursed course.	2018	53%	not relevant
	2020	61%	not relevant
If I didn't have the student loan, I would have had to stop my higher education.	2018	52%	65%
	2020	50%	74%
The student loan allows me to go to the institution that suits me best.	2018	46%	63%
	2020	54%	59%
Student loans allow me to study the course that suits me best.	2018	46%	66%
	2020	52%	59%
Without the student loan, I would not be able to pay the fees/self-employed fees.	2018	42%	74%
	2020	39%	63%

Source: NRC Research

It is also informative, based on the questionnaire data collection, to show how students use the free financial resources available in Student Loan1. As shown in Figure 2, the most typical expenditure in both time periods surveyed was to cover essential living expenses, with 40-50% of respondents indicating this, depending on the wave of the survey. In both cases, this was followed by the payment of the reimbursement. Other study costs could be directly related to studies, which accounted for 24% in 2018 and 10% in 2020. These data also show that the assumption that the free student loan1 would not be used in a way that would not reduce social inequalities but increase them is not correct either.

Figure 3: Purpose of the Student Loan1 (N2018 = 671; N2020 = 690)



Source: NRC Research

Estimating the impact on the national economy

Using a similar approach to the Likert scale-based measure presented here, the Student Loan Centre Zrt. has also examined the contribution of its products to the national economy in 2021 (Troia 2021), based on a naïve estimation method. The Student Loan Centre Zrt. sends out a questionnaire to the persons signing the contract to find out the causal background of the application. One of the measures is a block of questions, formulated as a 5-point Likert scale, where respondents are asked to rate the following statements according to their level of agreement:

1. If I hadn't had a student loan, I wouldn't have applied to go to university.
2. If I didn't have a student loan, I would not have enrolled in university/college even if I had been accepted.
3. If I hadn't got a student loan, I would have had to stop my studies and I wouldn't have been able to get a degree.

Each of the three statements outlines a life situation in which the use of student loans can be identified as a degree-granting intervention, as the opportunity to obtain a higher education qualification would have been lost in its absence. 68% of the sample of 1 023 people were not in a situation at the start or during their studies where student loans would have been the only option. They answered 1, 2 or 3 to all three statements.

Table 3: Incidence of risk factors

	Number of cases in the sample	%
There was no risk factor	697	68,1%
At least 1 risk factor	326	31,9%
Total	**1023**	**100%**

(Source: Troia 2021)

In contrast, 31.9% of the students in the sample responded with a score of 4 or 5 in at least one case, i.e. they had a risk factor from the start of training to the end of training. The students at risk are not equally distributed in terms of when they start their training. For example, referring back to the earlier part of the study, it can be seen that following the introduction of the new National Higher Education Act, the number of applicants who have taken out loans in risky situations has increased rapidly.

Table 4: Percentage of students at risk

	Percentage of students at risk (%)
2001–2005	21%
2006–2010	19%
2011–2015	21%
2016–2021	39%
Total	**100%**

Source: Troia 2021

Finally, it should be taken into account that student loan users are not 100% immune from drop-outs, so the data still need to be normalised to calculate the proportion of graduates from the Student Loan Centre's products.

Table 5: Percentage of graduates

	Percentage of graduates among students in risk groups (%)
2001–2005	95%
2006–2010	92%
2011–2015	93%
2016–2021	40%*

Source: Troia 2021

* There is a significant drop in the data for the last period, because most of the population surveyed has not yet completed their studies and cannot be counted as graduates.

With this data, it is now possible to calculate the estimated number of people who were able to manage their risk situation thanks to student loans between 2001 and 2021, based on the number of contracts. The multipliers in Table 6 are obtained from the values of those who graduated and those at risk, as these two values indicate the

proportion of the total population who graduated as a result of the student loan intervention.

Table 6: Estimates of incremental graduates

	Number of students with a loan	Multiplier	Number of incremental graduates
2001–2005	204 855	0,2	40 971
2006–2010	99 297	0,175	17 377
2011–2015	66 351	0,195	12 938
2016–2021	59 245	0,156	9 242
Total	**429 748**		**80 528**

Source: Troia 2021

This was in the order of 80,000 students in higher education for whom taking out a student loan product became a necessary condition for obtaining a degree.

If we project the average graduate wage premium over the cohorts from the labour statistics published by the HCSO from year to year, we can estimate the incremental wage income over the 20-year period. at 2021 prices, this will be more than HUF 2 100 billion. If we add the tax rate on wage income to the surplus of the wage advantage, it turns out that during the first 20 years of operation of the student loan system, the budget received more than HUF 1,000 billion in additional revenue at 2021 prices, as 80,000 people who would have been left without a diploma without a student loan were able to obtain a degree thanks to the student loan.

Summary

In addition to reviewing the past two decades of student lending, the study sought to answer two questions. On the one hand, it examined, in the context of a historical overview, the extent to which a product family can remain a durable and well-adapted product line despite a changing legal and socio-economic environment. On the other hand, it also sought to answer a frequently asked question about student lending: although student loans can be used to reduce social inequalities, there is no guarantee that the users actually use them as intended, i.e. that the government's intention when student loans were created and still exists today is being realised

To answer the first question, the paper provides a historical overview, showing how the product line has been able to respond so effectively to the emerging cost of self-pay in higher education and the economic and social challenges that will emerge in the 2020s that the number of subscribers is on an upward trend.

If, despite its intentions, student lending does not target socially disadvantaged social groups, but rather the more socially advantaged members of society, then it may in fact not be a means of promoting equal opportunities, but rather the opposite: it may be a means of deepening social disadvantage. Accepting this, answering

the second question in the context of the study, based on data collection from users, confirmed that in the case of both the Free Student Loan1 and the Interest Free Student Loan2, the sectoral management expectation is met, with users using the loan to start or continue their studies, or possibly to use the financial instrument to help them create living conditions in which it is easier to focus on their studies.

The study also presents an estimate of the impact on the national economy, based on available data on higher education, wage advantage and questionnaire data, which links the 80 000 students graduating through the student loan scheme to an additional tax revenue of HUF 1,000 billion.

Based on this data, it can be said that student lending has been performing its mission since the 2000s, with significant socio-economic benefits. ■

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