The Netherlands has been characterized by highly differentiated secondary education, with separate practical, vocational, secondary, and pre-university institutions. Over time, these have converged somewhat. Well-thought-out vocational and adult programs emphasize providing skills needed in the workplace. At least part-time education is compulsory until age 18. The Netherlands has recently introduced student loans in university and vocational education. The most innovative aspect of a growing emphasis on private funding in post-compulsory education is introduction of performance-contingent grants that are converted into income-contingent loans if students fail to perform satisfactorily. The Netherlands is characterized by high rates of mandatory and notional savings and relatively low rates of discretionary savings. Notional savings displace discretionary savings strongly; motives for saving mainly concern health-related and general uncertainties, not job loss or pension income uncertainty. There is no direct evidence of saving for learning. Increased costs of education to students and parents since 1996 have not led to increased savings. Short-term effects have been that many students have chosen to increase their hours of paid work during study, some take student loans, and a minority postpone or avoid studying. (Appendixes include a report on saving, borrowing, and investment and a 10-item bibliography.) (YLB)
An investigation of the education systems, household savings behaviour and financial support for learning in the Netherlands. This report summarises the structure of education in that country, reviews recent policy changes to student finance – including the introduction of performance-related grants – and examines the evidence for parental and individual savings for learning.
S haron B igg a r
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This study complements the earlier review of saving for learning in four countries (Denmark, Japan, New Zealand and the USA) that Charles River Associates undertook for the Learning and Skills Development Agency (LSDA 2002). It focuses on the Netherlands as a country which has recently introduced student loans in university and vocational education, and which has other structural similarities with the UK. It explains the main characteristics of the Dutch educational system, and examines saving behaviour in the Netherlands.

It also proposes two definitions of saving for learning: a narrow definition, focusing solely on the accumulation of financial assets in advance, and a broad definition, extending to include all sources of household financing used for education. We conclude that the broad definition is more useful in thinking about policies for saving for learning.

The main finding of the study is that there is no conclusive evidence of saving for learning in the Netherlands, either in the narrow or the broad definition. Thus increases in the costs of education to students and parents since 1996 have not so far led to increasing savings. The short-term effects have been that many students have chosen to increase their hours of paid work during study, that some take up student loans, and that a minority postpone or avoid studying altogether.

**The educational system in the Netherlands**

In the Netherlands publicly funded schools are not all publicly run – in fact the majority of pupils in primary education attend religious schools. The Netherlands has traditionally been characterised by highly differentiated secondary education, with separate practical, vocational, secondary and pre-university institutions. Over time these have converged somewhat.

There are well-thought-out vocational and adult programmes, with a strong emphasis on providing skills needed in the workplace, and it is compulsory to continue in at least part-time education until age 18.

There is a growing emphasis on private funding in post-compulsory education, the most innovative aspect being the introduction of performance-contingent grants which are converted into income-contingent loans if students fail to perform satisfactorily.

**Household savings**

The Netherlands is characterised by high rates of mandatory and notional savings, and relatively low rates of discretionary savings. Notional savings (contributions to pay-as-you-go pension schemes) in particular appear to displace discretionary savings quite strongly, and as a result saving motives mainly concern health-related and general uncertainties, rather than job loss or pension income uncertainty.
Saving for learning

There is no direct evidence of saving for learning in the narrow sense. Dutch surveys do not ask whether education is a possible motive for saving. Discretionary savings are relatively small and the overall household saving rate has declined since 1996.

There is some evidence that the issue has been raised in policy units within government, but there have been no concrete policy steps to induce saving for learning in the narrow sense. The introduction of student loans may eventually lead to increased saving for learning in the broad sense. However, as yet income-contingent loans have low take-up; most students rely on grants and work for financial support.
This section describes the primary, secondary and post-compulsory education system in the Netherlands. Points of particular interest in the system, in thinking about student financing, saving for learning and comparisons with the UK are:

- the differentiated nature of secondary schooling, with separate practical, vocational, general secondary and pre-university streams
- the introduction of tuition fees at (secondary and) post-compulsory levels in recent years
- the introduction of performance and progress-linked grants.
The overall structure of the Dutch education system is summarised in Figure 1, and further explained in the text that follows.

**Primary and secondary education**

One of the key features of the Dutch primary and secondary education system is the principle of ‘freedom’ in education. That is, the Dutch system is founded on:

- the freedom to found schools and to determine the principles on which they are based in accordance with religious or ideological principles, and the freedom to organise the teaching
- financial equality between public and government-funded private education.¹

As public and government-funded private education are treated equally in terms of government finance, there are a large number of private providers in primary and secondary education.

---

Primary education is available in the Netherlands for all children between the ages of 4 and 12, although compulsory education does not officially start until the age of 5. Though nearly 8% of the 1.64m primary school children study at purely private schools, a clear majority (over 60%) study at schools with religious affiliations. Purely public schools account for 32%, as shown in Figure 2.

![Figure 2](image)

After completing primary education, children go into full-time secondary education, which is compulsory until the age of 16. In addition, between the ages of 16 and 18 at least part-time education is compulsory and much of this learning also takes place at secondary schools. In 2000/01 there were 863,000 pupils in secondary education.

Secondary education in the Netherlands is diverse and includes schools which provide the types of education listed below.

1 **Pre-vocational secondary education (12–16)**
   Pre-vocational secondary education lasts 4 years and is intended to prepare pupils for secondary vocational education, senior secondary vocational education and apprenticeships.

2 **Senior general secondary education (12–17)**
   Senior general secondary education lasts 5 years and qualifies pupils to enter higher professional education, although in practice many of them go on to pre-university education.

3 **Pre-university education (12–18)**
   Pre-university education lasts 6 years and prepares pupils for university, though some students prefer to enrol on higher professional education courses.
The Netherlands is rather unusual in requiring compulsory education until the age of 18. While most students are in full-time secondary or secondary vocational education, a minority opt for a 'day release' option. For these students at least 60% of all time is devoted to practical or apprenticeship training, with the remainder in the classroom. Apprenticeships thus combine on-the-job training with classroom-based theoretical instruction and typically last for between 1 and 3 years.

The Dutch apprenticeship system is based in the late 19th century, when, because of the limited accessibility of existing technical schools, and the large shortages of vocationally educated labour, young people received training within firms, and part-time instruction within district schools. The advantage of such a system is the close contacts with everyday practice, which can function as a strong incentive to engage in learning and training. Further, technological changes can be incorporated into the curriculum relatively quickly.

Apprenticeships aside, the differentiation between the other three types of secondary education has been dissipating over time. Although there is differentiation between these types of schools, the first 3 years of secondary education are in large part the same for all pupils regardless of the type of secondary education that they are enrolled in (with the exception of those attending special education). Furthermore, a considerable number of secondary schools are part of a combined school embracing a number of different types of secondary education, with some offering all three types of secondary education within the same educational institution.

The main area of variation that remains between the different types of secondary education is the level at which the various subjects are studied and the number of lessons devoted to different subjects over the whole period of a particular type of education. Although variation exists within different types of secondary education, there is a standardised and nationalised qualifications framework for each type of schooling.
**Adult vocational education**

Vocational education can be split up into block or day release (with the practical component accounting for at least 60% of the course) and vocational training (where the practical component accounts for 20 to 60% of the course).

Vocational courses are graded according to four different levels.

**Level 1** *Assistant*
Designed to provide initial vocational training.

**Level 2** *Basic vocational*
This level reflects the minimum qualification that anyone entering the labour market should have. Basic vocational education should enable students to carry out relatively complex routines and standard procedures, while having responsibility for their own work only.

**Level 3** *Professional*
Professional education enables students to take responsibility over and above their own duties. They are capable of devising preparatory and supervisory procedures, and supervising the implementation of standard procedures by others, and must be able to account for their actions to colleagues.

**Level 4** *Middle management or specialist*
Trains the students in non-job-specific skills such as tactical and strategic thinking.

This grading system is roughly equivalent to that prevalent in the UK for Levels 1 through 4. However, in contrast with the UK, the great majority of vocational students in the Netherlands study full-time (60% in 2000/01). This may in part be because most vocational students are studying for upper-level courses that train them for professional or middle management positions, as shown in Figure 3.

![Figure 3](image_url)

Number of participants in differing types of vocational education, 2000/01
Source: Dutch Ministry of Education, Culture and Science (OCenW)
Higher education

Higher education in the Netherlands can be split into higher professional and university education. Since 1991, both have been governed by the same legislation – the Higher Education and Research Act. Whereas education at universities is rather academic, higher professional education provides theoretical and practical training which is designed to prepare students more directly for occupations. Although not a perfect comparison, a likeness can be drawn between the Netherlands’ higher professional institutions and the polytechnic institutions as they were in the UK before they were phased out in the early 1990s.

Higher professional education

Higher professional education is characterised by a wide range of courses (both broad and specialist), leading to more than 200 different degrees and qualifications. Courses are divided into seven sectors:

- education
- engineering and technology
- health care
- economics
- behaviour and society
- language and culture
- agriculture.

Interest in higher professional education has risen steadily in recent years. In 2000/01, 299,000 students were enrolled in higher professional institutions, compared with 264,000 in 1996/7, an increase of 13.2% over 5 years. This is partly because the entry requirements for attending a higher professional programme are less strict than for universities – anyone wishing to attend a higher educational vocational programme must have obtained either a diploma for senior secondary general education, pre-university education or senior secondary vocational education, whereas university entrance is restricted to pre-university graduates only. However, the upswing in student numbers is also related to the changes in student support, which we discuss in further detail in section 1.2.

University education

The Netherlands has 13 universities, including three technical universities and a specialist agricultural university. To start at university, applicants must have successfully completed pre-university education, at least the first year of a course of higher professional education, certain training courses abroad or a special oral entrance examination set by the university the student is applying to. There were around 40,000 entrants into university in 2000/01.
Adult education and training

Adult education in the Netherlands is focused on four core areas which are:

- training poorly qualified adults (not in the labour force)
- training those in employment
- leisure learning
- training the unemployed.

Each is explained in further detail below, and details of the numbers of participants in adult education at different levels are given in Figure 4.

![Figure 4](image)

**Figure 4**
Number of participants in adult education, 2000/01
Source: Dutch Ministry of Education, Culture and Science (OCenW)

Training poorly qualified adults

The system of education for poorly qualified adults not in the labour force consists of basic adult education and part-time courses in adult secondary education. Basic adult education in the Netherlands is designed for adults with low levels of initial education (no more than 2 years of secondary schooling). It involves courses in language, maths and social skills. Secondary adult education involves part-time courses in general lower secondary education, upper secondary education and vocational secondary education. These courses are meant as 'second chance education' for adults who have no (major) certificate in secondary education. Furthermore, the part-time courses in lower secondary education include courses in Dutch as a second language and transition classes. Dutch as a second language is mostly followed by higher educated immigrants who are not served by basic adult education. The transition classes are meant as a preparation for vocational or higher education.
Training those in employment

As in the UK, most job-related employee training takes place through employer-sponsored internal and external courses and informal training in the work situation. But there are differences from the UK in how such training is funded. Collective bargaining agreements are more prevalent in the Netherlands than they are in the UK, and thus have an impact on the funding of member employees. As a consequence of collective bargaining agreements at an industry level, many sectors have introduced levy systems that allocate sectoral training funds to – among other things – subsidise the training of employees.

Leisure learning

Leisure learning in the Netherlands appears to be driven by the individual, so that we find adults enrolling in part-time courses in both public and private education. Alongside the part-time public education mentioned before, there are private distance education and post-school face-to-face education. In addition, persons aged 55 years or older participate in higher education, but only in very modest numbers. In the past decade some universities have even set up special courses for older people, called higher education for the elderly.

Training the unemployed

Training of the unemployed in the Netherlands is the responsibility of the Public Employment Service (PES). The PES uses a variety of methods and training instruments to meet the needs of the unemployed. These are summarised in Table 1, and explained in further detail below.

<table>
<thead>
<tr>
<th>Training scheme</th>
<th>Profile of the trainees</th>
<th>Level of training</th>
<th>Duration of training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Centres for adult vocational training</td>
<td>Unemployed persons</td>
<td>A number of modules of the official apprenticeship training</td>
<td>1 year (in practice often shorter)</td>
</tr>
<tr>
<td>Centres for basic training</td>
<td>Long-term unemployed, low-skilled, ethnic minorities</td>
<td>Pre-qualification</td>
<td>1 year (in practice often shorter)</td>
</tr>
<tr>
<td>Centres for female vocational training</td>
<td>Women wanting to re-enter the labour market, women from ethnic minorities</td>
<td>Secondary and upper secondary level</td>
<td>2 years</td>
</tr>
<tr>
<td>General subsidy scheme for the training of unemployed persons</td>
<td>Unemployed persons</td>
<td>Varies considerably</td>
<td>Most relatively short</td>
</tr>
<tr>
<td>Contribution scheme</td>
<td>Unemployed persons</td>
<td>Varies, includes (pre-) apprenticeship training</td>
<td>1 year (or shorter)</td>
</tr>
</tbody>
</table>
**Centres for adult vocational training**
These centres specialise in technical and administrative training. The learning style is similar to that of apprenticeship training, and unemployed individuals are given the choice of obtaining an apprenticeship diploma upon completion of the requirements.

**Centres for basic training**
These centres (and the training courses run within them) are designed primarily to help immigrants integrate into Dutch society. Over time these centres have evolved to also provide basic skills – language, maths and pre-qualification basic vocational skills – both to immigrants and other groups.

**Centres for female vocational training**
These centres are designed to provide training for women re-entering the workforce, particularly those entering (or wishing to enter) the information and communication industries. The courses are targeted towards secondary or upper secondary level and hence are at a higher level than the centres for vocational training. The training duration is also longer.

**General subsidy scheme for the training of unemployed persons**
This scheme allows employment offices to provide a subsidy for training the unemployed. The subsidy is broad and thus various types of training are undertaken as part of the scheme.

**Contribution scheme**
This scheme also provides a subsidy for training the unemployed, but differs from the subsidy scheme in being focused on local training plans and labour market conditions.
In 1996 a new system of student support was introduced in the Netherlands. The old system, which had consisted of child allowances and study grants, was replaced by a system with a basic grant for all students, supplementary grants for students from low-income families and voluntary loans. In essence the changes to student support led to three major new developments:

1. the introduction of tuition fees for all post-16 students
2. performance-related loans in higher education
3. other student loans.

These are discussed in further detail below.

**Tuition and student support for 16–18s**

The Schools and Course Fees Act introduced tuition fees for all post-16 pupils and students. For the academic year 2000/01 school fees in the Netherlands were set at €827. Average household income in the Netherlands was estimated at €23,000 in 1999, so the tuition fee for a single school child would represent around 3.4% of household income. To interpret this figure in terms of UK conditions, average household income in the UK in 1999 was £24,000, and 3.4% of this figure would be roughly equivalent to just over £816 (1999).

Maintenance support is available for the parents of secondary school pupils on low incomes. If eligible, parents receive a sum covering the school fees and an allowance towards the other costs of study. Where the child’s parents have a taxable income of less than €22,975 (1999) a year, the school fees are reimbursed in full. If their taxable income is less than €18,028 (1999), they also receive a yearly allowance of €350 (1999) to help with the remaining costs of study.

**Tuition and student support in vocational education (post-18)**

Study costs allowances for pupils over the age of 18 are paid directly to them on a monthly basis. In addition, pupils in this age group receive a basic allowance which is independent of parental income. The basic allowance for a pupil living at home is €49 (2000) a month and that for a pupil living away from home €186 a month. The basic grant is non-repayable and non-means-tested.

In addition, depending on parental income, students may be able to claim a supplementary grant of up to €282 a month if living away from home and up to €266 a month if living at home. The supplementary grant is also non-repayable.

Over and above the basic and supplementary grants, students may also take out loans (of up to €404 a month for those not living at home), which are unrelated to parental income. As discussed below, the take-up of these loans remains relatively low, however (see OcenW 2002).
Tuition and student support in higher education (post-18)

For higher education, student tuition fees are greater. These were set at €1,304 for the academic year 2000/01. This equates to approximately 5% of the average household income in the Netherlands. By comparison, 5% of average household income in the UK is approximately equal to £1,300, indicating that tuition fees in the Netherlands are slightly higher than those charged in England and Wales, which are currently set at a maximum of £1,075 (2001/02).

For schools, vocational institutions and higher education institutions, tuition fees are standardised across institutions and courses.

Since 1996 basic and supplementary grants in higher education have been provided initially as loans but are forgiven, and the grant considered a 'gift', if the student meets set performance criteria. Students are usually required to meet a 50% pass rate on their courses, and if they fail to do so they have to repay all support received.

The proportion of grants converted to definite loans, however, has been relatively small: only 20,000 in 1999 compared with 318,400 converted into definite grants because of satisfactory progress.

For students who fail to meet the performance criteria, there are two mechanisms for loan repayment. Under the default system, interest is charged on the loan and the basic and supplementary grants from the time that they are disbursed (ie from the first monthly payment in the student’s first year). Repayments begin 2 years after the student leaves higher education. At that time, the student’s debt is totalled and monthly repayments calculated such that the loan is repaid over 15 years – on the face of it a straightforward mortgage-type loan. These repayment terms, however, are imposed only where the person has an income above a certain threshold. A person with a lower income can request to make lower repayments and no repayments are required from those with very low incomes.

The process has to be repeated each year. Thus people with income below the threshold make income-contingent repayments. Any loan balance not repaid after 15 years is forgiven under either repayment method.

Thus student loans in the Netherlands can be thought of in either of two ways:

- as a mortgage-type system, with abatement of repayment for low earners
- as a system with income-contingent repayments, subject to a ceiling on annual repayments.

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5 For those in vocational education, grants are not considered to be progress or performance based. However, students are required to have a sufficient attendance record. If a student is absent for a certain period of time, the grant is converted into an interest-bearing loan.

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Performance-related student loans in the Netherlands

- Since 1996 student support in the Netherlands has been provided in the form of a performance-related loan.
- That is, grants are initially received as loans and only forgiven if the student meets set performance criteria.
- In vocational education satisfactory performance is assessed through attendance; in higher education it is assessed through academic grades.
- Failure to meet performance criteria results in a requirement of an interest-bearing loan.
Viewed from the latter perspective, a number of criticisms have been made. The main criticisms are that the means test is administratively cumbersome; there is no obvious rationale for the ceiling on repayment and 15 years is a rather short time-frame for loan forgiveness.

From January 1995 students have also been able to receive student loans independent of parental income to support their maintenance costs. The maximum loan is given by an estimated monthly student budget minus the basic and supplementary grants. This amount is defined as the 'potential loan entitlement' and differs from student to student because of the means testing on the supplementary grants. Although there has been a slight increase in total use, especially among university students, the proportion of the potential loan entitlement actually taken up by students remains very small (as illustrated in Figure 5).

The low level of loan take-up in vocational education, and the relatively slow growth of loan take-up in higher professional education, are both interesting features of the Dutch scene.
Impact of student support changes

There have only been a few studies on the effects of the increase in the private contributions on student enrolment behaviour in the Netherlands. One major result is that students seem to be hardly responsive to increases in tuition fees (Sterken 1995; de Jong et al. 1996). Moreover, Vossensteyn (2000) notes that even substantial tuition fee increases hardly affected the enrolment decision of the majority of students, whereas large reductions could not attract students to engineering programmes. This indicates that students are insensitive to both rises and falls in the tuition fee.

However, other effects have been evident. In particular, after the introduction of the performance-related grant, there was a slight drop in the number of students enrolling in universities. It emerged that many candidates chose to enrol in professional higher education institutions where they were more likely to receive a qualification, or to postpone their enrolment in university until they really knew what study programme would best fit their expectations and abilities.

Finally, as discussed earlier, it is evident that most students still do not take up loans to cover tuition fees or the costs of living while studying. Although there is some evidence that the maintenance costs of students are being met from additional parental contributions, the most striking development has been the growth in the number of students getting involved in part-time work. In order to enable students to have part-time jobs, the system of student support has also been made more flexible since 2000/01. Instead of 6 years, students are now allowed to take 10 years to complete their courses without losing their grants.

The evidence suggests that students would rather take a job than a loan, but it is not clear whether this is due to ‘debt aversion’ or to other causes. It may, for example, also have been affected by increased employment opportunities for students – for the Netherlands’ overall unemployment rate fell from 6.6% in 1996 to 1.9% by mid-2001. And the slow but steady increase in loan take-up by university students (as shown in Figure 5) suggests that students are gradually adapting to the availability of loans.
This section describes the distribution of household savings in the Netherlands. It introduces three new terms: mandatory savings, notional savings and discretionary savings (which are defined in detail below). This is not meant to add additional confusion over what is meant by 'savings' but rather to illustrate that there are competing calls on an individual's income that can contribute to a reduction in a household's uncommitted (or discretionary) savings. This is important because it is out of discretionary savings that we are likely to find evidence of any saving for learning behaviour per se.

For this reason the following section makes a distinction between:

- mandatory savings – defined as the accumulation of financial wealth through mandatory contributions, principally to funded pension schemes
- notional savings – defined as contributions to pay-as-you-go (unfunded) systems such as pensions, health and long-term care insurance
- discretionary savings – defined as the accumulation of financial and real wealth whose magnitude and composition (portfolio choice) are under the control of the household.

**Mandatory savings**

In the Netherlands mandatory savings consist of employers' and employees' contributions to occupational-funded pensions plans. In this respect the Netherlands is similar to the UK but quite different from most continental European countries. In fact it has the second largest private pensions industry in Europe after the UK.

Table 2 summarises the distribution of mandatory savings by age. Average mandatory savings were equal to NLG 4,096 (£1,571) in 1996 (the latest year for which such estimates are available). As would be expected on the basis of income, the highest contributions come from those in the middle age bracket (35–55), who on average contribute approximately NLG 6,700 (£2,570), while the mandatory saving of the retired is about zero. Since most households in the age range 20–24 do not earn very much, they do not pay pensions premiums because of the existence of a threshold. The mandatory savings rate rises from about 4% of income among those in their 20s to nearly 7% among the middle-aged, and averages about 5% for the population as a whole. The relatively large mandatory savings of the middle-aged may 'crowd out' some discretionary savings.
### Table 2
Mandatory savings by age in 1995

<table>
<thead>
<tr>
<th>Age</th>
<th>Mean savings (NLG)</th>
<th>Mean savings (£)</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-24</td>
<td>1,029</td>
<td>395</td>
</tr>
<tr>
<td>25-29</td>
<td>3,053</td>
<td>1,171</td>
</tr>
<tr>
<td>30-34</td>
<td>5,278</td>
<td>2,024</td>
</tr>
<tr>
<td>35-39</td>
<td>6,630</td>
<td>2,543</td>
</tr>
<tr>
<td>40-44</td>
<td>6,777</td>
<td>2,599</td>
</tr>
<tr>
<td>45-49</td>
<td>6,672</td>
<td>2,559</td>
</tr>
<tr>
<td>50-54</td>
<td>6,847</td>
<td>2,626</td>
</tr>
<tr>
<td>55-59</td>
<td>4,794</td>
<td>1,838</td>
</tr>
<tr>
<td>60-64</td>
<td>1,346</td>
<td>516</td>
</tr>
<tr>
<td>65-69</td>
<td>236</td>
<td>91</td>
</tr>
<tr>
<td>70-74</td>
<td>114</td>
<td>44</td>
</tr>
<tr>
<td>75-79</td>
<td>52</td>
<td>20</td>
</tr>
<tr>
<td>80+</td>
<td>76</td>
<td>29</td>
</tr>
</tbody>
</table>

**Notional savings**

Notional savings are equal to the contribution to all pay-as-you-go systems and (despite the relatively large scale of funded pensions in the Netherlands) at 25% of gross income form the bulk of non-discretionary saving. They are composed of:

- employees’ mandatory contributions to all unfunded pensions plans: this mostly consists of social security premiums for public pensions – 17.9% of taxable personal income\(^6\)^7
- employees’ mandatory contributions to other schemes, including general disability pension – 6.3% in 1995, Special Health Cost Act – 8.55% in 1995, sick fund and social insurance premiums
- employers’ mandatory contributions to schemes, including sick fund insurance (employers’ part) and social insurance premiums (employers’ part)
- employees’ voluntary contributions, including premiums for private health insurance.

---

6 In addition, there are further contributions required for general widows’ and orphans’ pensions, but these are relatively small percentages of income (1.8% in 1995).

Between ages 25 and 60 the average share of notional savings in gross household income falls gradually from 32 to 24%, but remains at about 10% of gross income even after age 65 (Alessie and Kapteyn 2000).

The high level of notional savings reflects the extent of the social safety net in the Netherlands. As in Denmark, a large proportion of household income is allocated to required savings instruments. This has two sorts of effect compared with the USA. In the first place, there is much less reason for people to save for retirement or for income uncertainty owing to job insecurity, and in the second there is relatively little left over for discretionary savings.

**Discretionary savings**

Discretionary savings – changes in financial wealth under the household's control – appear to be rather small in the Netherlands, and to be crowded out to a considerable extent by social security type (notional) saving. Even in middle age, discretionary savings account for only 1–3% of household income.

In Figure 6 we present for different years the age profile of median changes in net worth. This measure reflects both mandatory and discretionary savings, but does not include notional savings. As is to be expected, given the data presented above on mandatory and notional savings, we find that there is a hump-shaped age–saving profile. In other words, the median saving of the very young and of retired households is approximately equal to zero (or negative in the case of those still in their 20s). According to the figures, at least 50% of the households do not dissave during retirement. This is significant as it indicates that retired individuals are not drawing down on their assets in the way that the life-cycle savings hypothesis (LSDA 2002) would predict. As is often the case, actual saving behaviour does not accord closely with theoretical models, and institutional aspects are quite important in understanding it.
Overall household savings

Like all other countries in the international comparisons project – New Zealand, Denmark, Japan and the USA – household savings rates (excluding notional savings) have fallen in the Netherlands since the late 1980s (Figure 7). Latest information reveals the savings rates in the Netherlands are currently just over 6% of national income. This places the Netherlands at roughly the same level as the UK.9

The limited time-series evidence thus does not lend any support to the idea that savings have increased with the increased cost of post-compulsory education since 1996. This is partly because the scale of household saving required for education is so small relative to other important developments during the period, such as the generally increasing value of housing and of equity portfolios.

Figure 7
Household savings in the Netherlands as a percentage of national income
Source: Netherlands Statistics

9 Exact comparisons are not possible because of a structural break in the savings definition for the Netherlands over the period.
There is considerable confusion over the use of terms such as savings, investment and borrowing. This is particularly true when we consider saving for learning, as many countries rely not only on ex ante savings but also on the use of student loans to encourage greater private investment into education. But is this to be considered savings also? This section starts by defining what we mean by saving for learning in this paper.

We end the section and the paper by looking at the evidence of saving for learning in the Netherlands. We conclude that as yet there is no evidence to support the hypothesis that saving for learning occurs in the Netherlands, though there is some evidence that the topic has been raised in policy circles. The Netherlands has much in common with the UK and we draw the conclusion that increasing the costs of education is not sufficient by itself to motivate the accumulation of savings for learning – at least not in the short run, and not when student loans are available.
3.1 What is saving for learning?

As the appendix discusses at somewhat greater length, there are two possible meanings of the term ‘saving for learning’:

- a narrow definition, focusing solely on the accumulation of financial assets in advance of education, to be drawn down to finance it
- a broad definition, extending to include all sources of household financing used for education, including borrowing and drawing down general-purpose stocks of financial (and real) assets, as well as drawing down financial assets specifically accumulated for the purpose.

It would be misleading to focus solely on the narrow definition. General and special-purpose savings are close substitutes, and proposals to create special-purpose tax vehicles for saving for learning are vulnerable to objections based on tax leakage. Unless there are strong credit constraints or strong ‘debt aversion’ on the part of students, borrowing is also substitutable for saving. The introduction of official loan schemes (which should ease credit constraints on households), and in particular income-contingent loan repayment schemes (which should arouse less debt aversion), is designed to make them closer substitutes.

Statistical and survey evidence on savings tends to be most revealing about the accumulation of assets in advance of expenditure. In national income accounting terms it is the repayment of borrowing that constitutes household savings. Few surveys to date look for these repayments, which can take place well into middle age, and which are a potentially important part of the saving for learning picture.
10 Indeed, we have had it confirmed by the Ministry of Education, Science and Culture that the government has no such policies.

11 CSS (CentER Savings Survey).

Figure 8
Savings motives by age, 2000
Source: CSS (CentER Saving Survey) panel

Buffer unforeseen circumstances
Unforeseen health expenses
Buffer for old age
Supplement social security (AOW)
Job uncertainty
Inheritance to children

What does this tell us about saving for learning in the Netherlands? To the extent that saving for children's and grandchildren's education is subsumed into bequests (intergenerational transfers), one can infer that they are very unlikely to be important. Saving for one's own education is likely to be subsumed into saving for generalised unforeseen circumstances (e.g., through repaying debts incurred during education or rebuilding financial portfolios depleted by spending for educational purposes). While the importance of this motive declines with age— as one would expect this type of saving for learning to do— it is only one among many of the motives in this broad category, and it cannot be inferred that this is an important motive for saving in the Netherlands.

This is not surprising given the traditionally high levels of public support for education and the move towards increased part-time work on the part of students. As yet it appears that the costs of education are not sufficient to require individuals to save beforehand in order to smooth their consumption over the period of the education. One of the ways these costs are being met, especially in university education, is through the availability of official student grants. It will be interesting to track whether the take-up of this type of financing, and the ex post saving for learning that can result if they are converted into loans, increases in the Netherlands over time (and in particular with any reduction in part-time employment opportunities for Dutch students).
Meanwhile, Dutch students seem largely to have reacted to the increased cost of education not by saving or borrowing, but in the third possible way – namely by spreading educational costs over time and increasing their earnings while in education.

There is some evidence – albeit anecdotal – that saving for learning has been on the policy agenda in the Netherlands. The following quotation is taken from a report prepared by the Netherlands Economic Institute for the OECD:

It is proposed that the existing ‘save-as-you-earn deduction’ may be targeted at training by defining training and educational leave as saving goals and by increasing the amount that can be saved free of tax. Another incentive that is proposed is to give a tax free bonus to those who successfully finish a learning project.

This report was written in 1998, but it appears that this suggestion never made it into implemented policy.

We can safely conclude, therefore, that as yet there is no convincing evidence to support the idea that saving for learning exists in the Netherlands or that there are government policies to encourage saving for learning.
In many ways the situation in the Netherlands is rather similar to that in the UK. Both countries introduced tuition fees in the late 1990s and both have moved to using student loans as an instrument to help students finance themselves through their education. The strongest implication of the Netherlands case study for the UK is that simply increasing the costs of education appears:

- to do little to motivate saving in advance of learning
- to increase demand for official student loans only moderately in the short run (and scarcely at all in the case of vocational education)
- to act as an impetus to seek higher income during learning
- to cause some potential students to avoid participating in further and especially higher education.

While the Netherlands story shows several characteristics that are also evident in the UK, there are important differences as well. In particular, the availability of not insignificant grants may have deterred loan take-up in the Netherlands, while the relatively high level of notional household savings appears to have displaced discretionary private savings which might have flowed into saving for learning.
Households, like other actors in the economy (firms, government and foreign countries), can be thought of as having a balance sheet. On one side of the balance sheet are financial liabilities (bank and other loans). On the other side are:

- physical assets (principally housing)
- financial assets (bank accounts, stocks and shares, pension rights, etc)
- human capital assets (the accumulated value of their education, training and experience).

**Investment**

The function of all investment during a period is to increase the stock of assets at the end of it, which in the case of households mainly means acquiring assets (rather than constructing them). The terminology is clear in the case of physical assets, where households invest for example by buying new houses. It is also fairly clear for investments in human capital, which mostly take the form of undertaking education and training, and for investments in some financial assets (such as stocks and shares). Confusingly, however, some of the financial assets households acquire are called ‘savings’ rather than ‘financial investments’. This usage cuts across the otherwise consistent terminology of saving, investment and borrowing.

**Saving and borrowing**

The function of saving and borrowing is to shift expenditure in time – putting it back in the case of saving, and bringing it forward in the case of borrowing. Let us for the moment think about a world in which asset prices do not vary from year to year (not a very realistic assumption in the UK in 2003 with house prices rising rapidly and stock prices falling equally quickly, but a helpful simplification nonetheless). In this world, households’ acquisitions of assets can only be financed:

- through saving, where households spend less on consumption than they earn
- through borrowing, where households incur financial liabilities to other actors in the economy.

Saving can affect any of the items on the household balance sheet.

- It can be used to finance the acquisition of physical assets (eg you save for house purchase), financial assets (eg you save to fill your ISA quota for the year) or human capital (eg you forgo buying an expensive holiday to pay school fees).
- It can be used to repay debt (eg you tighten your belt to pay off the credit card).
Borrowing automatically increases the liability side of the household balance sheet. When it is used for investment, there will be a corresponding increase on the asset side of the balance sheet, as for example when you take out a mortgage to buy a house. The same sort of thing happens when you take out a student loan to pay university fees, though in this case the two sides of the balance sheet change in somewhat different ways. Studying and getting qualifications increases the value of your human capital, but the amount by which it increases has little to do with how much you have to borrow from your bank or from the Student Loans Company.

Borrowing used to finance consumption spending – as when students have to borrow to meet their cost of living while studying – can be seen as negative saving (or dissaving). This sort of borrowing may be necessary if they are to follow their chosen courses, but does not constitute investment in human capital.

All this can be summed up in the definitions:

- **investment** = saving plus borrowing
  
  where

- **investment** = spending on acquiring real assets, human capital and financial assets

- **saving** = income minus consumption spending

- **borrowing** = consumption spending plus spending on acquiring assets minus income

  or

- **borrowing** = total spending minus income.
So what is ‘saving for learning’?

One way of looking at learning is as investing in human capital. Rearranging the definition of investment:

learning = investment minus spending on acquiring real and financial assets

learning = saving plus borrowing minus spending on acquiring real and financial assets.

This says that learning can be financed by any of three methods:

- saving
- borrowing
- disposing of real or financial assets.

In financing learning, saving and borrowing have the same effect as one another, as does selling your house or drawing down your bank account.

There is thus a narrow definition of saving for learning, consisting solely of money saved in advance in special-purpose vehicles for the purpose of financing educational activity, and a broader definition which includes all the means that households could use to finance it: saving in special-purpose vehicles and in other financial instruments, borrowing, and drawing down asset holdings.
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