

Real Interest Rates on Student Loans

Why is the interest rate higher than the government's cost of borrowing or the financial reporting discount rate¹?

The government does not make an overall surplus on loans: in 2016/17 it estimated that it would lose the equivalent of 29p on every £1 lent that year.

This issue of uncertain size and timing of repayments means that repayments may be (and often are on individual accounts) *less than* interest accruing. When combined with write-off commitments², this means that interest accruing may not be repaid at all.

These structural features of ICR loans mean that a zero rate of interest, simply tracking RPI for instance, provides an additional subsidy to high earners: they repay their loans earlier than they otherwise would have.³

The interest rate then has to be assessed in conjunction with the other features of an ICR loan scheme:

- graduating debt;
- repayment threshold;
- repayment rate above threshold;
- write-off policy;
- discount rate.

In 2012, the discount rate used to value future repayments was RPI plus 2.2%. At that point the introduction of a real interest rate offset the effective interest rate subsidy and at the same time combined with other elements of the loan scheme to mimic the distributional curve of a proportionate graduate tax.

When George Osborne announced that the financial reporting discount rate for student loans would be reduced to RPI plus 0.7% in 2015/16, the future value of repayments was increased at a stroke, but the discount rate then diverged from the interest rate terms markedly.

If the discount rate is to be understood as a proxy for the government's medium-run cost of borrowing (see footnote 1), then the current interest rates do appear high - even if most will not repay what is accruing.

Other factors

- It may be that the real interest rate is seen to provide an incentive for borrowers to consider additional voluntary repayments (which can be made with no penalty).

¹ Which is now meant to reflect the average yield on index-linked gilts and is set at RPI plus 0.7%.

² In the event of death, disability or thirty years after repayments first fall due.

³ See Nicholas Barr & Alison Johnson, *Interest Subsidies on Student Loans: a better class of drain* (May 2010).

- There is an advantage to the headline public finance statistics from maintaining a real interest rate: interest accruing counts as annual income and thus benefits deficit measures.
- Ultimately the government would like to sell post-2012 loans to the private sector: the interest rate terms on pre-2012 loans has previously been identified as an impediment to achieving an acceptable sale.⁴

It is difficult to say whether those potential benefits to government can outweigh the public perception of high interest rates, but it should also be noted that official long-run expectations are that bank base rates and gilt rates will rise to 5% (OBR), 2 percentage points above the projection for RPI.⁵

Current terms on post-2012 loans

The real interest rate accruing on post-2012 loans is:

- RPI + 3 percentage points while studying⁶;
- a taper that runs from RPI to RPI plus 3pp after leaving study.
The taper is determined by income. Currently those earning £21 000 and below have interest accruing at RPI; those earning £41 000 and above see RPI plus 3 pp; those between receive a rate determined linearly by how far they are between the lower and upper threshold.
In April 2018, the taper threshold will move up in line with the repayment threshold to £25,000 and £45,000 respectively.
- March 2017, RPI was 3.1%, therefore the taper is currently set from 3.1% to 6.1%.⁷

The Browne review recommendations on interest were *not accepted*.

Browne recommended:

"Students with higher earnings after graduation will pay a real interest rate on the outstanding balance for the costs of learning and living. The interest rate will be equal to the Government's cost of borrowing (inflation plus 2.2%). Students earning below the

⁴ Pre-2012 borrowers have interest rates determined by the *lower* of RPI or bank bases plus 1pp. They currently see interest of 1.25%.

⁵ In its 2011 report for government on the sale of student loans, Rothschild stated: "Conventionally capitalism requires that a real return on capital should exist i.e. in other words that RPI should be below interest rates. However, right now capitalism is suspended: Base Rate is an issue of national policy, and RPI and Base Rates are currently Inverted."

⁶ This was introduced to dissuade those with wealthy backgrounds from taking out a loan only to repay it as soon repayments become due. (You used to hear anecdotes about such students *investing* their maintenance loans and thereby profiting from the loan scheme).

⁷ It might be worth pointing out that the top rate of interest reached 6.6% in 2012/13 and was 6.3% in 2013/14, but this did not attract anything like the attention we see today.

repayment threshold will pay no real interest rate. Their loan balance will increase only in line with inflation. Those earning above the threshold whose payments do not cover the costs of the real interest will have the rest of the interest rebated to them by Government."

Securing a Sustainable Future for Higher Education (2010), p. 35.

That is, Browne recommended a flat interest rate of RPI plus 2.2%, not a taper, and a *real* interest *rebate* for those whose payments did not cover interest. Low earners would at worst see their balances increased in line with RPI.

The intentions of the 2012 scheme can be illustrated by the following diagram and table taken from *Great University Gamble* (2013) but based on IFS work in 2012.

Post-2012 loans had a higher repayment threshold (£21,000pa) and a real rate of interest. The higher repayment threshold lowered mandatory monthly repayments for all and lowered overall repayments for low-earners; the real interest rate bent the distribution curve *upwards* slightly, taking more repayments from higher earners and thereby mimicking a proportionate graduate tax. Both moves were *progressive* compared to pre-2012 design.

Note that graduating debt for pre-2012 borrowers was projected to be *roughly half* of that of post-2012 borrowers and yet the lowest earners would repay less. In addition, very few post-2012 borrowers would repay more than the equivalent of what they had borrowed (in NPV terms using the 2.2% real discount rate).

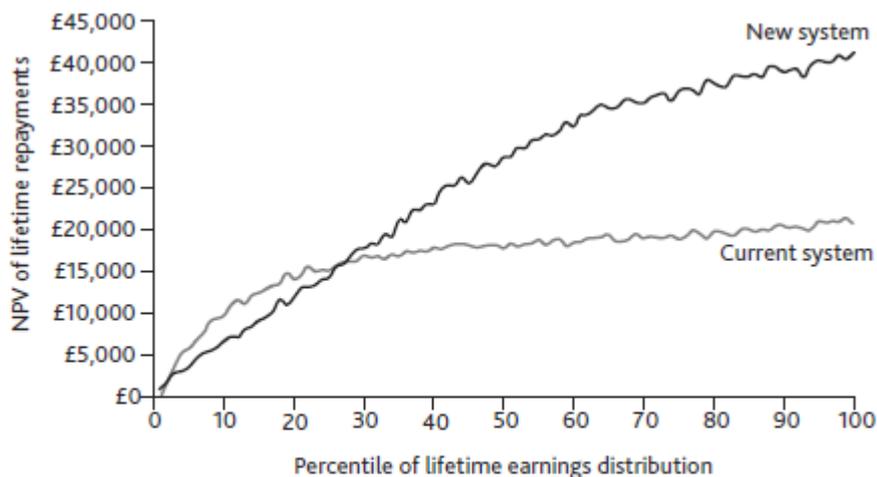


Figure 3.3 Repayments under the old and new schemes

Source: IFS, July 2012

"New System" - post-2012 loans / "Current System" - pre-2012 loans

In 2012, IFS showed that there was little planned redistribution in the post-2012 system, in that there was little "surplus" generated from high earners (i.e. repaying over 100% of the initial loan).

Table 3.1 Projected graduate repayments by lifetime earnings

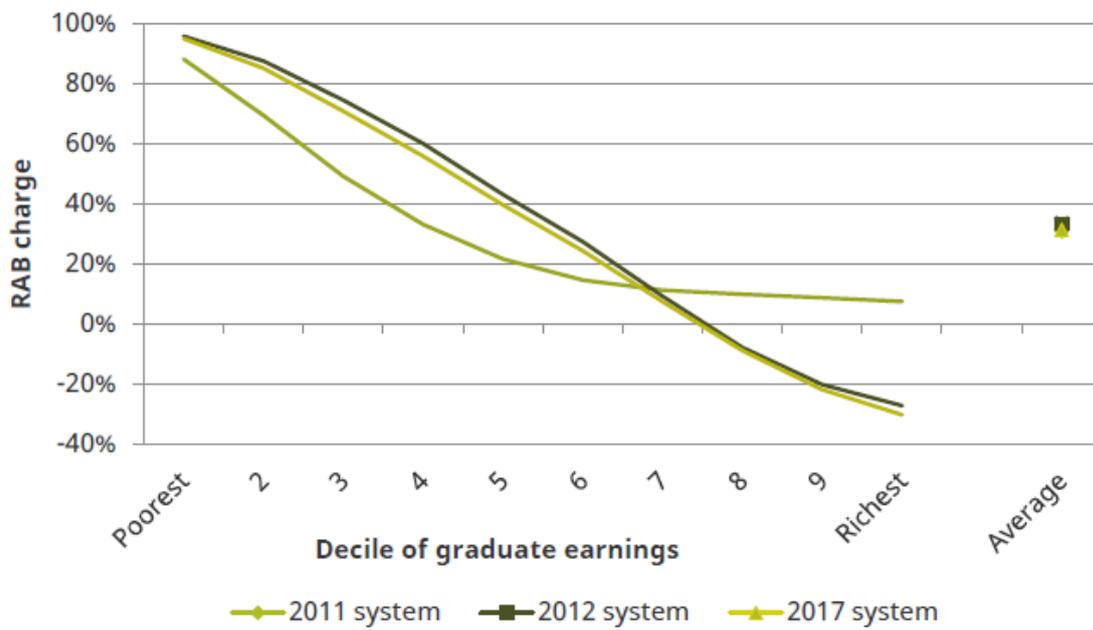
Decile of lifetime earnings	Total Repayments (Net Present Value)			Total Repayments as percentage of borrowing (NPV)		
	All	Women	Men	All	Women	Men
Poorest	£4,064	£3,920	£5,764	11.1%	10.7%	15.9%
2	£9,534	£9,155	£11,352	25.9%	24.9%	30.9%
3	£15,244	£14,481	£17,550	41.6%	39.4%	48.3%
4	£20,939	£19,994	£22,805	56.8%	54.2%	61.9%
5	£26,724	£25,833	£28,054	72.2%	69.9%	75.7%
6	£31,155	£30,418	£31,935	83.9%	82.0%	86.0%
7	£34,933	£34,978	£34,901	93.4%	92.9%	93.8%
8	£36,858	£37,166	£36,712	98.4%	98.9%	98.1%
9	£38,702	£38,815	£38,664	102.0%	102.3%	101.9%
Richest	£40,374	£40,560	£40,345	106.3%	106.5%	106.3%
All	£25,852	£20,032	£32,690	69.2%	53.8%	87.2%

Source: IFS, 2012

This situation has been changed largely by the new discount rate used by the government to estimate the value of future repayments.

So prior to the recent round of changes (including the discount rate revision to RPI plus 0.7%), IFS estimated that 30% of borrowers would repay the equivalent of the value of the original loan or more, with some borrowers repaying 120% plus of their original loan. These borrowers would have good reason to consider making additional voluntary loan repayments (for which there is no penalty), which means that we could also see the real interest rate as an incentive for early repayment (satisfying a Treasury preference for cash today over long run value).

Figure 2.2. RAB charge by decile of graduate lifetime income



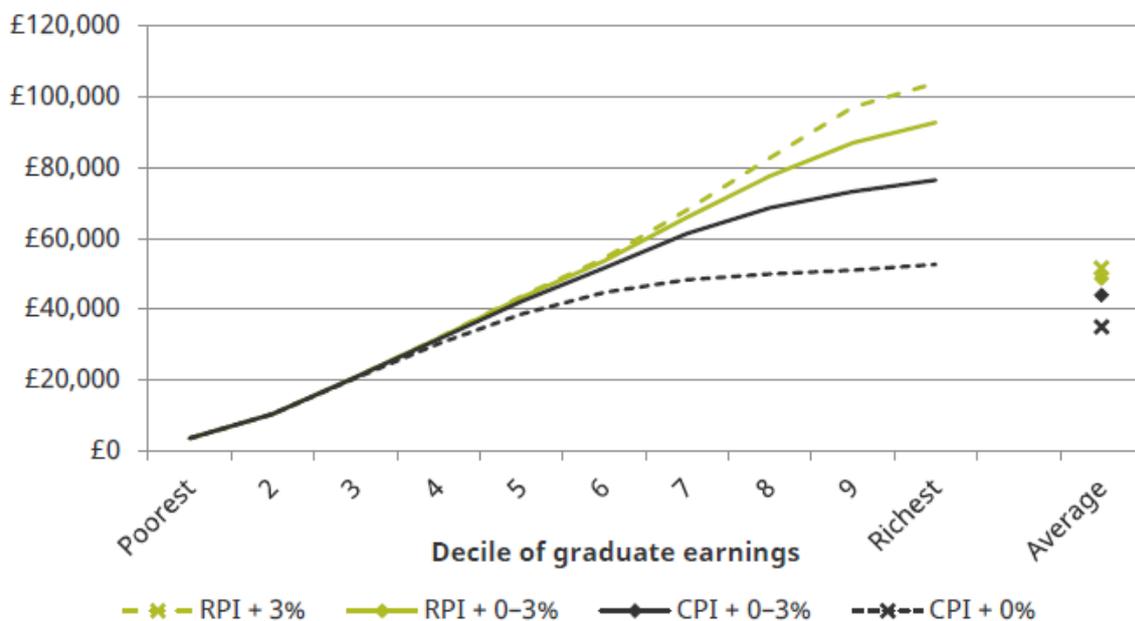
Note: All figures are given in 2017 prices, in net present value terms using the government discount rate of RPI + 0.7%. These figures apply to young full-time English-domiciled students studying at the 90 largest universities in England starting in 2017-18. Cohort of students is held constant across systems. We assume that all students take out the full loans to which they are entitled, that there is no dropout from university, that graduates repay according to the repayment schedule and that they have low unearned income.

Source: Authors' calculations using IFS's graduate repayments model.

IFS, *Higher Education funding in England: past, present and options for the future*, July 2017.

But the IFS were also clear: reducing the interest rate benefits higher earners.

Figure 3.8. Impact of interest rates on real graduate repayments by lifetime earnings decile (2017 prices, not discounted)



Note: Average graduate repayments under the current interest rate regime of RPI + 3% while studying and RPI + 0-3% depending on income thereafter; with the same tapered interest rate but using CPI + 0-3% after graduation; with a flat rate of RPI + 3% for all graduates; and with a flat rate of CPI + 0% interest. Figures in 2017 prices, deflated using CPI inflation, not discounted. These figures apply to young full-time English-domiciled students studying at the 90 largest universities in England starting in 2017-18. Cohort of students is held constant across systems. We assume that all students take out the full loans to which they are entitled, that there is no dropout from university, that graduates repay according to the repayment schedule and that they have low unearned income.

Source: Authors' calculations using IFS's graduate repayments model.

IFS, *Higher Education funding in England: past, present and options for the future*, July 2017.

Though here graduate repayments are *deflated by CPI* not discounted using the government rate, so the figures on the y-axis range significantly higher than initial graduating balances. It is obviously a matter for individuals as to what their personal discount rate is.