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# Alternative options for higher education fees and funding for England

Briefing Note, May 2023

# Introduction and overview of the analysis



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# Overview of the analysis

As a follow-up to our recent analysis on behalf of the University of the Arts London ([here](#)) to assess **potential options for reforming the English higher education funding system** (as alternatives to the changes in response to the Augar Review that were recently announced by the Department for Education (DfE)<sup>1</sup>), we investigated a range of additional potential alternative systems:

- We estimate the impact of the full range of English fees and student support arrangements on the Exchequer, higher education institutions (HEIs), and students/graduates, for the **2022-23 cohort<sup>2</sup> of first-year English domiciled undergraduate students studying anywhere in the UK**. The analysis includes both full-time and part-time students, as well as all types of undergraduate qualifications (i.e. first degrees and others).
- The analysis incorporates the **fees and funding arrangements facing the cohort of starters in 2022-23**, as well as the estimated costs **if different alternative systems had been implemented for this cohort<sup>3</sup>**.
- The modelling assesses a range of **key metrics**, including:
  - The **Resource Accounting and Budgeting (RAB) charge** (i.e. proportion of the total loan balance written off), **student loan debt on graduation**, **expected lifetime loan repayments** (by gender (separately and combined) and income decile), the % of graduates expected to **never fully repay** their loan, and the % expected to **never make any repayments**;
  - The **total Exchequer costs** (including the cost of student support associated with English domiciled HE students, and Teaching Grant funding paid to higher education institutions across the UK); and
  - **HEI funding**, in terms of tuition fee income and Teaching Grant funding (minus the costs of bursaries provided to students).

<sup>1</sup> See Department for Education (2022). 'Higher education policy statement and reform' ([here](#)).

<sup>2</sup> The underlying student data are based on data (published by the Higher Education Statistics Agency (HESA)) for the 2021-22 academic year; in other words, in the absence of more recent data, we assume the same size and characteristics of the 2022-23 cohort as for the 2021-22 cohort. The analysis includes students studying at higher education institutions only (excluding further education colleges, but including alternative providers). We exclude students studying for institutional credits only (i.e. no formal qualifications), as these students are typically not eligible for public funding.

<sup>3</sup> While, for the purposes of the economic modelling, the analysis focuses on the 2022-23 cohort, the alternative scenarios modelled here are not for potential retrospective changes to the system (i.e. it is assumed that these would *not* be applied retrospectively to previous student cohorts, but would only apply to future cohorts going forward).

# Funding scenarios modelled

We modelled the DfE’s response to Augar, as well as two alternative scenarios with very different distributional effects<sup>1</sup>:

## BASELINE: AUGAR RESPONSE ([link](#))

This presents the changes announced under the Department for Education’s response to Augar, effective for new students starting in AY 2023-24 (but applied to the 2022-23 cohort to allow for effective comparison) including:

- **Reduction in the repayment threshold to £25,000, frozen until 2026-27 (inclusive), and uprated with Retail Price Index (RPI) inflation thereafter<sup>2</sup> (instead of (higher) average earnings growth<sup>3</sup>)**
- **Removal of real interest rates, both during and after study**
- **Extension of the repayment period by 10 years, to 40 years**

## SCENARIO 1: STEPPED REPAYMENTS ([link](#))

Alternative approach that **achieves significant cost savings compared to the Augar response**, but with a more progressive repayment system:

- **40-year repayment period, threshold reduction and freeze, and ‘stealth tax’ (same as Augar)**
- **Re-introduction of maintenance grants (on top of loans) and increased eligibility for grants**
- **Stepped loan repayments:**

£25,000 - £32,500	3%
£32,501 - £40,000	5%
£40,001 - £47,500	7%
£47,501 +	9%
- **Re-introduction of real interest rates during study (3%) and post graduation (0-3%)**

## SCENARIO 2: ‘EFFECTIVE TAX CUT’ ([link](#))

Alternative approach with **similar costs as the Augar response** but offering an additional ‘effective tax cut’ for all graduates:

- **40-year repayment period, threshold reduction and freeze, and ‘stealth tax’ (same as Augar)**
- **Re-introduction of maintenance grants (on top of loans) and increased eligibility for grants**
- **Stepped loan repayments:**

£25,000 - £32,500	2%
£32,501 - £40,000	4%
£40,001 - £47,500	6%
£47,501 +	8%
- **Re-introduction of real interest rates during study (3%) and post graduation (0-3%)**

Note: The modelling for *all* scenarios assumes a **new lower real discount rate of -1.1%** (instead of the previous +0.7% rate). The analysis has been updated to reflect the most recent OBR economic forecasts ([link](#))

1. In addition, we *also* modelled the costs associated with the current HE funding system operating in England in 2022-23; see Annex II ([link](#)) for more information on the parameters of the current funding system.

2. Note that RPI will be abolished from 2030, so that the threshold uprating uses CPI post-2030.

3. The change to the approach to uprating the repayment threshold (with RPI, instead of average earnings growth) is also referred to as a ‘stealth tax’.

# Baseline: The Department for Education's response to Augar



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# Baseline (Augar response): Total costs

Resource flows (£/£m/%)	Current system	Baseline: Augar response
<b>Exchequer</b>		
Cost of maintenance grants	-	-
Cost of maintenance loans	(£1,846m)	(£729m)
Cost of tuition fee loans	(£2,201m)	(£861m)
Cost of Teaching Grants	(£1,201m)	(£1,201m)
<b>Total Exchequer cost</b>	<b>(£5,247m)</b>	<b>(£2,791m)</b>
<b>RAB charge (%)</b>	<b>19%</b>	<b>8%</b>
<b>% never repaying full loan/anything</b>	<b>80% / 21%</b>	<b>40% / 8%</b>
<b>Higher education institutions</b>		
Gross fee income	£11,319m	£11,319m
Teaching Grant income	£1,201m	£1,201m
Cost of bursary provision	(£125m)	(£125m)
<b>Net HEI income</b>	<b>£12,394m</b>	<b>£12,394m</b>
<b>Students/Graduates (FT first degrees)</b>		
<b>Average debt on graduation</b>	<b>£50,800</b>	<b>£49,800</b>
<b>Average lifetime repayments (M/F)</b>	<b>£58,800 / £26,900</b>	<b>£54,800 / £39,300</b>
<b>Average lifetime repayments (all)</b>	<b>£40,100</b>	<b>£45,800</b>

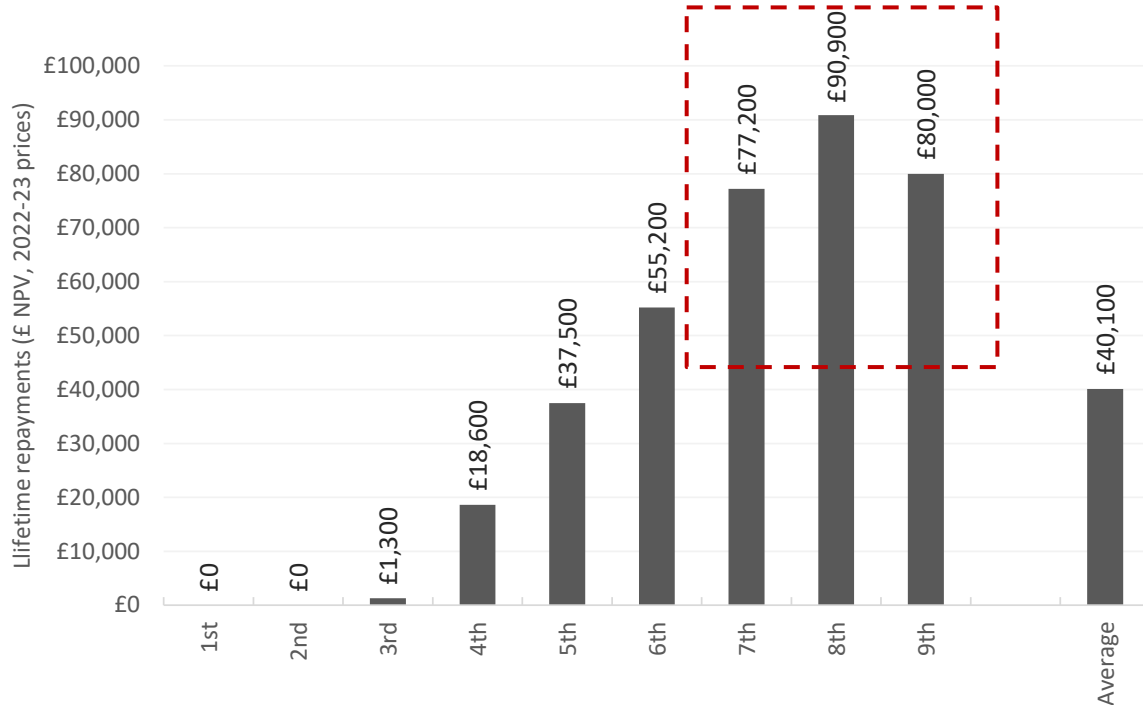
- Implementing the DfE's changes to student finance arrangements in response to Augar results in significant Exchequer savings compared to the current system of approximately **£2.457bn** per cohort (a decrease from **£5.247bn** to **£2.791bn** (a **47%** reduction)).
- Driven by the extension of the repayment period and the slower uprating of the repayment threshold, the RAB charge would be expected to decline by **12 percentage points\*** to **8%**. The Exchequer cost of loans stands at **£1.590bn** per cohort, with the remaining **£1.201bn** relating to Teaching Grants for high-cost subjects.
- HEI income (net of bursaries) stands at **£12.394bn** per cohort (unaffected by the changes from the Augar response as compared to the current system).
- The average debt on graduation declines as a result of the removal of real interest rates during study (by **£1,000**, to **£49,800**). Lifetime repayments for all FT first degree graduates increase by **£5,700**. **Male graduates experience a decline of £4,000** on average, while the average lifetime repayments for female graduates **increase by £12,400**. In other words, there are very important **distributional effects** associated with the DfE's Augar response (see next slide).
- Note that the estimated Exchequer cost of the Augar system here is **much lower** than in our previous analysis on behalf of the University of the Arts London ([here](#)) – with the key driver of the difference being the recent ONS decision to effectively abolish the Retail Price Index from 2030 onwards. For more information, please see [Annex III](#).

Note: All monetary values have been discounted to net present values and are presented in constant 2022-23 prices. All monetary values per student have been rounded to the nearest £100, and all totals have been rounded to the nearest £1m. Debt on graduation and expected lifetime repayments per student are presented for full-time first degree students only. Gross fee income refers to fee income before the deduction of bursaries provided to students. \* rounded to the nearest percentage point.

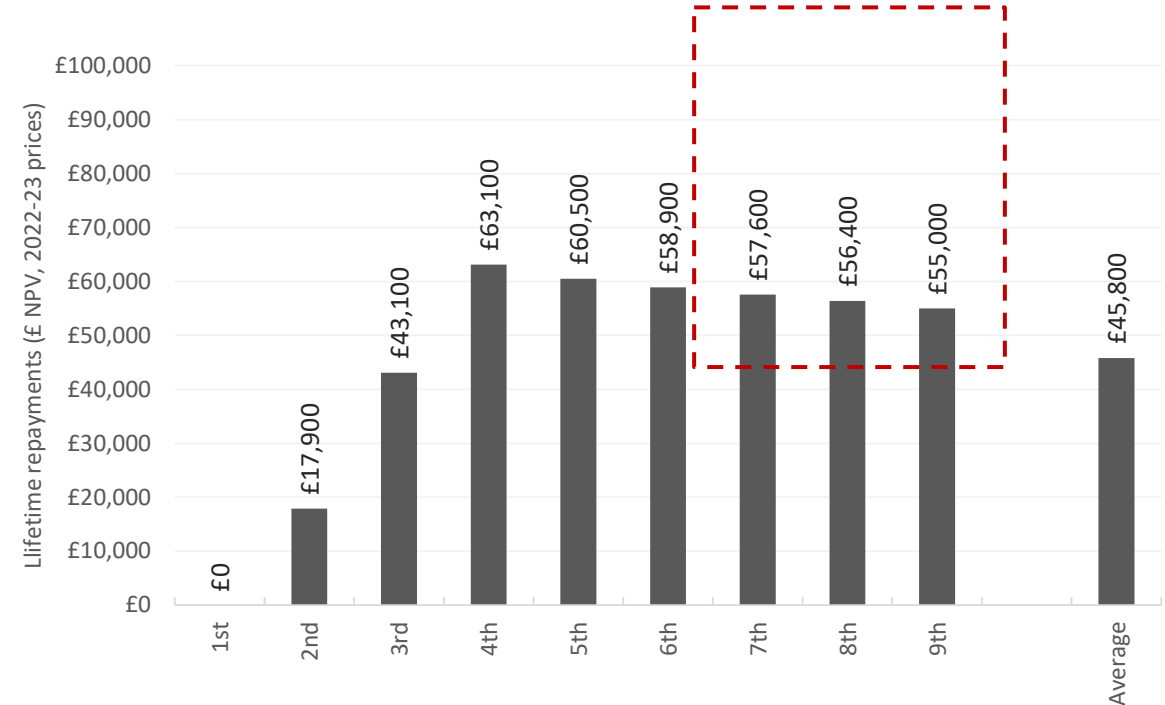
# Baseline (Augar response): Graduate loan repayments

Total loan repayments by English domiciled FT first degree graduates (NPV in 2022-23 prices), by earnings decile

Current system



Baseline: Augar response

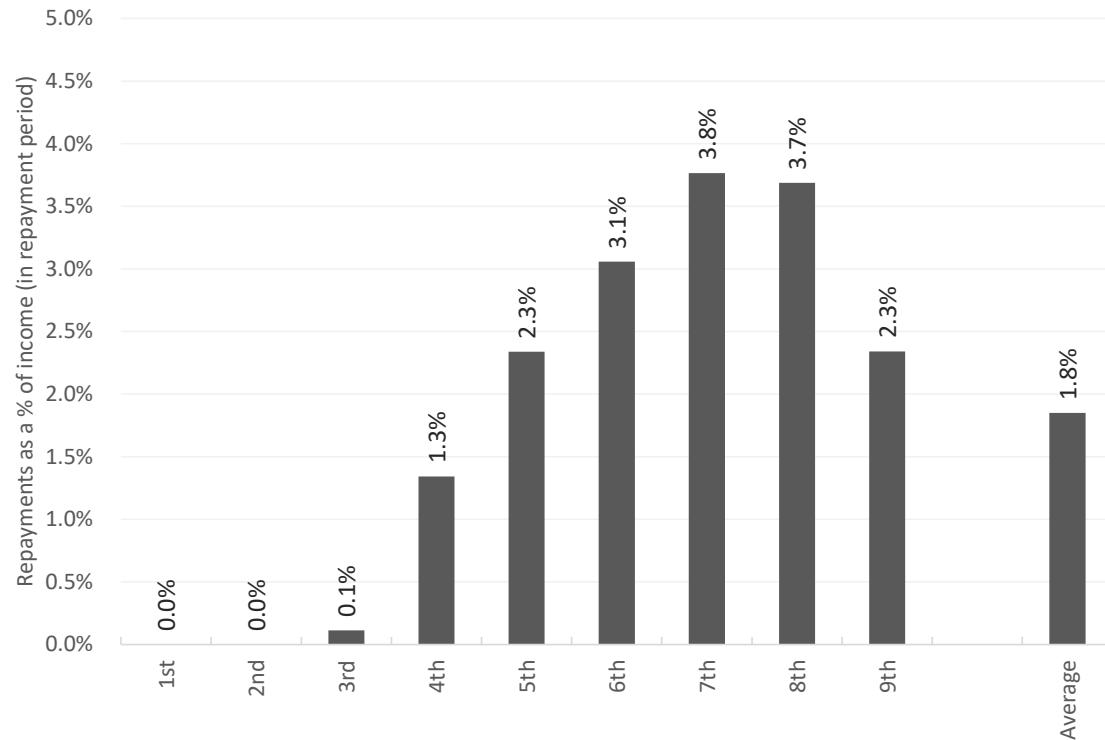


- Under the Augar system, the **reduction in the repayment threshold (and much slower uprating) and the extension of the repayment period** increase the costs borne by low-income and middle-income graduates. Higher earning graduates instead make slightly *lower* total repayments (as they repay more annually but complete their repayments sooner).
- However, the **elimination of real interest rates** essentially guillotines the repayments made by the highest earning (predominantly male) graduates. The result is an effective subsidy from low-income and middle-income graduates to the highest earning graduates. **The proposed changes are, therefore, regressive.**

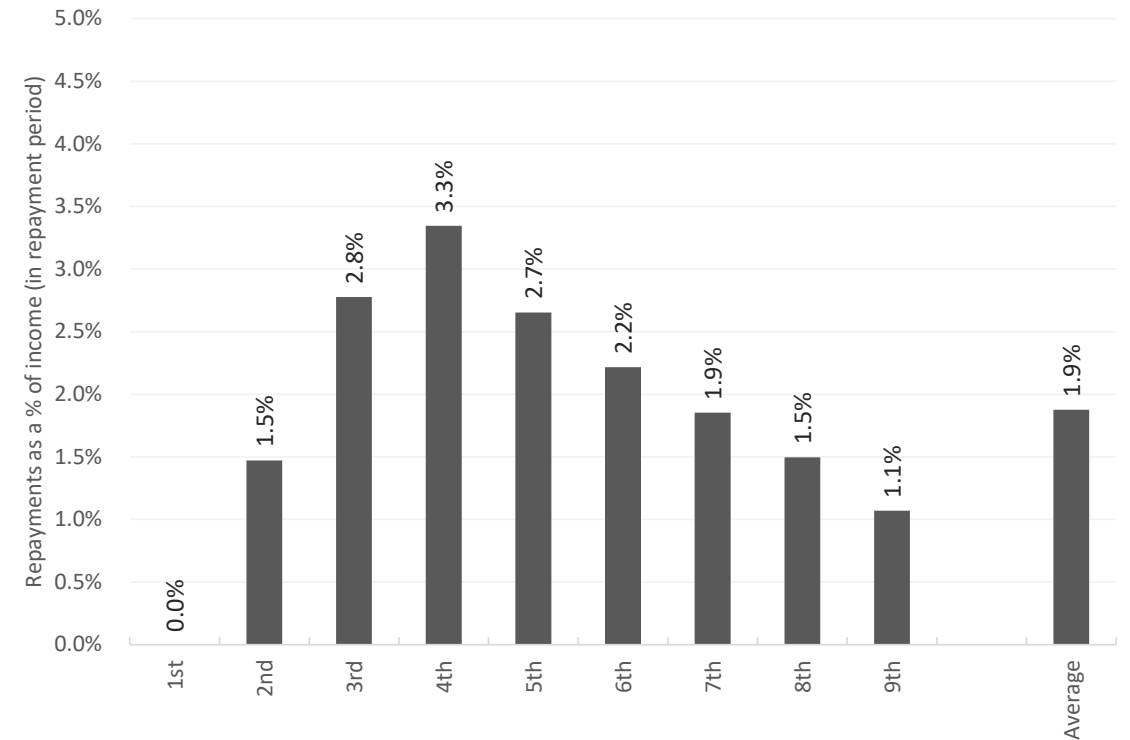
# Baseline (Augar response): Loan repayment progressivity

Total loan repayments by English domiciled FT first degree graduates, as a % of income (during repayment period), by earnings decile

Current system



Baseline: Augar response



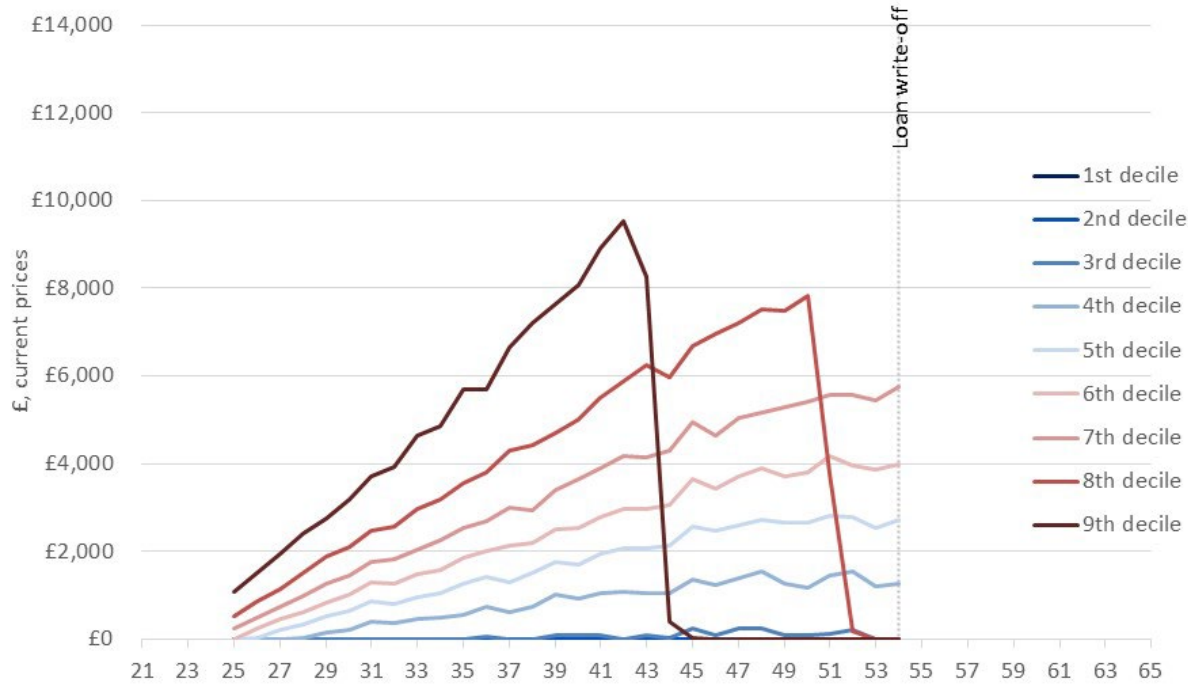
- The combined changes under the Augar response make the repayment system **more regressive**. Graduates on the **4<sup>th</sup> decile** now contribute the relatively highest proportion of their post-graduation earnings in loan repayments (**3.3%** over the loan repayment period), compared to the **7<sup>th</sup> decile** currently. The DfE's Augar response will disadvantage low-income to middle-income graduates, whilst benefitting those (high-income) graduates that need the least financial subsidy.



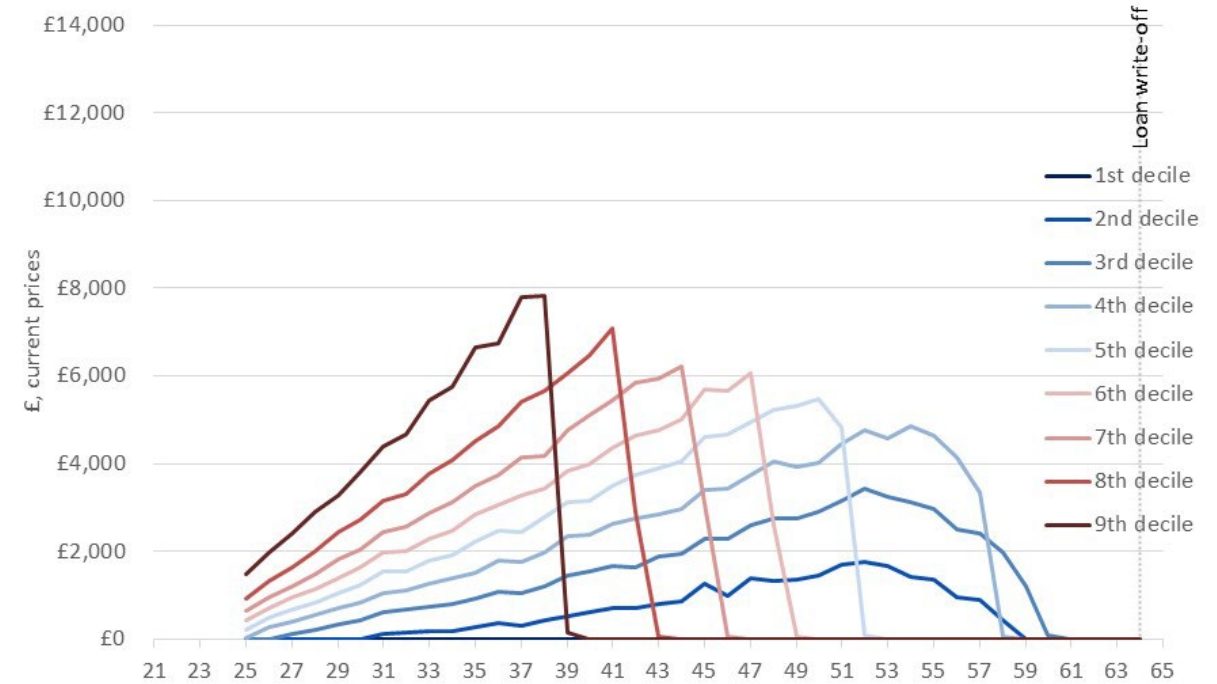
# Baseline (Augar response): Loan repayment profiles

Lifetime loan repayment profiles (by age) for English domiciled FT first degree graduates (cash terms (not discounted) in current prices)

### Current system



### Baseline: Augar response



- High-earning graduates **benefit significantly** from the proposals (particularly from the removal of real interest rates), since the changes would allow them to repay their loans more quickly.
- However, for graduates on all other deciles (who are currently *not* repaying their full loans), the lower repayment threshold and longer repayment period results in **higher lifetime loan repayments**.

# Scenario 1: Stepped loan repayment system



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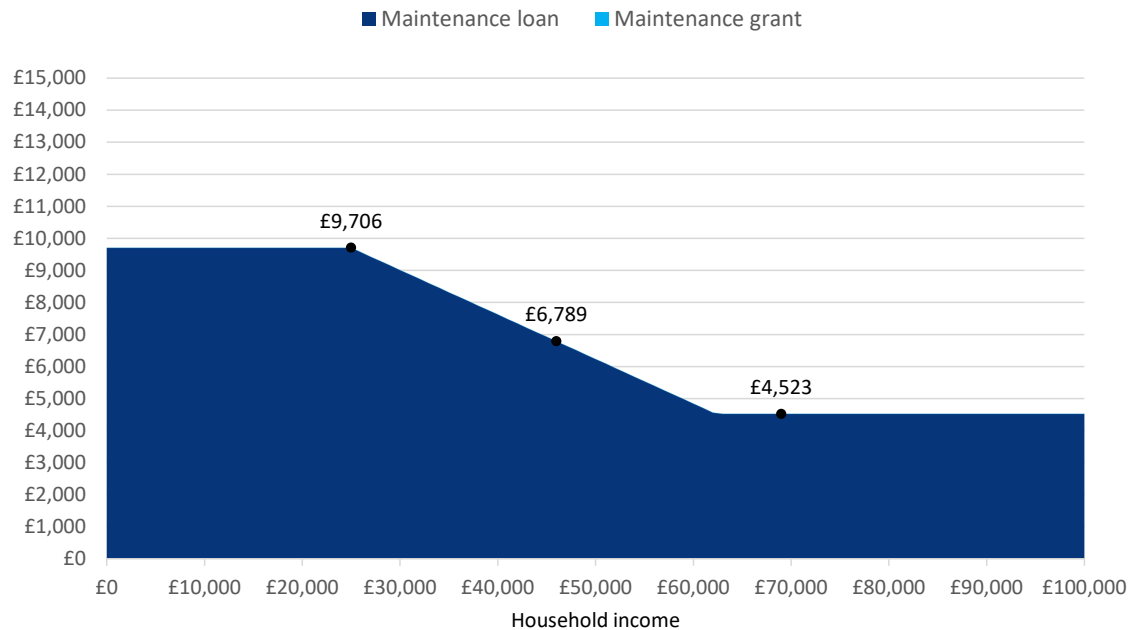
# Scenario 1: Maintenance support

Alongside the stepped repayment system in Scenario 1, we have modelled the **re-introduction of maintenance grants** (for full-time students only\*):

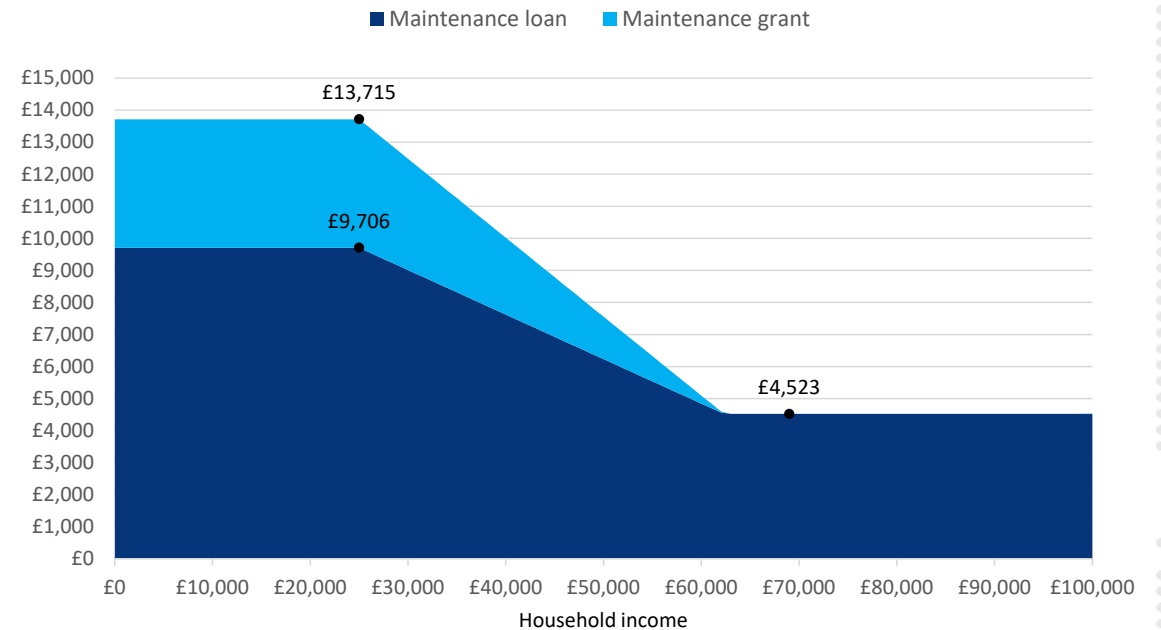
- We modelled the **(re-)introduction of maintenance grants for full-time students** (up to **£4,009**, based on the maximum level of grant available to continuing students who started their studies prior to the abolition of maintenance grants in 2016-17). These maintenance grants are **on top of** current maintenance loans.
- We have also increased the household income thresholds for these maintenance grants, so that maintenance grants taper out to £0 at the same threshold (£62,311) beyond which students are only eligible for the minimum maintenance loan.

## Maximum maintenance funding per full-time student living away from home outside of London (LAFHOL), by household income

### Baseline: Augar response (same as current system)



### Scenario 1: Stepped repayments

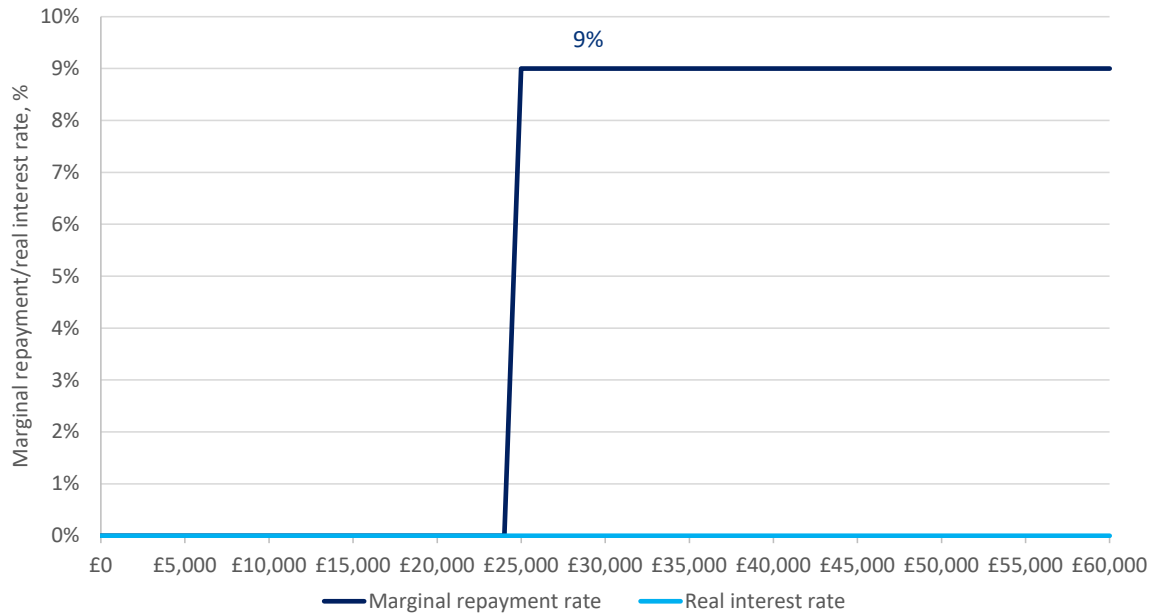


\* We have assumed that there would be no change to the maintenance funding available to part-time students (i.e. we assume that they would be eligible for the same maximum level of maintenance loans (and no maintenance grants as under the current and Augar systems).

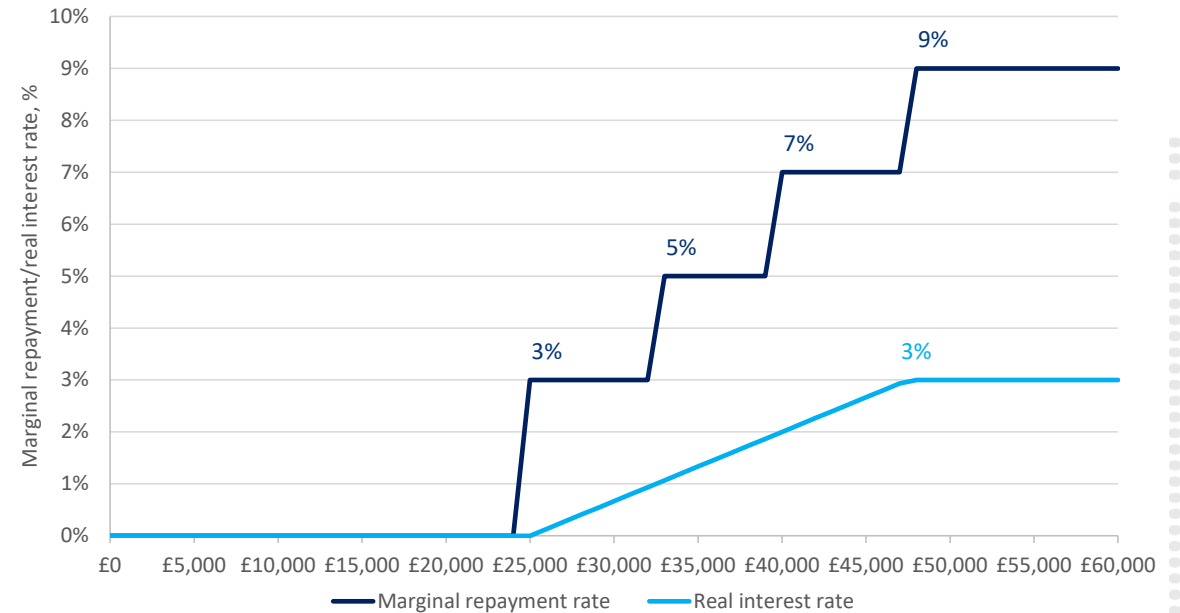
# Scenario 1: Repayment rates and interest rates

## Loan repayment and real interest rates by graduate income

### Baseline: Augar response



### Scenario 1: Stepped repayments



- In Scenario 1, we also modelled a **very significant change in repayment rates**. We have assumed a stepped repayment profile, where graduates repay **3% on earnings between £25,000 and £32,500; 5% on earnings between £32,500 and £40,000; 7% on earnings of £40,000 to £47,500; and 9% on earnings above £47,500**. This approach addresses many of the affordability issues faced by young graduates in particular; however, the fact that the repayment period is extended by 10 years means that many graduates pay more over their lifetime than they would under the *current* system.
- **Compared to the Augar system, Scenario 1 re-introduces real interest rates (similar to the current system)\*.**

\* Under the currently exceptionally high RPI inflation rates, where the (nominal) student loan interest rate is too high in comparison to the prevailing market rate, the Government will cap the maximum loan interest rate for a set period of three months (or longer if necessary). Our modelling assumes that an interest cap of 6.9% applies in both 2022-23 and 2023-24 (based on the current interest rate cap for Plan 2 loans as of 1<sup>st</sup> March 2023, [here](#)); this cap is applied to *all* scenarios modelled here.

# Scenario 1: Total costs

Resource flows (£/£m/%)	Baseline: Augar response	Scenario 1: Stepped reps.	Difference
<b>Exchequer</b>			
Cost of maintenance grants	-	(£2,349m)	(£2,349m)
Cost of maintenance loans	(£729m)	£961m	£1,690m
Cost of tuition fee loans	(£861m)	£1,178m	£2,039m
Cost of Teaching Grants	(£1,201m)	(£1,201m)	-
<b>Total Exchequer cost</b>	<b>(£2,791m)</b>	<b>(£1,411m)</b>	<b>£1,379m</b>
RAB charge (%)	8%	-10%	-18pp
% never repaying full loan/anything	40% / 8%	72% / 8%	32pp / -
<b>Higher education institutions</b>			
Gross fee income	£11,319m	£11,319m	-
Teaching Grant income	£1,201m	£1,201m	-
Cost of bursary provision	(£125m)	(£125m)	-
<b>Net HEI income</b>	<b>£12,394m</b>	<b>£12,394m</b>	-
<b>Students/Graduates (FT first degrees)</b>			
Average debt on graduation	£49,800	£50,800	£1,000
Average lifetime repayments (M/F)	£54,800 / £39,300	£75,500 / £41,600	£20,700 / £2,300
Average lifetime repayments (all)	£45,800	£57,000	£11,200

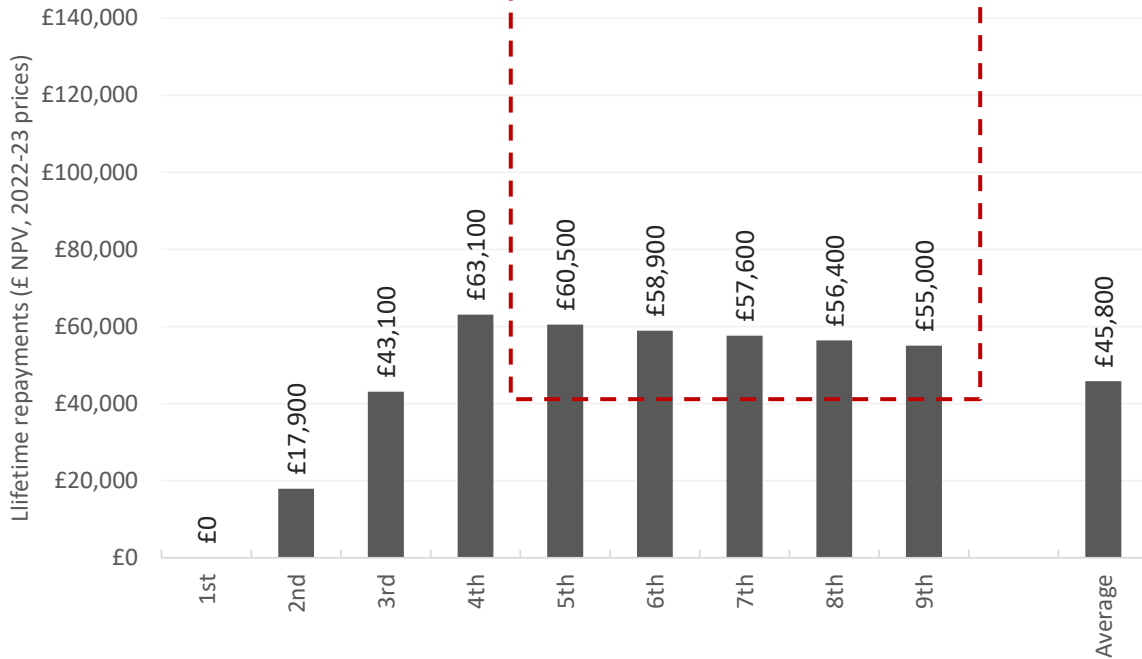
- Compared to the Augar response, in **Scenario 1**, the re-introduction of real interest rates generates very significant cost savings to the Exchequer (**£1.379bn** per cohort). The negative RAB charge indicates that, as a whole (combining the changes to the repayment thresholds, repayment rates, and interest rates), the loan system is revenue-generating for the Exchequer.
- Despite the reduction in repayment rates, the loan cost savings (**£3.729bn**) are much greater than the costs of (re-introducing maintenance grants (**£2.349bn**)).
- HEIs are unaffected by the changes.
- For students, the re-introduction of real interest rates during study results in an increase in the average debt on graduation (by **£1,000**).
- Compared to the Augar response, average lifetime repayments would increase by **£11,200** (where male graduates would be expected to contribute an additional **£20,700**, with a **£2,300** increase for female graduates). The **additional repayments would be concentrated amongst the highest earning graduates**, while low-income to middle-income graduates would repay *less* than under the DfE's Augar response.

Note: All monetary values have been discounted to net present values and are presented in constant 2022-23 prices. All monetary values per student have been rounded to the nearest £100, and all totals have been rounded to the nearest £1m. Debt on graduation and expected lifetime repayments per student are presented for full-time first degree students only.

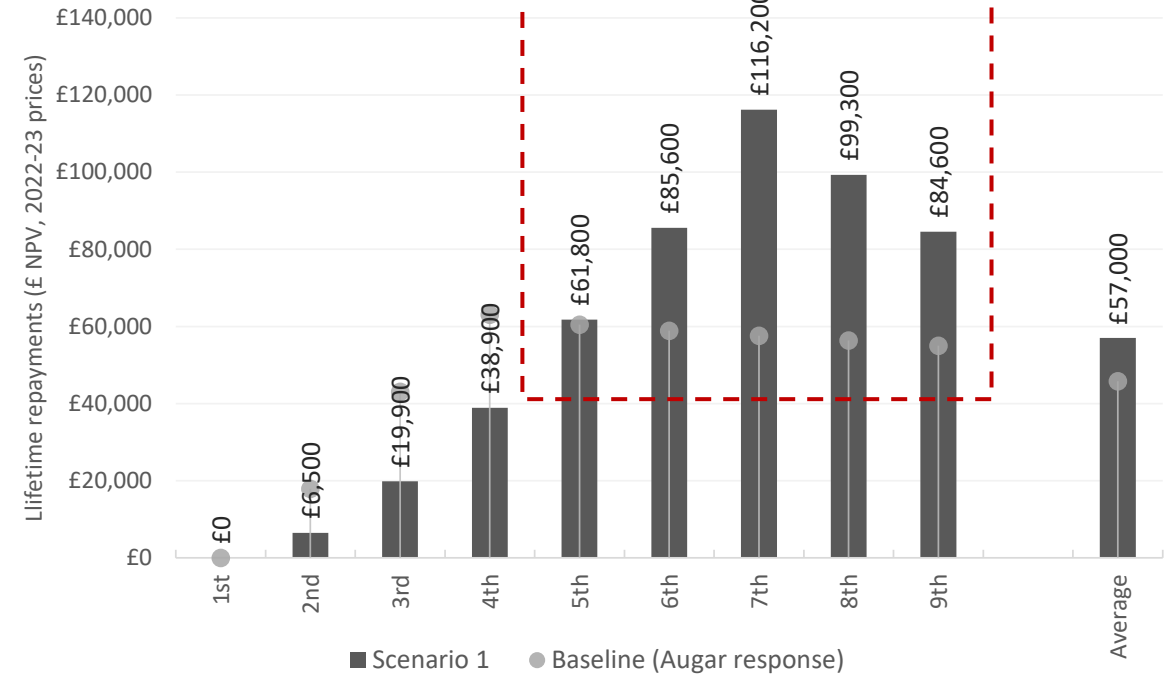
# Scenario 1: Graduate loan repayments

Total loan repayments by English domiciled FT first degree graduates (NPV in 2022-23 prices), by decile

Baseline: Augar response



Scenario 1: Stepped repayments

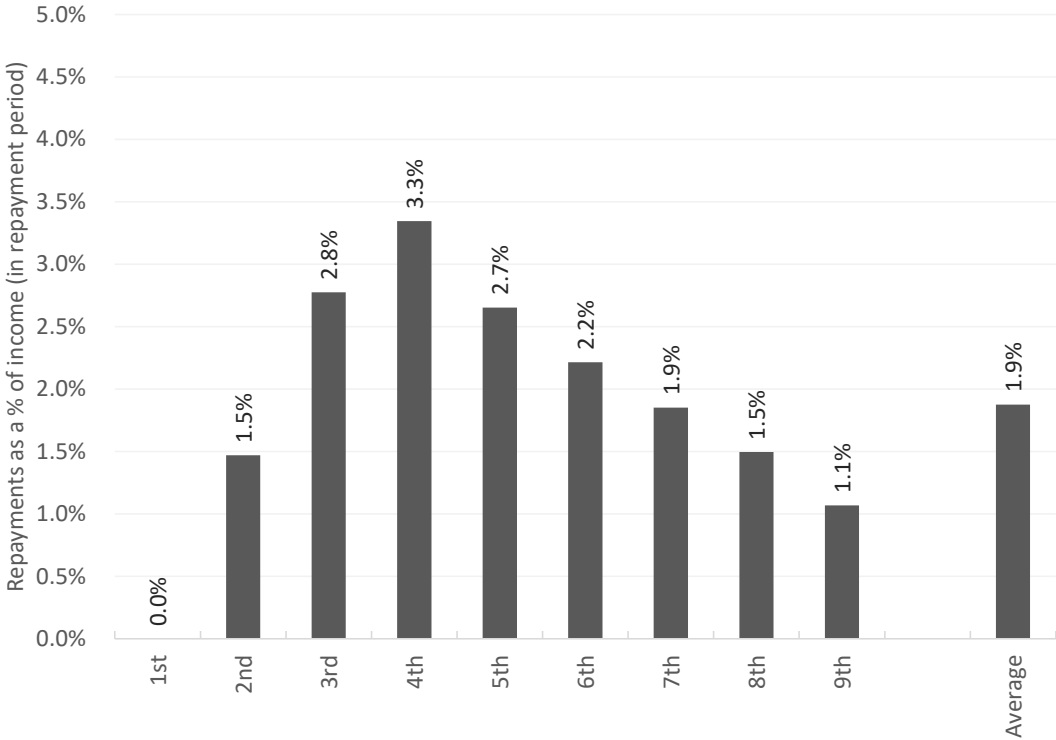


- The combined changes under Scenario 1 would make the repayment profile **more progressive** than the DfE's Augar response (but still less progressive than the current system (highest contribution for 7<sup>th</sup> decile compared to 8<sup>th</sup> decile in current system)).
- Graduates in the top 5 deciles pay **more** than under the DfE's Augar response (predominantly due to the re-introduction of real interest rates), while graduates in the bottom 4 deciles pay **less** (as the lower repayment rates result in lower lifetime repayments for low-income to middle-income graduates).

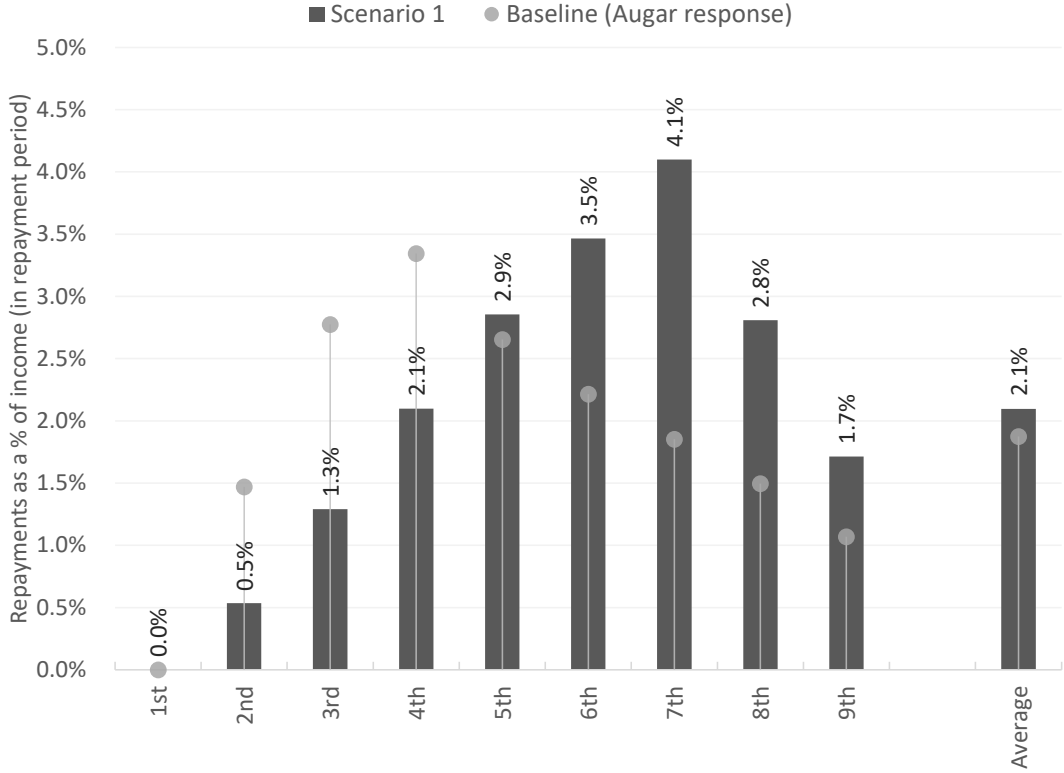
# Scenario 1: Loan repayment progressivity

Total loan repayments by English domiciled FT first degree graduates, as a % of income (during repayment period), by decile

## Baseline: Augar response



## Scenario 1: Stepped repayments

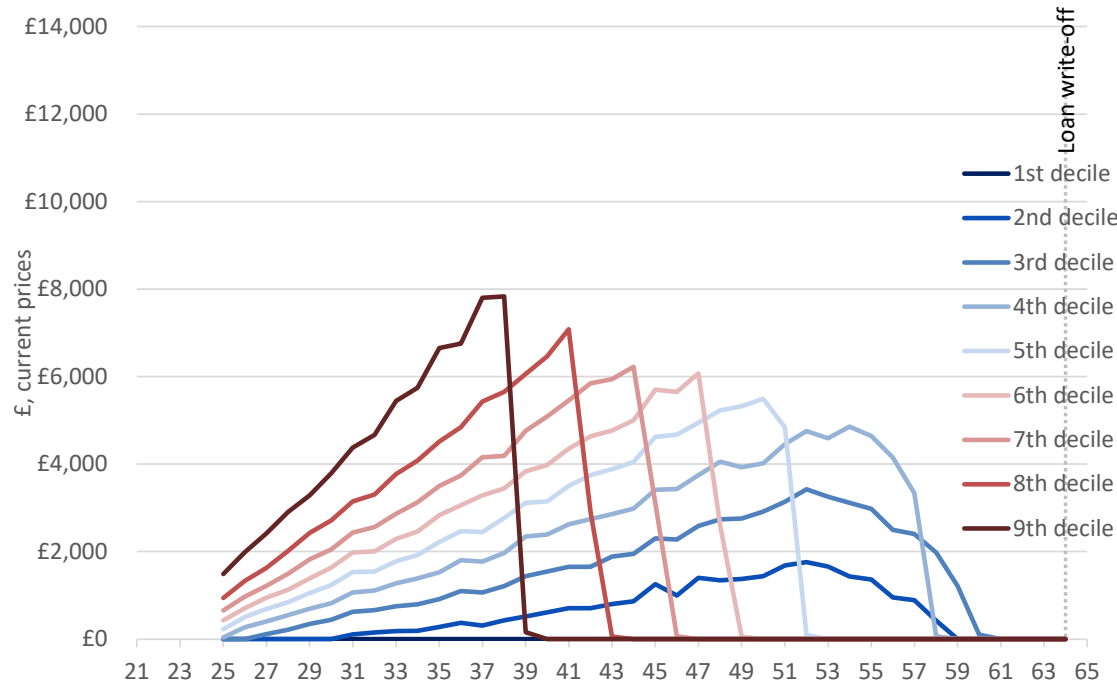


- The stepped repayment system under Scenario 1 would make the graduate repayment profile **more progressive than the DfE’s Augar response** (but still less progressive than the current system pre-Augar response).

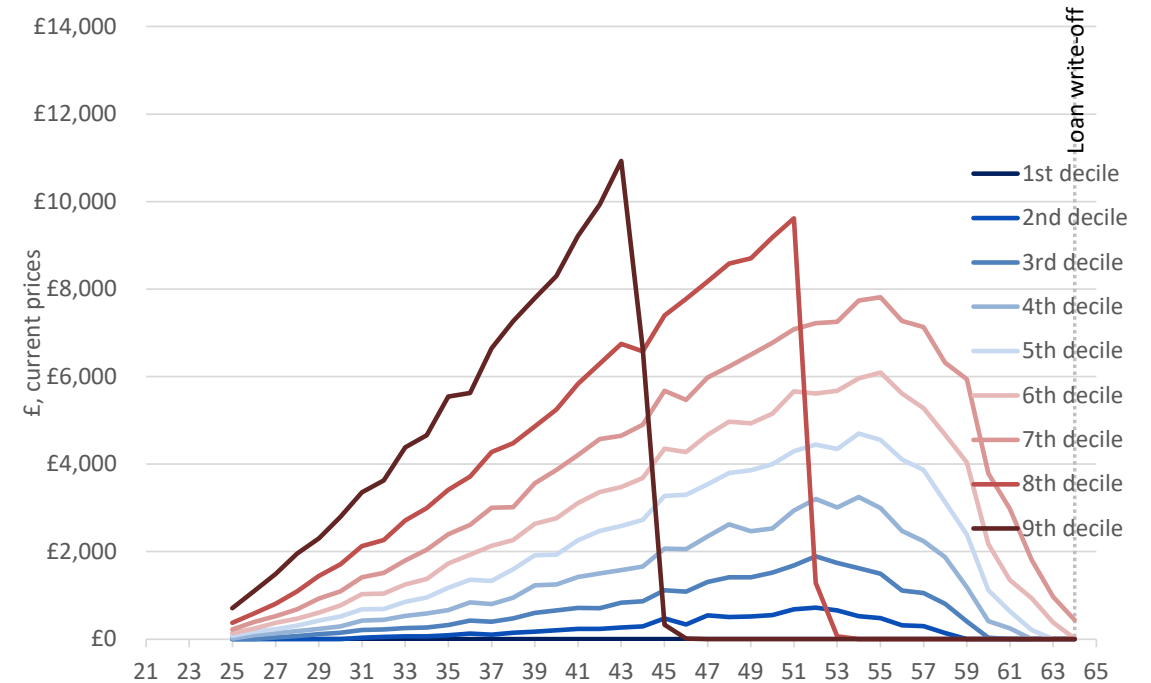
# Scenario 1: Loan repayment profiles

Lifetime loan repayment profiles (by age) for English domiciled FT first degree graduates (cash terms (not discounted) in current prices)

Baseline: Augar response



Scenario 1: Stepped repayments



- In the short term, the annual repayments for all graduates would be lower under Scenario 1 than under the Augar response. Essentially, the reduced repayment rates simply defer repayments into the future.
- Considering total lifetime repayments, under Scenario 1, graduates in the top 5 deciles would pay **more** than under the DfE's Augar response, as the combined re-introduction of real interest rates and reduced repayment rates would keep these graduates in repayment for much longer.
- In contrast, under the Augar system, graduates in the bottom 4 deciles would already make repayments for most of the repayment period. Hence, in Scenario 1, they essentially make lower annual repayments over the same period - so repay **less** than under the Augar response overall.



## Scenario 2: An effective tax cut



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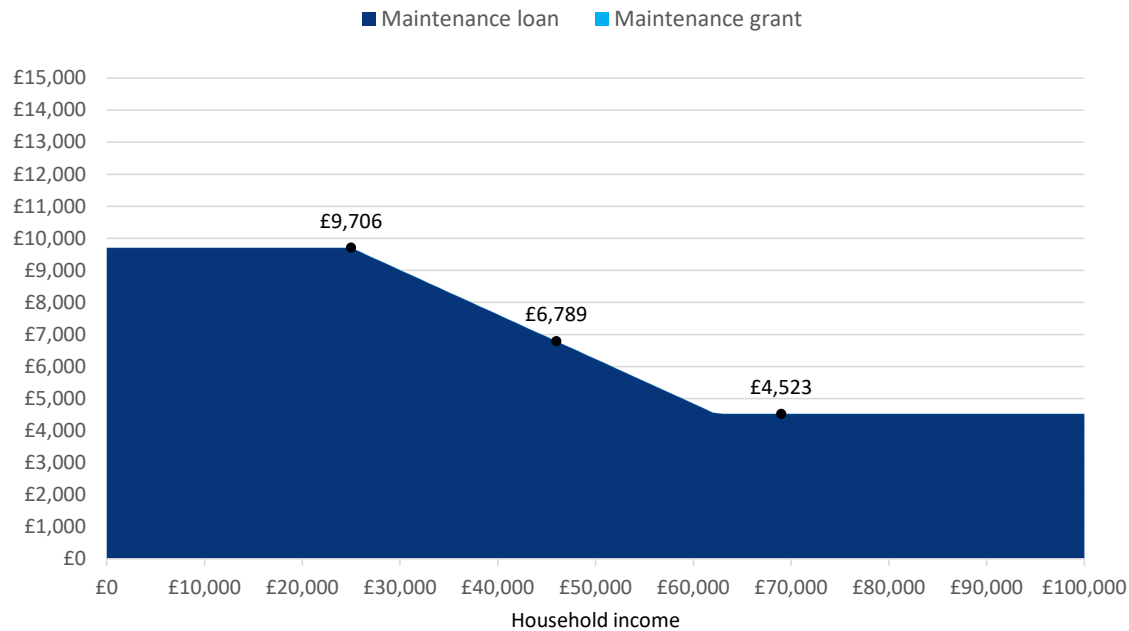
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# Scenario 2: Maintenance support

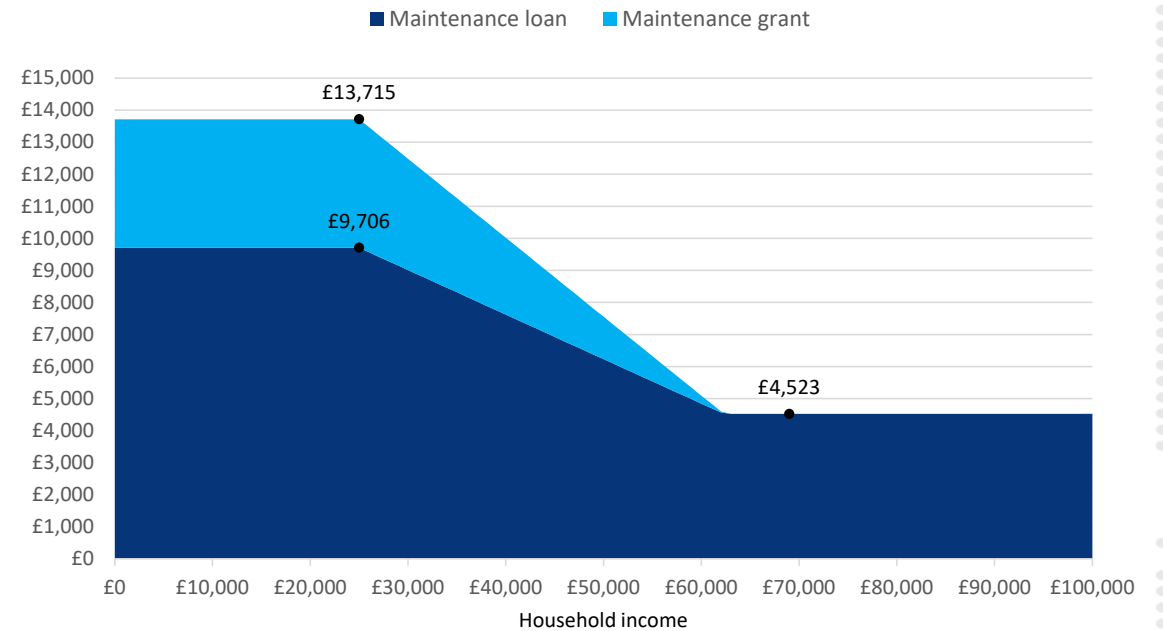
Under Scenario 2, we again assume the same re-introduction of maintenance grants for full-time students as under Scenario 1.

Maximum maintenance funding per full-time student living away from home outside of London (LAFHOL), by household income

## Baseline: Augar response (same as current system)



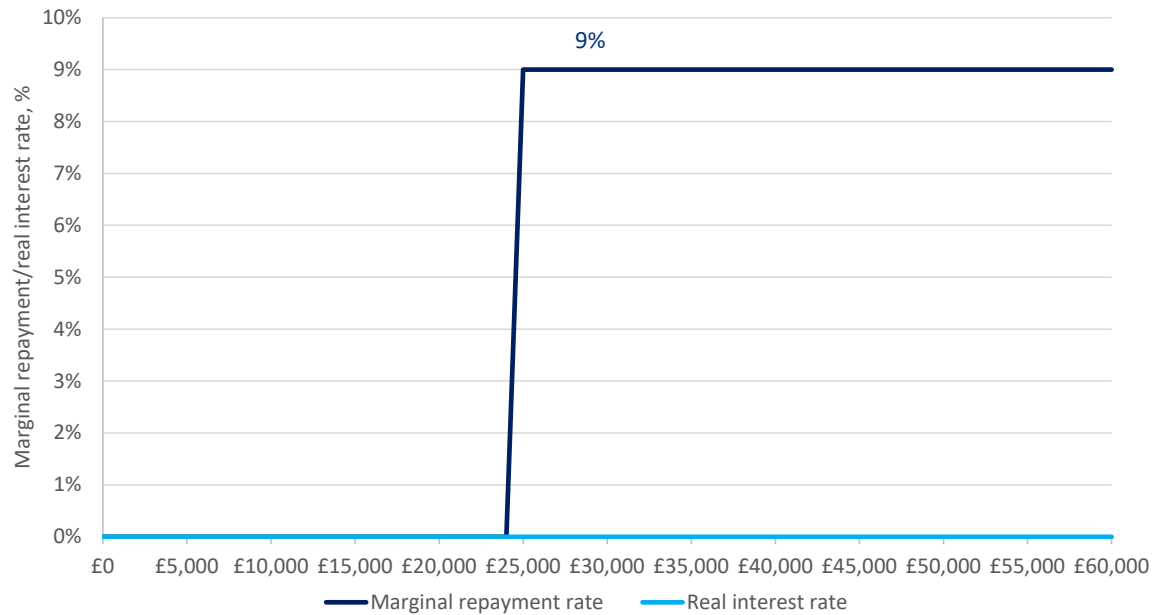
## Scenario 2: Effective tax cut



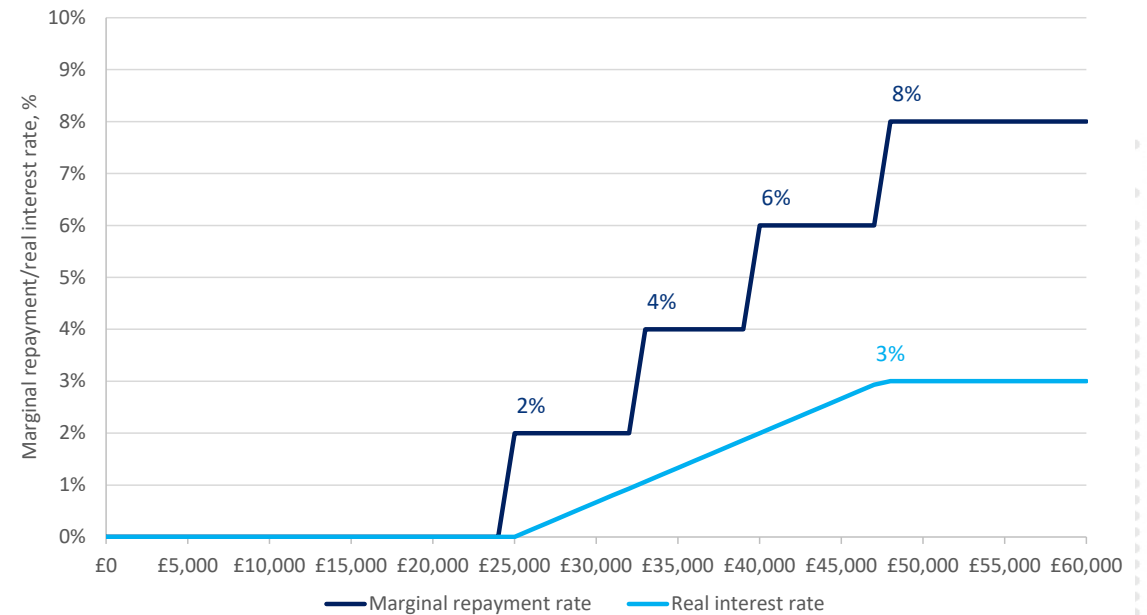
# Scenario 2: Repayment rates and interest rates

## Loan repayment and real interest rates by graduate income

### Baseline: Augar response



### Scenario 2: Effective tax cut



- In Scenario 2, in addition to the re-introduction of maintenance grants (as per Scenario 1), we modelled an **even more significant change in repayment rates**.
- We have again assumed a stepped repayment profile, where graduates repay **2% on earnings between £25,000 and £32,500; 4% on earnings between £32,500 and £40,000; 6% on earnings of £40,000 to £47,500; and 8% on earnings above £47,500** (i.e. all repayment rates are 1 percentage point lower than under Scenario 1; otherwise, all assumptions are the same). In other words, this system thus offers an **'effective tax cut' for all graduates** (in terms of the lower *annual* repayment rates faced by all graduates).

# Scenario 2: Total costs

Resource flows (£/£m/%)	Baseline: Augar response	Scenario 2: Effective tax cut	Difference
<b>Exchequer</b>			
Cost of maintenance grants	-	(£2,349m)	(£2,349m)
Cost of maintenance loans	(£729m)	£276m	£1,005m
Cost of tuition fee loans	(£861m)	£358m	£1,219m
Cost of Teaching Grants	(£1,201m)	(£1,201m)	-
<b>Total Exchequer cost</b>	<b>(£2,791m)</b>	<b>(£2,916m)</b>	<b>(£126m)</b>
<b>RAB charge (%)</b>	<b>8%</b>	<b>-3%</b>	<b>-11pp</b>
<b>% never repaying full loan/anything</b>	<b>40% / 8%</b>	<b>76% / 8%</b>	<b>36pp / -</b>
<b>Higher education institutions</b>			
Gross fee income	£11,319m	£11,319m	-
Teaching Grant income	£1,201m	£1,201m	-
Cost of bursary provision	(£125m)	(£125m)	-
<b>Net HEI income</b>	<b>£12,394m</b>	<b>£12,394m</b>	<b>-</b>
<b>Students/Graduates (FT first degrees)</b>			
<b>Average debt on graduation</b>	<b>£49,800</b>	<b>£50,800</b>	<b>£1,000</b>
<b>Average lifetime repayments (M/F)</b>	<b>£54,800 / £39,300</b>	<b>£73,200 / £37,200</b>	<b>£18,400 / (£2,100)</b>
<b>Average lifetime repayments (all)</b>	<b>£45,800</b>	<b>£52,300</b>	<b>£6,500</b>

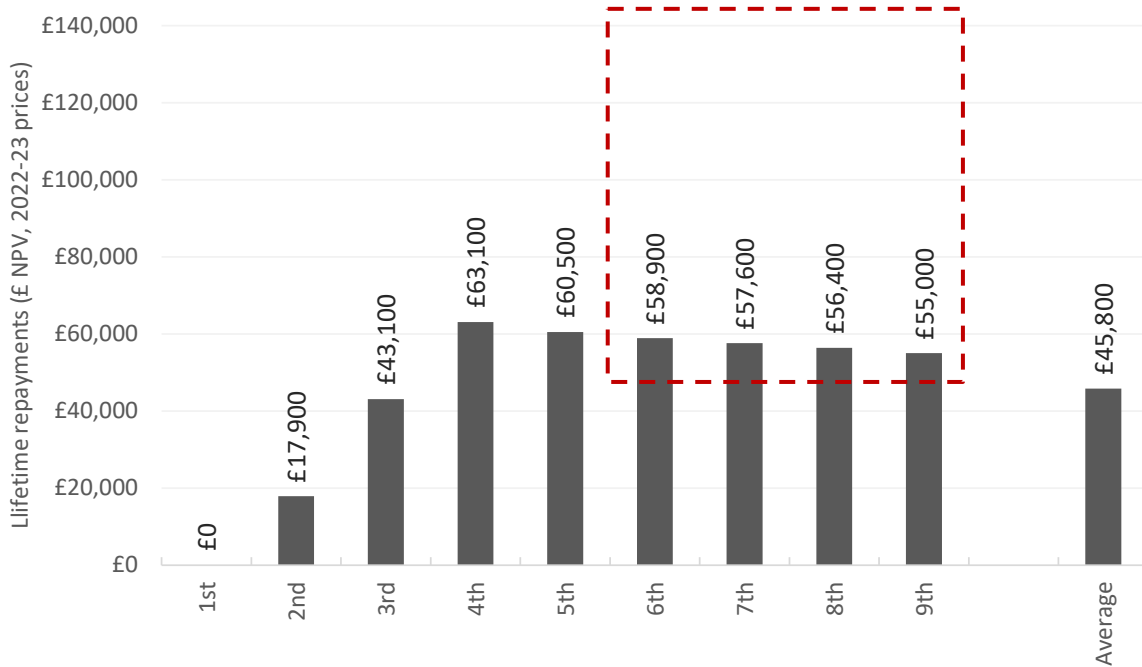
- In **Scenario 2**, the even lower repayment rates (of 2%/4%/6%/8%) result in a small increase in the total cost of the system (of **£126 million**) as compared to the Augar response. Again, the negative RAB charge (**-3%**) indicates that the loan system as a whole is revenue-generating for the Exchequer (though to a lesser extent than Scenario 1).
- Again, HEIs are unaffected by the changes.
- For students, the reintroduction of real interest rates during study results in an increase in the average debt on graduation (by **£1,000**), as in Scenario 1.
- The average lifetime repayments made by graduates would increase by **£6,500** compared to the Augar response. Male graduates would repay **£18,400 more** over their lifetimes, but female graduates would contribute **£2,100 less**.

Note: All monetary values have been discounted to net present values and are presented in constant 2022-23 prices. All monetary values per student have been rounded to the nearest £100, and all totals have been rounded to the nearest £1m. Debt on graduation and expected lifetime repayments per student are presented for full-time first degree students only.

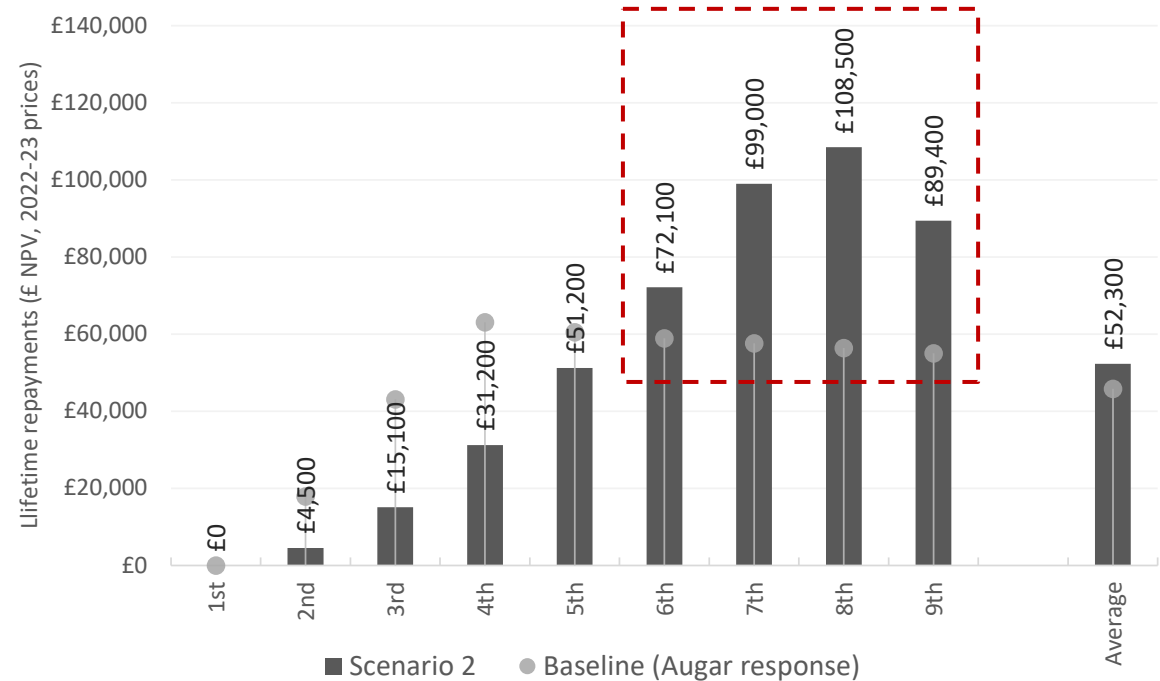
# Scenario 2: Graduate loan repayments

Total loan repayments by English domiciled FT first degree graduates (NPV in 2022-23 prices), by decile

## Baseline: Augar response



## Scenario 2: Effective tax cut

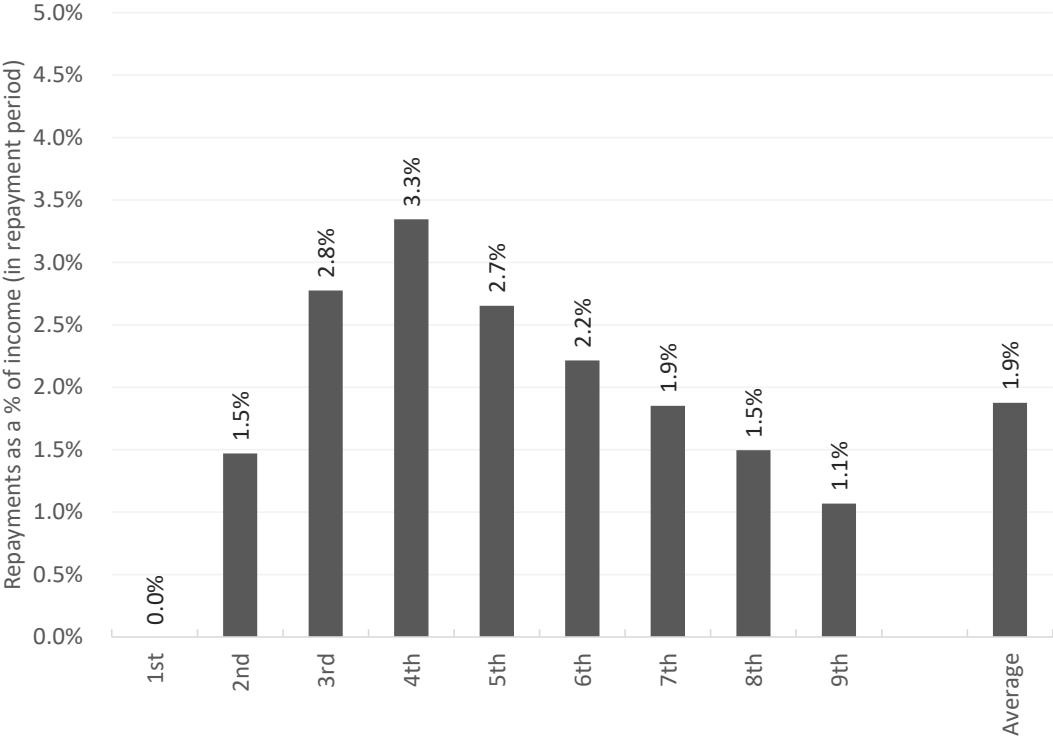


- The ‘effective tax cut’ scenario would make the repayment profile **more progressive** – both compared to the DfE’s response to Augar as well as the stepped repayment system under Scenario 1 (and more on a par with the current funding system).
- Under the effective tax cut scenario, graduates in the top 4 deciles pay **more** than under the Augar system (Baseline), again mostly due to the re-introduction of real interest rates. In contrast, all other graduates would contribute **less** (due to the reduced repayment rates).

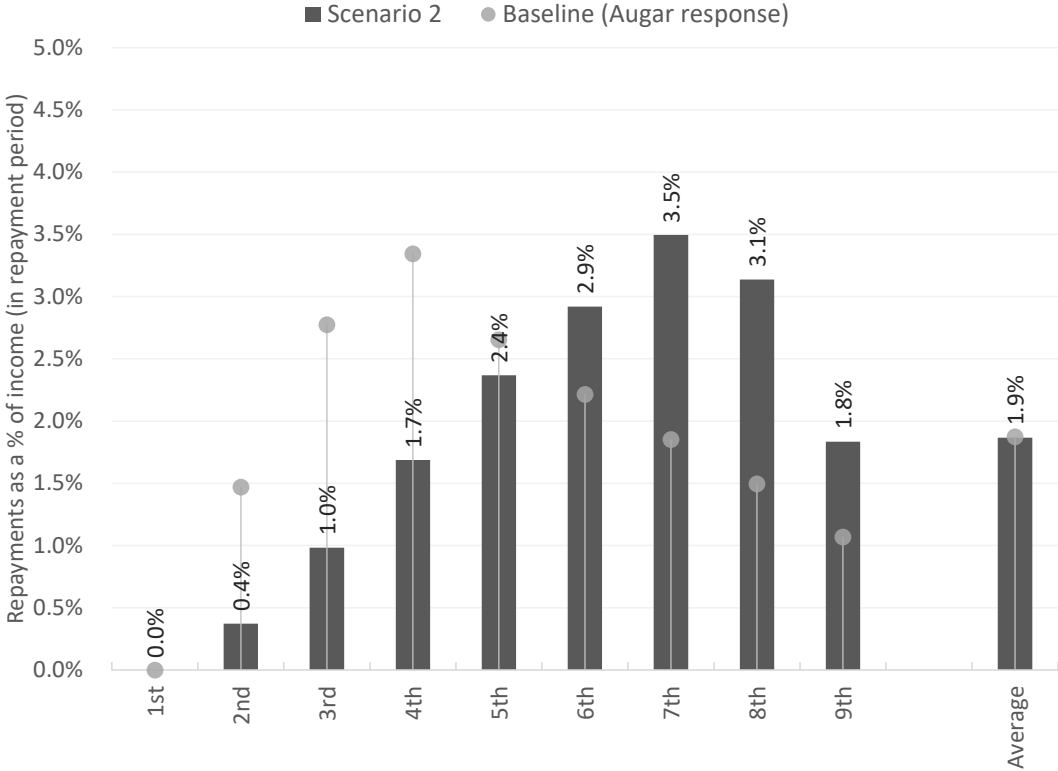
# Scenario 2: Loan repayment progressivity

Total loan repayments by English domiciled FT first degree graduates, as a % of income (during repayment period), by decile

Baseline: Augar response



Scenario 2: Effective tax cut

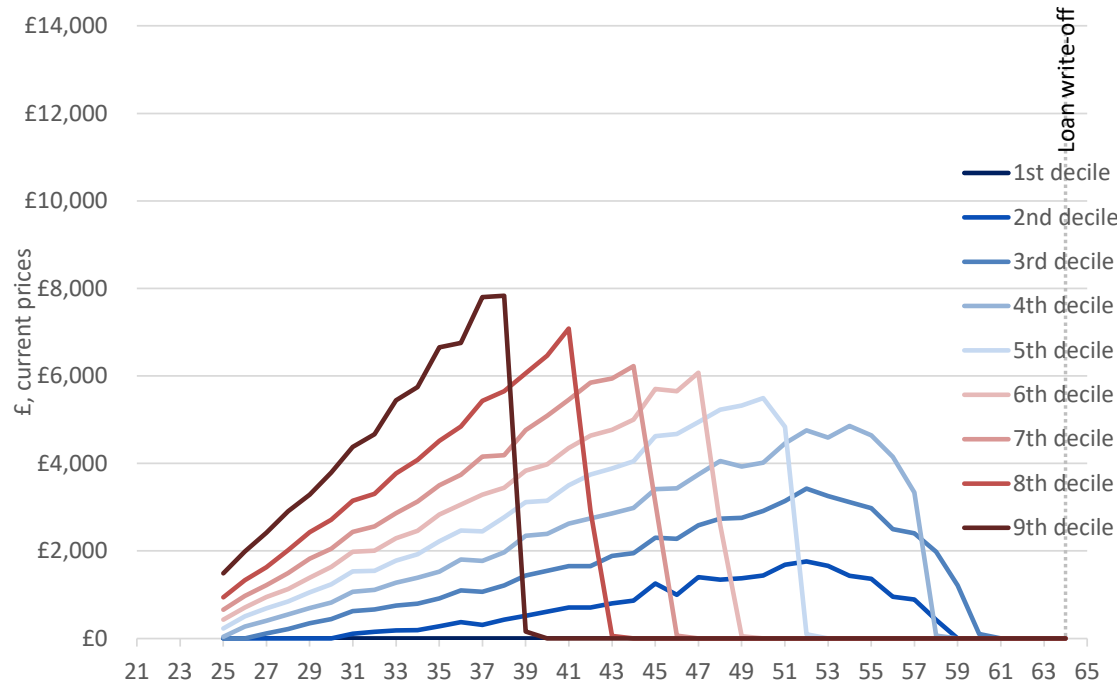


- The effective tax cut scenario would make the repayment profile **more progressive** compared to both the Department’s Augar response as well as the stepped repayment system modelled under Scenario 1.

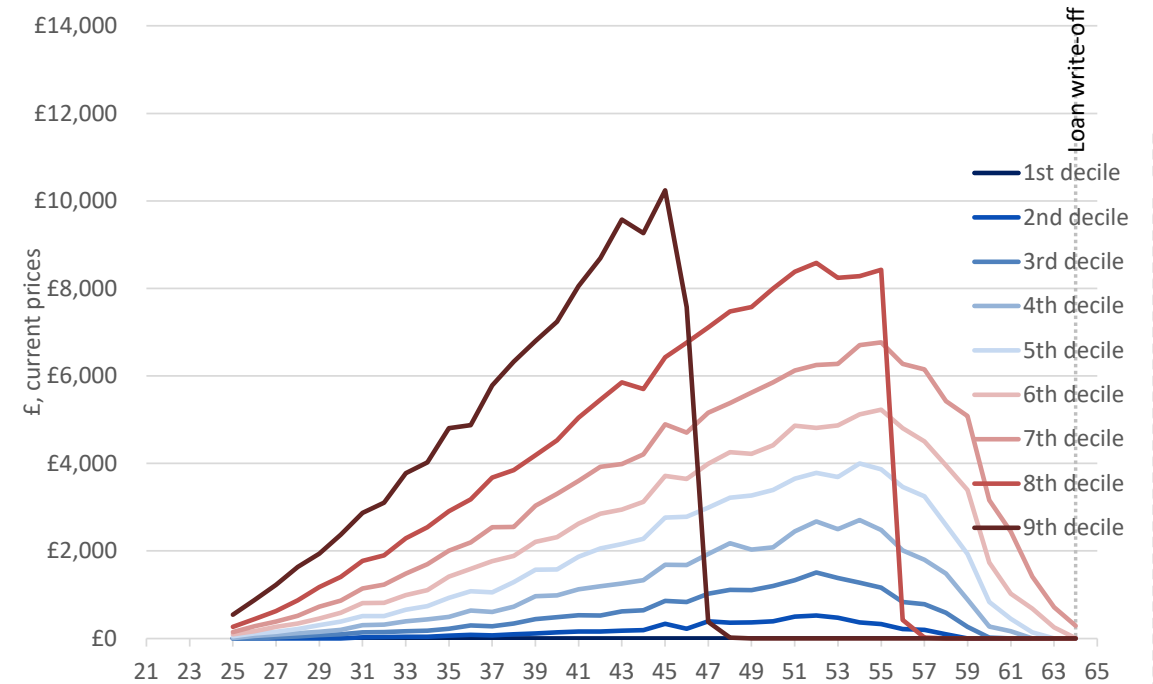
# Scenario 2: Loan repayment profiles

Lifetime loan repayment profiles (by age) for English domiciled FT first degree graduates (cash terms (not discounted) in current prices)

Baseline: Augar response



Scenario 2: Effective tax cut



- As with Scenario 1, Scenario 2 would imply that **the majority of graduates would make contributions for most of the repayment period.**
- In the short term, the annual repayments for all graduates would again be lower than under the Augar response, so that the reduced repayment rates simply defer repayments into the future.
- Again, graduates at the upper end of the income distribution would pay **more** than under the DfE's Augar response (due to an effective increase in the period over which these graduates make repayments), while low- to middle-income graduates essentially make lower annual repayments over the same period - so repay **less** overall.

# Conclusion



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# Conclusion and discussion

- There are several elements of the student loan repayment system that can generate significant Exchequer savings:
  - The repayment threshold freeze and slower uprating of the repayment threshold (i.e. the ‘stealth tax’) produce significant reductions in Exchequer costs – which are borne by low to middle income graduates, and are therefore **regressive**.
  - The **extension of the repayment period** also produces significant reductions in Exchequer costs. Again, these are typically borne by low to middle income graduates, and, therefore, **regressive**.
  - The re-introduction of **real interest rates** produces significant reductions in Exchequer costs – which are borne by high income graduates – and because of this, are **progressive**.
- Compared to the DfE’s response to Augar, the alternative scenarios modelled here present a relatively straightforward choice: Re-introducing real interest rates can **effectively fund both the re-introduction of maintenance grants** for students from low to middle income households and an **effective short run tax cut** through a large reduction in repayment rates.



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# ANNEX I

## Methodology and assumptions



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# Assumptions and methodology

- The model considers the total number of full-time and part-time **English-domiciled first-year students starting undergraduate qualifications at any higher education institution in the UK in the 2022-23 academic year**. We use information published by the Higher Education Statistics Agency (HESA, [here](#)) for 2021-22, assuming that the size and characteristics of the student cohort have **remained unchanged** between 2021-22 and 2022-23. Hence, the analysis assumes that there are **515,790 first-year undergraduate English domiciled students in the relevant cohort** (see next slide)<sup>1</sup>.
- Based on the same HESA data, we assume the following distribution of students by **qualification level**:

Qualification level	Full-time	Part-time
Other undergraduate	2%	26%
HNC/HND	1%	2%
Foundation Degree	2%	4%
First degree	95%	69%
<b>Total</b>	<b>100%</b>	<b>100%</b>

- Part-time students are assumed to study at **50% full-time equivalence (FTE)**<sup>2</sup>.
- Again based on HESA data ([here](#)), we assume an annual continuation rate of **93.1%** for full-time students and **84.0%** for part-time students. This is based on the proportion of students who entered higher education in 2019-20 (full-time students) or 2018-19 (part-time students) and who were still enrolled in higher education one year (full-time students) or two years after enrolling (part-time students), including all UK domiciled students studying anywhere in the UK.

- The underlying analysis is undertaken separately by gender. Based on HESA information on English domiciled qualification completers (who graduated from institutions anywhere in the UK in 2021-22) by gender and qualification level ([here](#)), we assume the following **gender split**:

Qualification level	Full-time		Part-time	
	Male	Female	Male	Female
Other undergraduate	48%	52%	36%	64%
HNC/HND	50%	50%	85%	16%
Foundation Degree	26%	74%	35%	65%
First degree	41%	59%	44%	56%

- We assume the following **average age at enrolment** (based on HESA information<sup>3</sup>) and **average duration of qualification attainment** (by qualification level and study mode):

Qualification level	Age at enrolment		Study duration	
	Full-time	Part-time	Full-time	Part-time
Other undergraduate	29	34	1	2
HNC/HND	23	28	2	4
Foundation Degree	28	32	2	4
First degree	22	31	3	6

<sup>1</sup> The analysis includes students studying at higher education institutions only (including alternative providers), but generally excludes students at further education colleges (except colleges based in Wales, which are included in the relevant HESA data - but there are only very few English domiciled students studying at these institutions). We further exclude students studying for institutional credits only (i.e. no formal qualifications), as these students are typically not eligible for public funding.

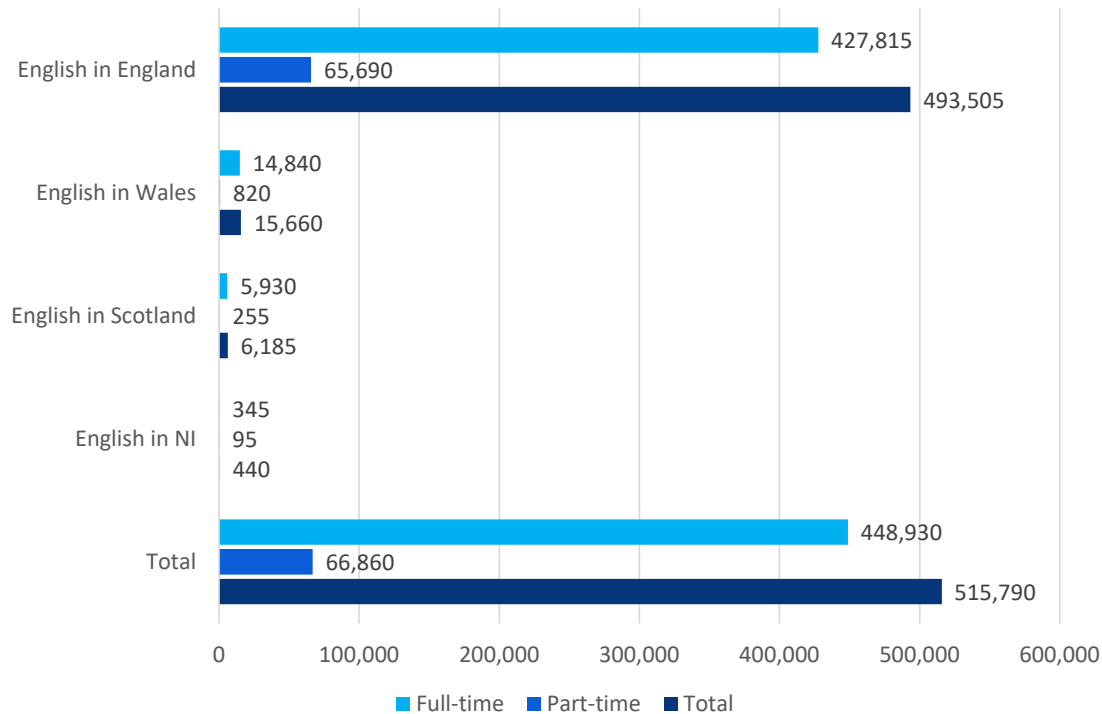
<sup>2</sup> Based on data provided by HESA (now JISC) on the average study intensity among all UK domiciled first-year part-time students in 2021-22 (separately by study level).

<sup>3</sup> The assumptions in relation to the age at enrolment are based on data provided by HESA (now JISC) on the average age at enrolment among all UK domiciled first-year students starting HE qualifications anywhere in the UK in 2021-22 (separately by study level and mode).

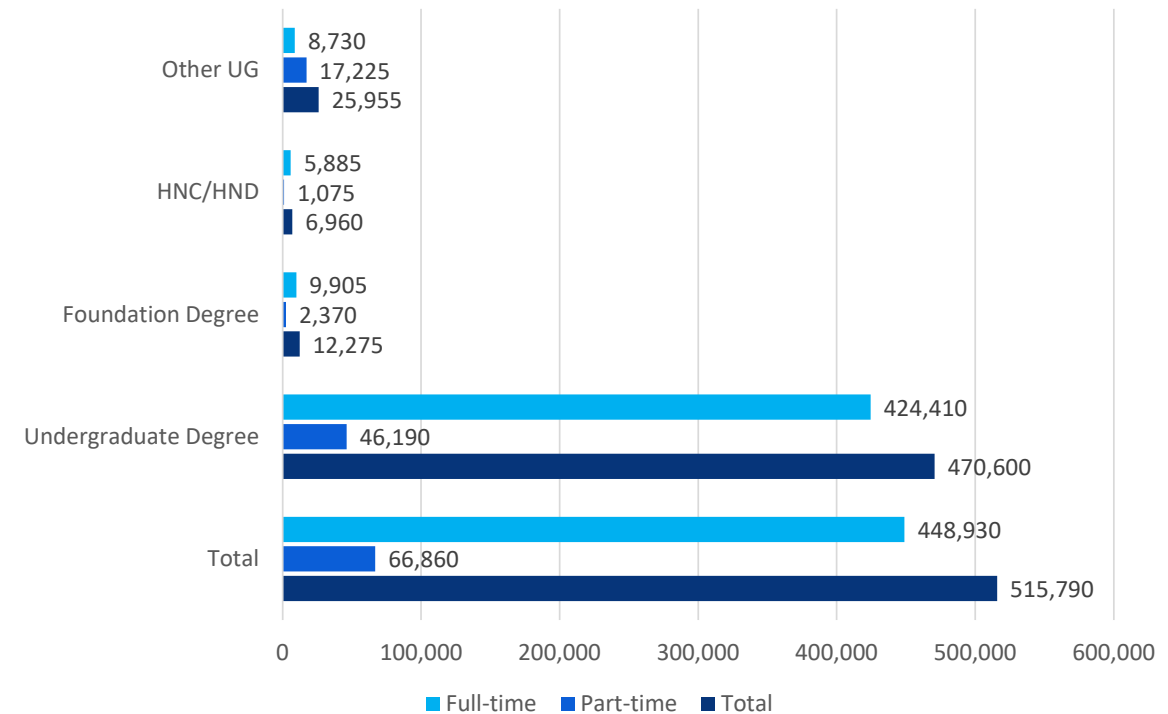
# Assumptions and methodology

- The analysis is based on a total of 515,790 first-year undergraduate English-domiciled students studying anywhere in the UK:

By location of study and study mode



By study level and mode



Note: All student numbers are rounded to the nearest 5. The information is based on the 2021-22 academic year, and we assume the same size and characteristics of the 2022-23 cohort as for the 2021-22 cohort. The analysis generally includes students studying at higher education institutions only (excluding further education colleges, apart from a very small number of students studying at Welsh further education colleges), and excludes students studying for institutional credits at undergraduate level (i.e. students who are not studying for a qualification).

Source: London Economics' analysis based on data published by the Higher Education Statistics Agency ([here](#))

# Assumptions and methodology

- The analysis assumes a (gross) tuition fee charged to English domiciled **full-time students** in 2022-23 of **£9,250**. The gross fee charged to part-time students is assumed to be approximately **£4,620** (pro-rata, based on the corresponding full-time fee adjusted for part-time study intensity). Despite the existence of Access Agreements and the provision of bursaries and fee waivers by HEIs<sup>1</sup>, the assumed net fees per student (after fee waivers) are the same in rounded terms (i.e. **£9,250** per full-time student and **£4,620** per part-time student), as the majority of bursary support from HEIs is paid to students in the form of maintenance (i.e. non-fee) bursaries.
- We assume that all students in the cohort cover these fees by taking out a **tuition fee loan** of the same amount (i.e. our model assumes maximum exposure of the student loan system).
- We assume that these fees and fee loans **remain constant** in every subsequent year of study (i.e. 2023-24 and onwards).
- Based on the 2022-23 funding system, we have modelled full-time **students' maintenance loan eligibility by students' living conditions**, separately for full-time students living at Home (LAH, **23%** of students), living away from home outside of London (LAFHOL, **63%** of students) and living away from home in London (LAFHIL, **14%** of students)<sup>2</sup>. For part-time students, based on the same sources, we assume that **25%** live at home (LAH), **68%** live away from home outside of London (LAFHOL), and **7%** live away from home in London (LAFHIL).
- To determine the **size of maintenance loans received**, students in the cohort are categorised by gender, location of study, study intensity and living arrangements whilst in study. We assume that **all students take out the maximum available loan to which they are entitled** (i.e. again, maximum exposure of the loan system).
- In terms of students' **household income**, we base eligibility for maintenance loans (and maintenance grants, where applicable) on the current household income thresholds applied by Student Finance England. We combine this with information from the Student Loans Company (SLC, [here](#)) on the distribution of *Welsh* domiciled students by household income. Specifically, our assumptions are based on the proportion of Welsh domiciled students in receipt of full, partial, or nil maintenance grants from Student Finance Wales in 2021-22 (and the associated household income thresholds applicable to Welsh maintenance grants in that year) – separately for full-time students and part-time students. As there is no comparable information available for England, we assume the same household income distributions for English domiciled students as for Welsh domiciled students.

1. Based on Office for Student data from its access and participation plans monitoring exercise (last undertaken in 2020-21), according to institutions' access plans for 2022-23, we assume that approximately **0.3%** of the tuition fee charged in excess of the Basic Fee (of **£6,165** per annum) is handed back to students in the form of fee waivers/bursaries, with an additional **9.7%** provided through maintenance bursaries. Mirroring the current household income thresholds associated with maintenance loans for English domiciled undergraduate students, we assume that these bursaries are only available to students with a household income of **£25,000** or less. Since the overwhelming majority of bursary funding is provided as maintenance funding, the relatively minor tuition fee bursary has a negligible impact on the assumed fee net fee and, therefore, fee loan.

2. The distribution of students across these different living conditions is based on information from the 2014-15 Student Income and Expenditure Survey for England (on the proportion of full-time students living at home vs. living away from home; [here](#)), combined with HESA data on the number of first-year English domiciled full-time undergraduate students living in London vs. elsewhere in the UK, in 2021-22 ([here](#)).

# Assumptions and methodology

## Fees, fee loans, and maintenance loans and grants

- In terms of growth over time, we assume that **students' household income** increases with UK-wide nominal average earnings growth in each subsequent year of study (see [here](#) for the assumptions on average earnings growth); that **maintenance loans (and maintenance grants, where applicable)** grow with RPI inflation; and that the **household income thresholds associated with maintenance loans (and maintenance grants, where applicable)** remain constant over time.
- In the **current system**, we estimate that the average maintenance loan received by students in the 2022-23 cohort stands at approximately **£7,180** per full-time student and **£3,900** per part-time student in 2022-23 (i.e. in the first year of study for the cohort, rounded to the nearest £10). There are no maintenance grants available to English domiciled students under the current finance system.
- Under the **DfE's response to Augar (Baseline)**, maintenance funding is the same as under the current system.
- In **Scenario 1 (stepped repayment system) as well as Scenario 2 (effective tax cut)**, under the re-introduction of full-time maintenance grants on top of current maintenance loans, we estimate an average maintenance grant of **£2,010** per full-time student in 2022-23 (and the same average maintenance loan of **£7,180** as under the current and Augar systems). Maintenance funding for part-time students is the same as in the current system and the Augar system.

## Inflation, growth, and discount rates

- We use the most recent Office for Budget Responsibility medium- and long-term forecasts in relation to the expected **Retail Price Index** per annum, as well as expected **nominal average earnings growth** per annum ([here](#) (short-/medium-term projections) and [here](#) (long-term forecasts)). Note that the Retail Price Index will be *effectively* abolished from 2030 onwards, and will equal the (lower) measure of Consumer Price inflation from then onwards.
- In terms of discount rates:
  - In relation to the estimation of the **RAB charge and lifetime loan repayments (in Net Present Value (NPV) terms)**, we assume a real discount rate of **-1.1% + RPI** (revised downwards from **+0.7% + RPI** previously, in line with the Department for Education's most recent RAB charge estimates included in the analysis of its response to the Augar Review recommendations (see Annex B [here](#))).
  - In relation to discount rates for the **estimation of aggregate financial flows across the cohort**, for the first 30 years, we assume the standard HMT Green Book real discount rate of **3.5%** (see [here](#)), with the nominal discount rate amounting to **3.5% + RPI**. The assumed rates for Year 31 onwards stand at **3.0%** in real terms, and **3.0% + RPI** in nominal terms.

# Assumptions and methodology

- Under the **current funding system**, student loans accumulate **interest at 3% + Retail Price Index (RPI) inflation** during the period of study. After graduation, loans accumulate interest depending on earnings, with individuals who earn up to **£27,295** (in 2022-23) incurring interest at **0% + RPI**, increasing to **3% + RPI** for individuals with earnings of **£49,130** per annum or above (with both thresholds **uprated with nominal average earnings growth in every subsequent year**).
- Under the **current system**, we assume that loan repayment is **9%** of earnings in excess of **£27,295** per annum (**uprated with nominal earnings growth each year**), and that all loans are written off **30 years** from the Statutory Repayment Due Date (SRDD).
- In the **DfE's response to Augar (i.e. the Baseline system)**, based on the changes outlined in the Department for Education's response to the Augar Review ([here](#)):
  - The earnings threshold for loan repayment is reduced to **£25,000**, **frozen until 2026-27 (inclusive)**, and **uprated with RPI inflation** thereafter (rather than average earnings growth) (see [this slide](#) for more information);
  - **Real interest rates are removed both during study and post-graduation** (i.e. loan interest equals RPI inflation for all graduates, irrespective of their earnings; as a result, the current upper earnings threshold for real interest accumulation is no longer relevant); and
  - **The loan repayment period is extended from 30 years to 40 years.**
- In **Scenario 1 (stepped repayment system)**:
  - A **stepped loan repayment system** is introduced, where graduates repay **3%** on earnings **between £25,000 and £32,500**; **5%** on earnings **between £32,501 and £40,000**; **7%** on earnings **between £40,001 and £47,500**; and **9%** on earnings of **£47,501 or more**. As in the Baseline (Augar) system, these earnings thresholds are **frozen until 2026-27 (inclusive)**, and **uprated with RPI thereafter (i.e. a 'stealth tax')**;
  - **Interest rates are charged at 3% + RPI during study and between 0% + RPI and 3% + RPI post-graduation**, as in the current system. However, compared to the current system, we assume different graduate earnings thresholds for interest accumulation, with **0% + RPI** charged to graduates earning up to **£25,000**, and **3% + RPI** charged to graduates earning **£47,501 or more**. These have been set so that the interest rate thresholds mirror the lower and upper earnings thresholds associated with the stepped repayment system, for consistency. In addition, in contrast to the current system, we assume that these thresholds are **frozen until 2026-27 (inclusive)** and **uprated with RPI thereafter (i.e. same uprating mechanism as under the Augar system)**.
  - As under the Augar system, the loan repayment period stands at **40 years**.



# Assumptions and methodology

- In Scenario 2 ('effective tax cut'), we model:
  - An alternative stepped loan repayment system, where graduates repay 2% on earnings between £25,000 and £32,500; 4% on earnings between £32,501 and £40,000; 6% on earnings between £40,001 and £47,500; and 8% on earnings of £47,501 or more. Again, these earnings thresholds are frozen until 2026-27 (inclusive), and uprated with RPI thereafter (i.e. a 'stealth tax').
  - The conditions for interest accumulation and the loan repayment period are the same as under Scenario 1.
  - In other words, Scenario 2 is very similar to Scenario 1, *except for lower marginal repayment rates for each graduate income band* (where the assumed repayment rates are 1 percentage point lower than under Scenario 1, in each instance).
- It is important to note that, **under all scenarios modelled**, in the cohort's first two years of study (i.e. 2022-23 and 2023-24), we take account of the current loan **interest rate cap** that is applied by the Government. Specifically, under the currently exceptionally high RPI inflation rates, where the (nominal) student loan interest rate is too high in comparison to the prevailing market rate, the Government will cap the maximum loan interest rate for a set period of three months (or longer if necessary). **Our modelling assumes that an interest cap of 6.9% applies in both 2022-23 and 2023-24** (based on the current interest rate cap for Plan 2 loans as of 1<sup>st</sup> March 2023, [here](#)); this cap is applied to *all* scenarios modelled here.



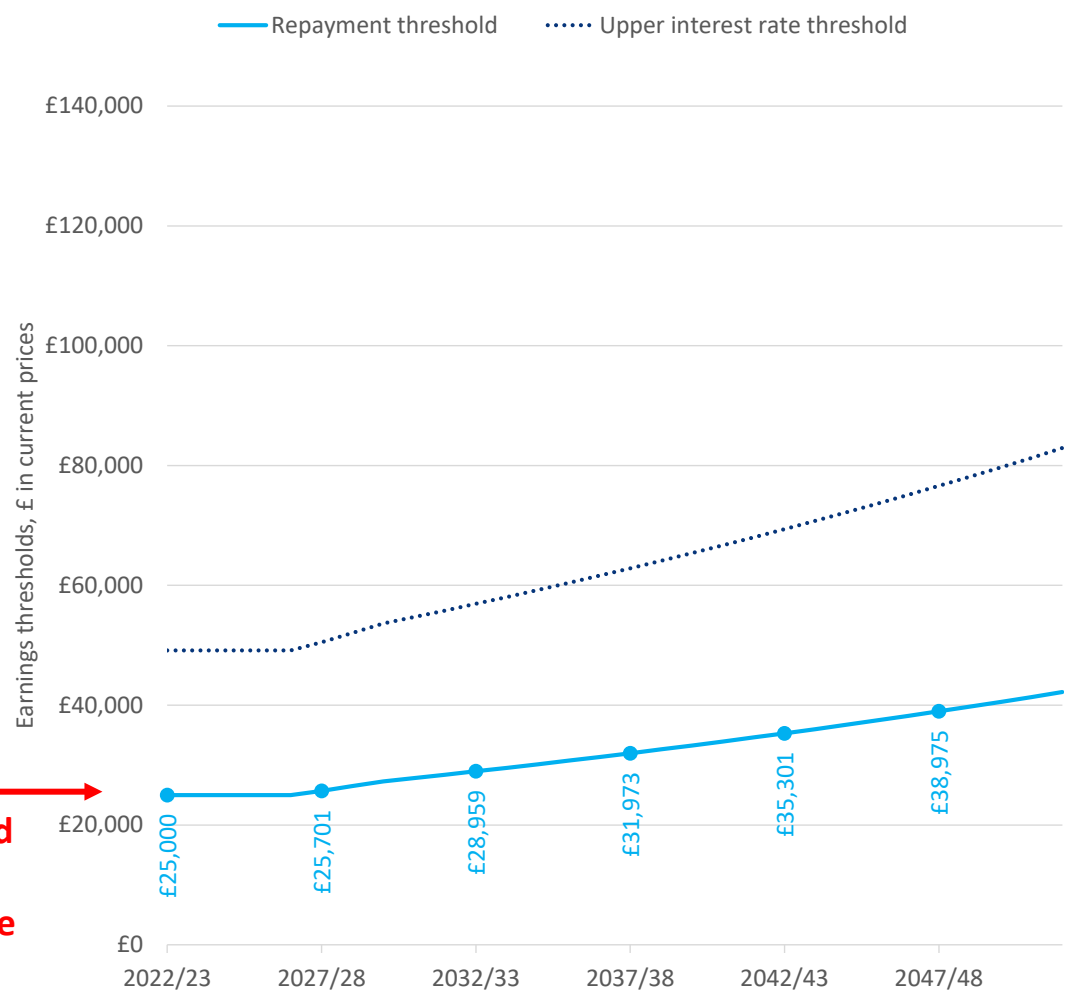
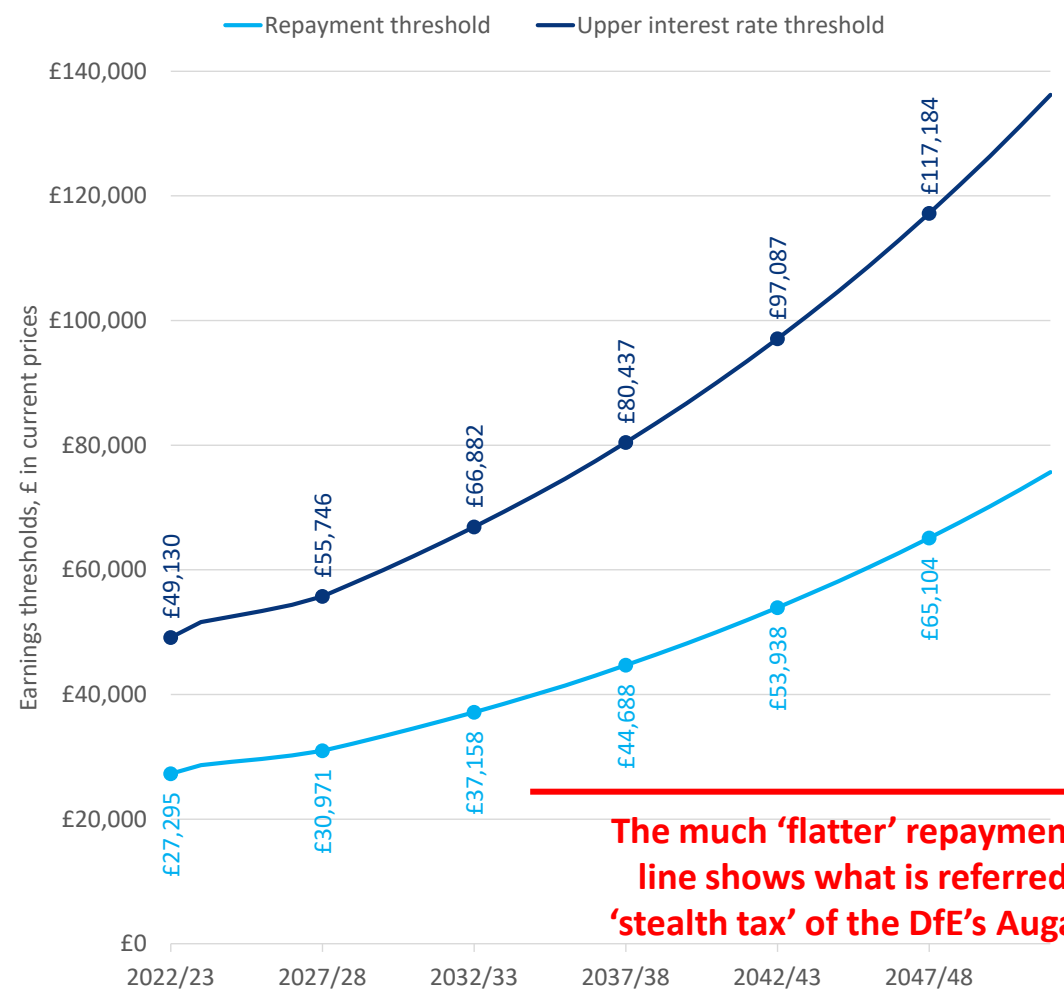
# Assumptions and methodology

## Loan repayment and upper interest rate earnings thresholds: Current system vs. Augar response

Loan interest and repayment terms

**Current system**

**Baseline: Augar response**



The much 'flatter' repayment threshold line shows what is referred to as the 'stealth tax' of the DfE's Augar response

Note: All values here are presented in current prices (and are *not* discounted to net present values). In the **Augar system**, real interest rates are removed both during study and post-graduation (i.e. loan interest equals RPI inflation for all graduates, irrespective of their earnings). As a result, the upper earnings threshold for real interest accumulation is not relevant for this scenario (i.e. is not applicable).

# Assumptions and methodology

- To estimate graduates' lifetime loan repayments (by qualification level (i.e. first degrees, Foundation Degrees, HNCs/HNDs and other undergraduate qualifications), gender, study mode and decile), we make use of **pooled UK Quarterly Labour Force Survey data for the period 2010Q1 to 2022 Q3** (the most recent quarter currently available for LFS data).
- Using this data, we estimate the **average earnings** (in June 2022 prices) among individuals in possession of each of the different higher education qualifications\*, separately by gender (and on average across men and women), income decile, and age (for first degrees) or age band (for qualifications below degree level (due to sample size), for which we subsequently generated 'smoothed' age-earnings profiles). To assess loan repayments for part-time students (who typically start repaying their loans *during study*), we further estimate the average earnings of individuals in possession of Level 3 qualifications as their highest level of attainment (used as part-time students' assumed earnings during study), separately by age, decile and gender.
- We also estimate the **average probability of being in employment**, again by qualification level, age/age band, and gender.
- Combining earnings and employment, we then estimate the **employment-adjusted annual earnings profiles** of individuals in possession of each qualification, by study mode, gender, and earnings decile. We **adjust these age-earnings profiles to account for the fact that earnings are expected to increase over time** (using the above-outlined Office for Budget Responsibility forecasts of average nominal earnings growth per year ([here](#) and [here](#))).

- To estimate the **RAB charge**, we assume a real discount rate of **-1.1%** as used in the Department of Education's most recent RAB charge estimates, with a nominal discount rate of **-1.1% + RPI**. We use the following equation to calculate the RAB charge:

$$RAB\ charge = \frac{NPV\ loan\ outlay - NPV\ repayments}{NPV\ loan\ outlay}$$

- In other words, the RAB charge associated with the 2022-23 cohort of students is calculated based on the net present value of the aggregate loan outlay provided to these students over the course of their studies (i.e. in total throughout all years of study), as well as the net present value of the total estimated loan repayments expected to be made by students after they graduate.

\* This includes all individuals in possession of the given qualification, *irrespective of* whether that qualification was their highest educational attainment or not (e.g. the average earnings for individuals in possession of first degrees includes individuals who subsequently completed a Master and/or Doctorate degree).

# Assumptions and methodology

- As outlined above, the analysis focuses on English domiciled students in the 2022-23 cohort **studying at higher education institutions anywhere in the UK**. Therefore, the estimated level of Teaching Grant funding associated with the cohort includes teaching grants paid to **English HEIs** (by the Office for Students) and **Welsh HEIs** (by the Higher Education Funding Council for Wales).
- English students studying in **Scotland** and **Northern Ireland** typically do not attract any teaching grant funding (from the Scottish Funding Council and the Department for the Economy Northern Ireland, respectively). This is due to the fact that these students are charged much higher tuition fees as compared to ‘home’ students studying in Scotland and Northern Ireland – so that the teaching grant paid to HEIs by the respective HE funding bodies in Scotland and Northern Ireland generally applies to ‘home’ domiciled students only.
- The average Teaching Grant per student studying in **England** is derived by combining assumptions on the rate per FTE student by subject band (in 2022-23) with information on the distribution of students by subject band (both published by the Office for Students, [here](#)), as follows:

Subject band	Funding per FTE, £	% of FTE students
Band A	£10,580	3%
Band B	£1,587	21%
Band C1.1	£265	10%
Band C1.2	£126	11%
Band C2	-	18%
Band D	-	37%
<b>Total</b>	-	<b>100%</b>

- Combining this with the average ‘other targeted allocations’ funding per student (e.g. including premium funding to support retention), the average total Teaching Grant per full-time student studying in **England** was estimated at approximately **£1,010** per year. Based on average study intensity, the average funding per part-time student was estimated at approximately **£510**.
- To estimate the average level of Teaching Grant per student per year for students studying in **Wales**, we use HESA financial data ([here](#)) and student data ([here](#)) for the 2020-21 academic year (i.e. in the absence of more recent information, we assume the same average teaching grant funding in 2022-23 as in 2020-21). We divide the total Teaching Grant income received by institutions in Wales by the total number of (first-year and continuing) UK and EU domiciled students studying in Wales (excluding any non-EU domiciled students and higher degree (research) students, since it is assumed that there is no Teaching Grant funding associated with these students). We again adjusted for the assumed average study intensity among full-time students vs. part-time students, to arrive at separate rates of Teaching Grant funding per student per year by study mode.
- Using this approach, we assume the following **average Teaching Grant funding rates per student per year** (all rounded to the nearest £10)<sup>2</sup>:

Study location	Full-time	Part-time
Wales	£410	£210
Scotland	-	-
Northern Ireland	-	-

- We assume that these Teaching Grant funding rates do *not* increase over the duration of students’ courses (i.e. we assume the same amount per student per year in every year of study). The Teaching Grant funding rates are assumed to be the same across all scenarios.

## **ANNEX II**

# **Overview of current funding system operating in 2022-23**



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# Overview of current funding system (vs. Augar response)

## CURRENT FUNDING SYSTEM

**Current fees and funding arrangements** for English domiciled students starting undergraduate qualifications in 2022-23:

- **Repayment threshold of £27,295**, uprated with average nominal earnings growth each year
- **Repayment rate** of 9% above threshold
- **Real interest rates** of 3% during study, and 0-3% for earnings between £27,295 and £49,130 (and 3% for earnings of £49,131 or more)
- **Loan repayment period** of 30 years

## AUGAR RESPONSE ([link](#))

This presents the changes announced under the **Department for Education's response to Augar**, effective for new students starting in AY 2023-24 (but applied to the 2022-23 cohort to allow for effective comparison) including:

- **Reduction in the repayment threshold to £25,000, frozen until 2026-27 (inclusive)**, and uprated with **Retail Price Index (RPI) inflation** thereafter (instead of (higher) average earnings growth)
- **Removal of real interest rates**, both during and after study
- **Extension of the repayment period by 10 years, to 40 years**

## **ANNEX III**

# **Impact of the effective abolition of RPI (from 2030 onwards)**



**LE**

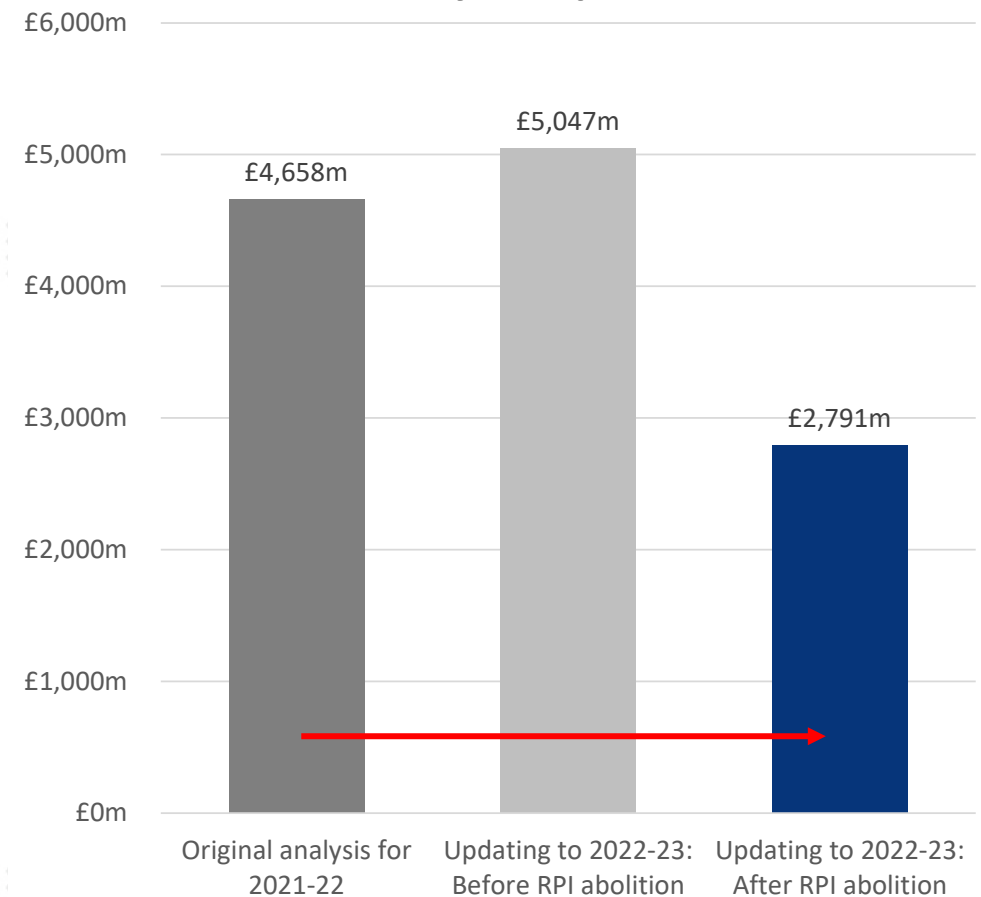
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# Impact of abolition of RPI

Our analysis on behalf of the University of the Arts London ([here](#)) estimated that the Exchequer cost associated with implementing the DfE’s Augar response stands at **£4.658bn** per cohort (modelled based on the 2021-22 cohort). In contrast, our analysis here (for 2022-23) finds an Exchequer cost of the Augar response of **£2.791bn** per cohort (i.e. **40% lower** than the previous estimates). This large decrease is driven by **significant methodological changes to the Retail Price Index**:

- The ONS recently announced the **effective abolition of the Retail Price Index from 2030 onwards**<sup>1</sup>. While the RPI is currently *larger* than CPIH (equal to approximately CPIH + 1%), this means that from 2030 onwards, the RPI will instead equal CPIH.
- Our previous estimates for the University of the Arts London relied on (now relatively outdated) OBR economic long-term forecasts of RPI that did *not* yet incorporate these significant RPI adjustments going forward<sup>2</sup>.
- From the previous analysis, if we updated all model inputs (e.g. in relation to the size of the cohort, cohort characteristics, HE funding system parameters etc.) from 2021-22 to 2022-23 *except* RPI, the Exchequer cost would in fact *increase* to **£5.047bn**. Once we incorporate the updated OBR estimates of RPI – which now *include* the RPI abolition – the estimated Exchequer cost of the Augar system reduces to **£2.791bn**.

**Total Exchequer cost of the Augar response (Baseline) system per cohort**



Note: All values have been discounted to net present values and are presented in constant 2021-22 prices (for the 2021-22 results) or 2022-23 prices (for the 2022-23 results).

1. The ONS officially announced the changes to RPI in November 2020 ([here](#)).
2. CPIH = Consumer Price Index including owner occupiers’ housing costs.
3. Our previous analysis made use of long-term RPI forecasts published by the OBR as of March 2021 ([here](#)).



# Impact of abolition of RPI

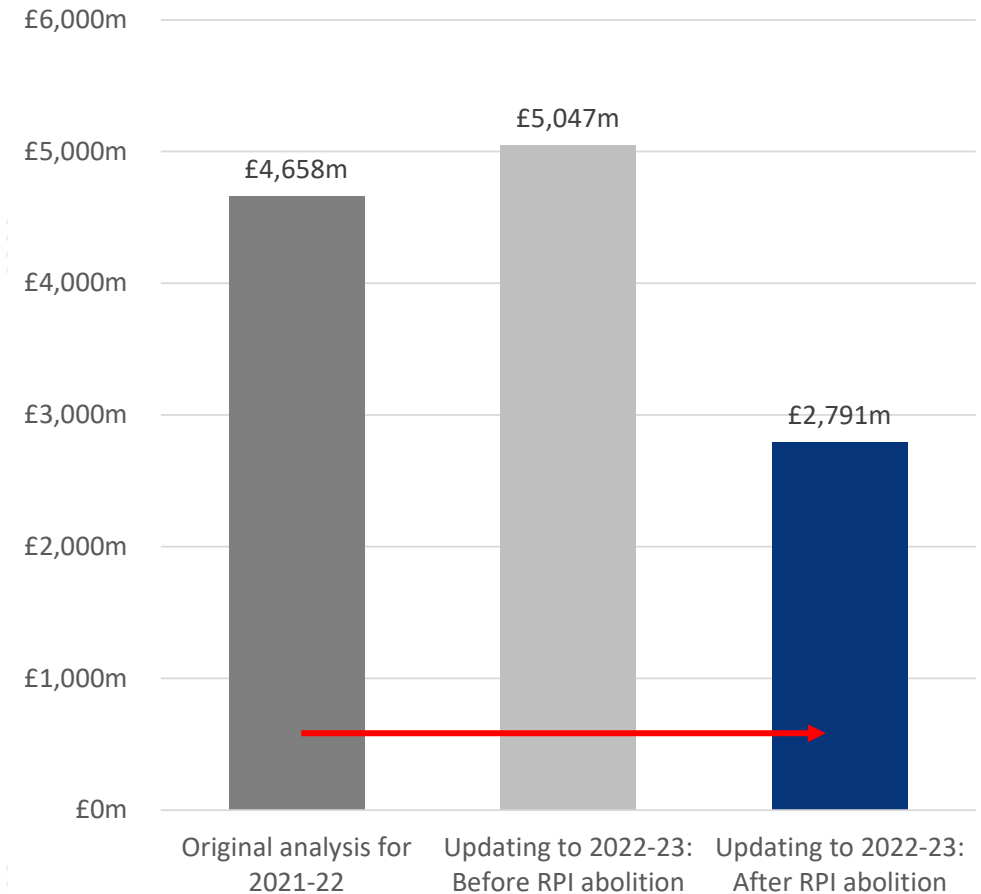
The size of the Retail Price Index thus has a **significant impact** on the estimated cost of the system per cohort.

Specifically, considering the Exchequer cost of the Augar response, the effective **reduction in the RPI** (i.e. the abolition of RPI from 2030) implies that:

- On the one hand: The **nominal interest rate** associated with student loans is reduced, resulting in **lower lifetime loan repayments** for the cohort (i.e. an increase in Exchequer costs); vs.
- On the other hand:
  - The **loan repayment threshold grows at a much slower rate**, so that from 2030 onwards, graduates **make larger repayments** than would otherwise have been the case (also **see next slide for more info**); and
  - The **nominal discount rate** that is applied to discount loan repayments into ‘today’s money terms’ is much lower. Therefore, any future loan repayments are effectively ‘worth more’ – again resulting in **larger lifetime loan repayments** (in net present value terms).

The second set of effects outweighs the first – so that, overall, there is a **significant decline in the estimated Exchequer cost of the Augar response**.

**Total Exchequer cost of the Augar response (Baseline) system per cohort**



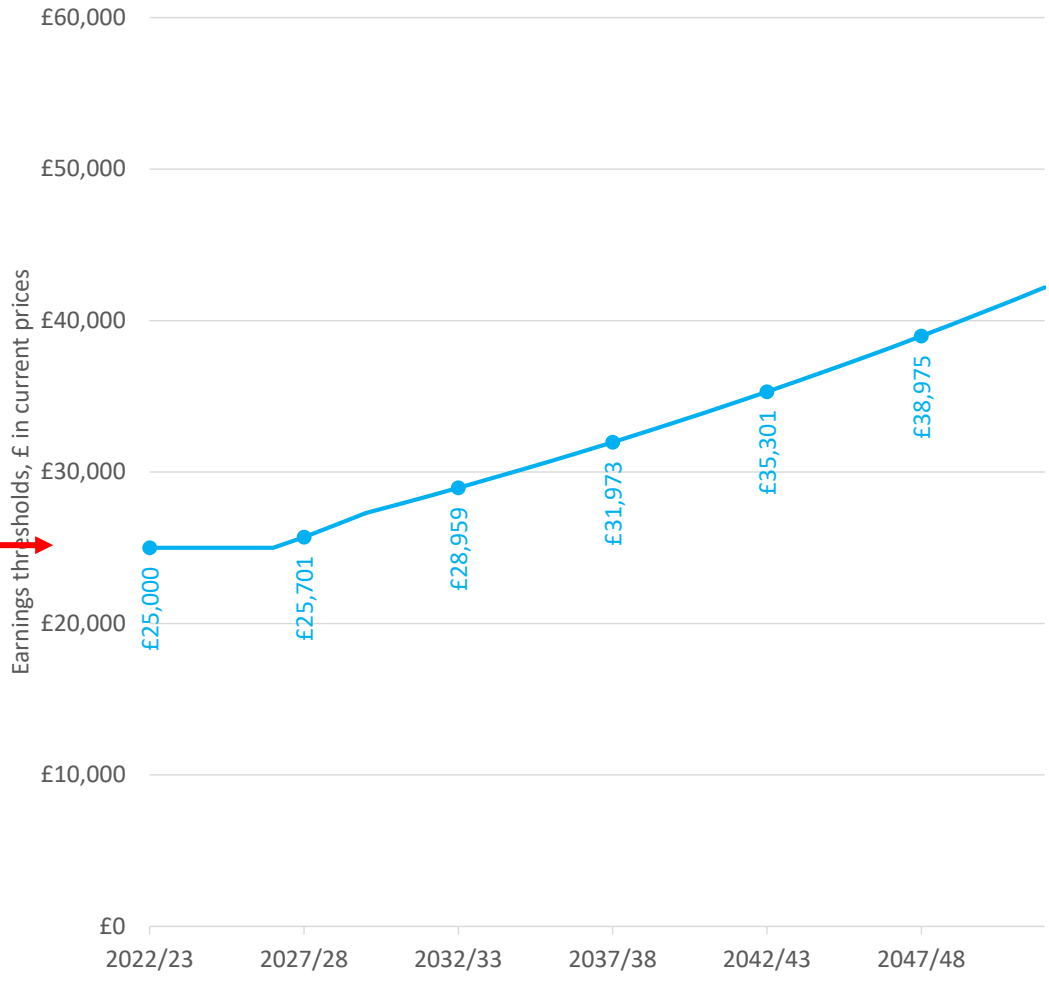
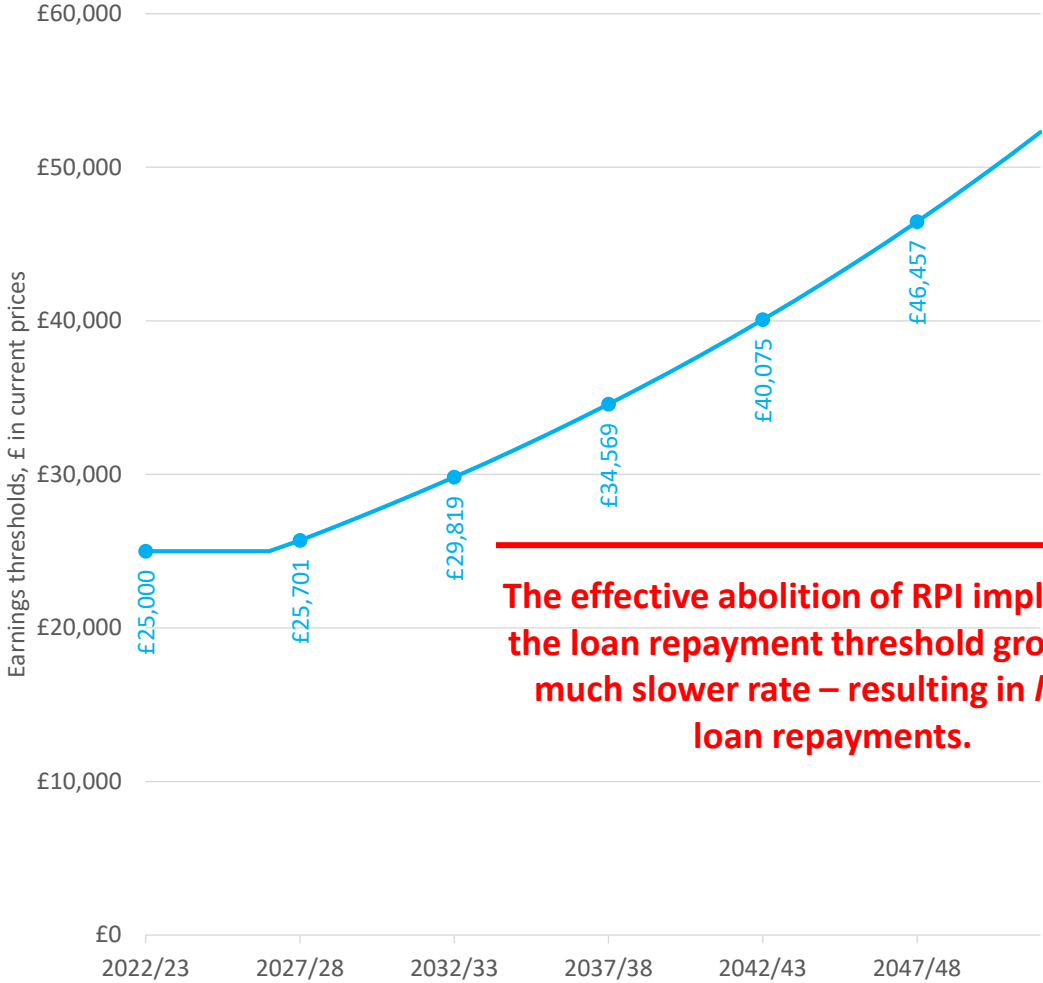
Note: All values have been discounted to net present values and are presented in constant 2021-22 prices (for the 2021-22 results) or 2022-23 prices (for the 2022-23 results).

# Impact of abolition of RPI on loan repayment threshold

Loan repayment earnings thresholds under Augar response system, before and after RPI abolition

Baseline: Augar response – *before* RPI abolition

Baseline: Augar response – *after* RPI abolition



The effective abolition of RPI implies that the loan repayment threshold grows at a much slower rate – resulting in *larger* loan repayments.

Note: All values here are presented in current prices (and are *not* discounted to net present values).