The economic cost of providing potential refunds to students during the Covid-19 pandemic

An analysis on behalf of LSE and University of Sheffield Students' Unions

May 2021

Overview of the analysis

London Economics were commissioned by the LSE and University of Sheffield Students' Unions to assess the economic costs to the Exchequer associated with **alternative scenarios for providing tuition fee refunds to students as a result of the Covid-19 pandemic (i.e. in the 2020-21 academic year)**:

- For those students **not covered** by undergraduate student support arrangements (i.e. the **2020-21 cohort** of first-year **English-domiciled *postgraduate* students** (anywhere in the UK), **EU-domiciled *postgraduate* students studying in England, and *international students* studying in England)**, we estimated the total costs associated with a **30% tuition fee refund**. This analysis was repeated for continuing students.
- In addition, adopting the same potential refund equating to **30% of undergraduate tuition fees**, we estimated the impact of a number of potential changes to current fees and student support arrangements on the **Exchequer** and **students-graduates**, for:
  - The **2020-21 cohort**[1] of first-year **English-domiciled undergraduate students (studying anywhere in the UK),** and **EU-domiciled students studying in England**;
  - **Full-time and part-time students**; and
  - **All undergraduate qualifications** (including first degrees and other undergraduate qualifications below first-degree level).

- The modelling assesses a range of **metrics**, including:
  - The **RAB charge** (i.e. proportion of loan written off), **student loan debt on graduation**, expected **lifetime loan repayments** (by gender and income decile), the proportion of graduates expected to **never fully repay** their loan, and the proportion expected to **never make any repayments**;
  - The total **Exchequer costs** (including the cost of **student support** (i.e. maintenance and fee loans, as well as tuition fee grants *should they exist*) and **Teaching Grant** funding to institutions **across the UK**); and
  - **HEI funding**, in terms of **tuition fee income** and **Teaching Grant** funding, minus the costs of any bursaries provided to students.

[1] The analysis incorporates the fees and funding arrangements facing the cohort of starters in **2020-21.** The assumed size and characteristics of the cohort are based on students commencing their studies in 2017-18; however, importantly, there is less than a **0.5%** size difference between the 2017-18 and 2020-21 cohorts Using information from UCAS End of Cycle Reports (link), there were **394,620** English domiciled placed applicants across the UK and EU-domiciled students placed applicants in English HEIs 28 days post Clearing in 2017-18. In 20120-21, this had increased to **395,870**, representing an increase of **0.3%**

Fee rebates

Understanding the costs associated with fee rebates

- Using information on average tuition fees (by level and mode of study broken down by location of provider and domicile of student[1]), **total tuition fee income** associated with English-domiciled students studying anywhere in the UK and both EU and international students studying in England amounted to **£14.63 billion**.[2]
- For those students **not eligible** for tuition fee loan support (i.e. ***excluding*** English-domiciled undergraduate students across the UK *and* EU-domiciled undergraduate students in England), total tuition fee income was estimated to be **£4.62 billion**.
- A notional **30%** rebate represents approximately **£1.39 billion**. Of this total, approximately **£0.88 billion** is associated with students commencing their studies while **£0.51 billion** is associated with continuing students.
- Illustrating the per student estimates, the rebate for a full-time undergraduate and postgraduate international students were estimated to be between **£5,200** and **£5,300** each.[3] The corresponding estimates for full-time postgraduate English domiciled and EU-domiciled students attending English higher education providers were estimated to be **£2,100** and **£2,300** respectively.
- Although eligible for student support (and hence considered in detail in the remainder of the presentation), a 30% rebate for full time English-domiciled and EU-domiciled undergraduate students studying in England corresponds to **£2,700** per student (and would total approximately **£1.1 billion** for all full-time and part-time 1st year students[4] and **£1.9 billion** for full-time and part-time continuing students).

Total cost associated with 30% rebate on tuition fee applied to students not eligible for tuition fee loan support

Provider Location	Student Domicile	First Year Students				Continuing Students			
Mode / Level		FTUG	PTUG	FTPG	PTPG	FTUG	PTUG	FTPG	PTPG
England	England	Eligible for tuition fee student support		£177m	£49m	Eligible for tuition fee student support		£73m	£49m
Wales	England			£3m	£1m			£2m	£1m
Scotland	England			£2m	£1m			£1m	£1m
Northern Ireland	England			£0m	£0m			£0m	£0m
England	EU			£37m	£2m			£13m	£2m
England	Non-EU	£329m	£7m	£264m	£6m	£257m	£2m	£92m	£16m
Total		**£329m**	**£7m**	**£484m**	**£59m**	**£257m**	**£2m**	**£181m**	**£68m**

[1] To undertake this analysis, we used information relating to HEI income and student numbers from 2018-19. Note that with the exception of full time undergraduate, there was more limited information on UK student domicile. In particular, data on UK-domiciled domestic students was provided only differentiating on whether they were students for the same domicile as the provider or domiciled in the rest of the UK. We assumed that the distribution of PTUG, FTPG and PTPG students by student domicile mirrored full-time undergraduates. In particular, amongst full-time undergraduates, English domiciled students made up 98% of non-Welsh domiciled students attending Welsh HEIs; 81% of non-Scottish domiciled students attending Scottish HEIs; and 90% of non-Northern Irish domiciled students attending Northern Irish HEIs. Out of total fee income of approximately **£14.63 billion**, this adjustment results in a £5 million adjustment. [2] For each category of student, we assume that the tuition fee charged to students commencing their studies and continuing their studies are identical. [3] All estimates rounded to nearest £100. [4]Not accounting for non-completion.

Student compensation via the student loans system

What scenarios did we consider?

Compared to the current (Baseline) fees and funding arrangements for first-year students in 2020-21, we modelled a **range of scenarios** to assess the impact of potential fee reductions/refunds on HEIs, the Exchequer and students/graduates:

- **Scenario 1** involves a **reduction in the tuition fee loan outlay** through the provision of a government funded non-means tested **tuition fee grant of £2,700** in the first year of study (for full-time undergraduate degree students)[1]. This fee grant would apply to both English-domiciled students across the UK and EU-domiciled students attending English HEIs.
- **Scenario 2** involves the provision of a non-means tested government funded **tuition fee grant of £2,700** in the first year of study (for full-time undergraduate degree students) with **no reduction in the tuition fee outlay**.
- **Scenarios 3, 4 and 5** build on Scenario 2. Given the increased Exchequer costs associated with Scenario 2, these scenarios identify the change in the **repayment period**, the change in the **repayment (and interest rate) threshold** and the change in the **post graduation real interest rate** that would need to be charged to **broadly maintain fiscal neutrality** from the perspective of the Exchequer. In each case, there are important **distributional effects**.

Overview of scenarios (for full-time[1] undergraduate students)

	Tuition fee grant	Net tuition fee[2]	Tuition fee loan	Repayment Period	Repayment Threshold	Real Interest Rate
Baseline	£0	£9,120	£9,120	30 years	£26,575	0-3%
Scenario 1	**+£2,700**	Same as Baseline	**-£2,700**	Same as Baseline	Same as Baseline	Same as Baseline
Scenario 2	**+£2,700**	Same as Baseline	Same as Baseline	Same as Baseline	Same as Baseline	Same as Baseline
Scenario 3	**+£2,700**	Same as Baseline	Same as Baseline	**36 years**	Same as Baseline	Same as Baseline
Scenario 4	**+£2,700**	Same as Baseline	Same as Baseline	Same as Baseline	**£24,500**	Same as Baseline
Scenario 5	**+£2,700**	Same as Baseline	Same as Baseline	Same as Baseline	Same as Baseline	**0-6.2%**

[1] The various changes were applied on a pro-rata basis for part-time students (based on study intensity). For full-time first-degree students (with an average study duration of 3 years), the model applies corresponding changes in each year of study (of £900 per student per year) to generate an effect that is equivalent to a £2,700 change in grant/loan in the first year of study. As a result, shorter undergraduate programmes are associated with a smaller absolute change in the different fee/funding levels under consideration. All estimates rounded to nearest £100

Impact of the current funding system (Baseline)

Impact of the current system (Baseline)

Baseline system

Resource flows (£/£m/%)	Baseline
Exchequer	
Cost of maintenance grant	-
Cost of maintenance loan	(£4,019m)
Cost of tuition fee grant	-
Cost of tuition fee loan	(£5,395m)
Cost of Teaching Grants	(£1,242m)
Total Exchequer cost	**(£10,656m)**
RAB charge (%)	**53.9%**
% never repaying full loan/anything	**88.2%/33.0%**
Higher education institutions	
Gross fee income	£10,093m
Teaching Grant income	£1,242m
Cost of bursary provision	(£189m)
Net HEI income	**£11,147m**
Students/Graduates (FT degrees)	
Average debt on graduation	**£47,000**
Average lifetime repayments (M/F)	**£34,800/£13,100**

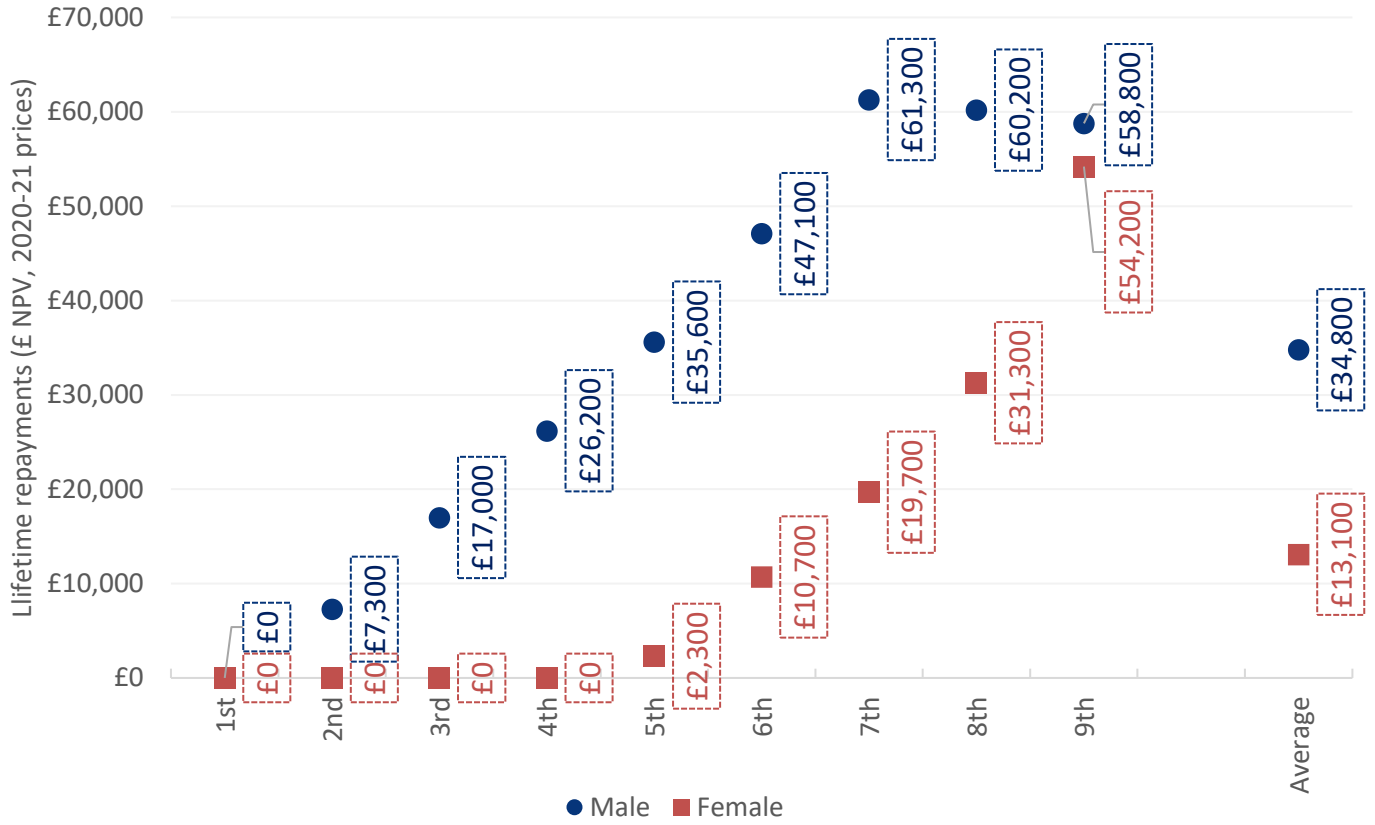
- Under the current funding system in 2020-21 (i.e. the Baseline), the Exchequer contributes approximately **£10.656bn** per cohort to the funding of higher education. In terms of constituent components, given that the **RAB charge** (i.e. the proportion of the total loan balance written off) stands at approximately **53.9%**, **maintenance loan write-offs** cost the Exchequer **£4.019bn** per cohort, while **tuition fee loan write-offs** cost **£5.395bn** per cohort. The provision of **Teaching Grants** to higher education institutions (for high-cost subjects) results in additional costs of **£1.242bn** per cohort.
- Higher education institutions receive approximately **£11.147bn** per cohort in net income, made up of approximately **£10.093bn** in **tuition fee income** (from undergraduate students), as well as **£1.242bn** in **Teaching Grant** income. Against this, institutions contribute approximately **£189 million** per cohort in fee and maintenance **bursaries** (predominantly the latter) in exchange for the right to charge tuition fees in excess of the 'Basic Fee' (**£6,165** per annum for full-time students).
- From the perspective of students/graduates, the average debt on graduation (including accumulated interest) was estimated to be **£47,000** (for full-time undergraduate degree students), while the average lifetime repayments made stood at **£34,800** for male graduates and **£13,100** for female graduates.
- We estimate that approximately **88.2%** of all graduates **never repay their full loan** by the end of the repayment period, while **33.0% never make any loan repayment**.

Note: All monetary values have been discounted to net present values and are presented in constant 2020-21 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 undergraduate degree students only. Gross fee income refers to fee income before the deduction of fee bursaries provided to students.

Graduate loan repayments in Baseline: Total repayments

Baseline system

Total loan repayments by FT undergraduate degree graduates (NPV in 2020-21 prices), by earnings decile and gender

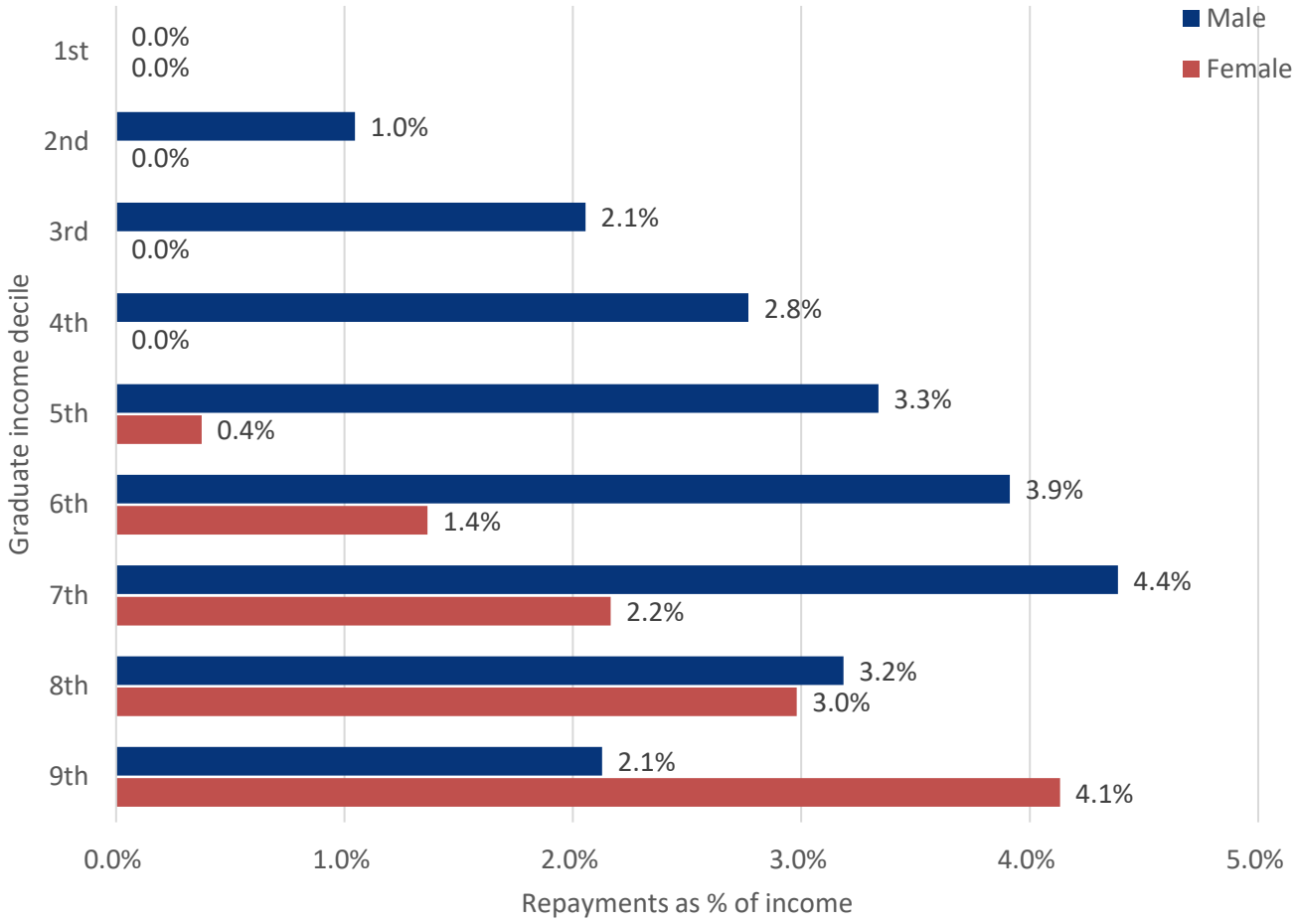


- In terms of total loan repayments, while the average repayments made by **male graduates** stand at **£34,800**, there is considerable variation depending on earnings decile. Male graduates in the top three earnings deciles make repayments of between **£58,800** and **£61,300**, while male graduates in the bottom earnings decile make no repayments.
- **Female graduates** in the bottom four earnings deciles are not expected to make any loan repayments over the 30-year repayment period. However, repayments increase sharply thereafter. Female graduates in the 7th, 8th and 9th earnings deciles would be expected to make repayments of **£19,700, £31,300** and **£54,200** respectively (with an average repayment of **£13,100** across all deciles).

Graduate loan repayments in Baseline: Progressivity

Baseline system

Total loan repayments by full-time undergraduate degree graduates, as a % of income (during repayment period), by decile and gender



- The current loan system is **regressive at the upper end of the earnings distribution**.
- Reflecting total lifetime loan repayments, **up until the 7th earnings decile**, male graduates contribute an increasing proportion of their income in loan repayments (over the 30-year repayment period). For male graduates on the **5th earnings decile**, the proportion stands at **3.3%**, increasing to **4.4%** on the **7th earnings decile**. However, illustrating the 'local regressivity' of the repayment system, after this point, the proportion of earnings over the period contributed as loan repayments decreases to **3.2%** and **2.1%** on the **8th** and **9th deciles**, respectively.
- Female graduates in the bottom 4 deciles make no repayments, while the proportion of income contributed in loan repayments on the **5th decile** stands at **0.4%**. This increases in successive earnings deciles – reaching **3.0%** of total income over the period on the **8th decile** and **4.1%** on the **9th decile**.

Impact of Scenario 1

Impact of Scenario 1

Scenario 1

Resource flows (£/£m/%)	Baseline	Scenario 1	Difference
Exchequer			
Cost of maintenance grant	-	-	-
Cost of maintenance loan	(£4,019m)	(£3,910m)	£109m
Cost of tuition fee grant	-	(£1,009m)	(£1,009m)
Cost of tuition fee loan	(£5,395m)	(£4,722m)	£673m
Cost of Teaching Grants	(£1,242m)	(£1,242m)	-
Total Exchequer cost	**(£10,656m)**	**(£10,883m)**	**(£227m)**
RAB charge (%)	**53.9%**	**52.5%**	**-1.4pp**
% never repaying full loan/anything	**88.2%/33.0%**	**84.6%/33.0%**	**-3.7pp/0pp**
Higher education institutions			
Gross fee income	£10,093m	£10,093m	-
Teaching Grant income	£1,242m	£1,242m	-
Cost of bursary provision	(£189m)	(£189m)	-
Net HEI income	**£11,147m**	**£11,147m**	**-**
Students/Graduates (FT degrees)			
Average debt on graduation	**£47,000**	**£44,300**	**(£2,700)**
Average lifetime repayments (M/F)	**£34,800/£13,100**	**£33,500/£13,100**	**(£1,300)/£0**

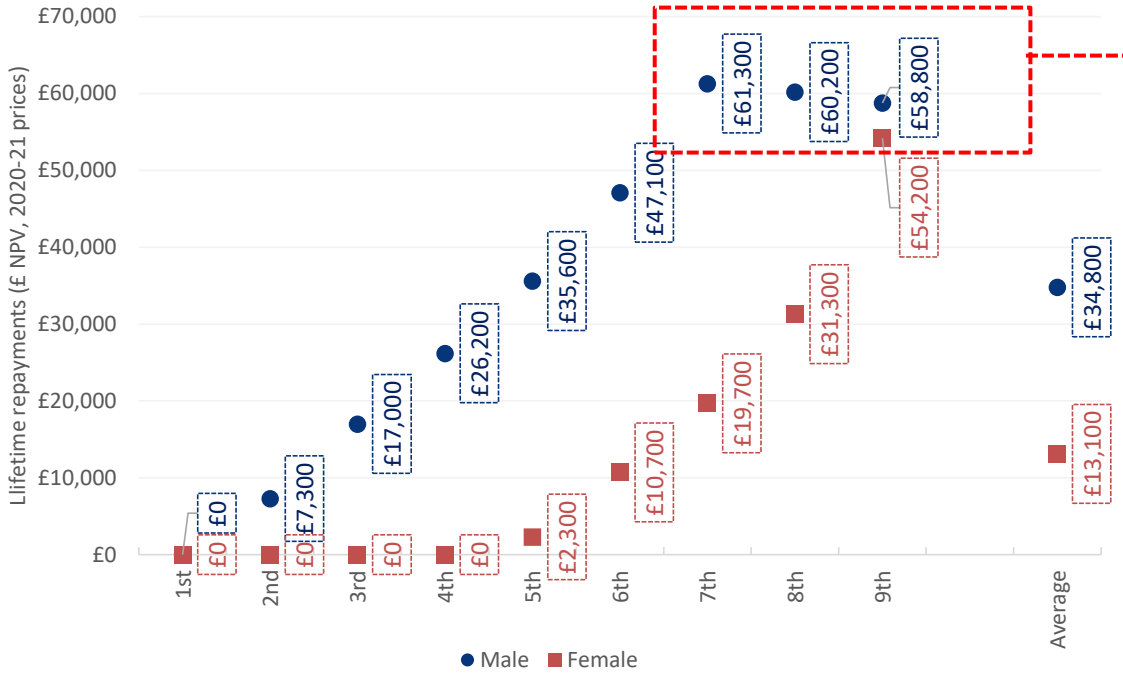
- Scenario 1 involves a **reduction in the tuition fee loan outlay**, following the provision of a government funded (non-means tested) **tuition fee grant of £2,700 in the first year of study** for full-time undergraduate degree students (pro-rata for part-time undergraduates). This fee grant would apply to both English-domiciled and EU-domiciled students.
- Compared to the Baseline, under this scenario, **higher education institutions would be unaffected**.
- For the Exchequer, there is a trade off between the additional cost associated with the tuition fee grant (**£1.009 billion**) and the total savings (**£782 million**) associated with the reduced cost of fee and maintenance loans (resulting from the reduction in the RAB charge (by **1.4 percentage points**)).
- The *marginal* RAB charge associated with the final **£2,700** of fee loan stands at **77%** (which means that only **23%** of this final amount would be have been expected to be repaid). Overall, compared to the Baseline, the cost to the Exchequer would increase by **£227 million**, which essentially reflects the additional cost of writing off the **23%** of final £2,700 of loan outlay that would have been repaid in the Baseline scenario.
- Conversely, since replacing **£2,700** of tuition fee loans with tuition fee grants is a transfer between the Exchequer and students/graduates, this change in funding arrangements would make students/graduates **£227 million** a cohort better off.

Note: All monetary values have been discounted to net present values and are presented in constant 2020-21 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 undergraduate degree students only. Gross fee income refers to fee income before the deduction of fee bursaries provided to students.

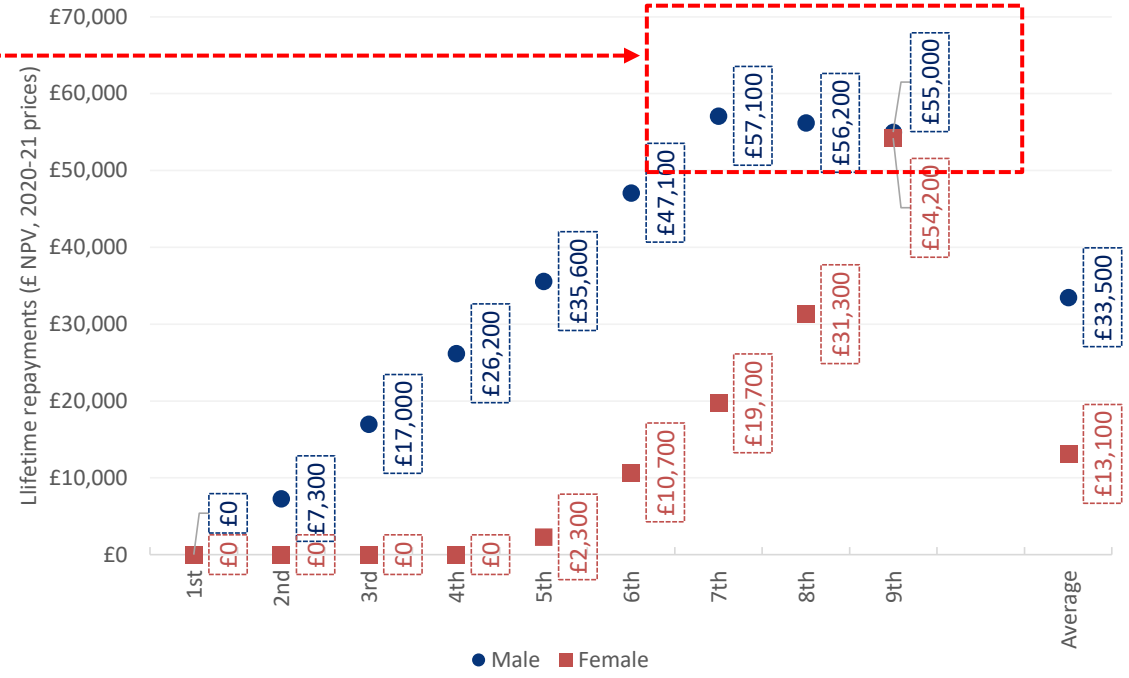
Graduate loan repayments under Scenario 1: Total repayments

Total loan repayments by English-domiciled FT undergraduate degree graduates (NPV in 2020-21 prices), by earnings decile and gender

Baseline



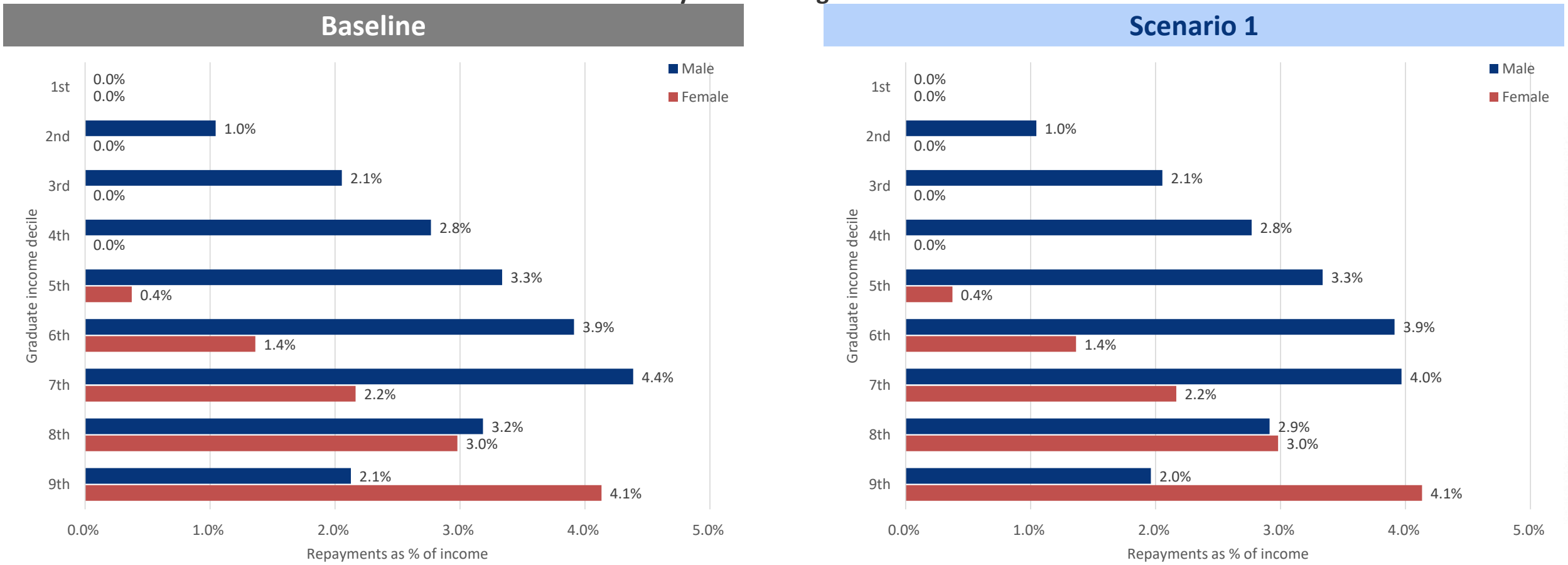
Scenario 1



- The replacement of **£2,700** in tuition fee loans with tuition fee grants would make students/ graduates **£227 million** a cohort better off. However, the **entire benefit is accrued by male graduates in the top 3 earnings deciles**. Compared to the Baseline, male graduates on the 7th, 8th and 9th deciles would be **£4,200**, **£4,000** and **£3,800** better off (respectively). **All other graduates would be unaffected.**

Graduate loan repayments under Scenario 1: Progressivity

Total loan repayments by English-domiciled full-time undergraduate degree graduates, as a % of income (during repayment period), by decile and gender



- This scenario would make the funding system **slightly more regressive at the upper end of the earnings distribution**, with male graduates on the 7th, 8th and 9th earnings deciles now contributing marginally lower proportions of their income in loan repayments (with no impact on male graduates in lower learning deciles (or female graduates)).

Impact of Scenario 2

Impact of Scenario 2

Scenario 2

Resource flows (£/£m/%)	Baseline	Scenario 2	Difference
Exchequer			
Cost of maintenance grant	-	-	-
Cost of maintenance loan	(£4,019m)	(£4,019m)	-
Cost of tuition fee grant	-	(£1,009m)	(£1,009m)
Cost of tuition fee loan	(£5,395m)	(£5,395m)	-
Cost of Teaching Grants	(£1,242m)	(£1,242m)	-
Total Exchequer cost	**(£10,656m)**	**(£11,665m)**	**(£1,009m)**
RAB charge (%)	**53.9%**	**53.9%**	-
% never repaying full loan/anything	**88.2%/33.0%**	**88.2%/33.0%**	-
Higher education institutions			
Gross fee income	£10,093m	£10,093m	-
Teaching Grant income	£1,242m	£1,242m	-
Cost of bursary provision	(£189m)	(£189m)	-
Net HEI income	**£11,147m**	**£11,147m**	-
Students/Graduates (FT degrees)			
Average debt on graduation	**£47,000**	**£47,000**	-
Average lifetime repayments (M/F)	**£34,800/£13,100**	**£34,800/£13,100**	-

- Scenario 2 involves **the provision of a non-means tested tuition fee grant of £2,700 per student in the first year of study** for full-time undergraduate degree students (again pro rata for part-time students). There would be **no corresponding reduction in the tuition fee loan** provided by the Exchequer.
- For the Exchequer, the provision of non-means tested tuition fee grant would result in an increase in the cost of student support by **£1.009 billion** compared to the Baseline, with **no compensating cost savings** associated with fee or maintenance loans. This represents a **9.4%** increase in Exchequer costs associated with a cohort of starters. Extending this to all continuing students would more than **double** the overall cost to the Exchequer.
- For graduates, there is no change in loan repayments (as none of the terms have changed from the Baseline); however, students would be more than **£1 billion** per cohort better off as a result of the provision on the non-means tested tuition fee grant.
- The profile of graduate loan repayments would be the **same** as under Baseline.

Note: All monetary values have been discounted to net present values and are presented in constant 2020-21 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 undergraduate degree students only. Gross fee income refers to fee income before the deduction of fee bursaries provided to students.

Impact of Scenario 3

Impact of Scenario 3

Scenario 3

Resource flows (£/£m/%)	Baseline	Scenario 3	Difference
Exchequer			
Cost of maintenance grant	-	-	-
Cost of maintenance loan	(£4,019m)	(£3,612m)	£406m
Cost of tuition fee grant	-	(£1,009m)	(£1,009m)
Cost of tuition fee loan	(£5,395m)	(£4,840m)	£555m
Cost of Teaching Grants	(£1,242m)	(£1,242m)	-
Total Exchequer cost	**(£10,656m)**	**(£10,704m)**	**(£48m)**
RAB charge (%)	**53.9%**	**49.0%**	**-4.9pp**
% never repaying full loan/anything	**88.2%/33.0%**	**84.5%/33.0%**	**-3.7pp / 0pp**
Higher education institutions			
Gross fee income	£10,093m	£10,093m	-
Teaching Grant income	£1,242m	£1,242m	-
Cost of bursary provision	(£189m)	(£189m)	-
Net HEI income	**£11,147m**	**£11,147m**	-
Students/Graduates (FT degrees)			
Average debt on graduation	**£47,000**	**£47,000**	-
Average lifetime repayments (M/F)	**£34,800/£13,100**	**£38,200/£15,800**	**£3,400/£2,700**

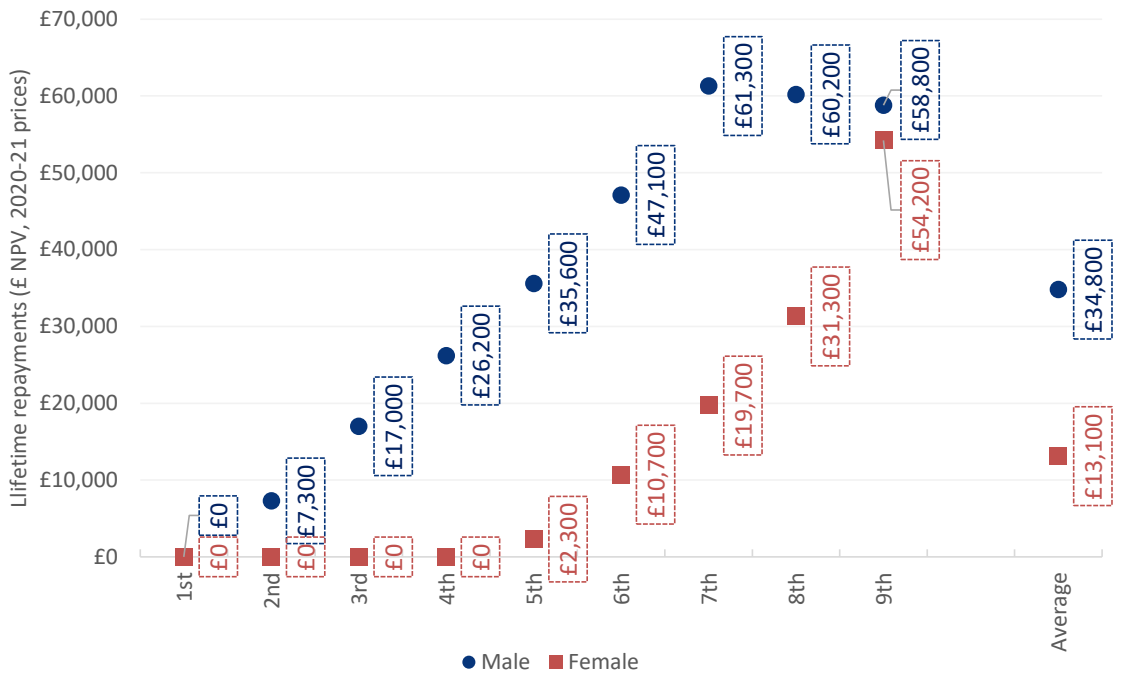
- Scenario 2 results in an increase in the cost of student support by **£1.009 billion** compared to the Baseline, with **no compensating cost savings** associated with fee or maintenance loans.
- In **Scenario 3**, we retain the provision of the **£2,700** non-means tested tuition fee grant; however, against the costs of this short-term payment to students, we model increases **in the duration of the loan repayment period** – sufficient to ensure broad cost neutrality to the Exchequer. This increase in the duration of repayment period was estimated to be **6 years – from 30 to 36 years.** Essentially this approach is a resource transfer from graduates in the future to students today.
- Under this scenario, the Exchequer recoups approximately **£406 million** in maintenance loan costs and **£555 million** in tuition fee loan costs from the extended repayment period. Overall, the total cost to the Exchequer is **£48 million** greater than in the Baseline scenario.
- The RAB charge declines by **4.9 percentage points** (to **49.0%**)
- Although debt on graduation remains the same as in the Baseline, the extension of the repayment period results in the average full-time first degree male graduate making an **additional £3,400** in lifetime repayments, while the corresponding estimate for female graduates stands at **£2,700**. However. there are **some important distributional effects** as not all graduates are equally impacted.

Note: All monetary values have been discounted to net present values and are presented in constant 2020-21 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 undergraduate degree students only. Gross fee income refers to fee income before the deduction of fee bursaries provided to students.

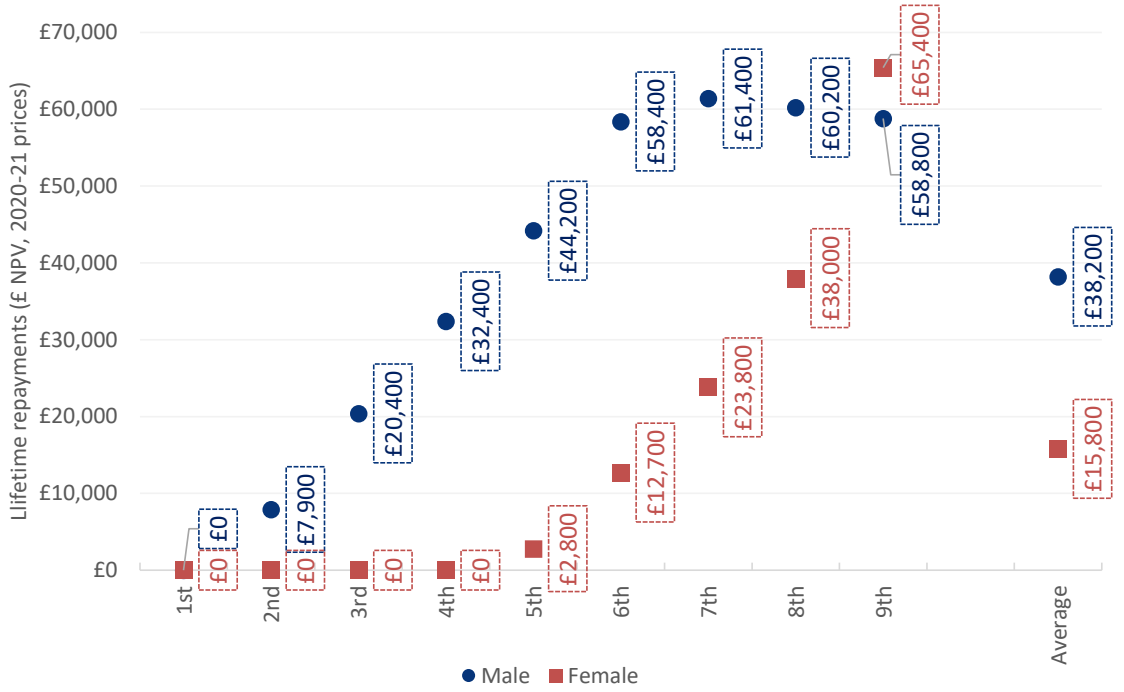
Graduate loan repayments under Scenario 3: Total repayments

Total loan repayments by English-domiciled FT undergraduate degree graduates (NPV in 2020-21 prices), by earnings decile and gender

Baseline and Scenario 2



Scenario 3

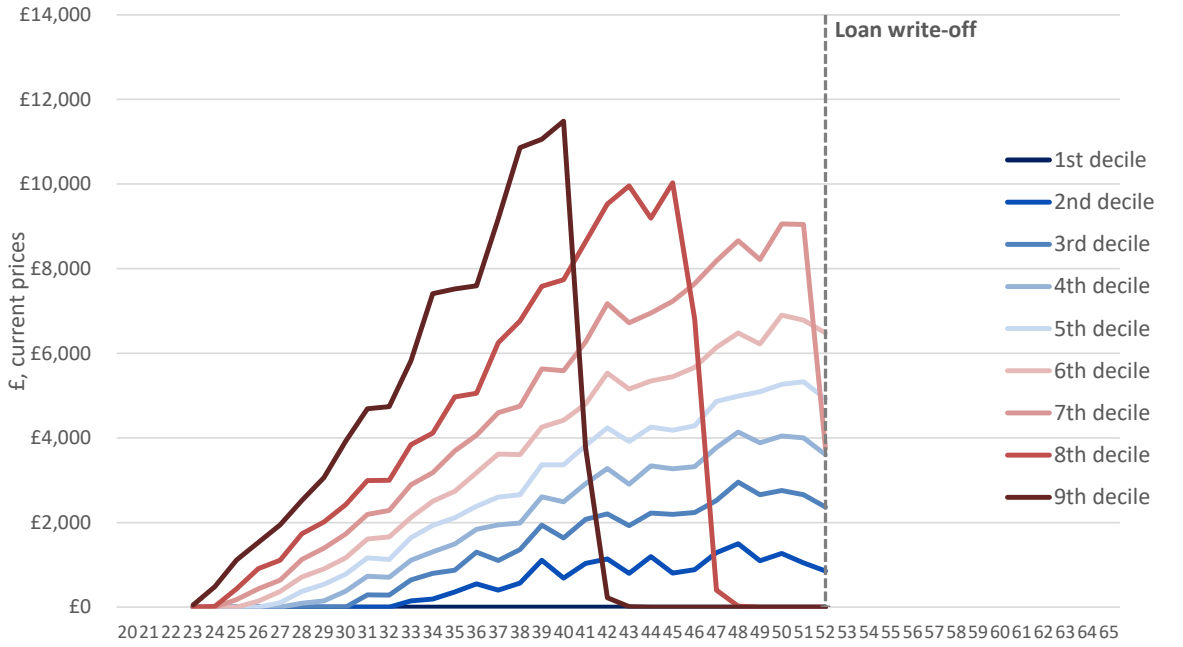


- The extension of the repayment periods by 6 years **only impacts those graduates that would not have been expected to repay under the original repayment period**. Male graduates on the 7th, 8th and 9th deciles would be **unaffected** by the repayment period extension. However, middle income male graduates would be approximately **£3,000** worse off, while higher earning female graduates could be up to **£11,000** worse off.

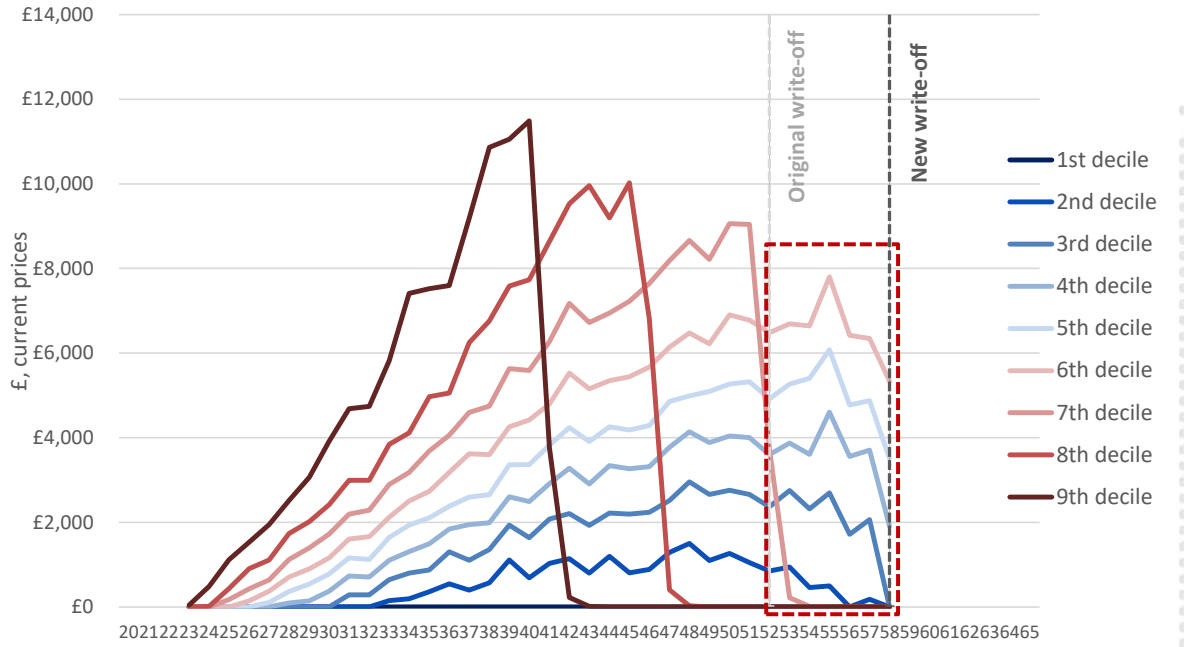
Graduate loan repayments under Scenario 3: Repayment profile

Annual loan repayments by English-domiciled FT undergraduate degree graduates (NPV in 2020-21 prices), by earnings decile (males)

Baseline and Scenario 2



Scenario 3



- The extension of the repayment period by **6 years** only impacts those graduates that would **not have been expected to repay under the original repayment terms** Male graduates on the 7th, 8th and 9th deciles would be **unaffected** by the repayment period extension. The lowest earning graduates would also be unaffected by this policy; however, approximately **50%** of middle-income graduates would bear significant additional costs.

Impact of Scenario 4

Impact of Scenario 4

Scenario 4

Resource flows (£/£m/%)	Baseline	Scenario 4	Difference
Exchequer			
Cost of maintenance grant	-	-	-
Cost of maintenance loan	(£4,019m)	(£3,592m)	£427m
Cost of tuition fee grant	-	(£1,009m)	(£1,009m)
Cost of tuition fee loan	(£5,395m)	(£4,821m)	£574m
Cost of Teaching Grants	(£1,242m)	(£1,242m)	-
Total Exchequer cost	**(£10,656m)**	**(£10,664m)**	**(£9m)**
RAB charge (%)	**53.9%**	**48.2%**	**-5.7pp**
% never repaying full loan/anything	**88.2%/33.0%**	**83.2%/22.6%**	**-5.0pp / - 10.4pp**
Higher education institutions			
Gross fee income	£10,093m	£10,093m	-
Teaching Grant income	£1,242m	£1,242m	-
Cost of bursary provision	(£189m)	(£189m)	-
Net HEI income	**£11,147m**	**£11,147m**	-
Students/Graduates (FT degrees)			
Average debt on graduation	**£47,000**	**£47,000**	-
Average lifetime repayments (M/F)	**£34,800/£13,100**	**£37,400/£15,900**	**£2,600 / £2,800**

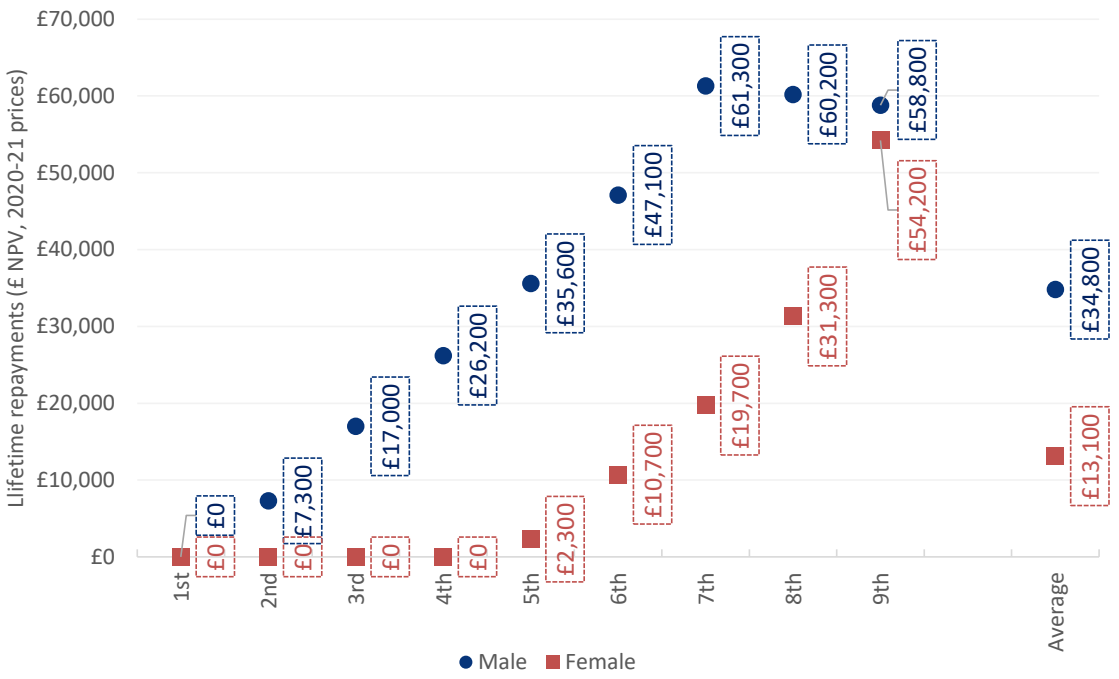
- In **Scenario 4**, we again retain the provision of the **£2,700** non-means tested tuition fee grant; however, against the costs of this short-term payment to students, we model **reductions in the repayment (and interest rate) threshold** – sufficient to (again) ensure broad cost neutrality to the Exchequer. The reduction in the repayment threshold required was estimated to be **£2,075** – to **£24,500.** Interest rate thresholds were also reduced to maintain the same 'relativity' existing in the Baseline (namely that a real interest rate of 3% is charged for earnings £21,260 in excess of the repayment threshold).
- Under this scenario, the Exchequer recoups approximately **£427 million** in maintenance loan costs and **£574 million** in tuition fee loan costs. Overall, the total cost to the Exchequer is **£9 million** greater than in the Baseline scenario.
- The RAB charge declines by **5.7 percentage points** (to **48.2%**)
- Although debt on graduation remains the same as in the Baseline, the reduction in the repayment and interest rate thresholds results in the average full-time first degree male graduate making an additional **£2,600** in lifetime repayments, while the corresponding estimate for the average female graduate stands at **£2,800**.
- Again, there are some important distributional effects as not all graduates are equally impacted.

Note: All monetary values have been discounted to net present values and are presented in constant 2020-21 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 undergraduate degree students only. Gross fee income refers to fee income before the deduction of fee bursaries provided to students.

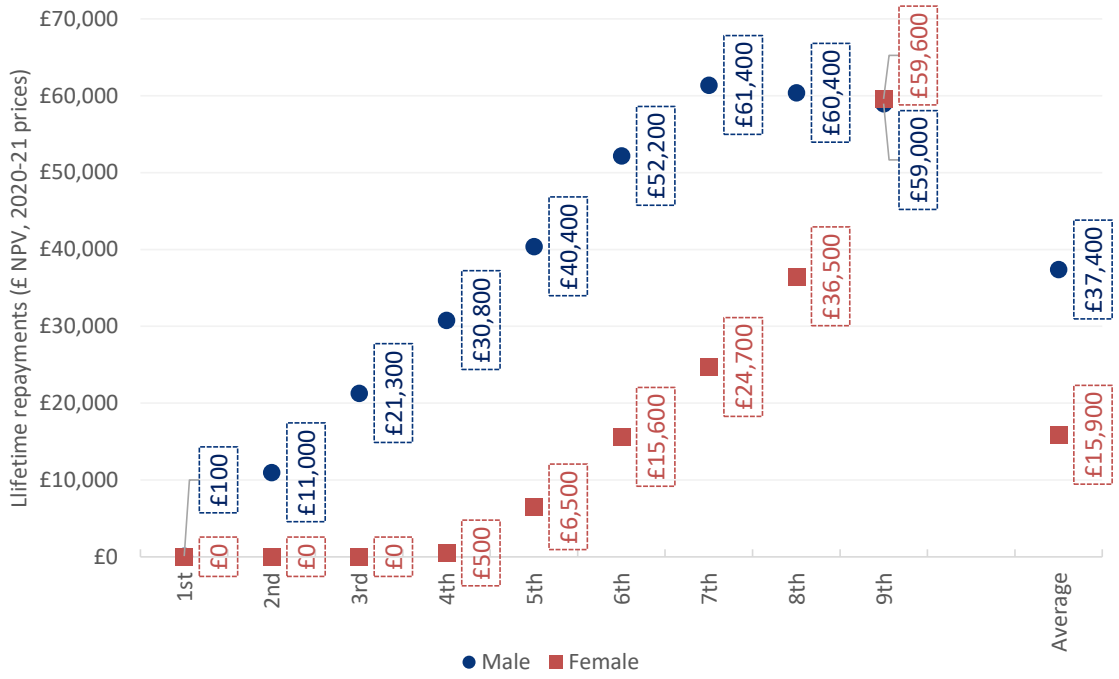
Graduate loan repayments under Scenario 4: Total repayments

Total loan repayments by English-domiciled FT undergraduate degree graduates (NPV in 2020-21 prices), by earnings decile and gender

Baseline and Scenario 2



Scenario 4



- The reduction in the repayment threshold significantly impacts lower earning (predominantly female) graduates. Male graduates on the 8th and 9th deciles would be essentially **unaffected**. However, middle-income male graduates (5th decile) would be approximately **£4,800** worse off, while higher earning female graduates (8th and 9th deciles) would be up to **£5,400** worse off.

Impact of Scenario 5

Impact of Scenario 5

Scenario 5

Resource flows (£/£m/%)	Baseline	Scenario 5	Difference
Exchequer			
Cost of maintenance grant	-	-	-
Cost of maintenance loan	(£4,019m)	(£3,592m)	£427m
Cost of tuition fee grant	-	(£1,009m)	(£1,009m)
Cost of tuition fee loan	(£5,395m)	(£4,819m)	£576m
Cost of Teaching Grants	(£1,242m)	(£1,242m)	-
Total Exchequer cost	**(£10,656m)**	**(£10,662m)**	**(£6m)**
RAB charge (%)	**53.9%**	**48.3%**	**-5.6pp**
% never repaying full loan/anything	**88.2%/33.0%**	**92.5%/33.0%**	**4.3pp / 0pp**
Higher education institutions			
Gross fee income	£10,093m	£10,093m	-
Teaching Grant income	£1,242m	£1,242m	-
Cost of bursary provision	(£189m)	(£189m)	-
Net HEI income	**£11,147m**	**£11,147m**	-
Students/Graduates (FT degrees)			
Average debt on graduation	**£47,000**	**£47,000**	-
Average lifetime repayments (M/F)	**£34,800/£13,100**	**£41,300 / £13,100**	**£6,500 / -**

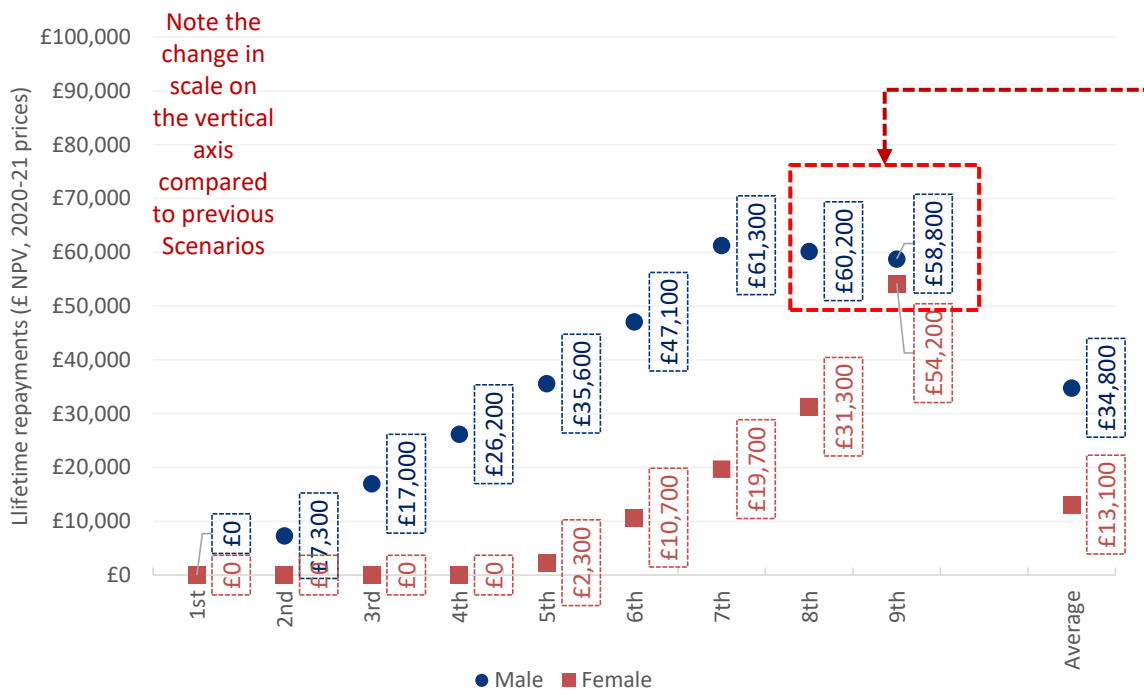
- In **Scenario 5**, we again retain the provision of the **£2,700** non-means tested tuition fee grant; however, against the costs of this short- term payment to students, we model **increases in the real interest rate post graduation** – sufficient to ensure broad cost neutrality to the Exchequer. The increase in the maximum real interest rate post graduation was estimated to be **3.2 percentage points** (from **3.0%** to **6.2%**).
- Under this scenario, the Exchequer recoups approximately **£427 million** in maintenance loan costs and **£576 million** in tuition fee loan costs. Overall, the total cost to the Exchequer is **£6 million** greater than in the Baseline scenario.
- The RAB charge declines by **5.6 percentage points** (to **48.3%**)
- Although debt on graduation remains the same as in the Baseline, the increase in the maximum real interest rate thresholds results in the average full-time first-degree male graduate making an additional **£6,500** in lifetime repayments. Female full-time first degree graduates are, on average, **unaffected** by this policy.
- Again, there are some important distributional effects as not all graduates are equally impacted.

Note: All monetary values have been discounted to net present values and are presented in constant 2020-21 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 undergraduate degree students only. Gross fee income refers to fee income before the deduction of fee bursaries provided to students.

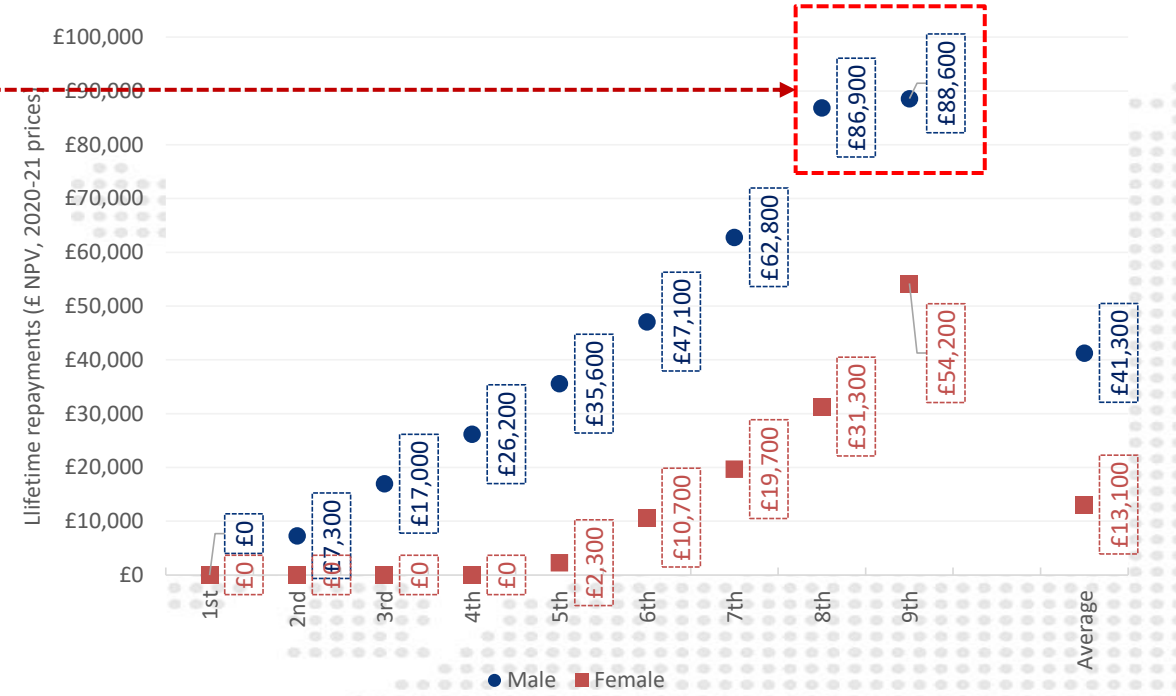
Graduate loan repayments under Scenario 5: Total repayments

Total loan repayments by English-domiciled FT undergraduate degree graduates (NPV in 2020-21 prices), by earnings decile and gender

Baseline and Scenario 2



Scenario 5



- **Post graduation real interest rates are the key component of the student finance system delivering progressivity.** The increase in the maximum real interest rate does not impact male graduates on the 6th decile and below or any female graduates. However, the highest earning male graduates (8th and 9th deciles) would be approximately **£26,900** and **£29,800** worse off, respectively.

Comparison across all scenarios

Comparing impacts across all scenarios

All scenarios

Resource flows (£/£m/%)	Baseline	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5
Exchequer						
Cost of maintenance grant	-	-	-	-	-	-
Cost of maintenance loan	(£4,019m)	(£3,910m)	(£4,019m)	(£3,612m)	(£3,592m)	(£3,592m)
Cost of tuition fee grant	-	(£1,009m)	(£1,009m)	(£1,009m)	(£1,009m)	(£1,009m)
Cost of tuition fee loan	(£5,395m)	(£4,722m)	(£5,395m)	(£4,840m)	(£4,821m)	(£4,819m)
Cost of Teaching Grants	(£1,242m)	(£1,242m)	(£1,242m)	(£1,242m)	(£1,242m)	(£1,242m)
Total Exchequer cost	**(£10,656m)**	**(£10,883m)**	**(£11,665m)**	**(£10,704m)**	**(£10,664m)**	**(£10,662m)**
RAB charge (%)	**53.9%**	**52.5%**	**53.9%**	**49.0%**	**48.2%**	**48.3%**
% never repaying full loan/anything	**88.2%/33.0%**	**84.6%/33.0%**	**88.2%/33.0%**	**84.5%/33.0%**	**83.2%/22.6%**	**92.5%/33.0%**
Higher education institutions						
Gross fee income	£10,093m	£10,093m	£10,093m	£10,093m	£10,093m	£10,093m
Teaching Grant income	£1,242m	£1,242m	£1,242m	£1,242m	£1,242m	£1,242m
Cost of bursary provision	(£189m)	(£189m)	(£189m)	(£189m)	(£189m)	(£189m)
Net HEI income	**£11,147m**	**£11,147m**	**£11,147m**	**£11,147m**	**£11,147m**	**£11,147m**
Students/Graduates (FT degrees)						
Average debt on graduation	**£47,000**	**£44,300**	**£47,000**	**£47,000**	**£47,000**	**£47,000**
Average lifetime repayments (M/F)	**£34,800/£13,100**	**£33,500/£13,100**	**£34,800/£13,100**	**£38,200/£15,800**	**£37,400/£15,900**	**£41,300/£13,100**

- The core cost to the Exchequer of offering a non-means tested tuition fee grant of **£2,700** to all undergraduate starting students stands at approximately **£1.009 bn** (Scenario 2).
- This can be partially offset (by **£782 million**) by equivalently reducing tuition fee loans (Scenario 1), or totally offset by extending the repayment period to **36 years** (Scenario 3); reducing the repayment threshold to **£24,500** (Scenario 4); or increasing the maximum real interest rate to **6.2%** (Scenario 5).
- Depending on the option selected, there are very considerable differences on which graduates are impacted.

Note: All monetary values have been discounted to net present values and are presented in constant 2020-21 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 undergraduate degree students only. Gross fee income refers to fee income before the deduction of fee bursaries provided to students.

Comparing impacts across all scenarios: Difference to Baseline

All scenarios

Difference to Baseline

Resource flows (£/£m/%)	Baseline	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5
Exchequer						
Cost of maintenance grant		-	-	-	-	-
Cost of maintenance loan		£109m	-	£406m	£427m	£427m
Cost of tuition fee grant		(£1,009m)	(£1,009m)	(£1,009m)	(£1,009m)	(£1,009m)
Cost of tuition fee loan		£673m	-	£555m	£574m	£576m
Cost of Teaching Grants		-	-	-	-	-
Total Exchequer cost		**(£227m)**	**(£1,009m)**	**(£48m)**	**(£9m)**	**(£6m)**
RAB charge (%)		**-1.4pp**	-	**-4.9pp**	**-5.7pp**	**-5.6pp**
% never repaying full loan/anything		**-3.7pp / 0pp**	-	**-3.7pp / 0pp**	**-5.0pp/-10.4pp**	**4.3pp / 0pp**
Higher education institutions						
Gross fee income		-	-	-	-	-
Teaching Grant income		-	-	-	-	-
Cost of bursary provision		-	-	-	-	-
Net HEI income		-	-	-	-	-
Students/Graduates (FT degrees)						
Average debt on graduation		**(£2,700)**	-	-	-	-
Average lifetime repayments (M/F)		**(£1,300) / -**	**- / -**	**£3,400 /£2,700**	**£2,600 / £2,800**	**£6,500 / -**

- The core cost to the Exchequer of offering a non-means tested tuition fee grant of **£2,700** to all undergraduate starting students stands at approximately **£1.009 bn** (Scenario 2).
- This can be partially offset (by **£782 million**) by equivalently reducing tuition fee loans (Scenario 1), or totally offset by extending the repayment period to **36 years** (Scenario 3); reducing the repayment threshold to **£24,500** (Scenario 4); or increasing the maximum real interest rate to **6.2%** (Scenario 5).
- Depending on the option selected, there are very considerable differences on which graduates are impacted.

Note: All monetary values have been discounted to net present values and are presented in constant 2020-21 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 undergraduate degree students only. Gross fee income refers to fee income before the deduction of fee bursaries provided to students.

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Annex I

Methodology and assumptions

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Assumptions and methodology

- The student loan model considers the total number of full-time and part-time **English domiciled** first-year students undertaking undergraduate qualifications **at any institution in the UK**, as well as full-time and part-time **EU students** engaged in undergraduate education **studying at English institutions**. We use information from the Higher Education Statistics Agency (HESA, here) for 2017-18, and we assume that the size and characteristics of the relevant cohort have **remained unchanged**[1] between 2017-18 and 2020-21.
- Based on the same HESA data, we assume the following distribution of students by **qualification level**:

Qualification level	Full-time	Part-time
Other undergraduate	3%	57%
HNC/HND	1%	3%
Foundation Degree	2%	3%
First degree	94%	38%
Total	**100%**	**100%**

- Part-time students are estimated to study at **40%** full-time equivalence (FTE).
- Again based on HESA data (here), we assume an annual continuation rate of **92.5%** for full-time students and **82.5%** for part-time students.

- The analysis is undertaken separately by gender. Based on HESA information on graduates by gender and qualification level (here), we assume the following **gender** split:

Qualification level	Full-time		Part-time	
	Male	Female	Male	Female
Other undergraduate	47%	53%	38%	62%
HNC/HND	47%	53%	38%	62%
Foundation Degree	47%	53%	38%	62%
First degree	42%	58%	43%	57%

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

Age at enrolment

Qualification level	Full-time	Part-time
Other undergraduate	28	36
HNC/HND	21	27
Foundation Degree	25	30
First degree	20	31

Duration of study

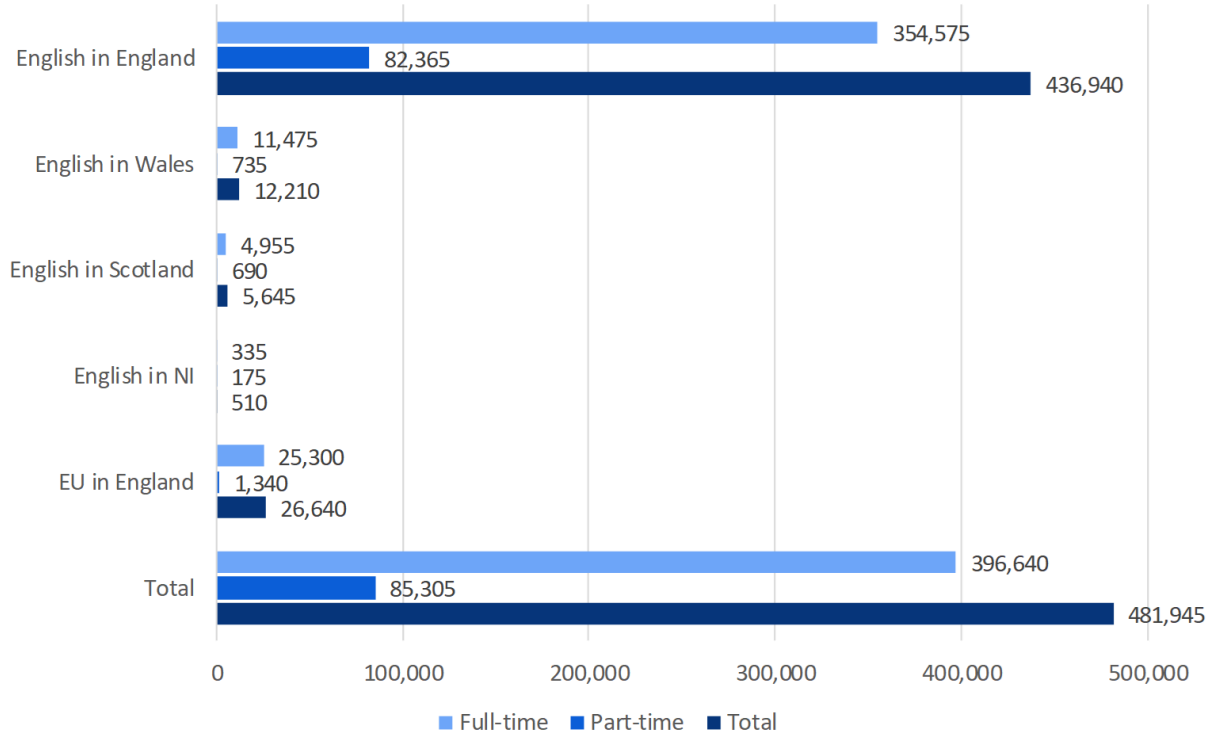
Qualification level	Full-time	Part-time
Other undergraduate	1	2
HNC/HND	2	5
Foundation Degree	2	5
First degree	3	7

[1] Using information from UCAS End of Cycle Reports (link), there were **394,620** English domiciled placed applicants across the UK and EU-domiciled students placed applicants in English HEIs 28 days post Clearing in 2017-18. In 20120-21, this had increased to **395,870**, representing an increase of **0.3%**.

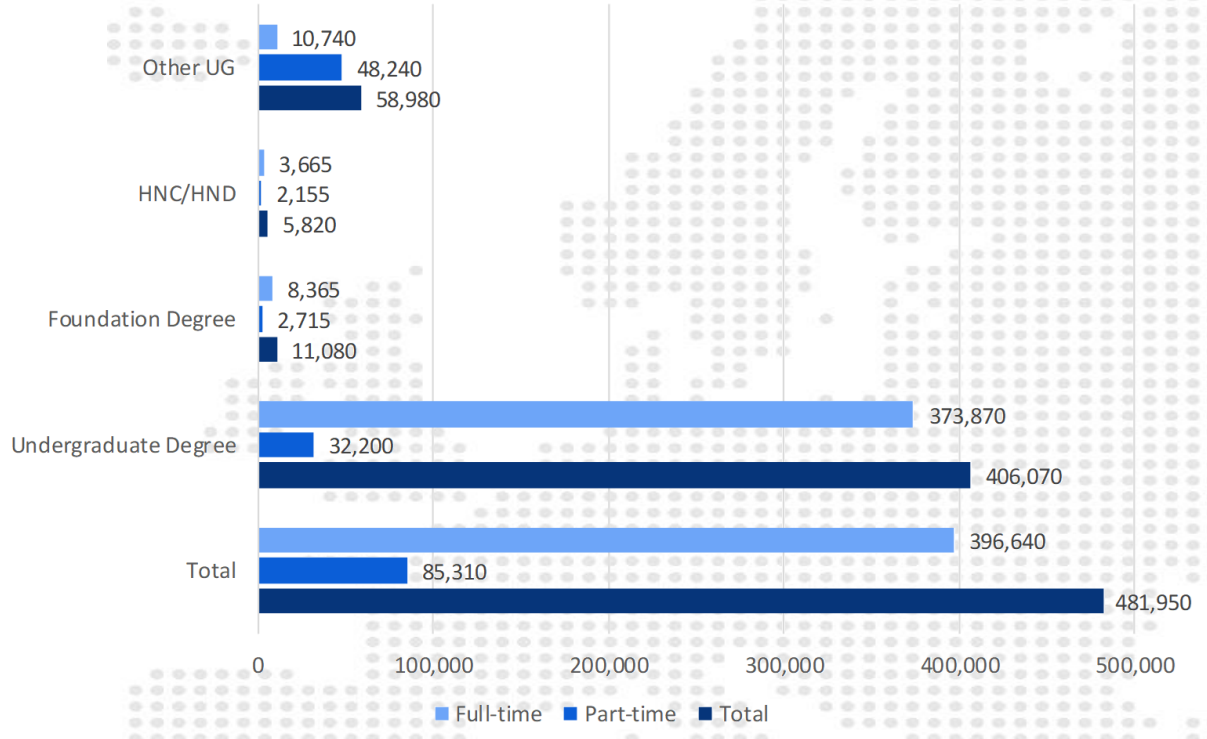
Assumptions and methodology

- The student loan analysis is based on a total of **481,945 first-year undergraduate English-domiciled students studying anywhere in the UK and EU-domiciled students studying in England.**

Breakdown by domicile, location of study and mode of study



Breakdown by level and mode of study



Note: All student numbers are rounded to the nearest 5. The information is based on the 2017-18 academic yea, and we assume the same size and characteristics of the 2020-21 cohort as for the 2017-18 cohort.

Source: London Economics' analysis based on data provided by the Higher Education Statistics Agency (here)

Assumptions and methodology

Fees, fee loans and maintenance loans

- In the **Baseline** (i.e. the current funding system in 2020-21), the maximum (gross) tuition fee in 2020-21 is **£9,250**, with an average fee charged of approximately **£9,120** (rounded to the nearest £10, based on OFFA data, here). Despite the existence of Access agreements and the provision of bursaries and fee waivers by HEIs[2], the net tuition fee remains the same (**£9,120**) as the majority of financial support is paid to students in the form of maintenance bursaries. Based on average study intensity, the average part-time net tuition fee was estimated to be **£3,610** per annum.
- Based on the **current funding system**, we have modelled **maintenance loan eligibility** by **students' living conditions**, for students living at Home (LAH, **21%** of FT students, **0%** of PT students), living away from home outside of London (LAFHOL, **67%** of FT students, **85%** of PT students) and living away from home in London (LAFHIL, **12%** of FT students, **15%** of PT students) - using the current household income thresholds applied by Student Finance England.
- 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.** For FT students, we base eligibility for loans using information from the Student Loans Company (SLC, here) on the distribution of students by household income, based on the % of students that were previously in receipt of full or partial maintenance grants (in 2015-16 which was the last year that maintenance grants were available). For PT students, we use the UK Labour Force Survey to estimate the distribution of individuals aged 30-40 in possession of Level 3 qualifications as their highest qualification by household income. We thus estimate that the average maintenance loan received by students in the 2020-21 cohort stands at **£7,140** per full-time student and **£3,210** per part-time student per year.
- We assume that fees and maintenance loans do not increase over the duration of students' courses.

[2] approximately **13%** 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 and maintenance bursaries. However, the overwhelming majority of bursaries are maintenance related (approximately 97%). As such, the relatively minor tuition fee bursary has a negligible impact on the net tuition fee.

Teaching Grants

- For the **Baseline,** the average **Teaching Grant** per student studying in **England** is derived by combining assumptions on the rate per FTE student by subject band (in 2018-19) with information on the distribution of students by subject band (both provided by the Office for Students, here), as follows:

Subject Band	Funding per FTE, £	% of FTE students
Band A	£10,100	2%
Band B	£1,515	22%
Band C1	£253	21%
Band C2	-	20%
Band D	-	35%
Total	-	**100%**

- Combining this with the average 'other targeted allocations' funding per student (e.g. including premium funding to support retention), the average total T-Grant per full-time student studying in England amounts to approximately **£1,090**. Based on average study intensity, the average funding per part-time student was estimated at **£430** per annum.
- For students studying in **Scotland**, we divide the total T-Grant funding provided by the SFC in 2018-19 by the number of funded FTE students in that year (here). We thus estimate that the average T-Grant per full-time student stands at **£5,630** per year, with the assumed part-time rate (again based on study intensity) standing at **£2,230**.
- For students studying in **Wales or Northern Ireland**, we make use of HESA financial data (here) and student data (here) for 2017-18. We divide the total Teaching Grant funding in each of these Home Nations by the total number of UK and EU students undertaking undergraduate or postgraduate taught qualifications (excluding postgraduate research and non-EU students). Adjusting for study intensity, the average T-Grant per full-time student in Wales and Northern Ireland is estimated to be **£300** and **£3,030** per student per annum respectively. The corresponding estimates for part-time students stand at **£120** and **£1,200** per student per annum.

Assumptions and methodology

Loan interest and repayment terms

- Under the **current funding system**, tuition fee and maintenance loans accumulate **interest** at 3% + RPI during the period of study. After graduation, loans accumulate interest depending on earnings, with individuals earning **£26,575** incurring interest at 0% + RPI, increasing to 3% + RPI for individuals with earnings of **£47,835** per annum or above. For part-time students, we also apply current SLC rules in relation to the accumulation of interest during study.
- We assume that loan repayment is **9%** of earnings in excess of **£26,575** per annum, and that all loans are written off 30 years from the Statutory Repayment Due Date (SRDD).
- We assume that the relevant earnings **thresholds** for interest accumulation and loan repayment (of **£26,575** and **£47,835**) increase annually with the rate of average nominal earnings growth.
- We use the most recent Office for Budget Responsibility medium-term 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 and here).
- In relation to the estimation of the **RAB charge and lifetime loan repayments (in NPV)**, we assume a real discount rate of **0.7%** as used in the governmental accounts, with the nominal discount rate amounting to **0.7% + RPI**.
- In relation to the estimation of aggregate financial flows across the cohort, 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**.

Graduate earnings and employment probabilities

- 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 2010Q1-2020Q2**.
- Using this data, we estimate the **average earnings** (in June 2020 prices) among individuals in possession of each of the different qualifications as their highest level of attainment, separately by age (for first degrees) or age band (for qualifications below degree level (due to sample size)), gender, and income decile. 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 or age band, and gender.
- Based on the above, we then estimate the **employment-adjusted annual earnings profiles** of graduates associated with each qualification, by study mode, gender and decile. We adjust these age-earnings profiles to account for the fact that earnings are expected to increase over time (again using Office for Budget Responsibility forecasts of average nominal earnings growth per year (here and here)).

Annex II

Supplementary information

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Impact of Scenario 6

Impact of Scenario 6

Scenario 6

Resource flows (£/£m/%)	Baseline	Scenario 6	Difference
Exchequer			
Cost of maintenance grant	-	-	-
Cost of maintenance loan	(£4,019m)	(£4,542m)	(£523m)
Cost of tuition fee grant	-	-	-
Cost of tuition fee loan	(£5,395m)	(£6,102m)	(£707m)
Cost of Teaching Grants	(£1,242m)	(£1,242m)	-
Total Exchequer cost	**(£10,656m)**	**(£11,886m)**	**(£1,230m)**
RAB charge (%)	**53.9%**	**60.6%**	**6.7pp**
% never repaying full loan/anything	**88.2%/33.0%**	**73.7%/33.0%**	**-14.5pp/0pp**
Higher education institutions			
Gross fee income	£10,093m	£10,093m	-
Teaching Grant income	£1,242m	£1,242m	-
Cost of bursary provision	(£189m)	(£189m)	-
Net HEI income	**£11,147m**	**£11,147m**	-
Students/Graduates (FT degrees)			
Average debt on graduation	**£47,000**	**£45,600**	**-£1,400**
Average lifetime repayments (M/F)	**£34,800/£13,100**	**£28,400/£11,800**	**-£6,400/-£1,300**

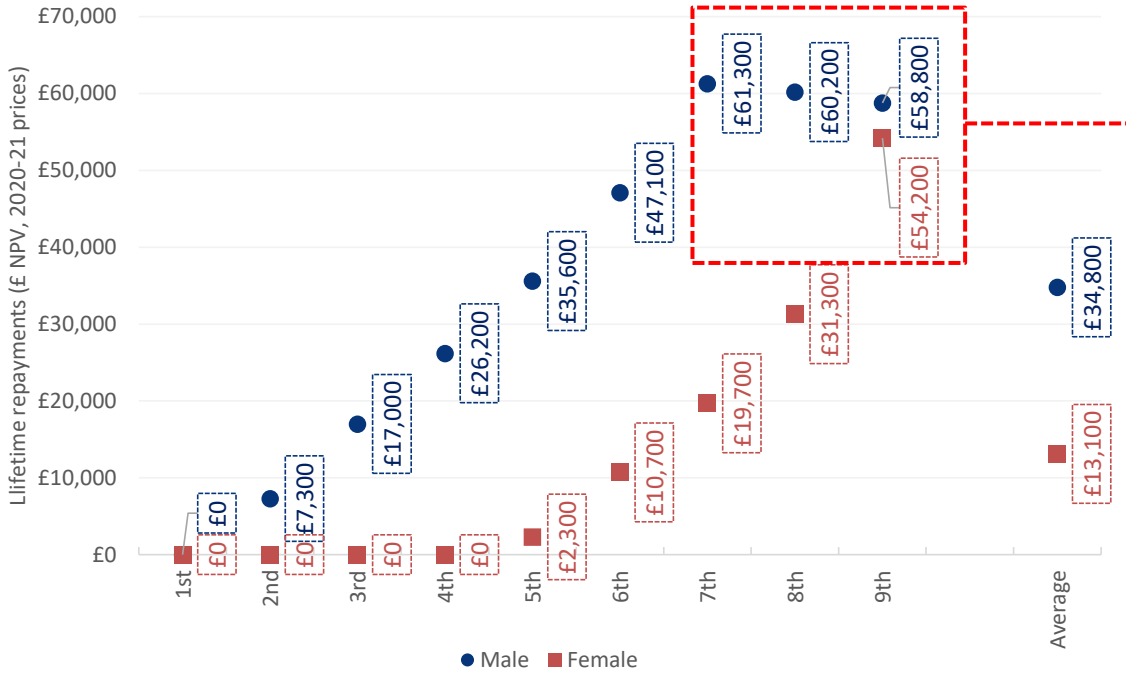
- To illustrate some of the wider features of the student loan repayment system, **Scenario 6** involves the removal of real interest rates – both during study and post graduation.
- Compared to the Baseline, under this scenario, **higher education institutions would be unaffected**.
- For the Exchequer, the cost of removing real interest rates would be **£1.230 billion** (resulting in the increase in the RAB charge (by **6.7 percentage points**)). The proportion of graduates failing to entirely repay their loan balance would decline by **14.5 percentage points** to **73.7%**.
- Graduates as a whole would be better off (by **£1.230 billion**)
- The average loan balance on graduation was estimated to be **£45,600** (a decline of **£1,400**) and results in a reduction in average lifetime payments by male full-time first degree undergraduates of **£6,400** (with the corresponding estimate for female full-time first degree undergraduates standing at **£1,300**).
-

Note: All monetary values have been discounted to net present values and are presented in constant 2020-21 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 undergraduate degree students only. Gross fee income refers to fee income before the deduction of fee bursaries provided to students.

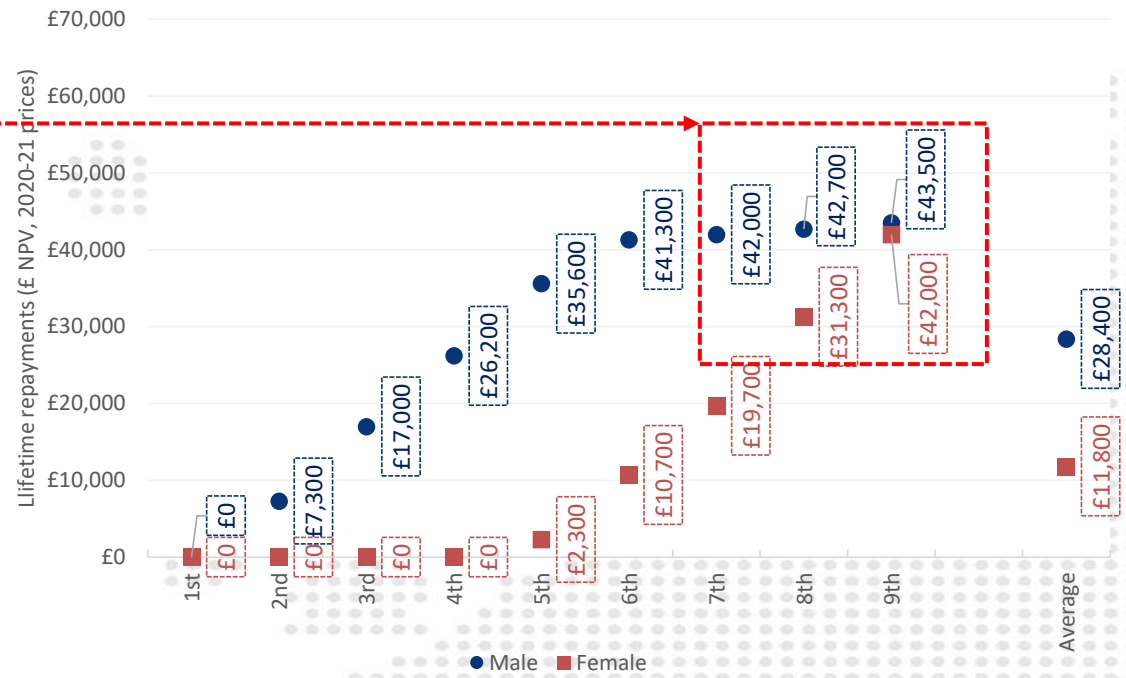
Graduate loan repayments under Scenario 6: Total repayments

Total loan repayments by English-domiciled FT undergraduate degree graduates (NPV in 2020-21 prices), by earnings decile and gender

Baseline



Scenario 6



- The removal of real interest rates removes much of the progressivity from the loan repayment system. The **entire benefit is accrued by male graduates in the top 3 earnings deciles and only the very highest female graduates (by between £13,000 and £20,000). The remaining 80% of graduates would be unaffected by the removal of real interest rates.** Although this policy is simple to understand and widely advocated, it is a completely misguided approach and does not benefit those students/graduates that should be most supported.

Impact of Scenario 7

Impact of Scenario 7

Scenario 7

Resource flows (£/£m/%)	Baseline	Scenario 7	Difference
Exchequer			
Cost of maintenance grant	-	-	-
Cost of maintenance loan	(£4,019m)	(£4,678m)	(£659m)
Cost of tuition fee grant	-	-	-
Cost of tuition fee loan	(£5,395m)	(£6,281m)	(£886m)
Cost of Teaching Grants	(£1,242m)	(£1,242m)	-
Total Exchequer cost	**(£10,656m)**	**(£12,201m)**	**(£1,545m)**
RAB charge (%)	**53.9%**	**62.6%**	**8.7pp**
% never repaying full loan/anything	**88.2%/33.0%**	**88.4%/39.3%**	**0.2pp/6.3pp**
Higher education institutions			
Gross fee income	£10,093m	£10,093m	-
Teaching Grant income	£1,242m	£1,242m	-
Cost of bursary provision	(£189m)	(£189m)	-
Net HEI income	**£11,147m**	**£11,147m**	-
Students/Graduates (FT degrees)			
Average debt on graduation	**£47,000**	**£47,000**	-
Average lifetime repayments (M/F)	**£34,800/£13,100**	**£30,100/£9,300**	**-£4,700/-£3,800**

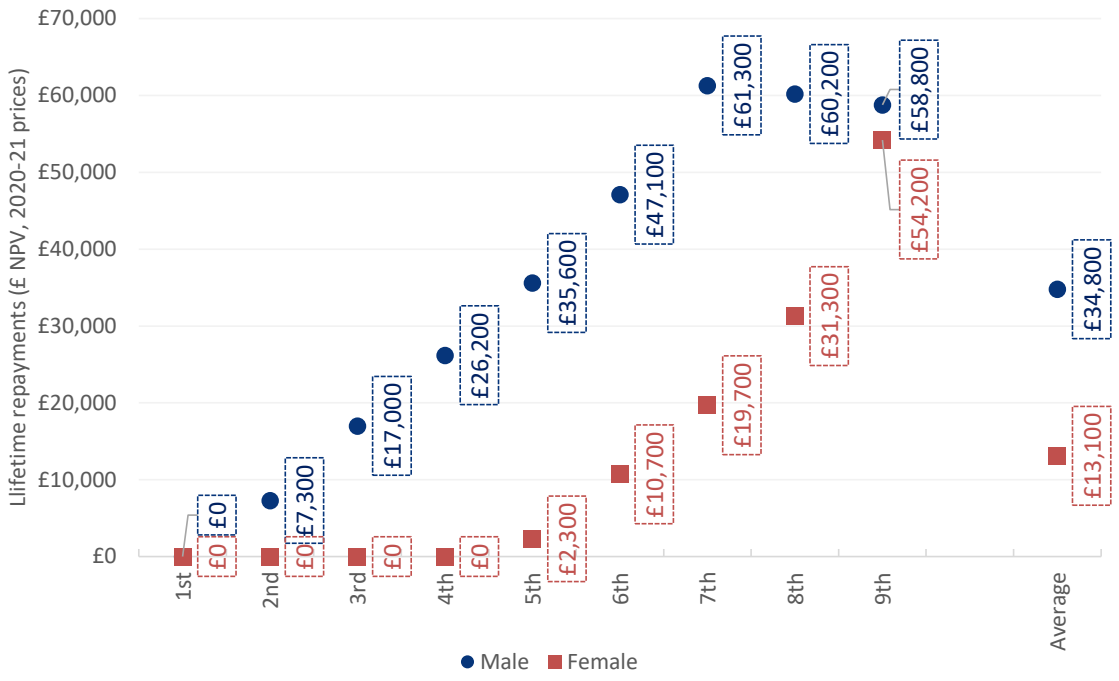
- **Scenario 6** illustrates the resource costs associated with an increase in the repayment threshold to **£30,000** (increasing with nominal earnings growth) alongside an increase in the interest rate thresholds (to maintain comparable relativity with the Baseline).
- As in previous scenarios, **higher education institutions would be unaffected**.
- For the Exchequer, the cost of increasing the repayment threshold would be **£1.545 billion** (resulting in the increase in the RAB charge (by **8.7 percentage points**)). The proportion of graduates failing to entirely repay their loan balance would increase by **0.2 percentage points** to **88.4%**, while **39.3%** of graduates would never make a loan repayment over the 30 year period (an increase of **6.3 percentage points**)
- Graduates as a whole would be better off (by **£1.545 billion**)
- The change in the repayment and interest rate threshold would in a reduction in average lifetime payments by male full-time first degree undergraduates of **£4,700** (with the corresponding estimate for female full-time first degree undergraduates standing at **£3,800**).
-

Note: All monetary values have been discounted to net present values and are presented in constant 2020-21 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 undergraduate degree students only. Gross fee income refers to fee income before the deduction of fee bursaries provided to students.

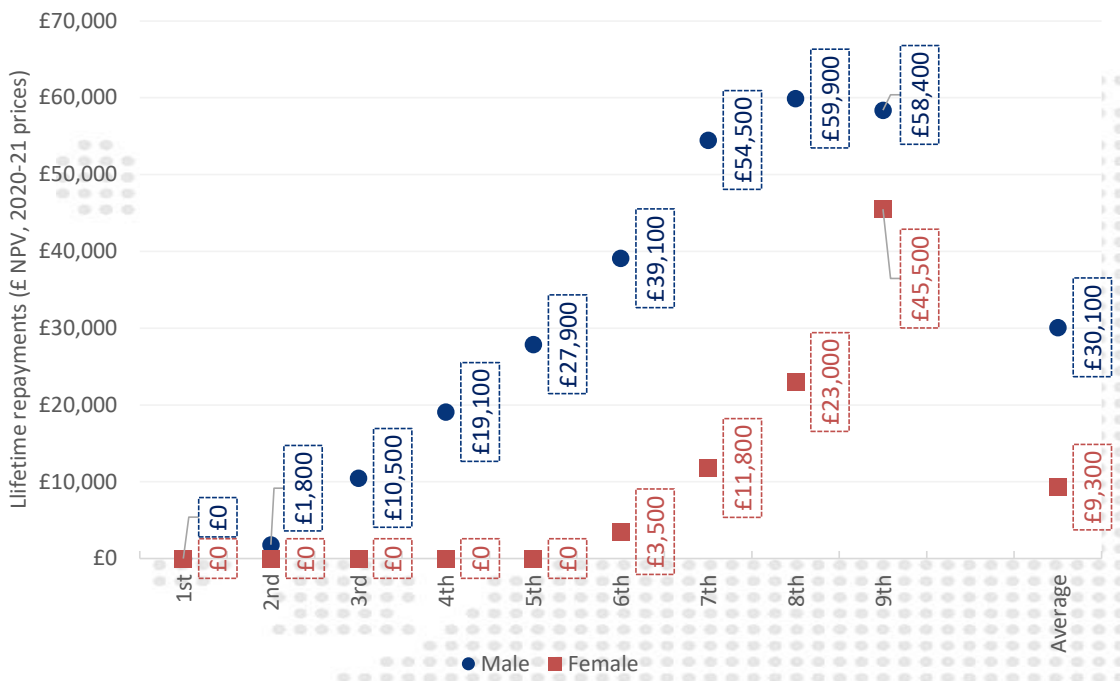
Graduate loan repayments under Scenario 7: Total repayments

Total loan repayments by English-domiciled FT undergraduate degree graduates (NPV in 2020-21 prices), by earnings decile and gender

Baseline



Scenario 7



- The increase in the repayment threshold would benefit a sizeable proportion of graduates. The only graduates that would not benefit are the 33% of graduates that would not have been expected to make a repayment under the Baseline threshold. For those graduates that would have earned in excess of the threshold, the savings are significant. For example, both male and female first degree undergraduates on the 6th and 7th deciles would be approximately **£7,000** to **£8,000** better off