



# Estimating the costs associated with the student support offer

Impact of the ONS review on the deficit



**LE**  
London  
Economics

December 2018

## Our model of the Higher Education funding system estimates:

- The impact of the system on the Exchequer, institutions and graduates, for:
  - the 2017/18 cohort of first-year English-domiciled 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).
- A range of metrics (in NPV in constant 2017/18 prices), including:
  - The RAB charge, student loan debt on graduation, and expected lifetime loan repayments;
  - Total Exchequer costs including the cost of student support and Teaching Grant funding to institutions across the UK;
  - HEI funding in terms of tuition fee income (net of bursaries) and Teaching Grant funding from the Exchequer;
  - The level of public deficit associated with the system.
- What is the impact of the system on the Exchequer cost and the public deficit - under **current accounting** rules?
- What might be the **impact of the ongoing ONS review?**

**What is the impact of the system on the Exchequer cost and the public deficit - under current accounting rules?**



# Impact of system on the Exchequer, HEIs and students

| Resource flows | Amount (£) |
|----------------|------------|
|----------------|------------|

## Exchequer

|                                    |                  |
|------------------------------------|------------------|
| Cost of maintenance loan write-off | (£2,838m)        |
| Cost of tuition fee loan write-off | (£4,588m)        |
| Cost of teaching grants            | (£1,312m)        |
| <b>Total</b>                       | <b>(£8,738m)</b> |

|                                  |                              |              |
|----------------------------------|------------------------------|--------------|
| <b>RAB Charge</b>                | <b>45.9%</b>                 |              |
| <b>% of graduates who never:</b> | <b>repay their full loan</b> | <b>80.7%</b> |
|                                  | <b>repay anything</b>        | <b>26.9%</b> |

## Students

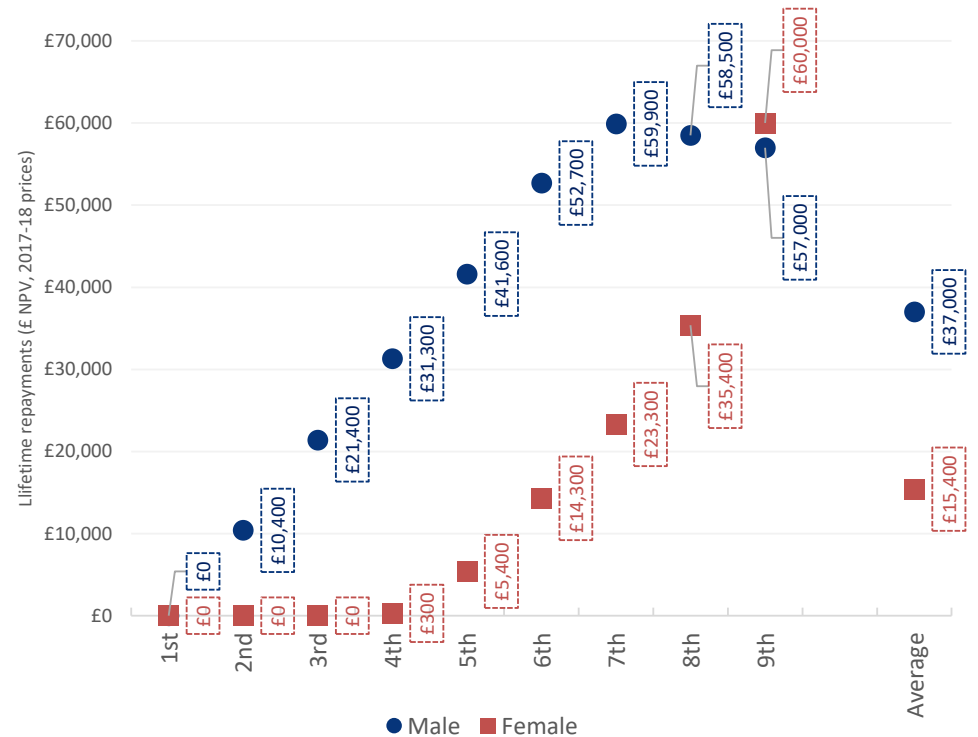
|                               |                   |
|-------------------------------|-------------------|
| <b>Total</b>                  | <b>(£8,597m)*</b> |
| Av. debt on graduation (FTUG) | £46,000           |

## HEI income

|                           |                 |
|---------------------------|-----------------|
| Gross fee income          | £10,019m        |
| Teaching grant income     | £1,312m         |
| Cost of bursary provision | (£191m)         |
| <b>Total</b>              | <b>£11,140m</b> |

|  |               |
|--|---------------|
| <b>Net HEI resource per student p.a.</b> | <b>£9,000</b> |
|--|---------------|

Graduate lifetime loan repayments – full-time undergraduate degrees (by decile and gender)



Note: All monetary values have been discounted to net present values (using standard HMT Green Book discount rates), and are presented in constant 2017/18 prices. All monetary values per student have been rounded to the nearest £100. 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.

\* This includes both the proportion of tuition fee (around £5.4 billion) as well as maintenance loans (around £3.4 billion) repaid by graduates.

# Treatment of student loans in public deficit accounting

The **deficit** represents [**income**] minus [**expenditure**]:

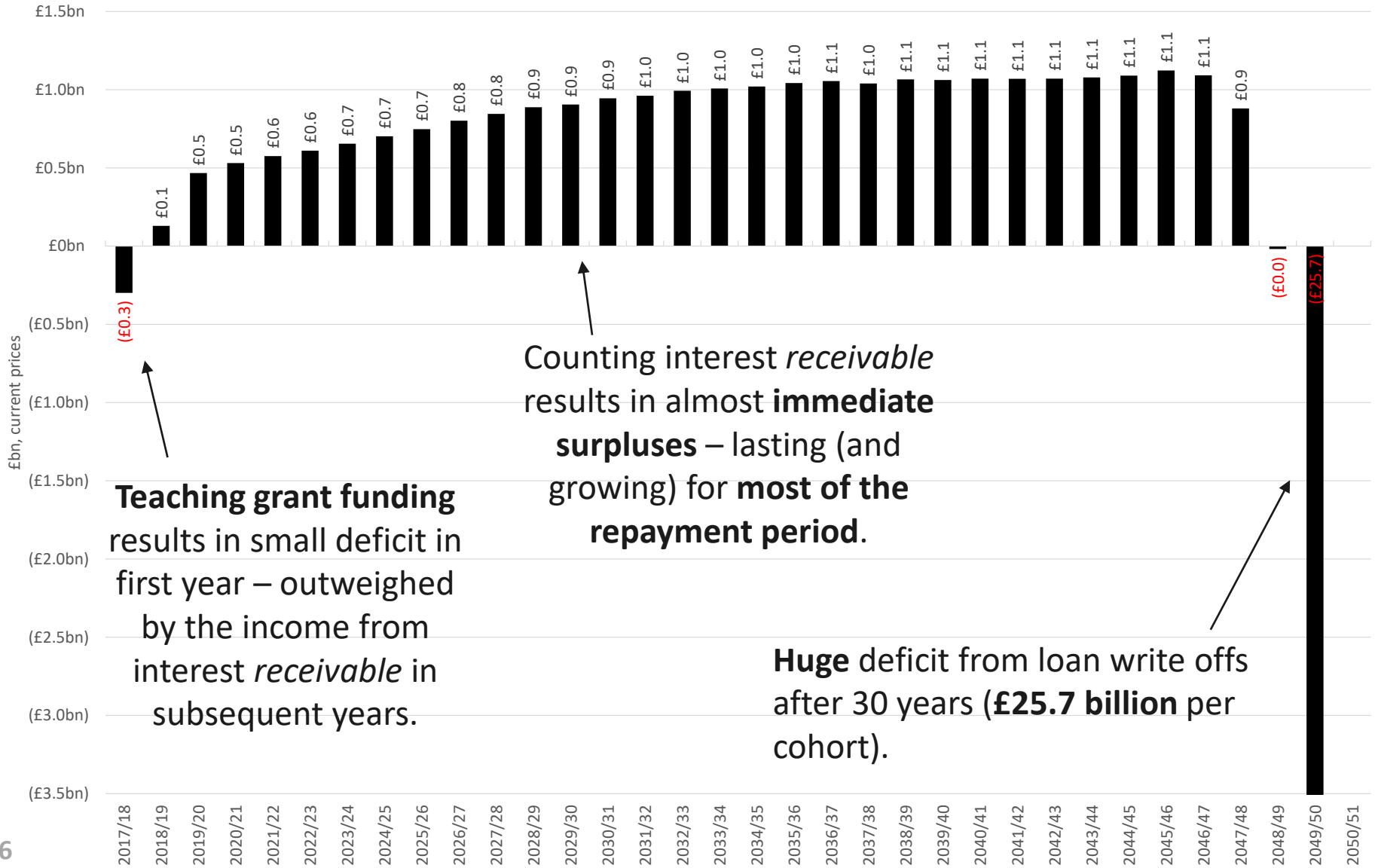
| Approach         | Income [+]                           | Expenditure [-]  |
|------------------|--------------------------------------|--|
| Current approach | Interest <i>receivable</i> each year | <ul style="list-style-type: none"><li>• <b>Loan write offs (interest + principal)</b> occurring intermittently over the 30 year repayment period (because of death and disability), as well as at the <b>end of the repayment period</b></li><li>• Teaching grants paid during study</li><li>• Tuition fee and maintenance grants paid during study (if any)</li></ul> |

The current treatment of student loans in the deficit counts **interest *receivable*** (rather than actually repaid) throughout the repayment period, and only counts the costs associated with loan write-offs **at the end of the 30 year repayment period**.

Hence, while the current system looks expensive to the Exchequer from an **economic cost** perspective (see above), the current treatment in the national accounts creates a **fiscal illusion**, since the loans **appear to generate surplus** throughout almost the entire repayment period.

# Impact of HE funding system on the deficit: Current accounting approach

Public surplus/deficit per year associated with the 2017/18 cohort (£bn in current prices)



# What is the potential impact of the ONS review?



# Public deficit accounting: Current approach vs. ONS Option 1

| Approach                               | Income [+]                           | Expenditure [-]   |
|--|--------------------------------------|---|
| Current approach                       | Interest <i>receivable</i> each year | <ul style="list-style-type: none"> <li>• <b>Loan write offs (interest + principal)</b> occurring intermittently over the 30 year repayment period (because of death and disability)*, as well as at the <b>end of the repayment period</b></li> <li>• Teaching grants paid during study</li> <li>• Tuition fee and maintenance grants paid during study (if any)</li> </ul> |
| Option 1:<br>'Revenue and expenditure' | Loan repayments received each year   | <ul style="list-style-type: none"> <li>• <b>Full loan outlay</b> during study</li> <li>• Teaching grants paid during study</li> <li>• Tuition fee and maintenance grants paid during study (if any)</li> </ul>  |

- Option 1 would effectively **treat the full loan outlay as an upfront grant** (i.e. as a transfer from government to students during study), and subsequent graduate loan repayments as an income tax.
- This approach would result in a **front-loaded deficit profile**, since all government expenditure would be recorded upfront.

Note:

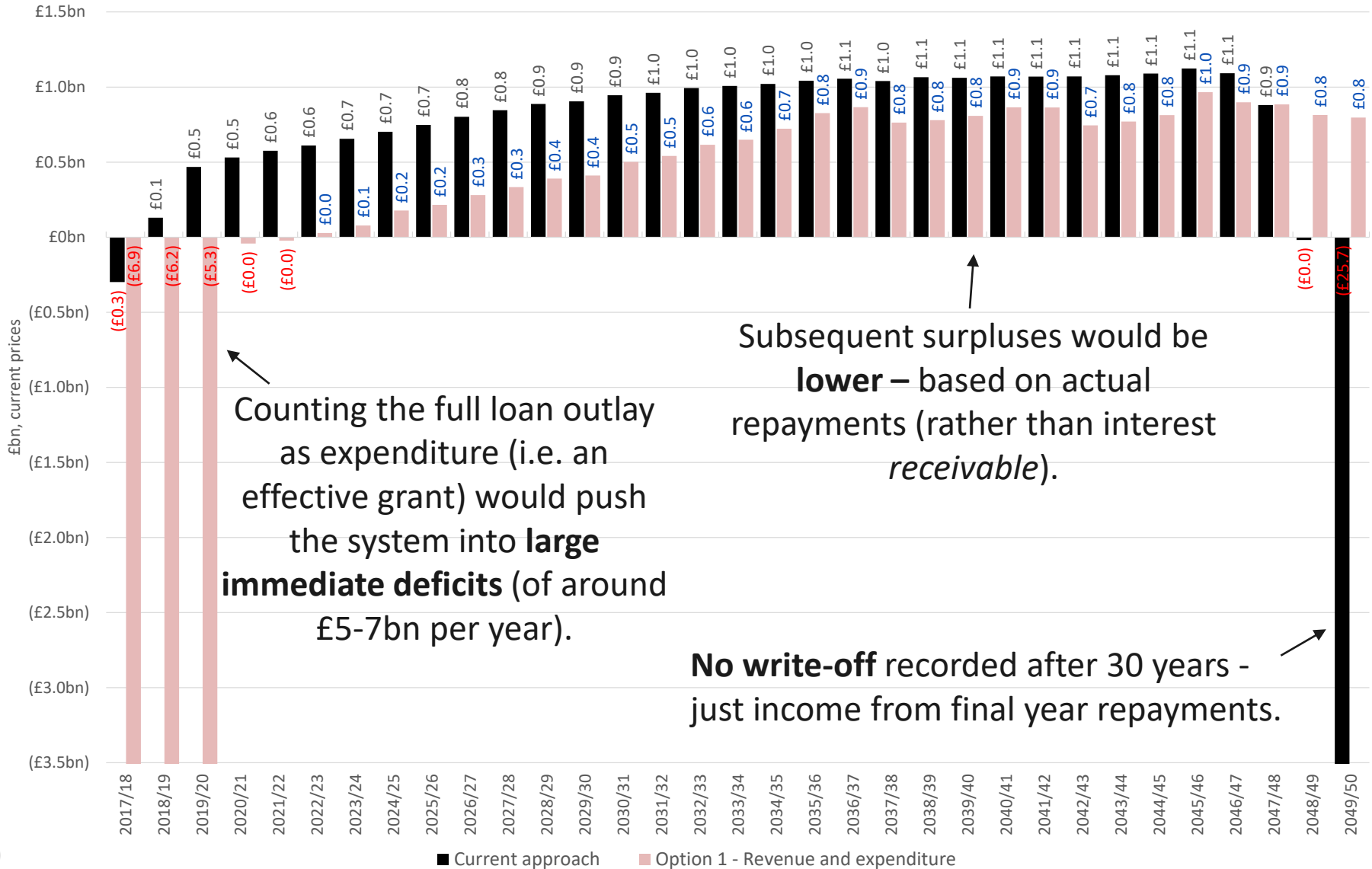
For more information on the different accounting options proposed, see Office for National Statistics (2018).

\* Note however that our modelling does not explicitly account for any intermittent loan write-offs throughout the repayment period, but only takes account of final write-offs at the end of the 30 years.



# Current approach vs. Option 1 ('Revenue and expenditure')

Public surplus/deficit per year associated with the 2017/18 cohort (£bn in current prices)



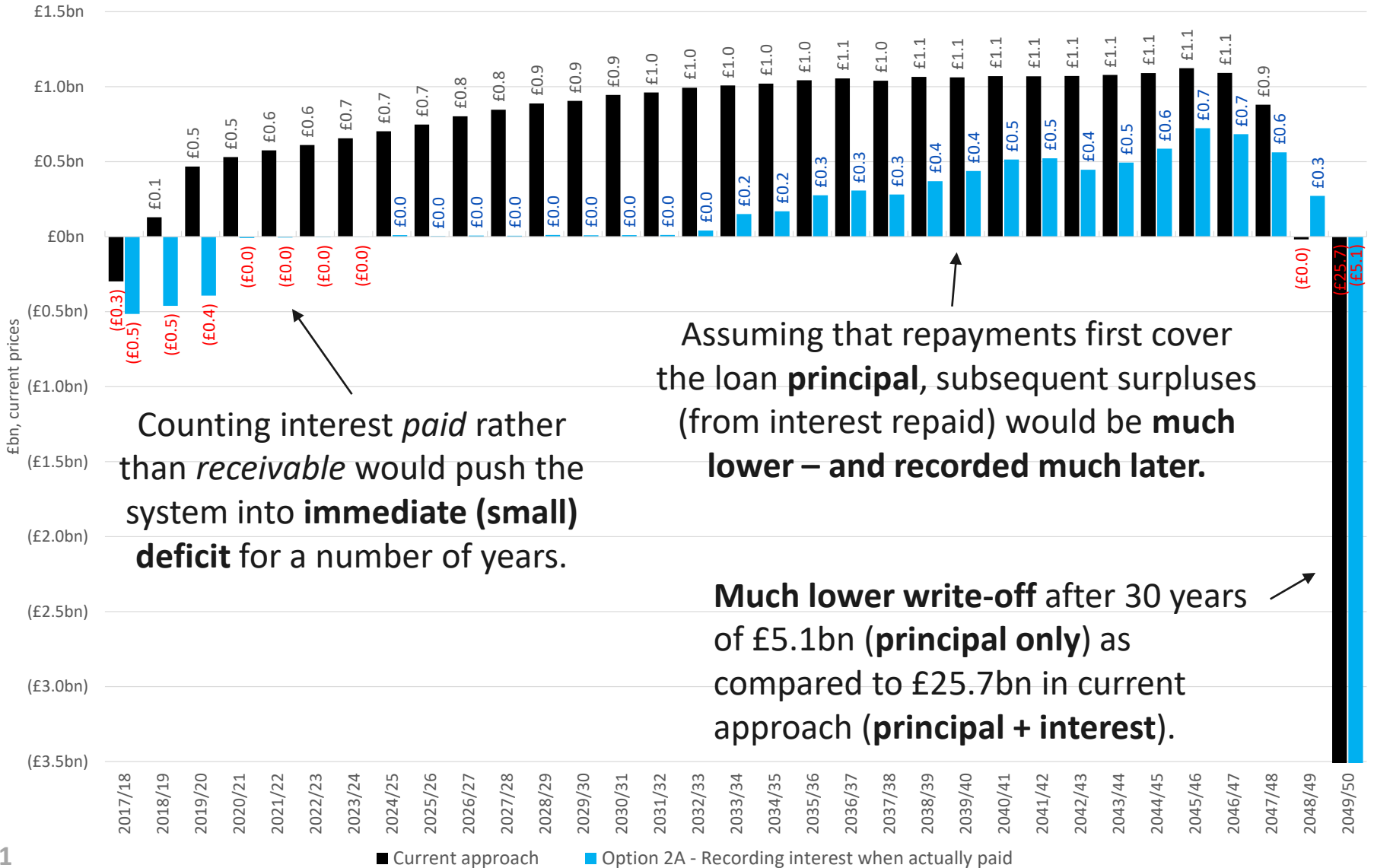
# Public deficit accounting: Current approach vs. ONS Option 2

| Approach   | Income [+]   | Expenditure [-]  |
|--|--|--|
| Current approach                                     | Interest <i>receivable</i> each year   | <ul style="list-style-type: none"> <li>• <b>Loan write offs (interest + principal)</b> occurring intermittently over the 30 year repayment period (because of death and disability), as well as at the <b>end of the repayment period</b></li> <li>• Teaching grants paid during study</li> <li>• Tuition fee and maintenance grants paid during study (if any)</li> </ul> |
| Option 2:<br>'Recording interest when actually paid' | <p><b>A) Interest repaid</b> each year – assuming <i>principal is repaid first</i></p> <p><b>B) Interest repaid</b> each year – assuming <i>interest is repaid first</i></p> | <ul style="list-style-type: none"> <li>• <b>Loan write offs (principal only)</b> occurring intermittently over the 30 year repayment period (because of death and disability), as well as at the <b>end of the repayment period</b></li> <li>• Teaching grants paid during study</li> <li>• Tuition fee and maintenance grants paid during study (if any)</li> </ul>       |

- Option 2 would still treat student loans as **loans**, but record **interest *actually repaid*** (rather than receivable) as income. Hence, there would be **no interest write-off after 30 years, but only the original loan principal**.
- This would require splitting loan repayments into principal vs. interest repayments. Under **Option 2A**, we assume that the **loan principal is repaid first** (i.e. any interest repayments only occur once the full loan principal has been repaid). Under **Option 2B**, we instead assume that the **loan interest is repaid first\***.
- Either of these approaches would result in a **scaled-down/flatter deficit profile** – particularly under Option 2A (due to much lower loan write-offs recorded after 30 years).

# Current approach vs. Option 2A ('Recording interest when actually paid')

Public surplus/deficit per year associated with the 2017/18 cohort (£bn in current prices)



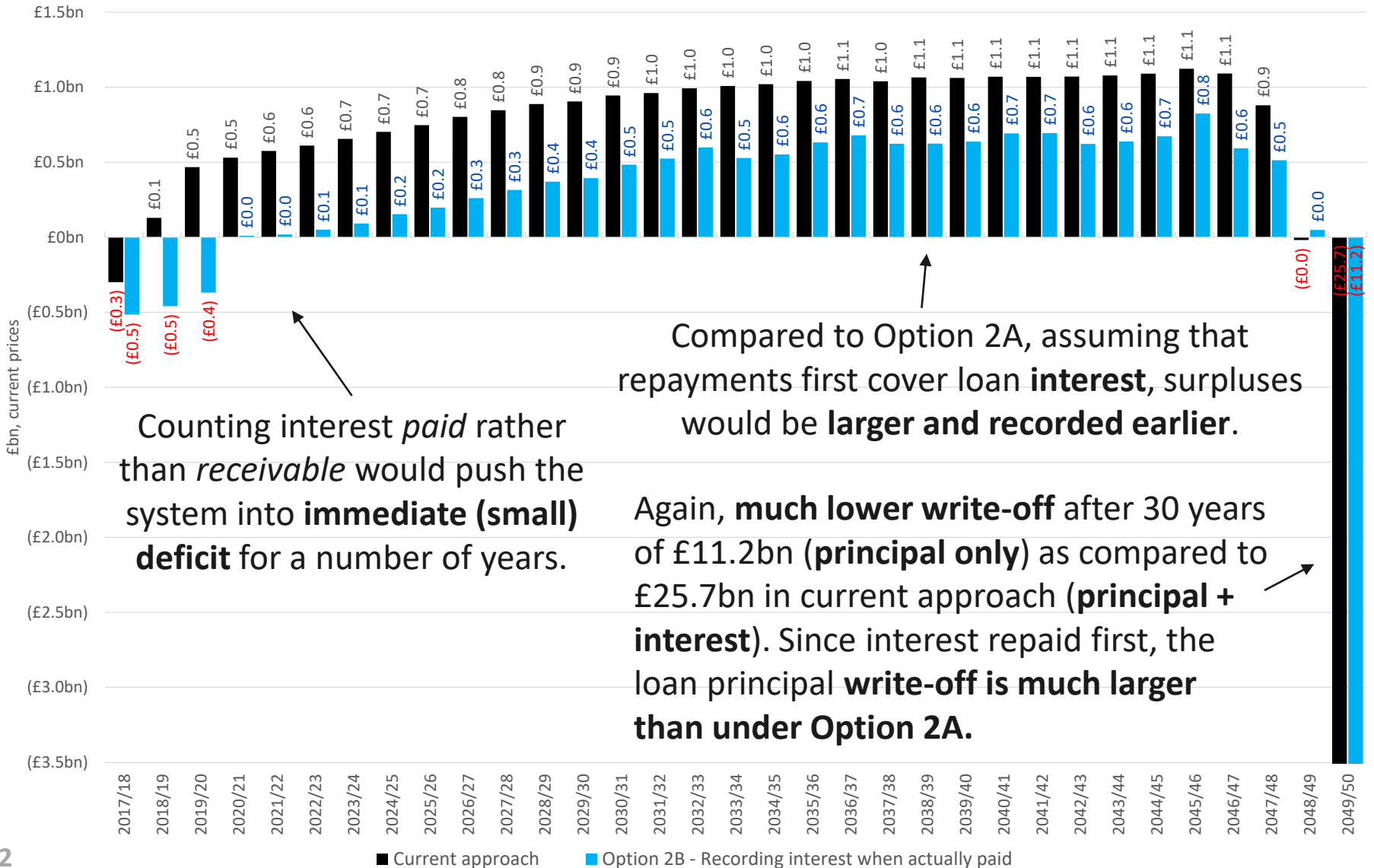
Counting interest *paid* rather than *receivable* would push the system into **immediate (small) deficit** for a number of years.

Assuming that repayments first cover the loan **principal**, subsequent surpluses (from interest repaid) would be **much lower – and recorded much later.**

**Much lower write-off** after 30 years of £5.1bn (principal only) as compared to £25.7bn in current approach (**principal + interest**).

# Current approach vs. Option 2B ('Recording interest when actually paid')

Public surplus/deficit per year associated with the 2017/18 cohort (£bn in current prices)



Counting interest *paid* rather than *receivable* would push the system into **immediate (small) deficit** for a number of years.

Compared to Option 2A, assuming that repayments first cover loan **interest**, surpluses would be **larger and recorded earlier**.

Again, **much lower write-off** after 30 years of £11.2bn (**principal only**) as compared to £25.7bn in current approach (**principal + interest**). Since interest repaid first, the loan principal **write-off is much larger than under Option 2A**.

# Public deficit accounting: Current approach vs. ONS Option 3

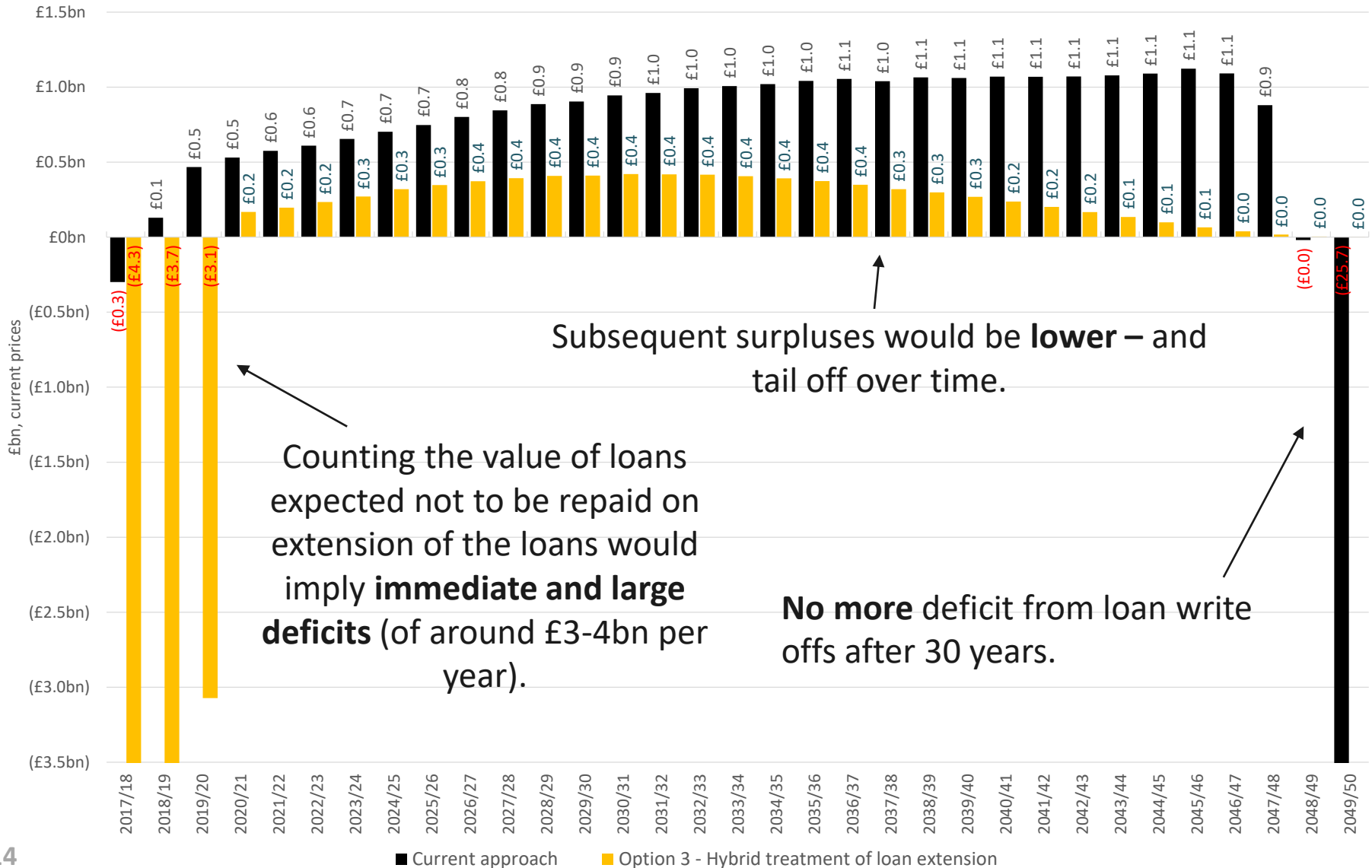
| Approach  | Income [+]   | Expenditure [-]  |
|---|--|--|
| Current approach                                  | Interest <i>receivable</i> each year                                       | <ul style="list-style-type: none"> <li>• <b>Loan write offs (interest + principal)</b> occurring intermittently over the 30 year repayment period (because of death and disability), as well as at the <b>end of the repayment period</b></li> <li>• Teaching grants paid during study</li> <li>• Tuition fee and maintenance grants paid during study (if any)</li> </ul> |
| Option 3:<br>'Hybrid treatment of loan extension' | Interest <i>receivable</i> on loans <i>expected to be repaid</i> each year | <ul style="list-style-type: none"> <li>• <b>Proportion of loan principal expected to be written off</b> counted as an <i>immediate transfer</i> to students during study (i.e. the value of loan principal expected not to be repaid)</li> <li>• Teaching grants paid during study</li> <li>• Tuition fee and maintenance grants paid during study (if any)</li> </ul>     |

- Option 3 would split student loans into a **grant and a loan element** (hence the 'hybrid' approach).
- The **grant** element would be the **proportion of the loan principal expected to be written off**, recorded as upfront spending (i.e. during study).
- The **remaining loan principal** (expected to be fully repaid) would still be treated as a **loan**, with **interest *receivable*** only on this loan element recorded as income\*. Given that this loan element is expected to be fully repaid, there would be **no more loan write-offs recorded after 30 years**.

\* As outlined by the Office for National Statistics (2018), 'adjusting the estimates to exclude interest [on loans expected *not* to be repaid] could be a very difficult task'. Here, we calculate the proportion of the loan expected to be written off by dividing the expected total loan write-offs after 30 years by the total principal and interest accrued during the 30 years (again, separately by qualification level, mode, gender and graduate income decile). We then calculate the interest that accruable only on the remaining proportion of the principal.

# Current approach vs. Option 3 ('Hybrid treatment of loan extension')

Public surplus/deficit per year associated with the 2017/18 cohort (£bn in current prices)



# Public deficit accounting: Current approach vs. ONS Option 4

| Approach                              | Income [+]  | Expenditure [-]  |
|---------------------------------------|---|--|
| Current approach                      | Interest <i>receivable</i> each year  | <ul style="list-style-type: none"> <li>• <b>Loan write offs (interest + principal)</b> occurring intermittently over the 30 year repayment period (because of death and disability), as well as at the <b>end of the repayment period</b></li> <li>• Teaching grants paid during study</li> <li>• Tuition fee and maintenance grants paid during study (if any)</li> </ul> |
| Option 4:<br>'Net cost to government' | <ul style="list-style-type: none"> <li>• <b>Loan repayments</b> (recorded upfront, during study)</li> <li>• <b>Public cost of borrowing</b> associated with outstanding loan balances each year*</li> </ul> | <ul style="list-style-type: none"> <li>• <b>Full loan outlay</b> during study</li> <li>• <b>Public cost of borrowing</b> associated with outstanding loan balances* (recorded upfront, during study)</li> <li>• Teaching grants paid during study</li> <li>• Tuition fee and maintenance grants paid during study (if any)</li> </ul>                                      |

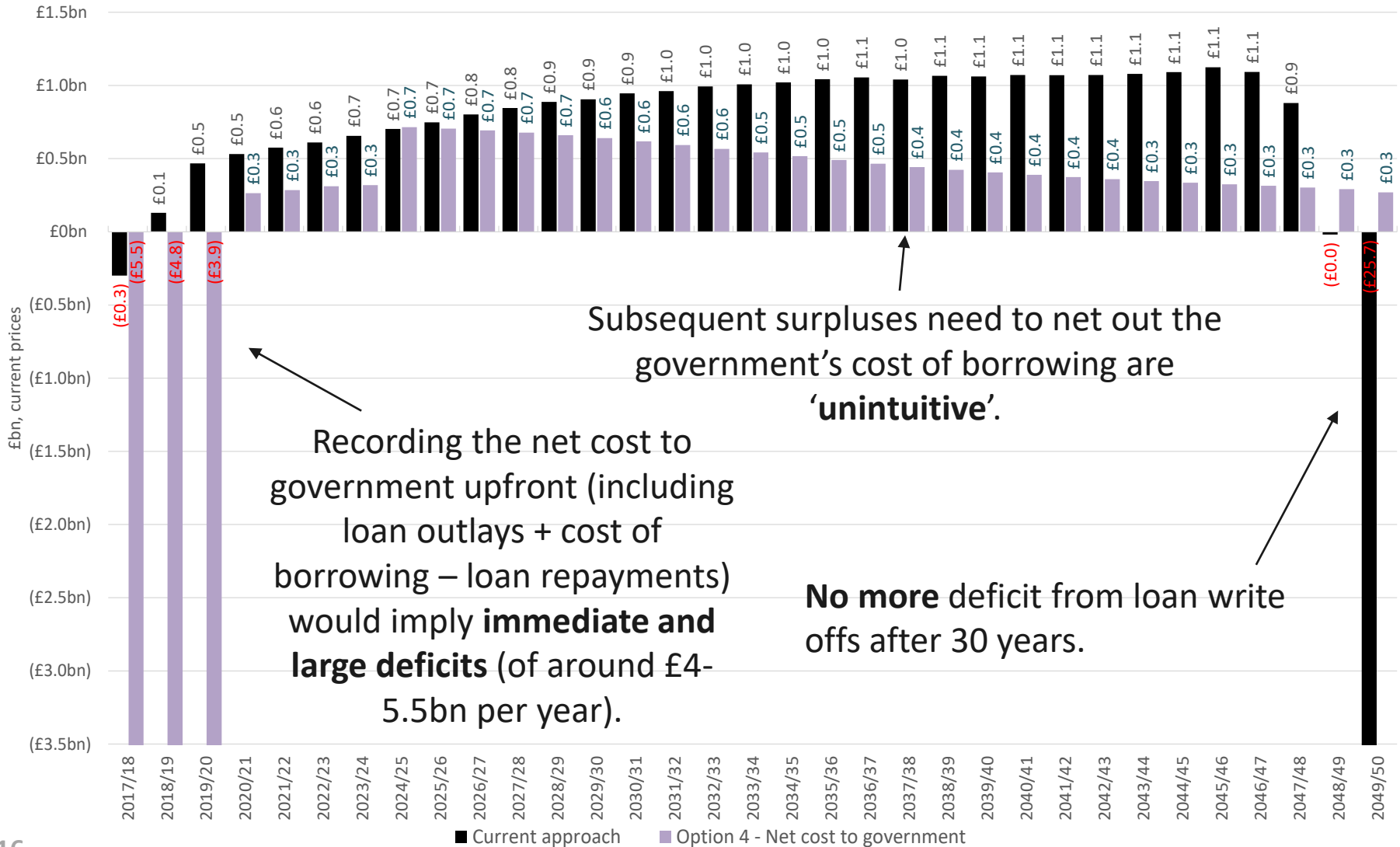
- Under Option 4, the **net cost to government** associated with student loans (calculated as **loan outlay + public cost of borrowing – loan repayments**) is recorded upfront (i.e. during the period of study). Similar to Option 1, this would result in a **front-loaded deficit profile**.
- Crucially, the **expenditure** would include the **full loan outlay** as well as the **government's cost of borrowing** the funds needed for the loan outlay (i.e. the government's debt interest cost, based on Gilt rates).
- On the **income** side, Option 4 would account for graduates' **loan repayments** (recorded upfront, apportioned to the size of the loan outlay), as well as the government's cost of borrowing (recorded each year over the lifetime of the loans)\*.

\* The government cost of borrowing was derived using Gilt rate projections published by the Office for Budget Responsibility.

As highlighted by the Office for Budget Responsibility (2018), under this Option, the government's debt interest cost to finance the student loans need to be accounted for both on the *expenditure* side (where they are recorded upfront, apportioned to the size of the loan outlay), as well as on the *income* side (where they are recorded in each year that they are actually incurred throughout the repayment period). Although the inclusion as income is *counter-intuitive*, this ensures that 'the accrued amounts equal the net cash flows over the lifetime of the loans'.

# Current approach vs. Option 4 ('Net cost to government')

Public surplus/deficit per year associated with the 2017/18 cohort (£bn in current prices)





**What does all this mean?**



**LE**

**London  
Economics**

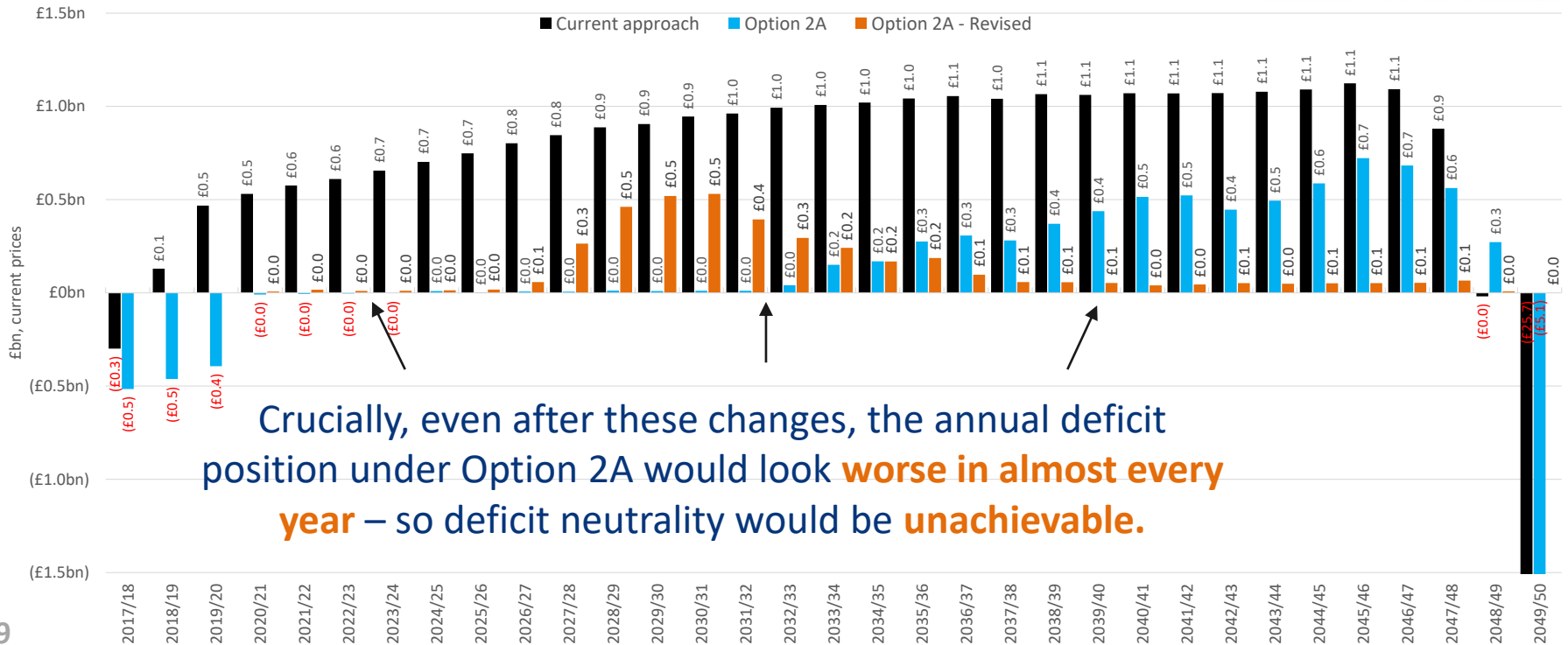
---

# What does all this mean?

- Irrespective of which of the above Options the ONS will recommend on 17<sup>th</sup> December, the implementation of **any** of these Options would **immediately worsen** the government's deficit position, and typically result in much smaller subsequent surpluses.
- This will make it significantly **harder for Treasury to meet its deficit targets** – even if there were no changes to the current funding system – and **constrains the Augur Review's ability to make meaningful improvements** to the funding system while maintaining deficit neutrality.

# What does all this mean?

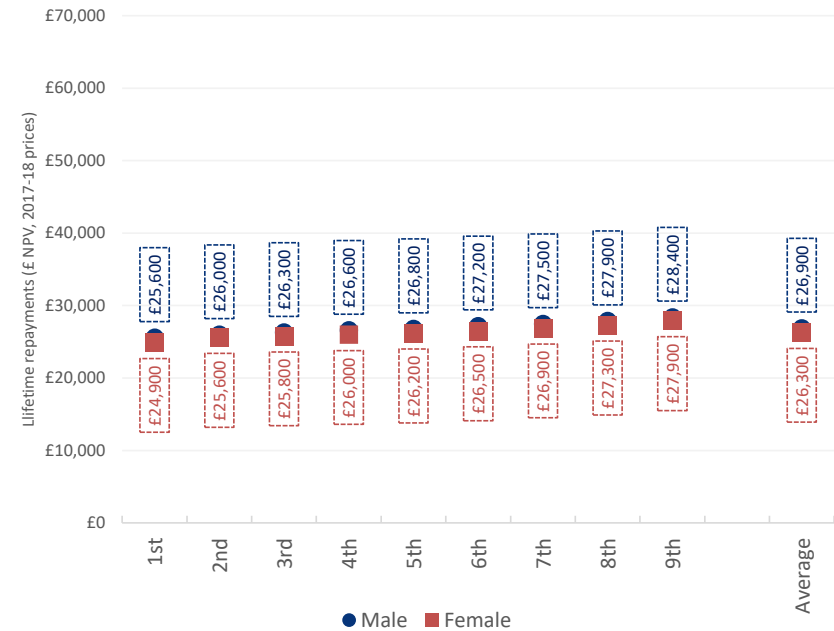
- Option 2A would result in the relatively smallest immediate deficits (around £0.4-0.5bn per cohort per year in each of the first three years), followed by surpluses that are between £0.5-£1.0bn per year *lower* than is currently the case.
- To demonstrate the extent of the fiscal illusion, it is possible to assess what changes to the system might be necessary to maintain deficit neutrality under any new accounting rules.
- As an extreme example, the below figure (in orange) displays the public deficit in Option 2A under the removal of teaching grants, the removal of maintenance loans, and reduction of the income threshold for loan repayment to £0.



# Impact of system on the Exchequer, HEIs and students – revised system

| Resource flows                           |                       | Baseline         | Revised system    | Difference       |
|--|-----------------------|------------------|-------------------|------------------|
| <b>Exchequer</b>                         |                       |                  |                   |                  |
| Cost of maintenance loan write-off       |                       | (£2,838m)        | £0m               | £2,838m          |
| Cost of tuition fee loan write-off       |                       | (£4,588m)        | £126m             | £4,714m          |
| Cost of teaching grants                  |                       | (£1,312m)        | £0m               | £1,312m          |
| <b>Total</b>                             |                       | <b>(£8,738m)</b> | <b>£126m</b>      | <b>£8,864m</b>   |
| <b>RAB Charge</b>                        |                       |                  |                   |                  |
|  |                       | 45.9%            | -1.3%             | -47.1 pp         |
| % of graduates who never:                | repay their full loan | 80.7%            | 0.4%              | -80.3 pp         |
|  | repay anything        | 26.9%            | 0.0%              | -26.9 pp         |
| <b>Students</b>                          |                       |                  |                   |                  |
| <b>Total</b>                             |                       | <b>(£8,597m)</b> | <b>(£16,149m)</b> | <b>(£7,552m)</b> |
| Av. debt on graduation (FTUG)            |                       | £46,000          | £26,800           | (£19,200)        |
| <b>HEI income</b>                        |                       |                  |                   |                  |
| Gross fee income                         |                       | £10,019m         | £10,019m          | £0m              |
| Teaching grant income                    |                       | £1,312m          | £0m               | (£1,312m)        |
| Cost of bursary provision                |                       | (£191m)          | (£191m)           | £0m              |
| <b>Total</b>                             |                       | <b>£11,140m</b>  | <b>£9,828m</b>    | <b>(£1,312m)</b> |
| <b>Net HEI resource per student p.a.</b> |                       | <b>£9,000</b>    | <b>£7,900</b>     | <b>(£1,100)</b>  |

Graduate lifetime loan repayments – FTUG degrees (by decile and gender)



Under this revised system, rather than the cost being split evenly between the Exchequer and students/graduates, the entire cost burden has been shifted to students/graduates\*.

Note: All monetary values have been discounted to net present values (using standard HMT Green Book discount rates), and are presented in constant 2017/18 prices. All monetary values per student have been rounded to the nearest £100. 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.

\* This assumes that students would now cover the entire cost of their maintenance funding themselves (which we assume to be equivalent to the full maintenance loan outlay from the baseline scenario) – i.e. we assume that the maintenance loans in the baseline scenario exactly cover students' living costs.

Dr Gavan Conlon, Partner, London Economics  
020 3701 7703, [gconlon@londecon.co.uk](mailto:gconlon@londecon.co.uk)

Ms Maike Halterbeck, Associate Director, London Economics  
020 3701 7724, [mhalterbeck@londecon.co.uk](mailto:mhalterbeck@londecon.co.uk)

Somerset House, New Wing, Strand  
London, WC2R 1LA, United Kingdom  
[londoneconomics.co.uk](http://londoneconomics.co.uk)



@LE\_Education



**LE**  
**London**  
**Economics**

Cover picture:  
[Fotohunter/Shutterstock.com](http://Fotohunter/Shutterstock.com)

# Supplementary Information



**LE**

London  
Economics

---

- Office for National Statistics (2018). 'Looking ahead – developments in public sector finance statistics: 2018'.  
<https://www.ons.gov.uk/economy/governmentpublicsectorandtaxes/publicsectorfinance/articles/lookingaheaddevelopmentsinpublicsectorfinancestatistics/2018>
- Office for Budget Responsibility (2018). 'Student loans and fiscal illusions'.  
<https://cdn.obr.uk/WorkingPaperNo12.pdf>





## Student profile

- The model considers the total number of full time and part time English domiciled first year students undertaking higher education qualifications at any institution in the UK. In addition, all EU students engaged in undergraduate education studying in English HEIs are also included. We have applied various changes to HE fees and funding arrangements based on the most recent HESA data relating to the 2016-17 cohort comprising **485,545** students (**458,815** English and **26,730** EU domiciled students; **397,265** full-time and **88,280** part-time).
- Amongst full-time students, **94%** are undertaking first degrees (**33%** part-time), with **3%** engaged in other undergraduate studies (**60%**), **1%** HNCs/HNDs (**3%**), and **2%** Foundation degrees (**4%**).
- Part-time students are estimated to study at **40%** FTE
- The annual continuation rate was estimated to be **92.5%** for full-time students and **83.3%** for part-time students.
- Based on HESA data, to determine the size of **maintenance loans** received, first year students are categorised by location of study and living arrangements whilst in study. We assume that all students take out the maximum available loan to which they are entitled, and we base eligibility for loans using information from SLC Statistical First Releases on the proportion of students that were previously in receipt of full or partial maintenance grants (to determine the distribution of students by household income band). Based on this, the average maintenance loan received by a full-time first degree undergraduate student stands at **£6,538** per student per annum overall.
- The average gross tuition fee in 2017-18 is **£9,250**, but as a result of Access agreements and the provision of bursaries and fee waivers by HEIs, the net tuition fee is lower (**£9,101**). Based on average study intensity, the average part-time tuition net tuition fee was estimated to be **£3,607** per annum. We have assumed that fees do not increase over the duration of students' courses.
- We have modelled loan eligibility – by location of study (i.e. Living at Home (**21%** (full-time students)), Living away from home outside of London (**67%**), and Living away from home in London (**12%**)) - using the current income thresholds provided by Student Finance England.
- All analyses are undertaken by gender. For those individuals undertaking sub-degree qualifications a full-time basis, the gender split is **46/54**, with the corresponding estimates for undergraduate degrees standing at **43/57**.
- The average age of enrolment for full time students undertaking Other HE, HNCs/HNDs, Foundation Degrees and undergraduate degrees was **28, 21, 25** and **20** respectively. The corresponding estimates for part-time students were **36, 27, 30** and **31** respectively.
- The average duration of qualification attainment for full time students undertaking Other HE, HNCs/HNDs, Foundation Degrees and undergraduate degrees was **1, 2, 2** and **3** years respectively. Based on study intensity, the corresponding estimates for part-time students were **2, 5, 5** and **7** years respectively





## Fiscal assumptions

- We assume that all income **thresholds** (for loan interest and loan repayment) increase in line with average nominal earnings growth (with forecasts taken from medium term and long term forecasts by the Office for Budget Responsibility (OBR), published in October and July 2018, respectively).
- In relation to the estimation of the RAB charge, we assume a real **discount rate** of **0.7%** as per standard HMT practice with respect to student loans accounting. In relation to all other financial flows (including Exchequer costs and benefits), we assume the standard HMT real discount rate of **3.5%**.
- All nominal price levels were adjusted to (real) constant 2017/18 prices using OBR medium term and long term forecasts of the Retail Price Index.

The Public Sector (Net) Borrowing Requirement (PNSB, the 'deficit') represents **expenditure minus income**. Based on the *current* treatment of student loans in the UK National Accounts:

- **Income** represents the accrued interest receivable on loans each year, and
- **Expenditure includes:**
  - **Loan write offs (interest + principal)** occurring intermittently over the 30 year repayment period (because of death and disability), as well as at the end of the repayment period
  - **Teaching grants** paid during study
  - **Tuition fee and maintenance grants** paid during study (if any).

In line with the current HMT deficit accounting methodology, any annual deficit estimates (under either the current approach or the proposed alternative options) are presented in current prices (rather than constant 2017/18 prices), and are *not* discounted to net present values.