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## The complicated issue of HE finance

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# Introduction

- IFS has been doing work on HE finance for around 15 years and a fair proportion of that work has been supported by the Nuffield Foundation
- HE finance has direct implications for a lot of actors: Taxpayers, Students (who later become Graduates) and Universities (HEIs)
  - Not only direct financial implications but affects actions and the decision making of all these actors (not always in desirable ways)
  - History of policy making being made in last minute and rushed ways which hasn't always been optimal
- Focus of this talk is on
  - Why do we intervene in HE finance?
  - What has happened to HE finance recently and the implications of the most recent changes?
  - What are the uncertainties involved in assessing the impact of changes in HE finance; and finally
  - What are the implications of some of the policy changes that have been recently mooted?

# Why might the market alone lead to inefficient outcomes?

1. Credit market failure
2. Externalities
3. Risk and uncertainty
4. Information problems

# 1. Credit market failure

- HE study by students requires cash for fees and living expenses
- With perfect credit markets, students borrow now and repay from future income
- But credit markets are *not* perfect:
  1. Lack of collateral to secure debt against
  2. Asymmetric information: borrower has more information than lender which means:
    - Lender exposed to adverse selection / moral hazard
    - Higher interest rates or credit rationing
    - Inefficiently small amount of borrowing and investment

## 2. Externalities

- Education may create benefits to society over and above those that accrue to the individual
  - Total return to education = private return + social return
- Do individuals incorporate *social* return to education in weighing up costs and benefits?
  - Average private return to HE vs. non-HE is roughly 25–27% for women, 18–21% for men (OECD)
  - Social returns much more difficult to quantify and include things like better citizens; peer effects at university and later in work; future tax revenues, ....

# 3. Risk and uncertainty

- Student may be reluctant to borrow
  - Perceived risk of failing the degree
  - Uncertain returns to a degree: positive on average but high variance
  - Might need high risk premium to make the investment worthwhile
  - Debt aversion

## 4. Information problems

- To make rational decisions, individuals must be informed about
  - Nature of product (e.g. university and/or subject quality, HE experience)
  - Prices (e.g. fees, living costs, foregone earnings, debt repayments)
  - Future benefits (e.g. earnings), health, happiness....
- Expectations affect not only whether a 18-year-old goes to university, but also the aspirations of younger teenagers which could impact on earlier school outcomes

# What does this mean for policy making?

- All of these arguments can justify state interventions and subsidies on **efficiency** grounds
- Externalities → the financial burden of HE should be shared between the government and individuals; but how much?
- Other market failures → student loans, insurance (e.g. through income contingent loans), information campaign (e.g. make system transparent)
- There also exist **equity** arguments for government intervention
  - Improve social mobility through widening participation. E.g. Should the government subsidize some students more than the other? Should admission policies favour those from certain socio-economic background?

# Overview of recent reforms

# The student finance regime over time

	Pre-2006	2006 reforms (top-up fees)	2012 reforms
<i>Fees</i>	£1,200 (in 2005/06)	£3,375 (in 2011/12)	Maximum of £9,000
	Up-front	Deferred (via fee loan)	Deferred (via fee loan)
	Same fee across all institutions/courses	Variable up to £3,375	Variable between £6,000 and £9,000
	Exemptions if on low income	No exemptions	Fee waivers for poorest students via NSP (abolished from 2015)
<i>Grants</i>	No grants (before 2004/05)	Up to £2,906 in grants, plus bursaries	Up to £3,250 in grants, plus bursaries
<i>Maintenance loans</i>	Up to £4,200 (in 2005/06)	Up to £6,928 (in 2011/12)	Up to £7,675
<i>Repayment</i>	9% of earnings above £10,000	9% of earnings above £15,000 (not uprated)	9% of earnings above £21,000 (in 2016) uprated with earnings
		25-year debt write-off	30-year debt write-off

# Our recent work

- Simulate future graduate earnings and repayments to provide an independent analysis of HE finance.
  - We show that 2012 reforms look set to save a little money but estimates depend crucially on assumptions made about real earnings growth and government cost of borrowing
- Evaluate the financial impact of the 2012 reform for students, graduates, universities and for the taxpayer
  - Our work allows us to see not only the average changes but likely distributional effects of policy changes
- Assess the uncertainties in HE finance and effects of potential policy changes
- Assess the impact of the NSP and the likely impact now that it has been abolished

# Our most research has shown that

- The 2012 reform looks set to save a little money for the taxpayer, but the biggest winner from those reforms were universities
- Students were made slightly better off on average but graduates worse off on average
  - However the bottom 30% of graduates were better off so reforms were progressive
- Estimates of the cost of student loans to the taxpayer are sensitive to assumptions about graduate earnings growth and extremely sensitive to the government's borrowing cost
- Plausible tweaks to the current system may yield small-to-moderate savings to taxpayers
- Options to extract more from high-earning graduates need to be balanced with the risk of them not taking out loans/paying back early
- The National Scholarship Programme introduced in 2012 with the increase in fees to £12,000 was misguided and is likely to have resulted in poorly targeted taxpayer (and university) spending

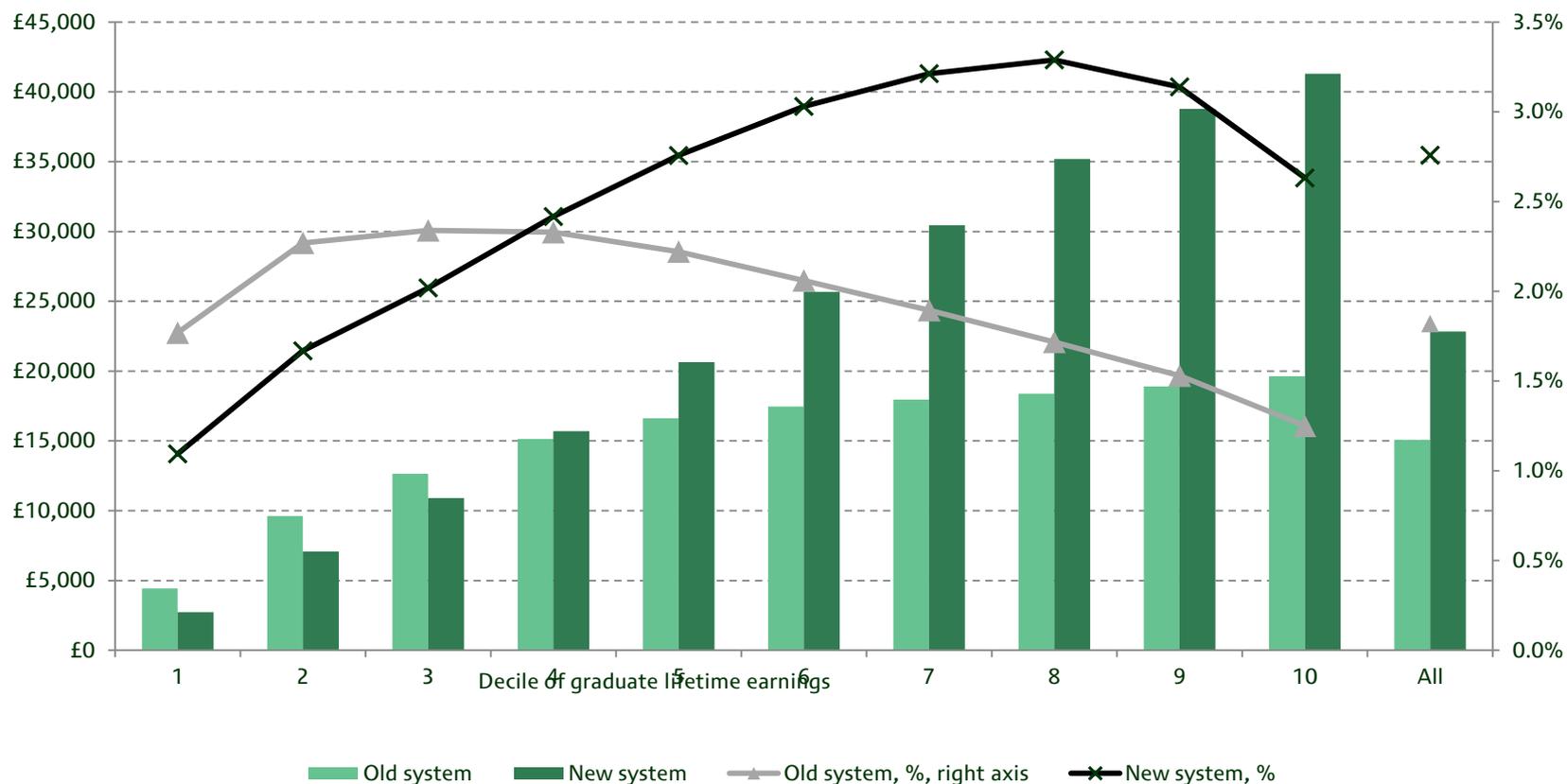
# Sources of funding and spending per student

	2011 system	2012 system	% change
<b>Taxpayers contribution</b>	<b>£25,847</b>	<b>£24,592</b>	<b>-5%</b>
HEFCE funding grants	£12,012	£2,010	-83%
National Scholarship Programme	£0	£198	
Maintenance grants	£4,741	£4,941	4%
£ loan subsidy	£9,094	£17,443	92%
<i>% loan subsidy</i>	<i>37.6%</i>	<i>43.3%</i>	
<b>Graduates repayments</b>	<b>£15,075</b>	<b>£22,843</b>	<b>52%</b>
<b>Universities</b>	<b>£22,143</b>	<b>£28,250</b>	<b>28%</b>
<b>Students</b>	<b>£18,779</b>	<b>£19,185</b>	<b>2%</b>

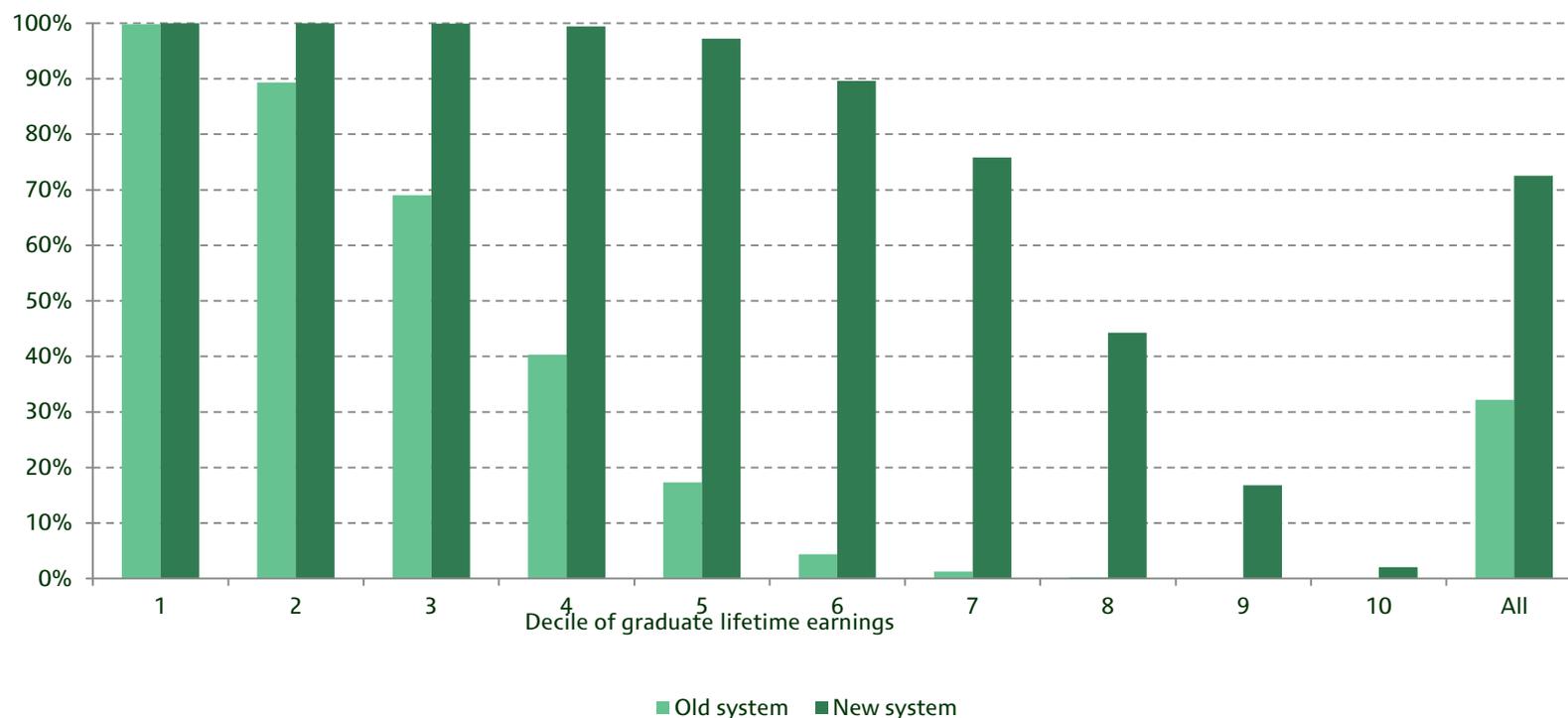
Note: Figures are for the total cost over the course of a student's degree and are in 2014 prices discounted to 2012.

Source: IFS report "estimating the public cost of student loans"

# Net present value of total real repayments and as a share of real NPV lifetime earnings across distribution of graduate lifetime earnings



# Percentage of graduates with real debt write-offs across distribution of graduate lifetime earnings



# Estimated costs of student loans and future earnings: sensitive to earnings growth assumptions

Real earnings growth assumption	Average loan subsidy		Total loan subsidy for intake of 300,000 students
-1% per year	51.6%	£20,806	£6,242m
0% per year	46.8%	£18,859	£5,658m
1% per year	43.7%	£17,596	£5,279m
<b>Baseline (1.1% per year)</b>	<b>43.3%</b>	<b>£17,443</b>	<b>£5,233m</b>
2% per year	40.0%	£16,121	£4,836m
3% per year	36.7%	£14,795	£4,439m

Note: Figures are for the total cost over the course of a student's degree and are in 2014 prices discounted to 2012.

Source: IFS report "estimating the public cost of student loans"

# Estimated costs of student loans and the real discount rate

<b>Government cost of borrowing relative to RPI (discount rate)</b>	<b>Average loan subsidy</b>		<b>Total loan subsidy for intake of 300,000 students</b>
Baseline (2.2%)	43.3%	£17,443	£5,233m
1.1%	30.5%	£12,434	£3,730m
3.5%	55.0%	£21,839	£6,552m

Note: Figures are for the total cost over the course of a student's degree and are in 2014 prices discounted to 2012.  
Source: IFS report "estimating the public cost of student loans"

# What options are there?

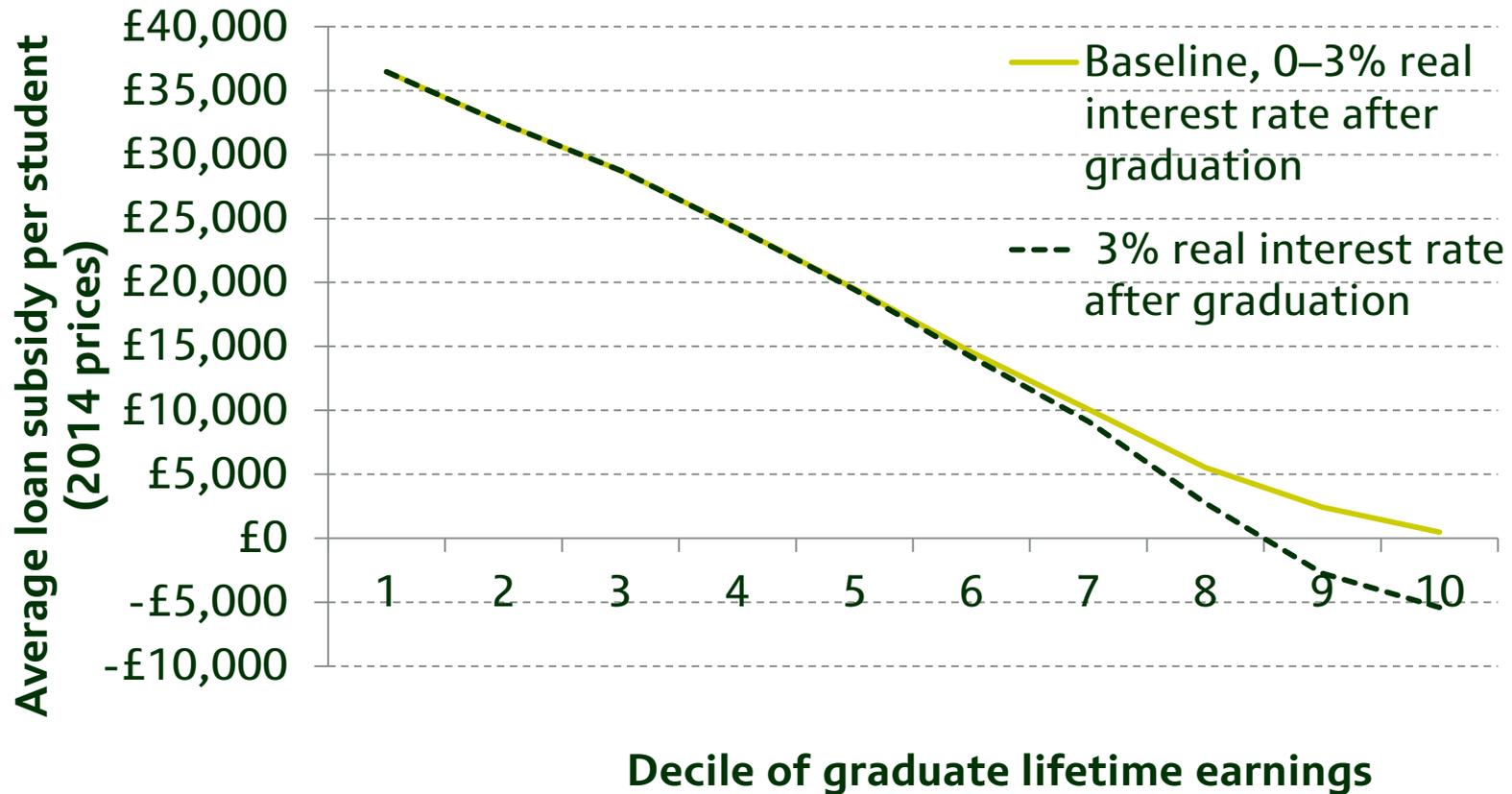
- Graduate Tax
  - True graduate tax implies infinite interest rate and money goes to central government so no guarantee it will be earmarked
  - Could have time limited graduate tax e.g. Everybody pays for 20 years minimum and if haven't paid off debt by then eventually written off at 30 years (way of hitting high earners which may be better than higher interest rates)
- Imposing repayment rate on ALL earnings above threshold instead of marginal earnings above threshold
  - Generates huge cliff edge; not ideal incentive-wise
- Extending write off period
  - Only get additional funding from those who haven't paid off loan by 30 years i.e. Those not doing so well in labour market
- Uprating threshold by inflation rather than earnings....

# Estimated costs of student loans and potential parameter changes

Scenario	Average loan subsidy per student	Average loan subsidy per student	Saving per student relative to the baseline
Repayment rate of 12% (instead of 9%)	35.6%	£14,342	£3,101
Real interest rate 3% (instead of 0-3%)	39.5%	£15,918	£1,525
Write off after 35 years (instead of 30 years)	38.9%	£15,691	£1,752
Repayment threshold uprated by RPI (instead of average earnings)	37.5%	£15,126	£2,317
Everybody pays for at least 20 years...	41.6%	£16,755	£679

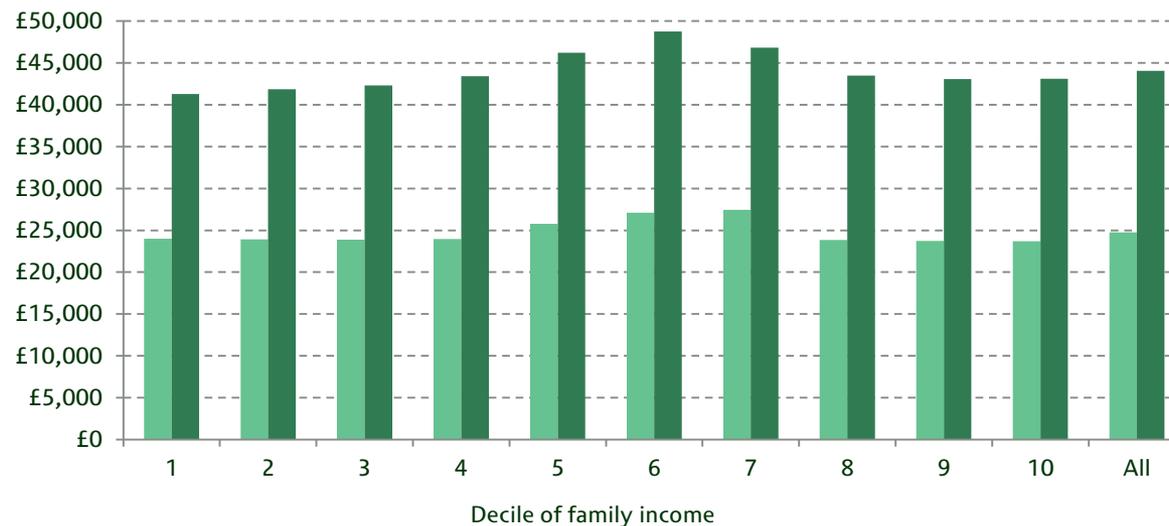
Notes: same as last table.

# Loan subsidy already near zero for high-earners



# Other dimensions of current system that need to be assessed

- 1) Student maintenance loan system NOT transparent, has strange relationship to family income and administratively burdensome
  - Should be flat rate of student loan available to all students which only depends on whether they live at home, studying in London, ...
  - Oddity has been in place since last minute changes to the 2006 student funding reforms
  - Use student grants to ensure those most in need get extra support



# Other dimensions of current system that need to be assessed

- 2) HEFCE funding not logical – reforms in 2012 mean no subsidy for Humanities and Arts
  - Externalities only for Sciences/Engineering/Medicine?
  - Of course indirect subsidy for students of Arts/Humanities via RAB but no direct subsidy for Universities
- 3) Poor information on value of undertaking different degrees, subjects and/or attending different institutions
  - Means clear incentive (and no penalty) for universities charging maximum fees
  - Students not making decisions with full information
  - Need system where Universities share some of the risk/bear some of the costs of charging higher fees to incentivise universities to consider reducing fees where appropriate

# National Scholarship Programme (NSP)

- Extra funding to support students from disadvantaged backgrounds
- Last minute policy change in run up to 2012 reforms in order to hold coalition vote together
- Allocation of money to HEIs somewhat arbitrary (improved in 2013 and 2014)
- 2/3 of policies were not transparent – how can they affect participation?
- Fee waivers were unlikely to benefit those most in need (just cash transfer to Universities) as most students receiving them would not pay off loan even with reduction in fees (hence NO/LITTLE benefit to student)
- Universities had no choice but to implement fee waivers/bursaries (in order to get matched government funding) when evidence suggests may be potentially more effective ways of increasing participation
  - Outreach activities
  - Retention/Mentoring/Career Advice whilst in University
  - *Transparent* financial support

# Likely impact of NSP abolition?

- Some of the government money being redirected to post-graduate students
- OFFA access agreements for 2015/16 suggest that money from bursaries/fee-waivers is being redirected:
  - Highly-selective institutions are planning more long-term outreach work such as summer schools and mentoring
  - Universities with more diverse student bodies will help disadvantaged students engage with their studies and settle into university life
- May mean that disadvantaged students are worse off in the short run. However, the overall impact of these changes will depend on whether focusing on outreach activities and/or engagement activities once in university is more effective at improving access and retention for disadvantaged students in the long run.

# So what options do we have?

- A mixture of parameter changes to the current system to reduce loan subsidies for middle-earning graduates
- Reduce/better target maintenance grant and increase maintenance loans (but in sensible way)
- Give universities some incentive to lower fees – needs to involve them sharing some of the risk

Baseline for the 2012 cohort

All fees at £9,000

All fees at £7,500

## Average loan subsidy

43.3%

£17,443

44.2%

£18,320

40.6%

£14,851

# References

Claire Crawford, Rowena Crawford and Wenchao Jin (2014) “Estimating the public cost of Student Loans”, funded by the Universities UK

Claire Crawford and Wenchao Jin (2014) “What do the 2012 reforms mean for students”, funded by the Sutton Trust

Haroon Chowdry, Lorraine Dearden, Alissa Goodman and Wenchao Jin, June 2012, The distributional impact of the 2012-13 higher education funding reforms in England, Fiscal Studies, Vol. 33, No. 2, June 2012, Vol. 33, No. 2, pp. 211-235.

Haroon Chowdry, Lorraine Dearden, Wenchao (Michelle) Jin and Barnaby Lloyd, November 2012, Fees and student support under the new higher education funding regime: what are different universities doing?, IFS Briefing Notes , BN134

Lorraine Dearden, Louis Hodge, Wenchao Jin, Alexander Levine and Laura Williams (2014), “Financial support for HE students since 2012”, IFS Briefing Notes, BN152.

# Additional materials 1

	Average loan subsidy per student		Average cost of grants per student	Total taxpayer contribution per student
<b>Baseline</b>	43.3%	£17,443	£7,149	£24,592
<i>Loan take-up</i>				
Random 13% of students do not take out loans	43.3%	£15,175	£7,149	£22,324
Top-earning 10% do not take out loans	48.2%	£17,396	£7,149	£24,545
<i>Loan repayment</i>				
Random 10% repay faster than necessary	42.4%	£17,081	£7,149	£24,229
Top-earning 10% repay faster than necessary	43.5%	£17,512	£7,149	£24,661
5% of graduates cannot be traced after graduation	46.1%	£18,584	£7,149	£25,733

## Additional materials 2

	Average loan subsidy per student		Average cost of grants per student	Total taxpayer contribution per student
<b>Baseline</b>	43.3%	£17,443	£7,149	£24,592
<i>Fee levels</i>				
All fees at £9,000 <sup>a</sup>	44.2%	£18,320	£7,149	£25,469
All fees at £7,500 <sup>a</sup>	40.6%	£14,851	£7,149	£22,000
Fees increase in line with RPI over course	44.1%	£18,215	£7,149	£25,364
Fees £3,000 higher but constant over course	50.1%	£25,070	£7,149	£32,219
Fees increase by £1,000 per year over course	46.0%	£20,161	£7,149	£27,310
Fees £500 higher but constant over course	44.5%	£18,642	£7,149	£25,791

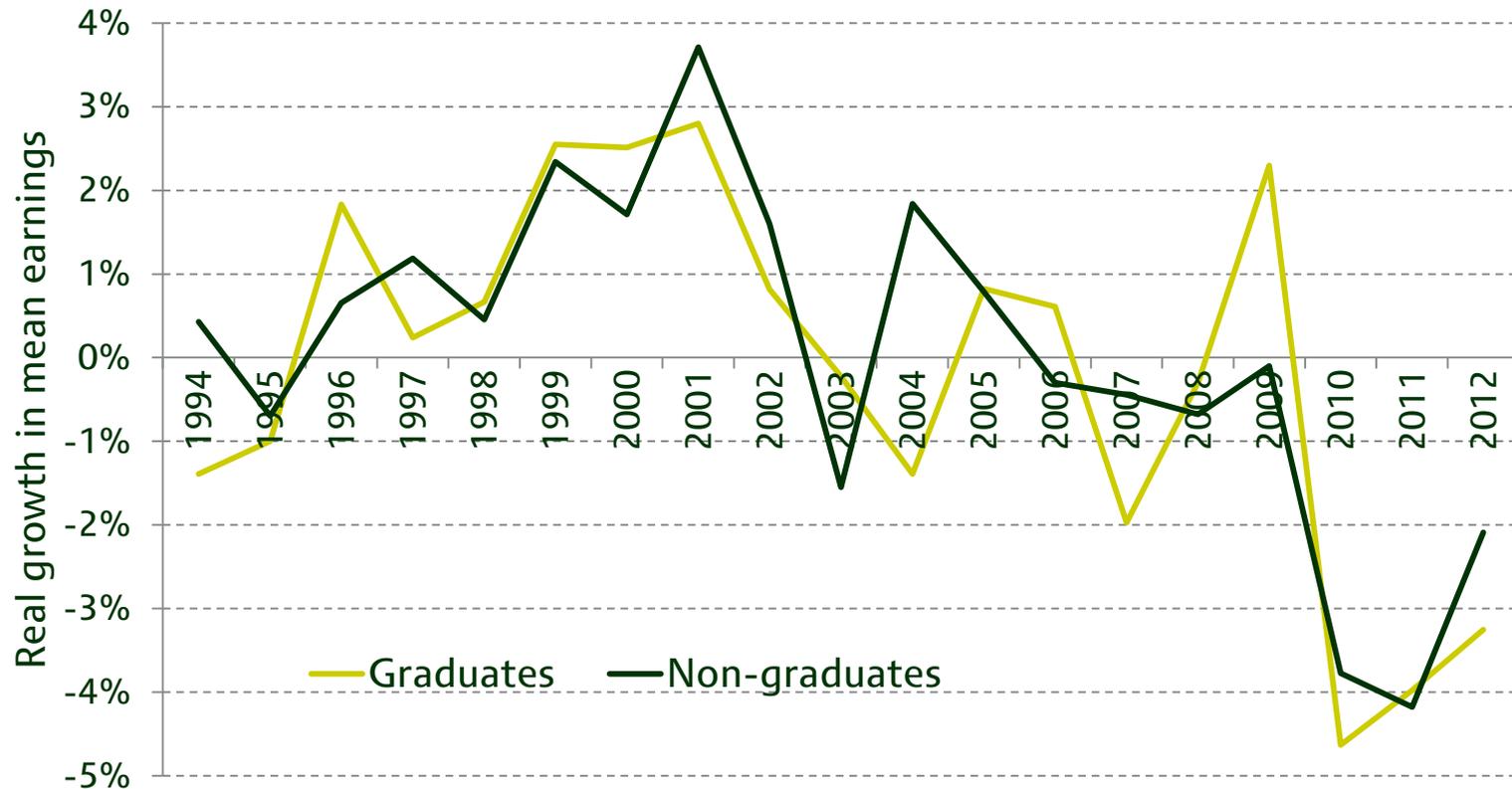
# Additional materials 3

	Average loan subsidy per student		Average cost of grants per student	Total taxpayer contribution per student
<b>Baseline</b>	43.3%	£17,443	£7,149	£24,592
<i>Repayment rate</i>				
12%	35.6%	£14,342	£7,149	£21,490
15%	30.9%	£12,454	£7,149	£19,603
<i>Repayment threshold</i>				
Threshold £18,000 in 2016 and uprated by average earnings	36.9%	£14,850	£7,149	£21,999
Threshold £21,000 in 2016 and uprated by RPI	37.5%	£15,126	£7,149	£22,275
Threshold £21,000 in 2016 and uprated by 2% a year	31.1%	£12,511	£7,149	£19,660

# Additional materials 4

	Average loan subsidy per student		Average cost of grants per student	Total taxpayer contribution per student
<b>Baseline</b>	43.3%	£17,443	£7,149	£24,592
<i>Interest rates</i>				
Zero real interest rate while studying	45.1%	£18,151	£7,149	£25,300
Zero real interest rate after graduation	50.5%	£20,331	£7,149	£27,480
Real interest rate 0–5% after graduation	38.6%	£15,557	£7,149	£22,706
Real interest rate 3% after graduation	39.5%	£15,918	£7,149	£23,067
Same interest rates as in baseline, but top 10% of earners do not take out loans	48.2%	£17,396	£7,149	£24,545
Real interest rate 0–5% after graduation and top 10% of earners do not take out loans	45.3%	£16,367	£7,149	£23,516
Real interest rate 3% after graduation and top 10% of earners do not take out loans	45.6%	£16,458	£7,149	£23,607

# Real growth in average annual earnings of graduates and non-graduates



Note: Average earnings are calculated across individuals aged between 25 and 59 with positive earnings and non-missing highest qualification. Nominal earnings are deflated by the RPI. Source: Labour Force Survey