The distributional impact of the 2010 Spending Review

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Outline of presentation

• The distributional effects of spending changes:
  – Allocating spending (and cuts) to households
  – How much of each service is being cut?
• Present impacts by:
  – Point in the income distribution
  – Family type
• Combine tax & benefit changes with service cuts to illustrate overall impact
• Explore wider uses of this type of analysis in tax & spending debates
Modelling the distributional effects of public spending

- Tim Horton and Howard Reed (September 2010) ‘Where the Money Goes: How we benefit from public services’
- We use household data on service use to model the effects of spending on several areas, most importantly:
  - Health (GHS)
  - Education (FRS)
  - Social Care (BHPS)
  - Social Housing (FRS)
  - Transport (EFS)
  - Crime (BCS)
Modelling the distributional effects of public spending

• Where we have no data to assign services to households or where it doesn’t make sense conceptually (e.g. defence, environmental protection etc.) we allocate services on a flat-rate cash basis according to household size

• The model only includes ‘services-in-kind’ – not transfer payments such as benefits or tax credits (which other studies have looked at, e.g. IFS)

• We include current and capital spending (assuming capital spending has similar distributional impacts to current)

• Thus the model allocates all spending on services to households (Treasury’s analysis in CSR Appendix B only allocated around 50% of spending at best)
Average public spending on services by household income: cash terms

decile (1=poorest, 10=richest)
Average public spending on services by household income: percentage of net income

Percentage of net income allocated by service use and flat rate.
What is the real value of public services?

• Difference between ‘cost’ and ‘value’:
  – Private sector comparators
  – Willingness to pay for services
  – The indispensability of core public goods

• Value accruing to ‘non-users’:
  – Option value / insurance
  – Future value
  – Externalities from others’ service use
Average public spending (total) by household income: cash terms

Average annual spending per household, in cash terms, by household income decile (2007-08)
Average public spending (total) by household income: percentage of net income

Average annual spending per household, as a proportion of net household income, by household income decile (2007-08)
Average public spending (total) by household type: cash terms

Average annual spending per household, in cash terms, by household type (2007-08)
Average public spending (total) by household type: percentage of net income

Total spending as % of net income by household type

- Total other spending
- Benefits & tax credits

- Single no children
- Lone parent
- Couple no children
- Couple with children
- Single pensioner
- Couple pensioner

Average annual spending per household, as a proportion of net household income, by household type (2007-08)
How big are the cuts?

Total spending cuts by 2014-15: £81bn
- Reduced debt interest -£10bn
- Reduced benefits/tax credits -£18bn
= Nominal spending cuts £53bn

At 2010-11 prices: £48bn
Which services are being cut?

- Spending review gives departmental spending totals
- Our model analyses spending by function
- A detailed mapping is available between the two – but only ex post
- Ex ante we have to make assumptions about the scale of cuts by service area
Spending cuts by service – easier cases

Overall cuts by 2014-15 in real terms:

Health 0%
Education (schools) -10%
Transport -15%
Spending cuts by service – our assumptions in harder cases

Mainly these are where large portions of expenditure are devolved to local authorities:

Social care       -20%
Social housing    -24%

Or where funding is only part of a departmental settlement:

Policing          -20%
HE/FE, adult education -27%
Spending cuts by service – other assumptions

‘Other income related’ categories – average reduction of 18%

‘Flat rate’ categories – average reduction of 18%
...except defence (8%)

Overall spending reduction (as a proportion of all public spending on services-in-kind): 12%
Effects of spending cuts by income group: cash terms, allocating services related to household use only
Effects of spending cuts by income group: cash terms, all services

change in living standards (annual)

-£2,500
-£2,000
-£1,500
-£1,000
-£500
0
£500
£1,000
£1,500
£2,000
£2,500
decile
1 2 3 4 5 6 7 8 9 10

- flat-rate
- other service-related
- transport
- housing
- social care
- education (HE/FE/skills)
- education (schools)
Effects of spending cuts by income group:
as % of net income, all services

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- flat-rate
- other service-related
- transport
- housing
- social care
- education (HE/FE/skills)
- education (schools)
Effects of spending cuts by income group: as % of net income plus value of services, all services

change in living standards (annual)

-12% -10% -8% -6% -4% -2% 0% 2% 4% 6% 8% 10% 12%

decile

1 2 3 4 5 6 7 8 9 10

flat-rate
other service-related
transport
housing
social care
education (HE/FE/skills)
education (schools)
Effects of spending cuts by family type: cash terms, all services

- single, no children
- lone parents
- couple without children
- couple with children
- single pensioner
- couple pensioner

Change in living standards (annual)

- flat-rate
- other service-related
- transport
- housing
- housing
- social care
- social care education (HE/FE/skills)
- education (schools)
Effects of spending cuts by family type: as % of net income, all services
Effects of spending cuts by family type: as % of net income plus service value, all services
What about the tax & welfare measures?

• We can use figures from IFS post-CSR briefing to show the impact of the tax and benefit changes

• Note that IFS attempted to model all benefit and tax credit measures (except the universal credit) whereas HMT (in CSR Appendix B) modelled only a subset
Distributional impact of tax, benefit and tax credit measures – cash terms

Source: IFS post-CSR briefing, 21 October
Distributional impact of tax, benefit and tax credit measures – as % of net income

![Bar chart showing distributional impact across different deciles.]

Source: IFS post-CSR briefing, 21 October
Distributional impact of tax/benefit and spending measures – as % of net income

Source: spending – Landman Economics, tax/benefit – IFS
Distributional impact of tax/benefit and spending measures – as % of net income and value of services received

Source: spending – Landman Economics, tax/benefit - IFS
Conclusions

- Impact of the CSR on households appears to be very regressive under reasonable assumptions about how the benefits of public spending are distributed.
- Poorest are hit 15 times harder than the richest if you measure changes as a proportion of income.
- Poorest are hit 5 times harder than the richest if you measure changes as a proportion of income plus the value of public spending received.
- Families with children and single pensioners hit hardest in percentage terms (due to education and social care cuts, respectively).
Online calculator

• You can calculate how much households in your income group, region, housing tenure and family structure lose on average at:

Reshaping debates on tax & spending

• Unlike tax paid, people don’t have a sense of the value they get from public services (Hedges, 2005)

• This technique can help to personalise the value of public services – might help people to value it more?

• Potentially creates a new perspective on debates – e.g. cuts, waste, etc.
Calculating the net impact of tax cuts

Net impact of a 1% income tax cut, paid for by cutting health spending

[Bar chart showing the net impact over time, with income tax cut, health spending cut, and net gains indicated.]
The real impact of the Budget’s income tax cut?

Net distributional impact of the Budget’s £3.7 billion income tax cut
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