UK public finances and the financial crisis

Carl Emmerson and Gemma Tetlow

Presentation given at workshop on “European public finances through the financial crisis”, ZEW Centre for European Economic Research, Mannheim, Germany, 11 June 2014.
Outline

- Background: the state in the UK
- UK economy before, during and after the crisis
- Fiscal policy before the crisis
- Fiscal effects of the crisis
- Fiscal (and monetary) response to the crisis
  - Changes to taxation, spending and the fiscal framework
  - Distributional effect of changes to taxation and welfare spending
  - Did the tax and spending changes make the system more or less efficient?

- Note:
  - UK fiscal years run from April to March
  - UK public finance aggregates differ from Maastricht definitions

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UK spent around 40% of GDP publicly pre-crisis

Total managed expenditure, 1948 to 2007

Percentage of GDP

Source: Office for Budget Responsibility’s public finances databank.
Composition of spending over time

Total managed expenditure, selected years

<table>
<thead>
<tr>
<th>Year</th>
<th>1989-90</th>
<th>1999-00</th>
<th>2007-08</th>
</tr>
</thead>
<tbody>
<tr>
<td>Share of public spending</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>100%</td>
<td>23.6</td>
<td>22.2</td>
<td>23.4</td>
</tr>
<tr>
<td>90%</td>
<td>10.0</td>
<td>7.5</td>
<td>5.4</td>
</tr>
<tr>
<td>80%</td>
<td>4.9</td>
<td>5.2</td>
<td>5.4</td>
</tr>
<tr>
<td>70%</td>
<td>10.0</td>
<td>12.2</td>
<td>13.3</td>
</tr>
<tr>
<td>60%</td>
<td>12.3</td>
<td>14.4</td>
<td>17.2</td>
</tr>
<tr>
<td>50%</td>
<td>11.6</td>
<td>15.8</td>
<td>14.4</td>
</tr>
<tr>
<td>40%</td>
<td>13.5</td>
<td>13.4</td>
<td>11.7</td>
</tr>
<tr>
<td>30%</td>
<td>10.4</td>
<td>13.4</td>
<td></td>
</tr>
<tr>
<td>20%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Weak contributory principle:

- Health spending has become increasingly important.
- Offset by declining defence and debt interest spending.

Source: Authors’ calculations based on data from HM Treasury and Department for Work and Pensions.
Changing composition of revenues

Net taxes and national insurance contributions, selected years

Source: Figure 2.5 of IFS Green Budget: February 2014.
GDP growth had averaged 3.2% a year over the decade up to 2007–08

Real GDP growth rate, 1956 to 2012

Source: Office for National Statistics, Quarterly National Accounts (series ABMI).
Inflation had been low and stable since the mid-1990s but rose during the crisis.

Growth in prices, 1949 to 2007

Source: Office for National Statistics (series DODO, DODP, DODQ, CZVJ, CRAB, CHAW, D7BT, KAB9, KAC4, KAC7).

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Employment rates had been rising steadily since mid-1990s

Employment rate among those aged 16 to 64, 1971 to 2013

Hours worked per worker had been declining over time and continued to do so

Source: Office for National Statistics (series LF24, MGSV, LF25).
Unemployment peaked at much lower level than seen during previous recessions

Unemployment rate among those aged 16 to 64, 1971 to 2013

Source: Office for National Statistics (series MGSX, MGSY, MGSZ).
Average real earnings have fallen

Growth in prices and average weekly earnings, 2007 to 2013

Index, 2007=100

Retail Prices Index
Consumer Prices Index
Whole economy earnings
Private sector earnings
Public sector earnings

Source: Office for National Statistics (series DODO, DODP, DODQ, CZVJ, CRAB, CHAW, D7BT, KAB9, KAC4, KAC7).
UK fiscal policy prior to the crisis

• Two fiscal rules
  – **Golden rule:** current budget must be in balance or surplus over the course of an economic cycle
  – **Sustainable investment rule:** debt must not exceed 40% of GDP
  – No official sanctions for breaching these
  – Perception that “the goalposts were moved” – redating the cycle

• Economic and fiscal forecasts produced by HM Treasury, officially controlled by the Chancellor of the Exchequer

• Public service spending totals set in cash terms for 3-year periods
  – Intended to be ‘tight’: cutting public service spending as % of GDP

• Default was for (most) tax thresholds and benefit rates to increase in line with Retail Price inflation each year
  – Few reforms had been announced pre-crisis but not yet implemented: reduction in generosity of disability insurance, increase in pension eligibility age for women
Pre-crisis plan was for fiscal consolidation by 2012–13

Public sector receipts and total managed expenditure, 1997 to 2018

Revenue forecast, Mar 2008

Spending forecast, Mar 2008

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Source: Office for Budget Responsibility’s public finances databank and authors’ calculations.
Borrowing was forecast to fall to 1¼% of GDP...

Alternative measures of borrowing, 1948 to 2012

On eve of the crisis: UK had one of largest structural deficits in OECD and had done less than most to improve this over the preceding decade.

Source: Office for Budget Responsibility’s public finances databank and authors’ calculations.
...and debt was forecast to peak just below 40%

Alternative measures of debt, 1948 to 2012

On eve of the crisis: UK also had one of the highest levels of debt in OECD (although lower than most other G7).

Source: Office for Budget Responsibility’s public finances databank.
Effect of the crisis on UK’s public finances

- Level of trend GDP now forecast to be permanently lower than previously expected
A large hit to future potential output?

Real GDP back to pre-crisis level in 2014, but GDP per capita not set to bounce back until 2016

Source: Authors’ calculations based on HM Treasury and Office for Budget Responsibility forecasts and Office for National Statistics data on outturns.
Effect of the crisis on UK’s public finances

- Level of trend GDP now forecast to be permanently lower than previously expected
- Tax revenues fell as GDP fell in cash/real terms
  - Small fall as % of GDP due to fiscal drag and compositional changes
  - Falls in housing prices and transactions reduced stamp duty revenues
  - Falls in stock prices reduced capital taxes and associated with lower bonus payments
  - Financial sector contraction reduced corporation tax revenues
Spending and revenues, without action

Public sector receipts and total managed expenditure, 1997 to 2018

% of GDP

Revenues - without action

Source: Office for Budget Responsibility’s public finances databank and authors’ calculations.
Effect of the crisis on UK’s public finances

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  - Financial sector contraction reduced corporation tax revenues
- Around half of spending set in advance in cash terms and upward pressure on cyclical spending during recession
  - Spending increased a lot as % of GDP
  - Policy default would have been for spending to remain high as % GDP without “action”
Spending and revenues, without action

Public sector receipts and total managed expenditure, 1997 to 2018

Revenues - without action
Spending - without action

Borrowing would have been over 10% of GDP

Source: Office for Budget Responsibility’s public finances databank and authors’ calculations.
Borrowing

Alternative measures of borrowing, 1948 to 2018

Source: Office for Budget Responsibility’s public finances databank and authors’ calculations.

Structural borrowing would have been 9.0% of GDP higher than anticipated pre-crisis.
Effect of the crisis on UK’s public finances

- Level of trend GDP now forecast to be permanently lower than previously expected
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  - Small fall as % of GDP due to fiscal drag and compositional changes
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  - Spending increased a lot as % of GDP
  - Policy default would have been for spending to remain high as % GDP without “action”
- Without “action”
  - Borrowing would have remained above 10% of GDP
  - Unsustainable fiscal position
Fiscal policy response to the crisis (1)

• Two new fiscal targets adopted in May 2010
  – **Fiscal mandate:** cyclically-adjusted current budget must be forecast to be in balance or surplus at the end of the rolling five-year forecast horizon
    • Currently being met
  – **Supplementary target:** debt must be falling as a share of GDP between 2014–15 and 2015–16
    • Currently on course to be missed
Fiscal policy response to the crisis (2)

• The “no policy change” baseline
  – Tax and benefit rates/thresholds uprated as set out in legislation (mainly RPI-indexed)
    • Include pre-announced policy changes
  – Public service spending growth
    • Pre-announced cash plans up to 2010–11
    • 1.8% a year real terms growth from 2011–12 to 2014–15 (pencilled into March 2008 Budget)
    • Grows in line with GDP thereafter

• Short-term fiscal stimulus followed by fiscal tightening
  – Stimulus in 2008–09 and 2009–10
  – Stimulus reversed and tax rises/spending cuts started in April 2010
  – Tax rises largely complete by April 2014
  – Spending cuts to continue to March 2019
Composition of the policy response

12% from tax rises
8% from investment spending cuts
14% from welfare spending cuts
52% from other current spending

Reduce borrowing by 10.3% of GDP

March 2014: 49% done

Source: Authors’ calculations based on HM Treasury and Office for Budget Responsibility figures.
Now aiming for tighter fiscal position than planned pre-crisis

Spending and revenues, with action

Public sector receipts and total managed expenditure, 1997 to 2018

Source: Office for Budget Responsibility’s public finances databank and authors’ calculations.
Debt forecast to peak in 2015–16

Alternative measures of debt, 1948 to 2018

- Public sector net debt
- Treaty debt ratio
- National debt

Source: Office for Budget Responsibility’s public finances databank.
Aside: Fiscal institutions after the crisis

• Office for Budget Responsibility (OBR) created in May 2010
  – Independent fiscal council: accountable to Parliament, not the government
  – Produces fiscal and economic forecasts based on announced policy
  – Tasked with assessing compliance with the new fiscal targets

• OBR has significantly increased the transparency and credibility of official fiscal and economic forecasts
Aside: Monetary policy response

- Bank of England significantly loosened monetary policy
  - Interest rates: cut from 5.75% in July 2007 to 0.5% by March 2009
  - Central bank asset purchases started in March 2009 at £75bn, rising to £375bn by July 2012
- Sterling devalued significantly
  - By 25% against trade-weighted basket of currencies
Specific measures

• Deep cuts to spending on some areas of public services
Planned cuts to public spending

Between 2010–11 and 2018–19 and after economy-wide inflation

• Total spending cuts of 4.4%
• But
  – debt interest spending rising
  – social security spending, particularly on pensioners, rising
  – other non-departmental spending such as on PAYG spending public service pensions and UK contribution to the EU budget rising
• Departmental spending on public services cut by 19.9%
Whitehall departments: ‘winners’

Departmental budget in 2015–16 compared to 2010–11, after economy-wide inflation

<table>
<thead>
<tr>
<th>Department</th>
<th>Real budget increase 2011–12 to 2015–16</th>
</tr>
</thead>
<tbody>
<tr>
<td>International Development</td>
<td>35.3</td>
</tr>
<tr>
<td>Energy and Climate Change</td>
<td>9.4</td>
</tr>
<tr>
<td>NHS (Health)</td>
<td>4.3</td>
</tr>
<tr>
<td>Transport</td>
<td>-7.4</td>
</tr>
<tr>
<td>Education</td>
<td>-8.2</td>
</tr>
<tr>
<td>Defence</td>
<td>-10.4</td>
</tr>
<tr>
<td>Total DEL</td>
<td>-11.0</td>
</tr>
</tbody>
</table>

Note: Figures show cumulative change in total DEL after economy-wide inflation. Adjusted for consistency, including for business rate retention policy, movement of cost of operations into the special reserve, financial transactions associated with ‘Right to Buy’ policy, and the Green Investment Bank.
Whitehall departments: ‘losers’

Departmental budget in 2015–16 compared to 2010–11, after economy-wide inflation

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<th>Department</th>
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</thead>
<tbody>
<tr>
<td>Total DEL</td>
<td>-11.0</td>
</tr>
<tr>
<td>Business, Innovation and Skills</td>
<td>-19.1</td>
</tr>
<tr>
<td>CLG Local Government</td>
<td>-28.4</td>
</tr>
<tr>
<td>Home Office</td>
<td>-28.8</td>
</tr>
<tr>
<td>Environment, Food and Rural Affairs</td>
<td>-30.3</td>
</tr>
<tr>
<td>Culture, Media and Sport</td>
<td>-33.4</td>
</tr>
<tr>
<td>Justice</td>
<td>-35.3</td>
</tr>
<tr>
<td>Work and Pensions</td>
<td>-35.4</td>
</tr>
<tr>
<td>CLG Communities</td>
<td>-59.5</td>
</tr>
</tbody>
</table>

Real budget increase 2011–12 to 2015–16

Note: Figures show cumulative change in total DEL after economy-wide inflation. Adjusted for consistency, including for business rate retention policy, movement of cost of operations into the special reserve, financial transactions associated with ‘Right to Buy’ policy, and the Green Investment Bank.
Specific measures

• Deep cuts to spending on some areas of public services

• Very large tax increases partially offset by some large tax cuts
Decomposing the net tax increases

Measures since Budget 2008 estimated to be a £24 billion net takeaway

Source: Authors’ calculations using data from the Office for Budget Responsibility. Estimates for impact in 2018–19 expressed in 2014–15 terms by deflating by nominal GDP growth.
Decomposing the net tax increases

Measures since Budget 2008 estimated to be a £24 billion net takeaway

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Decomposing the net tax increases

Measures since Budget 2008 estimated to be a £24 billion net takeaway arising from an £74 billion takeaway and a £50 billion giveaway from 483 measures.

Source: Authors’ calculations using data from the Office for Budget Responsibility. Estimates for impact in 2018–19 expressed in 2014–15 terms by deflating by nominal GDP growth.
Changes to the tax system (1/2)

• Increasing rates of NICs and main rate of VAT not particularly bad ways to raise large sums of money
  – VAT increase is in part a windfall tax on those with savings so, if thought to be one-off, could be efficient
  – but UK VAT base very narrow: increase in main rate increases distortions for both producers and consumers
  – both weaken work incentives
• Cutting main rate of corporation tax and getting rid of low profit rate is a good way to cut taxes
• Recent reforms have made direct personal tax schedule less coherent
  – many have been taken out of income tax at considerable cost, but over one million low earners who don’t pay income tax still pay National Insurance
  – system of pensions tax relief for those on high incomes has been made less efficient, more complicated and, arguably, unfair
Personal tax schedule

Note: 2015–16 system assumes married to a non-income tax paying partner.
Changes to the tax system (2/2)

• Housing taxation shifted from council tax towards stamp duty
  – bad as stamp duty strong contender for the UK’s worst tax
  – lack of reform of council tax: still regressive with respect to property values and, in England, based on 1991 values

• Rates of fuel duties have been cut substantially without a long-run strategy
  – currently 58p/l and falling in real terms
  – motor vehicles becoming more efficient and congestion worsening
  – every year the Chancellor cancels the next planned increase
Changing composition of revenues

Highest proportion of net taxes and NICs from capital taxes since at least 1978

Increasingly coming from a relatively small number of high income people

Top 1% contributed:
- 11% in 1979
- 21.3% in 1999-2000
- 27.5% in 2011-12

Source: Crawford, Keynes and Emmerson (2014).
Specific measures

• Deep cuts to spending on some areas of public services

• Very large tax increases partially offset by some large tax cuts

• Large cuts to benefit spending focused on working age individuals
Changes to the benefit system

• Pensioner benefits largely protected from cuts
  – most working age benefits now indexed less generously, pensioner benefits indexed more generously
  – cuts to housing benefit and disability benefits don’t apply to pensioners (and they are little affected by cuts to child-related benefits)

• Cuts to health-related benefits involve attempt to restrict benefits to least healthy through more stringent, more frequent, testing

• Increase in the earliest age at which individuals can receive a state pension has been brought forward and further increases mooted
  – coherent response to the public finance challenge of rising longevity

• Work incentives, on average, strengthened by benefit reforms
Cure: all in this together?

Impact of tax and benefit reforms implemented January 2010 - April 2015 inclusive, no Universal Credit, by income decile

Change in net income

-9% -8% -7% -6% -5% -4% -3% -2% -1% 0%
Poorest 2 3 4 5 6 7 8 9 Richest All

Note: Assumes full take-up of means-tested benefits and tax credits.
Cure: all in this together?

Impact of tax and benefit reforms implemented January 2010 - April 2015 inclusive, no Universal Credit, by family type

Cure: all in this together?

Impact of tax and benefit reforms implemented January 2010 - April 2015 inclusive, no Universal Credit, by family type

Note: Assumes full take-up of means-tested benefits and tax credits.
Effect on work incentives

- Fall in real earnings between 2010 and 2015 would have led to a significant, though not enormous, weakening of work incentives
- Tax & benefit reforms have an ambiguous impact on work incentives
  - strengthened by: cuts to (some) out-of-work benefits and, for most earners, increases in tax allowances
  - weakened by: increases in tax rates, increases to (some) out-of-work benefits and, for higher earners, cut to tax thresholds
  - complicated effects of cuts to in-work support
- Adam and Browne (2013) find that, on average, the reforms strengthen incentives to be in work and more than offset effects of falling real earnings
  - strengthened less for those with children than those without
- Benefit cuts primarily responsible for that average strengthening
  - but not dramatic given scale of cuts, partly because of nature of tax credit reforms
Conclusions

• Pre-crisis
  – planned to reduce structural borrowing from 2.7% to 1.2% of GDP
• Trend GDP now expected to be substantially lower
• Without action, structural borrowing would have risen by 9% of GDP
• 9-year fiscal consolidation plan
  – 10.3% of GDP
  – 88% from spending cuts
• Deep cuts to spending on some areas of public services
  – share of budget going on NHS continues to grow
• Very large tax increases partially offset by some large tax cuts
  – some changes have improved operation of tax system, but many have worsened it
• Large cuts to benefit spending focussed on working age individuals
  – on average strengthen work incentives
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