Long-term dimension to fiscal uncertainty

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ECFIN workshop, January 2019
Contents

• The UK approach to fiscal risks
• Available tools / approaches
• Risks from health spending
Fiscal Risk Reports

- Weak risk reporting a failing against IMF Fiscal Transparency Code
- In 2015 the OBR legislated to publish a risks report every two years, including a commitment for the Government to respond within a year
- Scoping report in 2016: IMF guidelines and international experience.
- First FRR published and laid in parliament in July 2017
- First Government response *Managing Fiscal Risks* in July 2018
- FRR II due in 2019
Our approach

• The IMF defines fiscal risks as
  – “the possibility of deviations of fiscal outcomes from what was expected
    at the time of the Budget or other forecast”

• We adapted this to focus on risks
  – To our most recent forecast over the medium term
  – To fiscal sustainability over the longer term
  – With greater attention to downside risks in both cases

• We were particularly interested in
  – The probability of particular risks and their potential impact
  – Whether they were correlated with other risks
  – What the government was doing about them
Measurement principles

- Considering risk core to our medium/long-term forecasting so we largely used existing knowledge and models
- International comparisons IMF / OECD etc
- Decided against spurious analytical precision:
  - Right order of magnitude of probability and impact
  - Use judgement where data missing
  - Illustrative examples not whole distribution
  - Not aggregating risks
Main Types of Medium Term Risk

- Fiscal stress test
- Financial crisis
- Typical recession

- Weak productivity growth
- Lower consumption and labour income shares
- Higher interest rates (1ppt)
- Higher inflation (1ppt a year)
- Low migration
- Higher tax litigation costs

- Lower incomes for high earners
- Faster growth in self-employment and incorporations
- Lower prices for expensive houses
- Lower durable consumption
- Income tax policy commitments

- Lower consumption share
- Triple lock: higher cost
- Additional adult social care spending

- No fuel duty RPI increases

Source: OBR
Main Types of Medium Term Risk

Economic shocks

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- Financial crisis
- Typical recession
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- Economic shocks
- Model judgements

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Main Types of Medium Term Risk

- Economic shocks
- Policy implementation
- Model judgements

Source: OBR
Economic shocks

- Generally not in forecasts
- Historical/international statistics on frequency & magnitude
- Also stress tests
- But discrete idiosyncratic events
- E.g. ICB: UK crisis 4.5% in a given year
  
  IMF: Median impact of crisis 21% GDP on debt for advanced economies
Model judgements

• Core part of forecast process
• Continuous probability/impact distribution
• Choose an illustrative change and use ready reckoners
• Probability based on judgement/experience
• E.g. 1 ppt rise in government bond rates adds £11bn to debt over five years. Judged as a medium probability on historic data and judgement
Policy implementation

- Forecasts required to adopt government stated policy
- But some policies unlikely to be implemented
- Usually a binary choice with a known impact
- Probability based on judgement (but sometimes this is easy …)
Actual and default fuel duty rates

- June 2010 with outturn RPI
- March 2017
- Outturn rates

Main fuel duty rate (pence per litre)

Years: 2008-09, 2012-13, 2016-17, 2020-21
Risks to sustainability

Possible major fiscal risks not considered in this report:
- Major wars
- Climate change

- Higher growth-corrected interest rate
- Health spending: other cost pressures
- Health spending: ageing
- Financial crisis

- Triple lock: high cost
- Low migration
- A typical recession every decade
- Adult social care: other cost pressures
- Triple lock: central

- Continued growth in incorporations
- Greater fuel efficiency
- Lower smoking
- Adult social care: ageing

Source: OBR
Risks to sustainability

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  - Lower smoking

- Medium (40-60)

- High (60-90)
  - Adult social care: ageing

- Very high (Over 90)

Source: OBR
Sustainability in the long-term

• The UK’s fiscal position is not sustainable on unchanged policy settings

• Unchanged policy hard to define but sensible assumptions possible e.g.
  • tax thresholds / benefits rise in line with earnings
  • age related spending changes with demographic pressures
  • other spending in line with nominal GDP

• Analysis useful for investigating the effects of demography

• Uncertainties great – important to investigate sensitivities
Demography and health spending

• Much of the future population structure is known. But uncertainties around:
  • fertility
  • life expectancy
  • migration
  • Also uncertain relationship between demography and service needs, especially morbidity
• Need to know spending profile by age and
• Make assumptions how this changes over time
Health spending by age

Source: OBR
Other cost pressures in health

- Demographics explains only a portion of historic health spending growth across most advanced countries
- We assume this trend continues
- Many possible factors including:
  - Technological advances
  - Relatively weak productivity growth
  - Spread of chronic conditions
- Level of these pressures highly uncertain
Drivers of public health spending

Average annual growth between 1995 and 2009 (per cent)

Source: OECD
Net debt: demographic sensitivities

Per cent of GDP

Baseline

2017-18 2027-28 2037-38 2047-48 2057-58 2067-68
Net debt: demographic sensitivities

- Baseline
- Old age structure
- Young age structure
- High migration
- Low migration
- 50 per cent EU migration

Per cent of GDP

2017-18 2027-28 2037-38 2047-48 2057-58 2067-68
Net debt: other cost sensitivities

Per cent of GDP

2017-18 2027-28 2037-38 2047-48 2057-58 2067-68

Baseline
Lower other cost pressures
Higher other cost pressures
No other cost pressures
UK 2018 health settlement

Per cent of GDP

FSR 2018
Demographic and other cost pressures accommodated from 2018-19
Summary

• Lots of tools / approaches available

• How precise does the modelling need to be?

• Need to trust expert judgement

• Uncertainties are great – use sensitivities