

Institute for
Fiscal Studies

Dynamic scoring: attractions, challenges and trade-offs

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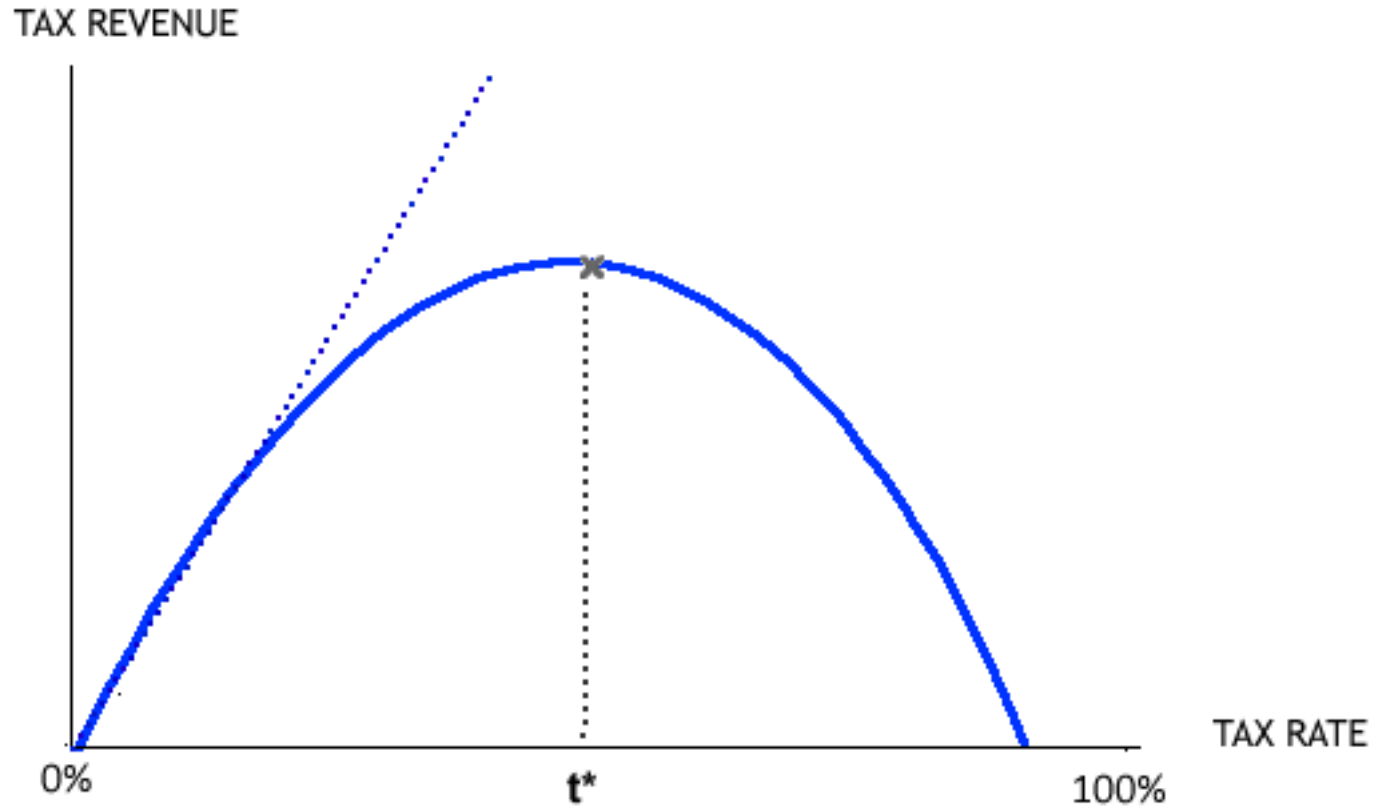
Outline

- What is dynamic scoring?
- The requirements for dynamic scoring
- Should we use dynamic scoring? Options and trade-offs

What is dynamic scoring?

- Government policies have many effects on individual behaviour and the economy as a whole
- These economic effects have budgetary consequences
- **‘Dynamic scoring’ means including all these budgetary consequences in the costing of proposals**
- No doubt this would be desirable if consequences could be measured
- No doubt either that a perfect measure is currently unattainable

The Laffer curve



A more refined debate

- The scope of dynamic scoring
 - Taxes, spending and other laws
- ‘Static’ versus ‘dynamic’ is misleading terminology
 - Current (US and UK) practice does allow for some economic effects
 - Wrongly suggests only two options
 - Wrongly suggests the only choice is which single number to prefer
- What the numbers mean
 - Scoring is about measuring the budgetary impact of proposals
 - NOT measuring economic stimulus, welfare cost, etc

Requirements for full dynamic scoring

- 1) Defining the reform
- 2) The 'mechanical' effects of policies
- 3) First-round behavioural responses
- 4) General equilibrium and macroeconomic effects

Defining the reform

- What would 'no reform' mean?
- Part of reform is the implicit change in borrowing
 - Borrowing means future tax rises or spending cuts
 - These affect the economy when they happen
 - People also respond now to the expected future tax rises / spending cuts

The 'mechanical' effects of policies

- Assumes behaviour unchanged
- Often straightforward to calculate
 - e.g. the cost of reducing tax from 40% to 30% on an unchanged tax base is 25% of the baseline revenue.
- Data sometimes unavailable
 - e.g. if widening the tax base, the new tax base might be unknown
- Sometimes incoherent to assume no behavioural response
 - e.g. a tax cut must be spent or saved; spending and saving cannot BOTH be unchanged

First-round behavioural responses (1)

- People respond to incentives created
- Estimate how people respond by looking at reactions to past changes
- But many different aspects of behaviour can respond
 - Income tax can influence decisions about hours of work, effort, occupation, retirement, education, amount and form of saving, business activities, use of fringe benefits, tax avoidance and evasion, migration,...
- So many different things to estimate
- The 'New Tax Responsiveness' literature simplifies this
 - Just measure the responsiveness of taxable income directly
- But sometimes different channels have different implications
- And multi-faceted responses are only one of the difficulties...

First-round behavioural responses (2)

1. Reforms rarely replicate old ones: tax and spending systems complex!
2. Heterogeneous population
3. Short-term versus long-term effects
4. Disputed estimates
5. Past estimates may not apply in different context

General equilibrium and macroeconomic effects

- General equilibrium effects
 - Responses change supply, demand and prices, with further knock-on effects
 - Particularly difficult to estimate as the structure of the entire economy needs to be known
- Aggregate demand effects
 - Tax cut or increased spending can lead to increased economic activity
 - Multiplier effect: boost in demand generates income that is spent and fuels further demand
 - Crowding-out effect: effects of fiscal stimulus can be limited if it only replaces private activity
 - Depends on whether the economy is operating at or below full capacity

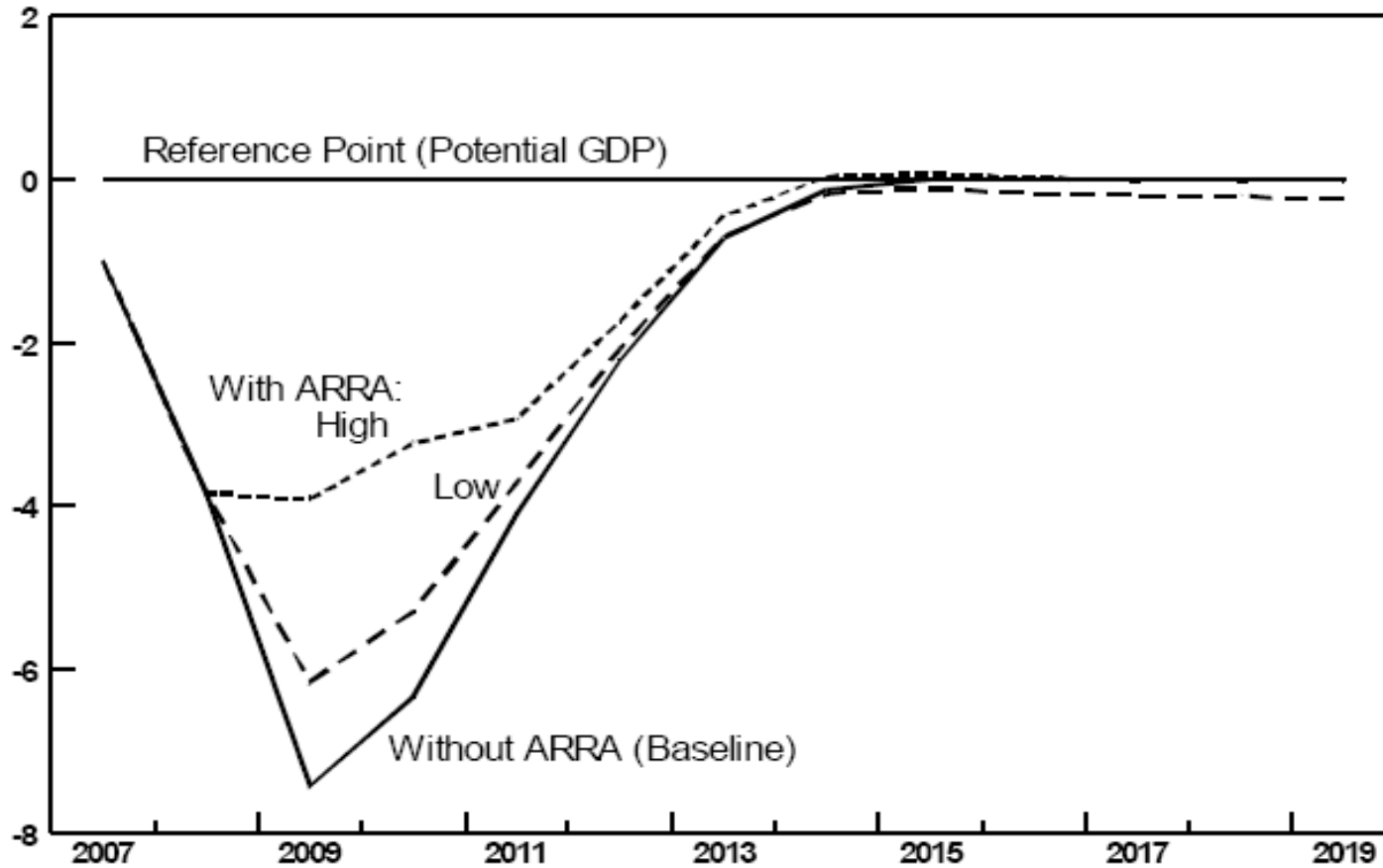
Expectations and institutional responses

- Reforms change expectations
 - Of future taxes and spending, inflation, interest rates, etc
 - This has a big effect on how people respond to the reform
 - Expectations very difficult to model; results sensitive to assumptions
- How are other policy-makers assumed to react?
 - Monetary policy
 - Other countries, other levels of government

Choosing assumptions and models

Effect of ARRA 2009 on US output gap

(Percentage difference in the fourth quarter of each year)



Source: Congressional Budget Office.

Should dynamic scoring be used?

- Reliably accurate dynamic scoring is out of reach
- But this does not imply it should not be attempted
- More interesting questions are often harder to answer!
- Goal is to provide clear and credible information about policy choices within time and cost constraints

Clarifying the question (1)

- Scoring versus forecasting
 - Forecasting the budgetary position is not the same as estimating the effect of reforms on the budgetary position
 - UK forecasting is ‘dynamic’ (in principle) while scoring is not
 - In this case the issue is whether to attribute revision of forecasts to reforms
- Scoring whole packages (e.g. Budgets) versus individual measures

Clarifying the question (2)

- Not just two options
 - Many possibilities between purely mechanical and fully dynamic scoring
 - Exactly what effects incorporated, and what assumed unchanged?
- Not just one number
 - How deal with uncertainty?
 - Dynamic scoring versus dynamic analysis
- The institutional set-up
 - Who performs the analysis?
 - Who commissions the analysis?
 - What is made public and what is confidential?

Credibility

- Accuracy
 - Ignoring important effects is a problem here
 - But so is spurious precision
 - A role for acknowledging uncertainty?
- Neutrality
 - Dynamic scoring often called for where there is no political consensus
 - Actual and perceived neutrality are both important
 - Become harder to achieve when more judgement and guesswork involved
- Transparency
 - What definitions, assumptions, methodologies, estimates and models lie behind conclusions
 - Can promote trust even if process flawed

Clarity

- Too many numbers can confuse instead of enlightening
- Difficult to discern general principles
 - Depends on nature of debate and what people thought able to absorb
- Consistent methodology helps to make proposals comparable
 - Avoids bias
 - Suggests a simple approach
 - But might want fuller analysis of major proposals?

Practical considerations

- Dynamic scoring is costly
 - Would require major increase in resources dedicated to scoring
 - Do benefits outweigh these costs?
 - More worthwhile than alternative uses of funds?
- Dynamic scoring is slow
 - Policy-makers want analysis quickly
 - So do those responding: perceptions form quickly and media moves on!

Conclusions

- Reliably accurate dynamic scoring is out of reach
 - The requirements are truly formidable
 - Big advances have been made, but we must acknowledge the scale of our ignorance
- This is not sufficient reason for declining to attempt it
 - A ‘best guess’ might be preferable to ignoring important effects
- But the difficulty of dynamic scoring implies other downsides
 - Costly and slow
 - Hard to achieve consistency across proposals
 - Hard to keep impartial and trusted
- Do the evident advantages outweigh these disadvantages?
- Adopting a single dynamic cost estimate for each measure isn’t the only option
 - What exactly is held constant and what allowed to change?
 - Whole package versus individual measures?
 - Dynamic analysis of possible economic effects without a dynamic bottom line?
- Transparency is crucial
 - First step to improving the quality of analysis is to open it up to scrutiny



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