

Dynamic Analysis at the U.S. Congressional Budget Office

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What CBO's Cost Estimates Provide

The Congressional Budget Office prepares cost estimates to provide Members of Congress with information about the budgetary consequences of enacting legislation before they vote.

That information, in the form of annual point estimates over 10 years, can also be used to enforce budgetary rules and targets.

CBO uses a conventional approach to prepare most cost estimates, but it has used dynamic analysis in a few cases:

- Restoring Americans' Healthcare Freedom Reconciliation Act (December 2015)
- A Bill to Amend the Internal Revenue Code of 1986 to Modify and Make Permanent Bonus Depreciation (October 2015)
- Tax Relief Extension Act of 2015 (August 2015)

The Conventional Approach to Cost Estimating

A conventional approach to estimating the costs of legislation incorporates the assumption that nominal gross domestic product would be unchanged.

CBO's approach reflects likely behavioral responses to a proposal. Examples of such responses include:

- Changes in the likelihood that people will claim a government benefit,
- Changes in crop production if a federal price support program is changed, and
- Changes in the quantity of health care services provided if Medicare payment rates change.

The Dynamic Approach to Cost Estimating

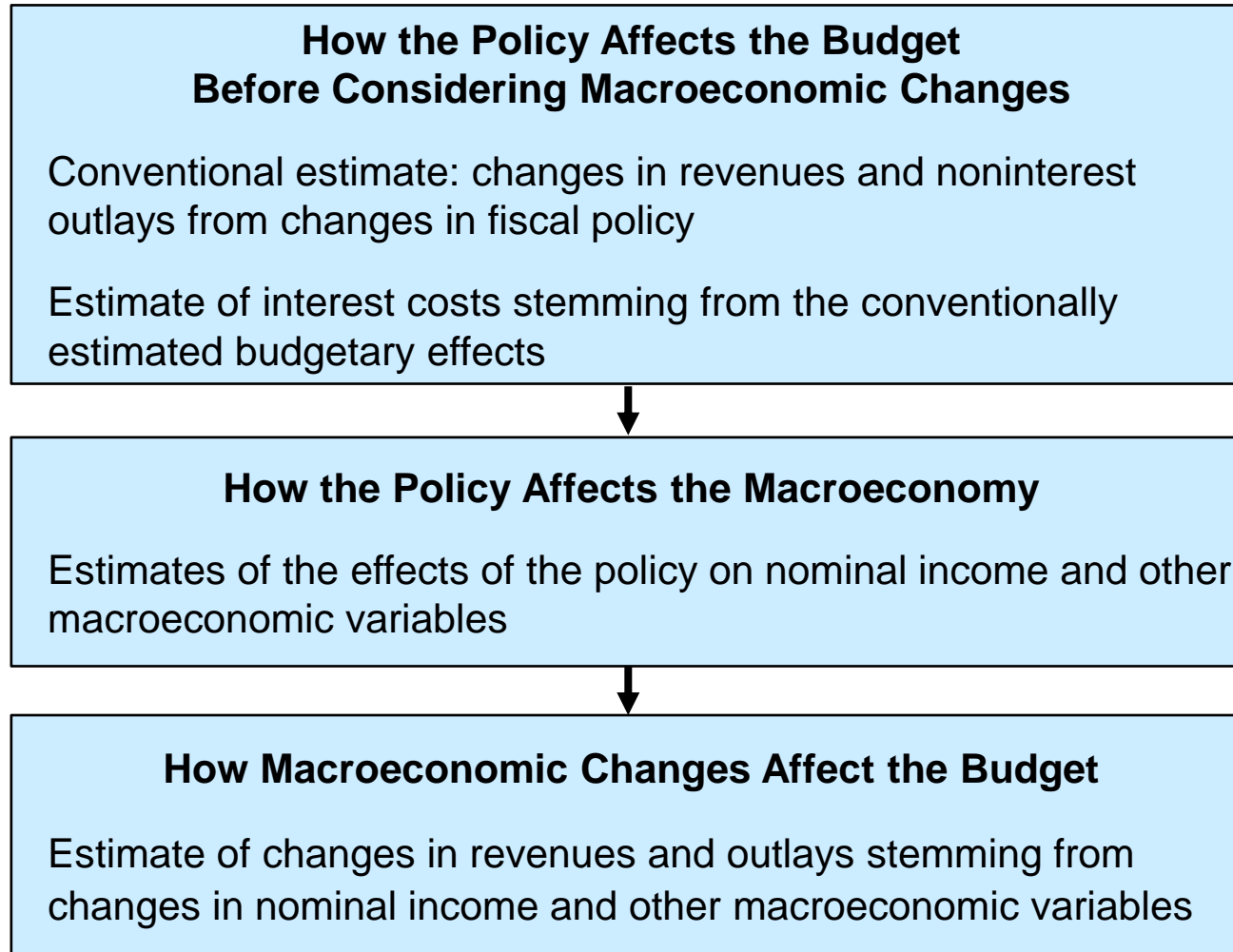
A dynamic approach seeks to estimate the effects of proposed policy changes on macroeconomic variables:

- Gross domestic product excluding the effects of inflation
- Inflation
- Interest rates
- Nominal income

Under that approach, CBO estimates how those macroeconomic effects would change federal revenues and spending.

CBO uses this approach for some analyses but not for most cost estimates.

The Three-Step Process of a Dynamic Analysis



Why Most Cost Estimates Use a Conventional Approach

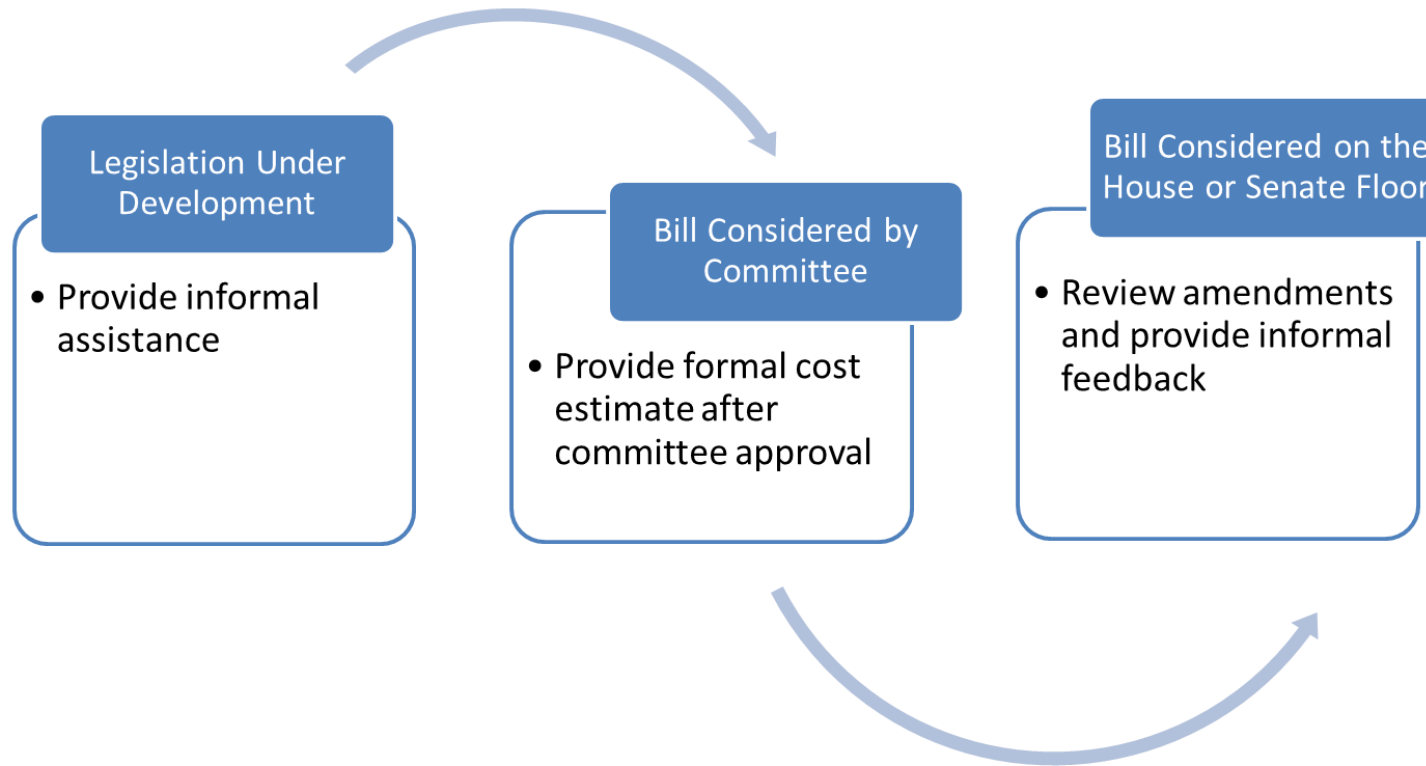
Most legislation does not have significant macroeconomic effects.

Conventional analyses are simpler and can be provided more quickly.

From 2015 to 2018, when the Congress had a requirement to use dynamic analysis for cost estimates for major legislation:

- There were few bills that met the threshold for major legislation.
- The legislative process often did not allow time for that analysis to be completed.

The Timing of Cost Estimates



Dynamic Analysis Outside of Cost Estimates

- “The Effects of the 2017 Tax Act on CBO’s Economic and Budget Projections,” Appendix B in *The Budget and Economic Outlook: 2018 to 2028*
- *Budgetary and Economic Outcomes Under Paths for Federal Revenues and Noninterest Spending Specified by Chairman Enzi, September 2017*
- *A Macroeconomic Analysis of the President’s 2017 Budget*
- *Budgetary and Economic Effects of Repealing the Affordable Care Act*
- *The Economic Impact of S. 744, the Border Security, Economic Opportunity, and Immigration Modernization Act*

Most Recent Dynamic Analysis

Effects of Physical Infrastructure Spending on the Economy and the Budget Under Two Illustrative Scenarios (August 2021)

- CBO examined two illustrative scenarios that would boost federal funding for a mix of types of physical infrastructure by \$500 billion over 10 years.
- Increases in physical infrastructure spending would boost private-sector productivity over time, contributing to economic growth, which lowers the budgetary cost.
- Deficit financing would increase interest rates, which would add to federal interest costs.

Effects of Physical Infrastructure Spending

Scenario 1

- Budget impact is deficit-neutral before accounting for macroeconomic changes.
- In present value, the budgetary effects over 30 years stemming from macroeconomic changes would reduce the net cost of funding \$500 billion of additional infrastructure by approximately one-third.

Scenario 2

- Spending is financed by increasing federal borrowing.
- In present value, the budgetary effects over 30 years stemming from macroeconomic changes would increase the net cost of funding \$500 billion of additional infrastructure by approximately one-fourth.

Effects of Physical Infrastructure Spending on the Budget

Budgetary Effects

Billions of Dollars

	Scenario 1		Scenario 2	
	2031	Total, 2022– 2031	2031	Total, 2022– 2031
Direct Budgetary Effects				
Effect on Outlays	0	0	46	339
Effect on Revenues	0	0	0	0
Increase (-) in the Deficit	0	0	-46	-339
Effects of Macroeconomic Changes				
Effect on Outlays	2	7	4	19
Effect on Revenues	5	17	4	21
Decrease in the Deficit	3	11	1	2
Total Budgetary Effects				
Effect on Outlays	2	7	49	358
Effect on Revenues	5	17	4	21
Increase (-) or Decrease in the Deficit	3	11	-45	-337

Data source: Congressional Budget Office. See www.cbo.gov/publication/57327#data.

Advantages and Disadvantages of Dynamic Analysis

- It provides information not contained in conventional estimates.
- It provides a more complete assessment of budgetary impact.
- It provides greater consistency with budget projections under current law, which incorporate macroeconomic effects.
- It takes additional time in the legislative process.
- The information needed for the estimates can be scarce.