

THE NEED FOR MACROECONOMIC SCORING

December 23, 2014

Elected officials can't strengthen the economy if they don't even know how their decisions affect the economy. For that very reason, Congress relies on two nonpartisan organizations to prepare cost estimates of legislation: the Congressional Budget Office and the Joint Committee on Taxation.¹ And for that same reason, the House is modifying one of its rules to make greater use of their work.

A cost estimate is like a price tag. It adds up all the expected changes in revenue and outlays over a ten-year period and gives a net sum (or "score") of a bill's impact on the deficit. CBO prepares estimates for most legislation (other than revenue bills), while JCT prepares estimates for changes in the tax code.

Under the new rule, if a piece of legislation is significant enough to have an effect on the economy, then CBO or JCT will incorporate that effect into the official cost estimate. Right now, the House usually uses conventional estimates, which assume that, no matter what the federal government does, the size of the economy will stay exactly the same. But for major legislation, that's not true. The law affects people's behavior, and their behavior affects the size of the economy. CBO and JCT have been providing Congress estimates of these effects for years.

- **The rule would build off an extensive body of work by CBO and JCT.** Over the past 19 years, CBO and JCT have developed models to estimate these larger economic effects. In fact, JCT has performed a separate macroeconomic analysis of revenue legislation since 2003.² This rule would simply incorporate these effects into the official cost estimate used to enforce the budget resolution and House rules. The nonpartisan staff at CBO and JCT would continue to prepare *all* cost estimates. In other words, **the rule would not tell CBO or JCT how to do their work; it would merely make greater use of that work.**
- **The rule would apply only to "major legislation"—in other words, only to a handful of cases.** It would define "major legislation" as any revenue or direct-spending bill that caused a gross "budgetary effect" greater than 0.25 percent of gross domestic product in any year covered by the budget resolution. (And it would define "budgetary effect" as an increase or decrease in revenue, outlays, or deficits.)³ For a point of reference, GDP in fiscal year 2014 was about \$17.3 trillion, so the 0.25 percent threshold would have been \$43 billion.⁴ In the 113th Congress, the House considered only three bills that would have qualified.⁵

¹ See p. 37 of "Committee on the Budget, United States Senate, 32nd Anniversary, 1974–2006" ([S. Doc. 109-24](#)) and section 202 of the Congressional Budget and Impoundment Control Act of 1974 ([Public Law 93-344](#)).

² The rule would repeal this provision in House Rule XIII(3)(h)(2) since the new requirement would supersede it.

³ In addition, the chair of the House Budget Committee or, in the case of revenue legislation, the highest-ranking House member on JCT (either the chair or vice-chair) may designate legislation as "major" for purposes of this rule.

⁴ Using CBO's projections, this threshold would reach \$67 billion by 2024.

⁵ Those three bills were the Jobs for America Act (H.R. 4), the Permanent Bonus Depreciation Act (H.R. 4718), and the Tax Increase Prevention Act of 2014 (H.R. 5771).

- **The rule would make only modest changes in cost estimates.** An effective policy can boost economic growth and as a result produce greater revenue or lower spending. But as plenty of academic research has shown, legislation can rarely produce enough economic growth to pay for itself.

Most importantly, the rule would change the focus in Washington. The ultimate goal—for both elected officials and their constituents—is to build a healthy economy. And by showing the full implications of their decisions, the rule would help elected officials see major legislation the way their constituents do. **Instead of concentrating on the top line—whether it's good for the Treasury—elected officials would concentrate on the bottom line—whether it's good for the taxpayer.**

Background: A Logical Next Step

The rule is a logical next step in a long-term effort: to give members of Congress the best information available. When Congress created JCT and CBO, both organizations assumed, for practical reasons, that legislation had no effect on the size of the economy because it was difficult to estimate what that effect could be.⁶ Congress has used such conventional scores as the official cost estimates ever since.

But recently, economists have made significant progress in estimating the larger economic effects of legislation. For instance, Roger Gordon and Young Lee used historical data to estimate how much the corporate tax rate affected the size of the economy between 1970 and 1997. They found “a significant effect of corporate tax rates on economic growth, even after controlling for other determinants.”⁷

CBO and JCT, meanwhile, have been refining their economic models since 1995, when the House and Senate Budget Committees held a joint hearing on the topic. In the 19 years since, both organizations have performed multiple analyses of proposed legislation that incorporated the larger economic effects. Here are two recent examples:

- **Immigration:** In May 2006, CBO incorporated an immigration bill’s effects on GDP into the official cost estimate because the policy would have increased the labor supply, one of the main ingredients of economic output.⁸ CBO followed a similar procedure when scoring an immigration bill in April 2013.⁹
- **Deficit reduction:** In April 2014, CBO conducted a macroeconomic analysis of the deficit-reduction path proposed in the fiscal year 2015 House Republican budget. CBO concluded that real economic output per person under this package would be 2 percent higher by 2025 and 9 percent higher by 2040.¹⁰

⁶ JCT, [Discussion of Revenue Estimation Methodology and Process](#), Washington: GPO, 1992.

⁷ Lee, Young, and Roger H. Gordon, “[Tax Structure and Economic Growth](#),” U.C. San Diego, 15 July 2004.

⁸ CBO, [Cost Estimate: Comprehensive Immigration Reform Act of 2006](#), 16 May 2006.

⁹ CBO, [Cost Estimate: S.744, Border Security, Economic Opportunity, and Immigration Modernization Act](#), 18 June 2013.

¹⁰ CBO, “[Budgetary and Economic Outcomes under Paths for Federal Revenues and Noninterest Spending Specified by Chairman Ryan](#),” April 2014.

(For a more in-depth history of macroeconomic scoring, see Table 1 below.)

CBO and JCT have years of experience estimating the larger economic effects of legislation, and the House is modifying this rule so that members can learn from that experience.

Table 1. Milestones in the Development of Macroeconomic Scoring

Jan. 1995	House and Senate Budget Committees hold joint hearing on improving budget estimates and discuss macroeconomic analysis.
1996	JCT convenes blue-ribbon panel on macroeconomic modeling.
Jan. 1997	JCT hosts a symposium on modeling the macroeconomic effects of tax policy.
June 1997	The Balanced Budget Act incorporates estimated macroeconomic effects.
2002	JCT convenes second blue-ribbon panel on macroeconomic modeling.
Jan. 2003	House adopts rule requiring JCT to provide a macroeconomic analysis of all tax legislation reported by Ways and Means.
March 2003	CBO publishes first annual macroeconomic analysis of the President's budget proposals.
May 2003	JCT publishes macroeconomic analysis of the Jobs and Growth Tax Act of 2003.
May 2006	CBO and JCT incorporate macroeconomic effects of larger labor force into their estimates of proposed immigration legislation.
March 2009	CBO publishes first in series of analyses of the economic effects of the American Recovery and Reinvestment Act of 2009.
Feb. 2012	House passes Pro-Growth Budgeting Act to require CBO to perform macroeconomic analyses of major legislation.
Feb. 2014	JCT publishes macroeconomic analysis of the Tax Reform Act of 2014.
April 2014	CBO publishes macroeconomic analysis of deficit reduction outlined in House budget resolution.

The Unavoidable Risk of Uncertainty

Opponents of macroeconomic analysis argue such predictions are uncertain and therefore unreliable. **But every prediction is uncertain.** As Ronald Pearlman, then chief of staff of JCT, once testified, "Every estimate is subject to uncertainty. However, in spite of this uncertainty, the Joint Committee has a job to do, namely, to provide the Congress the most informed and reasoned point estimate of the revenue impact of a proposed tax law change as we possibly can."¹¹

¹¹ See p. 14 of [Statement of Ronald A. Pearlman](#), Chief of Staff, Joint Committee on Taxation, before the Senate Finance Committee, 14 March 1989.

Even still, opponents single out for criticism the use of a point estimate—a single number based on a range of probable outcomes. But there’s simply no other way for members to enforce House rules than to use one official number. And **CBO has a long history of producing point estimates.** As an October 1999 report explained, “CBO developed probabilistic methods when it became clear that the standard, deterministic approach focusing on baseline assumptions yields inappropriate results in certain circumstances.”¹² In recent years, CBO has produced point estimates based on probabilistic models in such varied fields as Medicare payments,¹³ federal insurance programs,¹⁴ and housing finance.¹⁵

It seems reasonable, then, to use a point estimate that incorporates macroeconomic effects. As CBO director Doug Elmendorf recently wrote, “My colleagues and I at CBO are acutely aware of the uncertainty of the budgetary and economic estimates we provide to Congress. We view our estimates as representing the middle of the distribution of possible outcomes.”¹⁶

Conclusion: A Renewed Focus on Economic Growth

But there’s no better argument for this rule than the need for higher economic growth. Over the past few years, CBO has consistently revised its economic forecast downward because of the economy’s lackluster performance. In 2010, for instance, CBO predicted growth of real GDP would average about 3.0 percent over the next ten years. By 2013, however, it had lowered that forecast to 2.5 percent. Using CBO’s estimates,¹⁷ that amounts to \$1.36 trillion in lost revenue and \$1.56 trillion in higher deficits over ten years. And if the economy grew at even a slightly higher rate—say, by 0.25 of a percentage point per year—the federal government would enjoy roughly \$680 billion more in revenue and \$777 billion in lower deficits over the next ten years. In other words, even a small change would make a big difference.

Using macroeconomic analysis will not solve every problem. All it will do is give members of Congress a better understanding of how their decisions affect the economy. For too long, the economy has been moving in the wrong direction. So it’s especially important today that elected officials be aware of those larger economic effects.

This rule, then, would be a modest step forward in both improving the budget process and renewing the focus on building a healthy economy.

¹² CBO, [Estimating the Costs of One-Sided Bets: How CBO Analyzes Proposals with Asymmetric Uncertainties](#), Oct. 1999.

¹³ Douglas W. Elmendorf, [Letter to Rep. Steny Hoyer](#), July 2009.

¹⁴ Douglas W. Elmendorf, [Answers to Questions for the Record Following a Hearing on the Budget and Economic Outlook for 2014 to 2024 Conducted by the House Committee on the Budget](#), 19 June 2014.

¹⁵ CBO, [Cost Estimate of S. 1217, Housing Finance Reform and Taxpayer Protection Act of 2014](#), Sept. 2014.

¹⁶ Douglas W. Elmendorf, [“Communicating the Uncertainty of CBO’s Estimates,”](#) CBO, Dec. 2014.

¹⁷ CBO, [The Budget and Economic Outlook: 2014 to 2024](#).

Appendix: Background on CBO and JCT's Macroeconomic Models

Critics of macroeconomic scoring sometimes charge that its supporters want to use only one favored model based on fanciful assumptions. But CBO and JCT use a number of economic models based on different timeframes and assumptions about how people and the economy respond to policy changes. CBO believes no one model gives a complete picture of how the economy would actually respond to a major policy change. So both organizations often give results in ranges to reflect the different models and assumptions behind them.

CBO

To gauge the short-term impact of policies, CBO uses three economic models: two developed by private forecasting companies (Macroeconomic Advisers and IHS Global Insight) and one developed by the Federal Reserve (FRB-US). Generally speaking, these models assume traditional Keynesian demand-side economic relationships. The models associate tax and spending measures with “fiscal multipliers” to gauge their impact on economic output. Government spending is presumed to have a “fiscal multiplier” in excess of 1, meaning that an increase in government spending leads to an outsized increase in overall economic output. CBO’s models assume that increased government spending leads to a temporary increase in economic output as government transfers stimulate consumer spending.

CBO also uses a pair of other models to gauge the medium- and longer-term economic impact of policies. These so-called growth models (a Solow-type growth model and a life-cycle growth model) concentrate more on the supply side. The elements driving economic output in these models are labor supply, the size and composition of the capital stock, and productivity (that is, the interaction between labor and capital).

Growth models give different results than short-term, demand-side models. For instance, the medium- and long-term models assume deficit reduction will increase the pool of national savings and increase the capital stock, leading to greater economic output. Short-term, demand-side models, on the other hand, generally assume that reducing spending to reduce the deficit leads to less demand in the economy and slightly lower economic output over the near term.

For instance, CBO conducted a macroeconomic analysis of the fiscal path of the fiscal year 2015 House Republican budget, which reduced budget deficits by roughly \$5 trillion over the ten-year budget window. CBO concluded that this fiscal path would *lower* economic output in the short term (mainly because less federal spending would reduce demand for goods and services) but it would spark *higher* economic output in the medium and longer term (because less federal borrowing would free up resources for more private investment). Real economic output per person (a proxy for a country’s standard of living) would be slightly smaller in 2015–2017 relative to CBO’s current-law baseline. But beginning in 2018, real output per person would be higher than the current-law trajectory. On net, the benefits would outweigh the negatives over ten years and beyond. CBO concluded that real output per person under the House Republican budget would be 2 percent higher by 2025 and 9 percent higher by 2040.¹⁸

Note that the long-term positive economic effects of this fiscal path increase over time and are much larger than the assumed lower economic output in the first few years, mainly because the budget proposal would augment some of the key supply-side elements of the economy (e.g., private investment and labor-force participation.). Although these supply-side effects take a few years to materialize, they would have a large and sustained positive impact on the economy.

¹⁸ The Congressional Budget Office, “[Budgetary and Economic Outcomes under Paths for Federal Revenues and Noninterest Spending Specified by Chairman Ryan](#),” April 2014.

JCT

JCT, meanwhile, uses models from two private forecasting companies—Macroeconomic Advisers and IHS Global Insight—to gauge the short-run effects of policies. For the longer-term effects, JCT uses three different general equilibrium models: the macroeconomic equilibrium growth model (“MEG”), an overlapping-generations model (“OLG”), and a dynamic stochastic general equilibrium growth model with infinitely lived agents (“DSGE”).

Like CBO’s longer-run models, the MEG model rests on the standard, neoclassical assumption that the amount of output is determined by the amount of labor and capital, and in the long run, prices adjust so that demand equals supply.

The OLG model, on the other hand, assumes people make consumption and labor supply-decisions to maximize their lifetime well-being given the resources they believe will be available. As in the MEG model, key behavioral parameters in the OLG model are the elasticity of labor supply in response to the after-tax wage rate, the elasticity of household saving, the after-tax return to saving, and the elasticity of investment to changes in the user cost of capital.

The DSGE model has microeconomic foundations, based on the neoclassical growth framework. Similar to the OLG model, the DSGE model assumes that the economy operates at full employment each period, and therefore it does not model involuntary unemployment or the effects of policy on unemployment. In contrast to the MEG and OLG, in the DSGE model, the amount of foresight people have about future fiscal policy can vary; foresight may be myopic, perfect, or somewhere in between.