CRS Insights

Dynamic Scoring
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H.R. 5, which provides rules for the House of Representatives, requires the incorporation of macroeconomic effects in estimates of spending and tax legislation (excluding appropriations bills) reported by a committee. The rule would apply to legislation with an annual budgetary effect of at least 0.25% of projected gross domestic product (GDP) or as requested by the chair of the Budget Committee for spending measures or by the chair or vice chair of the Joint Committee on Taxation (the chair of the Ways and Means Committee) for revenue measures.

This rule supplants the previous requirement for macroeconomic analysis of tax changes, which has usually presented a range of effects and been advisory. Under the new House rule, macroeconomic effects would be incorporated into official scores that drive budget rules associated with the budget resolution.

The Congressional Budget Office (CBO) prepares cost estimates for spending, and the Joint Committee on Taxation (JCT) prepares estimates for tax measures. These agencies would continue to be responsible for each type of estimate and the feedback effect (the percentage change in revenue or spending due to changes in the size of the economy).

Current revenue and spending estimates are not static: they reflect numerous behavioral responses to changes. Current rules, however, keep overall output (GDP) fixed.

Previous advisory macroeconomic analysis has been characterized by considerable variation in the magnitude of effects. These variations arise from several sources. (See CRS Report R43381, *Dynamic Scoring for Tax Legislation: A Review of Models*, by Jane G. Gravelle for a discussion).

Three types of effects may influence the feedback effect: (1) the short-run demand-side stimulus; (2) the crowding-out effect in which the increase or decrease in the deficit reduces or increases funds available for investment; and (3) supply-side effects, in which labor supply and savings respond to changes in tax rates. Demand stimulus effects from a tax cut or spending increase are transitory. The crowding-out (or crowding-in) effect happens gradually over time. Typically, supply-side effects are primarily due to labor supply in the budget horizon because capital takes time to accumulate (unless investment flows from abroad).

Some of these effects can be illustrated by the simulation of a $500 billion tax cut that JCT prepared in 2005. In the case of an individual income tax cut incorporating all three effects, the revenue feedback effect (percentage reduction in cost due to macroeconomic effects) was 23%. If the short-run stimulus effect was eliminated, the feedback effect fell to 9.7%. If both the stimulus and crowding-out effects were eliminated, the feedback effect was 13.5% (which is the supply-side effect). The stimulus and supply-side effects increased output, whereas the crowding-out effect reduced it.

Each effect has uncertainties. Some have made a case for eliminating short-run stimulus because these effects can be offset by actions of the Federal Reserve. The extent of crowding out of investment depends on the amount of borrowing from abroad. There is also a case for eliminating both the short-run stimulus and the crowding-out effects because they apply to spending (including appropriations bills) in equal or greater measure. Thus, including these effects would favor tax cuts as compared to appropriations. (Appropriations also may produce supply-side effects.) Without instructions, however, it might be difficult for JCT or CBO to make a case for excluding the crowding-out effect.

The 13.5% figure cited above captures the estimated supply-side effect. Supply-side effects vary depending on the model type and the magnitude of responses built into that model. For the above

estimates of the three effects, JCT uses a model that incorporates both a labor supply response and a savings response (the macroeconomic growth model, or MEG). In the study, JCT reports an 11.3% feedback effect with an alternative (lower) measure of labor supply response. JCT also uses an overlapping generations (OLG) model that can account only for supply-side effects; the feedback effect for this model is 18.6%, or about one-third higher than in the MEG. This model has a more theoretically based structure that sometimes produces results that are difficult to verify empirically. (CBO uses similar models in its annual estimates of the [effects of the President's budget](#).)

In addition, supply-side effects depend on the magnitude of behavioral responses, particularly labor supply, that are explicitly, or implicitly, in each model.

The OLG model, which has an infinite horizon, cannot be used to estimate a stand-alone tax or spending change because any deficit change will grow exponentially. Thus, it must be accompanied by some other assumed policy (transfer, spending change, or future tax change), which will have consequences for the result.

Revenue-neutral tax reform raises different issues. Although the inclusion or exclusion of a stimulus effect is crucial for a simple rate cut, both the stimulus and crowding-out effects are relatively unimportant for revenue-neutral tax reform. In addition, some analysis, such as that by [scholars at the American Enterprise Institute](#), suggests the effects of revenue-neutral tax reform are overstated because they do not fully account for the effects of base broadening (taxing more income) on effective marginal tax rates.

The [recent estimate for the proposed Tax Reform Act of 2014](#) showed a greater discrepancy between the supply-side effects in the MEG and OLG models. Revenue feedback from supply-side effects was $50 billion to $100 billion (increased GDP of 0.1% to 0.2%) over 10 years in the MEG model and almost $700 billion (increased GDP of 1.5%) in the OLG model. These larger differences may reflect, in part, an increase in the labor supply response in the OLG model and a new aspect of the OLG model that treats the shift in the ownership of intangible assets (e.g., patents and copyrights) due to changes in corporate taxes as having real effects on output. Because intangible assets already can be used costlessly in every location, this shift should not have an output effect.