MEASURING FISCAL STIMULUS IN MAUS

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The approach is to compute the contribution to growth in real GDP from government spending that is either direct, through consumption and gross investment, or indirect, through income and consumption, using the structure of MAUS.[[2]](#footnote-2) The computations are static; that is, induced or multiplier effects are not included. There are, however, lagged static effects via the gradual response of consumption to changes in incomes and tax rates. The calculations do not include the impacts of changes in corporate or capital taxes. Those impacts are, practically speaking, essentially intractable analytically and so would have to be computed by simulation. Fortunately, they are (usually) very small.

FEDERAL

Consumption & Gross Investment

There are two channels. The first is the direct impact on GDP. This is computed as the growth rate of real federal C&GI times the share of nominal federal C&GI in nominal GDP. The second channel recognizes that federal compensation is part of labor income, and so makes a secondary contribution through consumption. This is computed as the contribution of changes in real federal compensation to the growth of real consumption, multiplied by the share of nominal consumption in nominal GDP. The marginal propensity to consume out of labor income (*mpcyl* ) is 0.72, but spread out over 6 quarters:[[3]](#footnote-3)



Transfer Payments to Persons excluding Unemployment Benefits

This is computed as the contribution of changes in real federal transfer payments to persons to the growth of consumption, multiplied by the share of nominal consumption in nominal GDP. The marginal propensity to consume out of transfer income (*mpcyt*) is 1.0, but spread out over 4 quarters:



Discussions of fiscal stimulus often focus on discretionary spending to the exclusion of transfer payments, but there is no reason to exclude stimulus that emanates from transfer income. Note that this captures the effect of changes in the number of beneficiaries, which has both cyclical and secular components, as well as the effect of statutory changes in benefit formulas.

Unemployment Benefits

This is computed as the contribution of changes in real weekly unemployment benefits to the growth of consumption, multiplied by the share of nominal consumption in nominal GDP:



Effective Federal Personal Tax Rate

This is computed as the sum of the contributions to growth of real consumption from changes in the effective federal personal tax rate applied to both labor and asset income. The marginal propensity to consume out of asset income (*mpcya*) is 0.3, but spread out over 7 quarters:



Note that this captures not only the effects of statutory changes in tax rates, but also the effects of cyclical movements in effective tax rates (“automatic stabilizers”) and the effects of secular real “bracket creep”.

Federal Social Insurance Taxes

This is computed as the contributions to growth of real consumption from changes in the federal contribution rates (and caps) for Social Security and Medicare:





Total Federal Fiscal Stimulus

This is the sum of the 6 components:



STATE & LOCAL

This calculation parallels that for computing federal fiscal stimulus.

TOTAL

This is computed as the sum of federal and state & local fiscal stimulus.

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2. Contributions are computed using “Divisia” formulas. The calculations do vary slightly from contributions based on “Fisher” formulas as computed in the National Accounts, but the differences are minor. Currently the computations are based on the structure of MAUS 2012, but will be revised to reflect the structure of MAUS 2015 this summer. [↑](#footnote-ref-2)
3. Mnemonics are from MAUS 2012/2015. [↑](#footnote-ref-3)