Goldman Sachs Research

US Daily: Fiscal Multipliers During Times of Economic Slack (Stehn)

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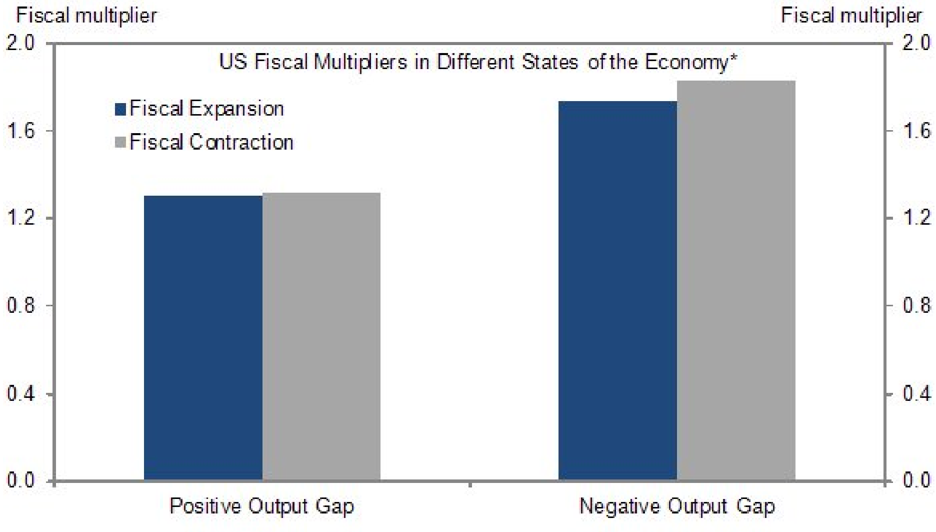
- We recently made the case that fiscal policy is likely to have large effects on output at present because monetary policy is constrained by the zero lower bound of nominal interest rates. The IMF's latest *Fiscal Monitor* provides evidence consistent with this view. Specifically, the IMF estimates that fiscal multipliers in the United States are larger during times of economic slack--when the output gap is negative--than during times with no excess capacity.
- Given that the US economy still has plenty of slack and is stuck at the zero bound for the foreseeable future, these results imply that fiscal multipliers are large at present. This view has two implications for fiscal policy. First, fiscal stimulus—targeted to take place while the economy is below potential/at the zero bound—could be an effective policy option should the recovery falter again. Second, fiscal consolidation should be done gradually because it is likely to be particularly painful in present circumstances.

A number of economists have recently argued that fiscal policy has larger effects on economic activity at the zero lower bound of nominal interest rates than during normal times. (See, for example, Bradford DeLong and Lawrence Summers, *Fiscal Policy in a Depressed Economy**) The intuition for this view is that Fed officials cannot lean against the output effects of fiscal policy at the zero bound (at least not via conventional monetary policy), resulting in larger fiscal multipliers than during normal times. Moreover, fiscal policy should have larger effects on output during severe (i.e. long lived) zero bound episodes—as long-term rates also have less room to provide offset in this scenario—and if a large share of the fiscal stimulus (or restraint) is delivered when the zero bound actually binds.

Our review of existing empirical estimates of the effects of fiscal policy on output is broadly consistent with this prediction. (See Sven Jari Stehn, "The Fiscal Multiplier at the Zero Bound," *US Economics Analyst*, March 30, 2012.) While different studies find notably different estimates of the fiscal multiplier, studies that focus on times of constrained monetary policy generally find relatively large effects. Our own estimates also point to larger fiscal effects at the zero bound, and we showed that the severity of the zero bound matters: if the zero bound is short-lived and long-term rates can move around freely the fiscal multiplier is smaller than in severe zero bound episodes.

The IMF's *Fiscal Monitor* (released yesterday, April 17) provides evidence that reinforces these conclusions. (See "Balancing Fiscal Policy Risks," *Fiscal Monitor*, April 2012.) Using statistical analysis the IMF estimates that US fiscal multipliers are larger during times of economic slack--when the output gap is negative--than during times with no excess capacity. Specifically, it finds that a 1% of GDP reduction in government spending reduces real GDP by 1.3% after four quarters during times of positive output gaps, but by 1.8% during times of economic slack (Exhibit 1). (The results for tax increases are qualitatively similar but generally less conclusive.)

Exhibit 1: Fiscal Multipliers are Larger During Times of Spare Capacity…



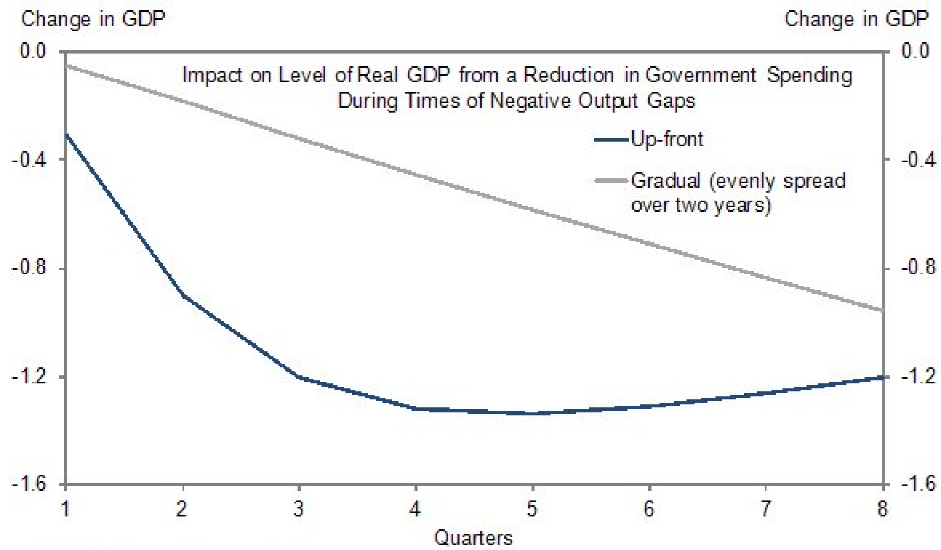
* Four-quarter response to 1% of GDP spending shock.
Source: IMF Fiscal Monitor, April 2012.

The intuition for the IMF's results is that the traditional crowding-out effect--that lower government spending boosts private spending--is generally less applicable when excess capacity exists in the economy. This intuition--that economic forces provide less offset to fiscal policy changes than in normal times--is of course related to the reason that fiscal multipliers are larger at the zero bound. In particular, one could argue that a zero bound period is a special (and more severe) case of the negative output gap environment.

Given that the US economy has a significantly negative output gap (nearly -4% in our view) and is stuck at the zero bound for the foreseeable future, the IMF study and our analysis imply that the fiscal multiplier is large at present. This view has two implications for fiscal policy. First, fiscal stimulus—targeted to take place while the economy operates below potential/at the zero bound—could be an effective policy option to stimulate the economy should the recovery falter again. There is, however, the possibility that a large fiscal stimulus could propel the economy out of the zero bound, and thereby lower the fiscal multiplier on the portion that occurs when monetary policy can again respond to fiscal changes. A recent Fed study, for example, confirms that the fiscal multiplier declines with the size of the fiscal expansion--suggesting that there is no “free fiscal lunch” in that one cannot exploit the large zero-bound fiscal multipliers for a stimulus of arbitrary size. (See “Is there a Fiscal Free Lunch in a Liquidity Trap?,” *International Finance Discussion Papers*, 1003, Federal Reserve Board, 2010.)

Second, fiscal tightening is likely to be particularly painful at present. This implies that front-loaded consolidations--implemented while the economy is still below potential/at the zero bound--are likely to be costlier than gradual adjustments. The IMF study quantifies this argument using a simple simulation (reproduced in Exhibit 2 below). Specifically, it shows that the short-term output hit is significantly bigger for a "front-loaded" $1 adjustment than a "gradual" adjustment (which is spread over two years) during times of negative output gaps.

Exhibit 2: … Implying that Front-Loaded Fiscal Consolidation is More Painful



Source: IMF Fiscal Monitor, April 2012.

This simulation reinforces our view that gradual consolidation is preferable to up-front adjustment in present circumstances. This does not mean that fiscal adjustment will not be needed at some point. But rather than tightening fiscal policy aggressively now, this analysis suggests that a credible, medium-term adjustment plan is needed to put fiscal policy on a sustainable path without derailing the fragile recovery.

Sven Jari Stehn

(*) http://www.brookings.edu/~/media/Files/Programs/ES/BPEA/2012_spring_bpea_papers/2012_spring_BPEA_delongsummers.pdf

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