

Box 7

THE EFFECTIVENESS OF VARIOUS FISCAL MEASURES TO STIMULATE THE ECONOMY

In the debate on the fiscal policy response to the economic downturn, the effectiveness of fiscal stimulus measures and the appropriate composition of fiscal stimulus packages to increase aggregate demand and stabilise the economy has recently gained importance. This box reviews a number of broad findings in the literature.

Before adopting discretionary fiscal measures to stimulate the economy, questions have to be asked first with respect to the need for such measures and the room for budgetary manoeuvre. The need has to be assessed, among other factors, in conjunction with the built-in counter-cyclical fiscal response from tax and spending systems, i.e. the working of automatic stabilisers. These are relatively large in the euro area (estimated at 0.49, compared with 0.34 in the United States¹) and provide the first line of defence in an economic downturn. The room for budgetary manoeuvre depends primarily on an economy's existing fiscal conditions (government budget position relative to medium-term objective, government indebtedness, the extent of contingent liabilities and other long-term risks, such as ageing costs). Countries with sound fiscal positions and sustainable public finances would have the greatest scope to take countervailing measures, if the need arose. In the case of EU Member States, there is also the need to ensure compliance with the framework for sound fiscal policies formed by the Treaty establishing the European Community and the Stability and Growth Pact.

A consensus has emerged that a discretionary fiscal stimulus to stabilise the economy must be timely, targeted and temporary in order to be effective. Experience suggests that these conditions are often not met.² Even when discretionary stimulus packages are to be implemented, questions relating to their optimal structure remain open to debate. Despite the great heterogeneity of results in the empirical literature and the difficulty of making comparisons across various models and their assumptions, across countries and across types of fiscal measure, a few broad conclusions can be reached.

First, in the short run, increases in government spending are likely to be more effective in supporting the economy than tax reductions, while tax cuts seem to work better in the longer run.

Most empirical studies indicate that spending multipliers with respect to output are higher than tax multipliers in the short term.³ This finding is consistent with the notion that part of the

1 See Deroose, S., M. Larch and A. Schaechter (2008), "Constricted, lame and pro-cyclical? Fiscal policy in the euro area revisited", European Economy, Economic Papers No 353. The automatic stabilisers are estimated as the change in the budget balance-to-GDP ratio with respect to a relative change in GDP.

2 See also the box entitled "Discretionary fiscal policies, automatic stabilisation and economic uncertainty" in the June 2008 issue of the Monthly Bulletin.

3 See Hemming, R., M. Kell and S. Mahfouz (2002), "The effectiveness of fiscal policy in stimulating economic activity - A review of the literature", IMF Working Paper WP/02/2008.

increase in disposable income resulting from a tax cut is likely to be saved (unless the tax cut fully targets credit-constrained consumers), while government purchases of goods and services directly affect aggregate demand and output.

Tax multipliers usually grow with time, but the evidence that in the longer run tax cuts are more effective than increases in spending is mixed, especially when tax changes are temporary. Nevertheless, recent IMF evidence⁴ from a wide panel of fiscal policy responses to economic downturns suggests that revenue-based policies, including temporary ones, have been associated with higher subsequent growth and even faster recoveries (the latter particularly in emerging economies) due to favourable supply-side effects. Overall, recent studies⁵ find more evidence that tax multipliers may be high – and higher than spending multipliers – in the longer run.

While most empirical evidence focuses on the United States, the results for the euro area and large EU economies⁶ tend to support the conclusion that government spending measures are likely to be more effective than tax measures in the short run, but their effectiveness fades away in the medium to long run. Several studies⁷ find a growing output response to sustained tax cuts over the medium term in the euro area.

Second, within each category, there are differences in effectiveness between various fiscal stimulus measures.

Among government expenditure components, the largest short-term impact on demand appears to come from purchases of goods and services, while government investment is likely to have a higher impact in the medium to longer term. Higher social transfers usually have a quick positive impact if well targeted to credit-constrained households, but if persistent, they tend to be detrimental to long-term growth by creating distortions in the allocation of resources and impeding labour mobility.⁸ As regards tax components, OECD work⁹ suggests that the effectiveness of tax changes depends on the existing tax structure and the proportion of credit-constrained agents, with large differences across countries. In most cases, a reduction in income taxes, particularly corporate income tax, appears to produce the strongest long-term impact on output.

4 International Monetary Fund, World Economic Outlook, Chapter 5, “Fiscal Policy as a Countercyclical Tool”, October 2008.

5 See Romer, C. and D. Romer (2007), “The macroeconomic effects of tax changes: estimates based on a new measure of fiscal shocks”, mimeo, University of California, Berkeley; and Coenen, G., P. McAdam and R. Straub (2007), “Tax reform and labour-market performance in the euro area. A simulation-based analysis using the New Area-Wide Model”, ECB Working Paper No 747.

6 Roeger, W. and J. in 't Veld (2004), “Some selected simulation experiments with the European Commission’s QUEST model”, Economic Modelling 21(5): 785-832; Dalsgaard, T., C. André and P. Richardson (2001), “Standard Shocks in the OECD interlink model”, OECD Working Paper 306; Al-Eyd, A. and R. Barrell (2005), “Estimating tax and benefit multipliers in Europe”, Economic Modelling 22: 759-776; Hunt B. and D. Laxton (2003), “Some simulation properties of the major euro area economies in MULTIMOD”, IMF Working Paper 03/31; and Perotti, R. (2002), “Estimating the effects of fiscal policy in OECD countries”, ECB Working Paper No 168.

7 Coenen, G., P. McAdam and R. Straub (2007) for the euro area using simulations and Perotti (2002) for Germany (1961-2000) using structural VAR.

8 Obstfeld, M. and G. Peri (1998), “Regional non-adjustment and fiscal policy”, Economic Policy 13(26): 207-259; Checherita, C., C. Nickel and P. Rother (2009), “The role of fiscal transfers for regional economic convergence in Europe”, ECB Working Paper No 1029.

9 Johansson Å., C. Heady, J. Arnold, B. Brys and L. Vartia (2008), “Tax and economic growth”, OECD Economics Department Working Paper No 620.

Third, an economy's response to various fiscal stimulus measures is likely to depend on a range of other factors such as its size and openness, as well as institutional factors.

IMF simulations show that, in general, the responsiveness of output to a fiscal stimulus tends to be more noticeable in a large economy than in a small, open economy. This may be explained by the fact that, the more open the economy, the higher the share of additional consumption demand resulting from a fiscal stimulus that is going into imports. Reflecting this consideration, by type of fiscal policy tool, simulations find that the highest relative difference in the output response between a large economy and a small, open economy is in the case of consumption tax cuts and increases in transfers.

Institutional factors are also of importance in the design of a fiscal stimulus plan. How tax reductions, e.g. labour income tax cuts, affect output depends on labour market institutions, such as the degree of unionisation and features of the wage-setting process. Other factors, such as the preparedness of government institutions (efficiency of spending line-ministries versus tax collection agencies, the capacity of government agencies to implement large-scale investment programmes, etc.) also influence the effectiveness of spending versus tax measures.

To conclude, it is difficult to draw up an unambiguous list of characteristics for an “optimal” fiscal package in terms of its impact on the economy. Nevertheless, beyond the requirement that fiscal stimulus measures should be “timely, targeted and temporary”, the literature suggests that the structure of a fiscal stimulus plan should take into account several factors, in particular (i) the initial fiscal position and existing tax and expenditure structures; (ii) the expected duration of the economic downturn it intends to address, and correspondingly, the potential trade-off between short-term stabilisation objectives (demand side) and longer-term growth enhancing tools (supply side); (iii) the expected size of the fiscal multipliers of various tools and the time needed for the measures to feed through to demand and output; (iv) the institutional characteristics that facilitate implementation; and (v) the need to minimise distortions in market mechanisms. Overall, countries would be well-advised to design fiscal stimulus packages in a way that stabilises the economy and at the same time supports the sound foundations for a recovery, in particular, by raising the quality of public finances and implementing structural reforms.¹⁰

¹⁰ See also the box entitled “Structural policies in times of crisis” in the December 2008 issue of the Monthly Bulletin.