What Role for Fiscal Policy in the World Economy?

During the past year debate concerning the optimal fiscal stance has dominated the macroeconomic policy debate around the world. Following the credit crunch that started in 2007, and what economists now term the 'Great Recession' of 2008-09, almost all western governments have allowed their budgets to go into deficit, so that total spending on items such as public sector salaries, welfare payments and infrastructure investment exceeds total revenues from taxes on labour income, company profits and market transactions. To take one example, the United Kingdom government's annual budget deficit currently exceeds £150 billion, or 11% of Gross Domestic Product (GDP), a measure of the total income generated in the UK each year. By the middle of the decade, the cumulative effect of current and projected deficits is predicted to be a stock of government borrowing (often termed the national debt) equal to 75% of GDP.

During the 2010 general election campaign in the United Kingdom, the most fiercely debated question in economic policy was whether deficit reductions should be implemented rapidly (the view of the Conservative Party, and that shared by political leaders in countries such as Germany), or gradually (the view of the Labour Party, and that shared by political leaders in countries such as the United States). In this article I start off by reviewing the textbook logic for running government budget deficits in response to economic downturns. In the second part of the article, I analyse this logic from a theoretical perspective: What beliefs concerning market adjustment, consumer behaviour, trade flows and financial markets are required in order to build a case for fiscal deficits during recessions? I then consider whether opposition to fiscal deficits is due to a failure of these conditions, or whether there are other explanations for such a policy position. I argue that recent economic data and the outlook for the world economy offer little support for an accelerated programme of deficit reductions, and that such a policy shift is largely explained by political pressures that make it difficult to commit to more gradual fiscal rebalancing.

Macroeconomic Policy During a Recession: A Keynesian Perspective

The name most often associated with the study of economies in recession is that of the Cambridge economist John Maynard Keynes. A key insight from Keynesian analyses of economic fluctuations is that declines in total expenditure, or aggregate demand, are multiplied up into much larger declines in national income, or GDP, as lower expenditure in one industry propagates to reduced activity in other sectors via the circular flow of income. A Keynesian interpretation of the recent Great Recession is that asset price declines emanating from housing and stock markets generated losses for consumers, firms and banks, who were forced to recoup such losses through saving harder from their current earnings, in turn lowering private consumption (C) and investment (I). The consequences of increased thrift were re-enforced by (i) withdrawal of credit to some households and firms as banks contracted their operations in response to asset price declines and (ii) reduced expenditure translating into lower profits and job cuts in other parts of the economy. Due to the global nature of the downturn, the depressed state of private expenditure could not be offset by net export demand, with the result that aggregate expenditure (E), defined as the sum of consumption, investment, government spending (G) and net exports (exports, X, minus imports, M) declined substantially. In Keynesian theory, national income (Y) is

the level of output that can be purchased given total expenditure, so declines in expenditure generate output losses of the kind observed in many of the world's leading economies during 2009.

This process is summarised in Figure 1, which plots E a as function of Y. At low levels of income, expenditure exceeds income because although private consumption is constrained by low levels of income, components of expenditure such as exports are not, since they mainly depend on global demand. As income rises, expenditure grows, but at a slower rate than income because the marginal propensity to consume from income is less than one (to allow for some saving), and some components of expenditure are not sensitive to domestic income, for example exports. The equilibrium income level is that at which expenditure equals income, indicated in the diagram as the point at which the expenditure function cuts the E = Y line. A downward shift of the expenditure function, so that it is represented by the dashed line in Figure 1, induces a decrease in national income from Y_1 to Y_2.

The Keynesian account of recession points to a very simple solution: If recession is a consequence of too little expenditure, as households and firms, domestically and internationally, save harder, the policy prescription is for the government to dissave. Government dissaving means allowing government expenditures to rise relative to tax revenues, yielding the budget deficits described at the start of this article.

Some Keynesian economists go beyond the claim that fiscal deficits are the remedy for economic downturn, and add that such deficits should be achieved via increases in government spending rather than reductions in taxes. The reason is that government spending contributes to expenditure directly, whereas tax cuts contribute to expenditure only indirectly, through encouraging households and firms to raise consumption and investment. The risk that arises in tackling recessions through fiscal deficits generated from tax cuts is that a portion of the tax cut is saved, for example if households and firms are seeking to rebuild their wealth after a decline in asset values. Consequently most Keynesian economists see fiscal deficits driven by increases in government expenditure as the most effective solution to economic downturns. Elements of such a policy design are visible in the data. For instance, in 2009 the UK government increased total spending by 10% relative to 2008, contributing most of the 11.5% deficit to GDP figure.

Assessing the Keynesian View

What assumptions are implicit in the Keynesian view that fiscal deficits can be used to correct economic downturns? Neo-classical economists point out that in the Keynesian theory of income determination represented in Figure 1, there is no role for prices in setting the level of expenditure in the economy. Thus, when expenditure falls, national income adjusts downwards to reflect the fact that market demand absorbs a smaller quantity of goods and services.

In contrast, in Classical and Neo-Classical models, a fall in expenditure opens up a gap between aggregate demand and aggregate supply at the existing price level, as shown in Figure 2 (the initial fall in output from Y_1 to Y_2 matches that in the Keynesian model described in Figure 1). The market disequilibrium at the initial price level P_1 exerts downward pressure on prices, which fall from P_1 to P_2. Such declines in the price level make consumers feel wealthier (their incomes and asset holdings may be

used to purchase a larger quantity of goods), inducing a rise in consumption. At the same time, domestic goods are more competitively priced overseas, leading to a rise in export sales. The result is an increase in expenditure and output, until the full employment level of output once again prevails (in Figure 1 this would imply an upward shift of the dashed expenditure line, to meet the solid expenditure line). Hence, in Neo-Classical models, the economy has self-equilibrating properties that rule out the need for fiscal deficits to counter the effects of recessions.

An assumption implicit in the Keynesian view is that falling prices will not replace the decline in expenditure that triggers recession. Some Keynesian economists point out that prices are sticky and cannot adjust downwards, or at least not without a considerable delay, due to the effects of price contracts and other obstacles to market clearing. Other Keynesian economists point out that falling prices may constrain consumer spending rather than increase it, for instance through raising the real value of consumer debts, or through creating the expectation of further price declines in the future, which induce delays in consumption as households anticipate a lower price in the future. In both cases, economic recovery following a decline in expenditure will be delayed, and there are potential benefits to running fiscal deficits in order to accelerate the process.

Whilst most economists accept the view that price flexibility is insufficient to quickly offset economic downturns, not all of them endorse budget deficits as the policy solution. Some believe that monetary policy can be used to counter recessions, for instance interest rate cuts typically encourage private consumption and investment, through lowering the cost of borrowing. Proponents of the view that monetary policy interventions can remedy recessions point out that interest rate cuts can be implemented very quickly by central banks, which typically meet to set rates every four to six weeks, whilst large rises in fiscal deficit may have to wait until the next annual budget round. Another advantage of a monetary policy strategy is that it avoids the increase in national debt associated with fiscal deficits, a point which I discuss in more detail below.

The majority of Keynesian economists accept the idea that monetary policy has a role to play in minimizing economic fluctuations. As noted by Keynes himself, however, the limits of monetary policy occur during very deep recessions of the kind that has recently affected the world economy. In such situations, repeated interest rate cuts by central banks take the policy interest rate, which influences the commercial and retail interest rates that matter for the private sector, very close to zero. For instance, the policy rate is currently 0.5% in the UK, 0.25% in the United States and 0.1% in Japan. The interest rates at which central banks lend to commercial banks cannot turn negative, because negative interest rates imply losses for the central bank each time it lends out money. Similarly, the rates at which commercial banks deposit funds at the central bank cannot turn negative because in such cases the commercial banks would do better through holding the funds as cash. The zero lower bound for policy interest rates means that monetary policy ammunition is often exhausted during very deep recessions, and when this happens there may be a case for a policy response based on fiscal deficits.

Critics of Keynesian-style fiscal policies point to other instances in which fiscal deficits are ineffective in raising aggregate expenditure. The first set of conditions under which this is true describe a result known as Ricardian Equivalence, after the British economist David Ricardo, who first articulated the idea

in the nineteenth century. In its simplest form, the Ricardian Equivalence Hypothesis says that fiscal deficits caused by tax cuts will fail to increase private consumption because households recognize that a budget deficit today requires an offsetting surplus in the future, when the debt is repaid. A future surplus requires higher future taxes, which consumers finance through saving the current tax cut, with the result that total current expenditure is unchanged in response to the tax cut.[1] The implication is that budget deficits do not have a role to play in reviving expenditure during periods of deep recession.

Whilst Ricardian Equivalence is an elegant result derived from the optimising behaviour of individual households, its practical relevance is very limited. The main reason for this is that it assumes a world of perfect markets, in which households can always access credit in order to stabilise their consumption against income shocks. During deep recessions, many households are denied credit due to the increased risk associated with creditors and borrowers, and as a result their expenditure falls. In such cases, the increased welfare payments or decreased taxes from a budget deficit will be used by households to maintain consumption when private credit is not forthcoming. The only instance in which the income from a fiscal expansion would be saved in full is that in which private credit markets allow households to perfectly stabilise their consumption, but since that condition fails in practice the fiscal expansion will stimulate aggregate expenditure. Therefore most economists do not believe that Ricardian Equivalence removes the case for Keynesian style fiscal policies during recessions.

The second instance in which fiscal deficits may fail to stimulate total expenditure and output is when there is so called interest rate crowding out of the government contribution to aggregate demand. When the government runs a fiscal deficit, the borrowed funds are secured through selling bonds to investors, and in order to induce investors to commit a larger quantity of funds to such assets, a higher return must be paid on them. One side effect is that savings that would otherwise have been used to fund loans to households and firms are attracted to the government bond market by the higher rates of return, such that lending to fund consumption and investment is crowded out.

A similar effect may occur in respect of net exports. If the increased returns paid on government bonds attract international investors to the UK from foreign markets, the resulting increase in the demand for domestic currency will appreciate the exchange rate, such that domestic exports become more expensive whilst imports become cheaper. The result is a fall in the contribution of net exports to overall demand, which further limits the extent to which fiscal policy can be used to offset economic downturns.

Opponents of debt financed fiscal expansions even point to scenarios in which budget deficits induce adverse market reactions that cause total expenditure to fall to lower levels than would have been observed absent the fiscal intervention. The mechanism here is that increased borrowing raises total

[1] The same does not quite hold true for a fiscal deficit generated from a government spending increase. In that case the current deficit again implies a future tax liability for the private sector, which must now be met through revisions to private spending plans (since there is no option to save the tax cut). In general, households will pay for the tax liability partly through cutting current consumption and partly through cutting current saving, with the result that total current expenditure increases with a fiscal deficit driven by government spending, but by a much smaller amount than in standard Keynesian analyses.

national debt, which in turn increases the probability that a government will in future either default on its debt (repaying bond holders less than they had originally invested), or seek to reduce the real value of the debt through driving up the rate of price inflation (bond holders then recoup their nominal investment but its purchasing power is reduced). The link between rising debt and a rising default probability can be justified in several ways. Some observers point to the political costs associated with future tax increases and spending reductions, which may stand in the way of debt repayment. Such concerns appear to have been central to the debt crisis that has engulfed Greece and threatens other southern European countries. Others note that a high stock of debt increases the amount of money required each year to pay the interest on debt. If in the future the world economy is subject to declines in income growth, so that governments' tax revenues decline, it is the heavily indebted countries that are most vulnerable to the problem of explosive debt, whereby fresh debt has to be issued to service repayments on existing loans. In such instances, creditors may abandon heavily indebted countries, leaving them with no other option than to default.

In order to compensate investors for such risks, governments in countries in which debt to income ratios are high typically pay an interest rate premium when borrowing funds. For instance, in April 2010 the Greek government was forced to pay 4.42% more in annual interest than the German government, given concerns over the Greek public finances. When budget deficits induce a rise in interest payments via the risk premium, there can be further crowding out of consumption, investment and net exports, potentially causing aggregate expenditure to fall to lower levels than those observed prior to the implementation of larger budget deficits.

What Fiscal Policy for 2010 and Beyond?

What does this assessment of fiscal policy imply for the current debate over whether fiscal deficits should be reduced rapidly, as in the United Kingdom and Germany, or slowly, as in the United States? One view is that the drastic cuts planned in the United Kingdom are essential to fight off a surge in government bond yields as concerns over debt sustainability drive up the cost of borrowing and threaten to crowd out private sector activity. The problem with this argument is that the surge in interest rates for UK bonds is not showing up in the data. Interest rates on UK government bonds are currently a little over 3%, low by historical standards and unexceptional relative to those of other major countries. It is of course important to put such numbers in context. It is possible that UK government bond yields are at such low levels precisely because of the borrowing reductions that have been announced, and that if the British government had announced a policy much less conservative than that adopted in other European countries such as Germany, the consequences would have been adverse. However, even prior to the UK general election in May, when it seemed that less aggressive deficit reductions may have been implemented under a Labour administration, UK bond yields were only a little over 4%, and it is hard to think that such a level of interest rates is deterring a substantial amount of private spending. Economists such as Paul Krugman contend that fears over bond market reactions to fiscal plans are over-stated, and should not be used to accelerate fiscal rebalancing.

An alternative perspective on the recent shift in fiscal policy in the United Kingdom is that the next five years are the ideal time to implement fiscal consolidation because alternative sources of expenditure

will fill the gap as the government adjusts from being a borrower to a saver. Such an outlook seems optimistic. In a model in which Ricardian Equivalence holds, a fiscal consolidation would signal that future budget surpluses are being brought forward in time. As a result, private sector savings set aside to compensate for lower government spending and higher taxes in the future can instead be spent immediately, forcing up private consumption. Alternatively, in a Neo-Classical model, downward price adjustment would induce higher consumer spending directly. As previously discussed, however, neither representation of the aggregate economy seems realistic, and in the current climate it is hard to believe that consumers faced with news of wage freezes and redundancies will launch a spending binge to boost aggregate demand.

The other potential source of support for economic activity in the face of a spending slowdown is net exports. A rise in net exports could be achieved through either a boom in the world economy, or a depreciation of sterling as fiscal consolidation applies downward pressure to interest rates. Both factors should stimulate foreign demand for UK goods and services. In reality, the prospect of either form of adjustment seems remote. During the first half of 2010 sterling has appreciated against the Euro in response to the European debt crisis, and the chances of strong spending growth in the Eurozone are likely to be constrained by conservative fiscal policy in member states. The economic region most likely to grow and step up imports in the next decade, and against whose currency sterling may depreciate is China. But the problem the UK faces here is that it has a smaller stake in Chinese markets than countries such as the United States, Germany and Japan, so rising exports to China are unlikely to be the engine of UK growth. In view of this outlook, it seems that there are substantial risks associated with the accelerated fiscal tightening announced by the new government in the United Kingdom.

Conclusion

On balance, the arguments put forward in this article support the case for counter-cyclical fiscal policy, particularly during periods of deep recession when other macroeconomic adjustment mechanisms such as price and interest rate reductions are weak or exhausted, and when the limits to fiscal policy such as Ricardian saving and sterling appreciation seem an unlikely threat. The policy implication is that a much more gradual withdrawal of fiscal stimulus than that planned in the United Kingdom would seem appropriate. Explanations for the accelerated tightening recently announced seem to have more to do with politicians' inability to commit to gradual fiscal tightening (for example, the new administration may not be around to implement policy more than five years ahead), than with the current state of the UK economy.

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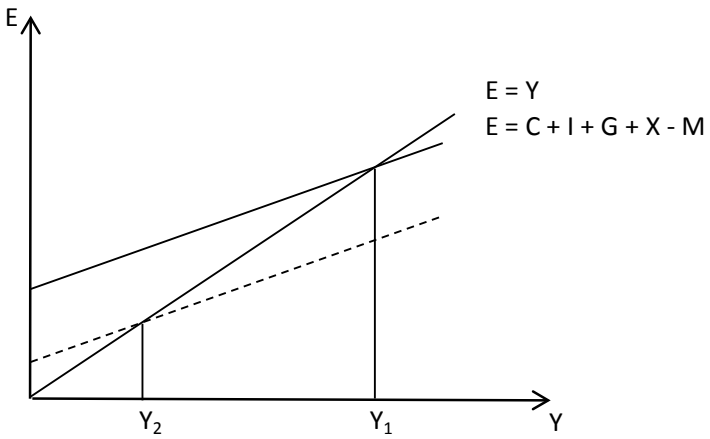

Figure 1: Income determination in the Keynesian model.

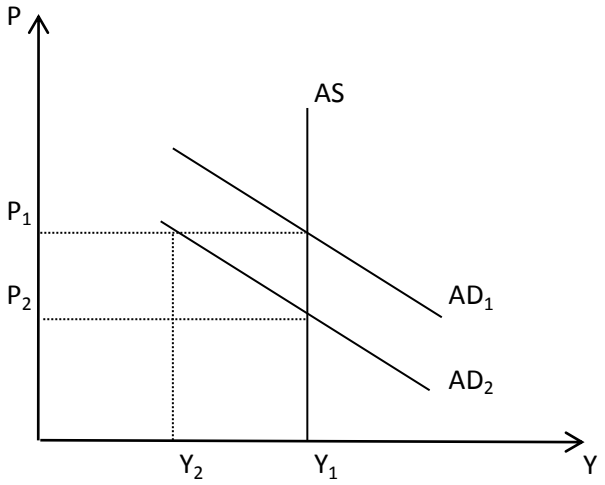

Figure 2: Income determination when prices are flexible.