One important lesson that I hope we have learned from the crisis and the deep recession still going on is that economies like ours can experience uncomfortably long intervals of general excess supply or excess demand. Of course we--economists and interested civilians--used to know that. But it was largely forgotten during the Great Moderation and the accompanying optimism among economists ansd civilians about smoothly self-correcting markets.

The general belief then was that monetary policy was an adequate tool for taking care of any minor blips. During long and deep recessions, however, it has become evident that monetary policy may reach its limits without being able to generate enough aggregate demand to close the excess supply gap. So governments have turned more or less instinctively to discretionary fiscal policy, even if the latest refined theory can not approve. If we are going to do discretionary fiscal policy, we should try to do it right. Presumably that is what we are here to talk about.

The usual way to calculate the likely effects of fiscal policy--meaning increases in particular government expenditures and particular decreases in particular tax rates--is through the use of estimated multipliers. The trouble is that existing estimates of those multipliers tend to vary all over the place, from negative numbers to substantial positive numbers. This does

not inspire confidence. We have to understand why the range is so wide, and then find acceptable ways to narrow it. There is a perceptible tendency for those who *a priori* disapprove of discretionary fiscal policy to find smaller multipliers and those who approve to find larger ones. But I think this tendency can be turned into healthy criticism, and lead, if not to consensus, then to a narrower range.

One useful starting point is the easy realization that multiplier-values will depend on the state of the economy, and also on the character of other economic policies at the time. Here are three obvious examples, merely by way of illustration. One could provide more such examples. Any econometric estimate of "the" multiplier will have to notice that there may be two-way causality between aggregate output and public expenditure. So it is natural to search for exogenous public expenditures as a basis for estimation. An obvious candidate is military spending. The trouble is that sometimes, probably often, large increases in military spending come at times when the economy is already using essentially all of its capacity to produce. But then the real-output multiplier must be essentially zero; all that miltary spending can do is to displace other spending. The estimation of fiscal-policy multipliers should be confined to observations on an economy with a substantial margin of excess supply. When that is done, the picture changes. Robert Gordon has recently given a striking example. War production and preparation for war

had already eaten up much excess capacity in the U.S. by the end of 1941. If a government spending multiplier is estimated from time series through mid-1941, a number near 2 emerges. If the same analysis is carried through the end of 1941, the estimated multiplier is near 1.

The second example has attracted a lot of attention recently, and has to do with monetary policy. Suppose that the Central Bank follows a standard Taylor Rule. Then monetary policy functions like an automatic stabilizer. The Rule tells the central bank to offset, at least partially, any increase in real GDP, even if the economy is currently weak. (One may wonder whether this is sensible, and I will come back to that question.) The size of the apparent fiscal-policy multiplier will depend on the strength of the central bank's offsetting reaction. It has been pointed out that, in a deep recession like the present one, the Rule may want the central bank's policy rate to be negative. When that rate has reached its lower bound of zero, there is nothing further to do. The Taylor Rule is suspended. But a fiscal-policy induced increase in real output may leave the target rate still negative, in which case the Rule-following central bank will not change its policy rate and thus will not oppose the increase in output. So multipliers should be larger when the zero lower bound on the policy rate is effective; and this has been found, by Robert Hall among others, to be empirically the case.

A third example turns on the proportion of any policy-induced increase in disposable income that is likely to bne saved. There is evidence that, when the burden of household debt is high, even relatively poor households tend to use windfalls to pay down debt. This is a form of precautionary saving; obviously it reduces the size of the multiplier. Smart fiscal policy will tgake tghis into account, and adjust accordingly.

This is to suggest that a new round of more economically sophisticated estimates might narrow the range of expected multiplier effects and improve the making of discretionary fiscal policy.

I mentioned in passing that monetary policy, if conducted according to a Taylor Rule, functions like an automatic stabilizer. The advantages of automatic stabilizers are fairly obvious. Bypassing the legislative process can shorten the lag in policy response to an adverse shock, and probably scale the fiscal response better to the size of the need. In the American context, I have to add, it may avoid some of the partisan stupidities inside and outside Congress that drive serious students up the wall.

There are disadvantages, however. One is that there are no "neutral" taxes or spending programs, so that automatic stabilizers have unintended effects on allocation and distribution. This makes them hard to legislate in the first

place, and may make them unpopular in operation.

Another disadvantage is the one I mentioned in connection with the Taylor Rule. Automatic stabilizers are intended to damp economic fluctuations. They do this generally by partially offsetting both upward and downward movements of, say, real output. When output peaks and starts to fall, we welcome a force that works against the downswing (unless there is large excess demand). But when output reaches bottom and starts to rise, we are less happy with a force that slows the recovery. But that is the way most automatic stabilizers work, from the Taylor Rule to Unemployment Insurance.

An earlier literature tried to deal with this problem through a slightly more complicated approach called "formula flexibility." I will put it baldly. A simple proportional tax system is already an automatic stabilizer in both directions. One can imagine a tax system in which the whole collection of rates is a function of the Okun gap and its rate of change; on paper such a system could encourage any movements toward the target output and resist movements away from it.(A Taylor Rule could be similarly refined.) In effect, formula flexibility tries to mimic what intelligent discretionary policy would do. If it could be legislated once and for all, with adjustment only at intervals, that could be a gain. But it is hard to imagine it being legislated at all.

I will conclude with very brief comments on two other issues.

It hardly needs saying that the expansion of world trade and capital flows implies that there is need for international coordination of fiscal policy, whether discretionary or automatic. Especially in Europe, but in principle everywhere, the cross-border leakages are now large enough that free-riding on one side encourages reluctace to act on the other. Unfortunately the prevalence of spillovers is especially complicating for automatic stabilization, which ought in principle to be tied partially to international economic conditions, although conducted nationally.

The last point I will make, only to show that I have not forgotten it, is that discretionary fiscal-policy moves need to be better targeted than they have been in the U.S. This refers both to longer-run need and to short-term effectiveness. I am thinking of such devices as focussed investment tax credits, perhaps time-limited, as an alternative to across-the-board income-tax reductions. Aiming at infrastructure is difficult in an economy with low public investment generally, because infrastructure projects are harder to start than to accelerate efficiently, which nis hard enough. In economies and labor forces that are more and more service-oriented, public spending aimed at job-creation should look more at the efficient production of needed services. Again thinking of my own country, urban amenity might be a good place to start. I am sure I can leave it to others to point out that countercyclical fiscal policy can leave

long-term hangovers of debt that need credible planning immediately, and actual fixing in due course.