Supply Side Effects of Fiscal Policy (Parkin, Chapter 11, pages 273 – 275)

In our lectures till now, we have looked at the demand side effects of fiscal policy only. The supply side responded to these demand side effects. However, fiscal policy has important supply-side effects (and a group of economists called ‘Supply-Siders’ think that such effects are, in fact, much stronger than demand-side effects). In particular, we shall look at the effect fiscal policy has on:

1. Potential GDP
2. Economic Growth

Fiscal policy (Tax policy) & Potential GDP

Potential GDP depends on the full employment quantity of labor. Income taxes (taxes on labor income) influence potential GDP & aggregate supply by changing the full-employment quantity of labor. The income tax weakens the incentive to work. It drives a wedge between the take-home pay of workers & the cost of labor to firms. As a result we have a lower labor market clearing amount of labor, and hence a lower potential GDP.

We can see this from the diagram for the labor market:

Fig.1: An income tax in the labor market (See fig 11.12, Parkin, page 274)

As we see, an increase in the income tax rate shifts back the labor supply curve, leading to a lower full employment labor market clearing level. Think of it like this: at every real wage rate, due to the higher income tax rate, the workers get a lower take-home pay than before. So, at every real wage level they supply a lower amount of labor than before. Anyway, the labor supply curve was drawn keeping the tax rate (which is among the ‘other things’) constant. So a change in the tax rate shifts the labor supply curve.

A decrease in the income tax rate has the opposite effect from the one described above.

*Question*: If the income tax rate rises to 100%, what do you think would happen to labor supply?

(Recall the aside in class about the Laffer curve)
Let us look at what would happen in the effect of a tax-cut in the economy, if there were large supply-side effects. We shall use the AD-AS diagram for this analysis.

Fig.2: The supply-side effect of an income-tax cut (See fig 11.13, Parkin, page 274)

Let the government lower income tax rates (without lowering government spending). This would shift the demand curve outwards (due to increases in household consumption expenditure). Remember that if there were supply-side effects like an increase in the workers’ incentive to work, and higher productivity, then we would have both the long run and the short run supply curves shifting outwards & the equilibrium RGDP level of the economy increasing. In fact, if the supply-side effects were strong enough, then we would have something very different from the price-raising effect of fiscal policy we have seen in all the models discussed so far: we might actually have an increase in the level of RGDP without the price level rising (in fact, for very strong supply-side effects, the price level might actually fall if the supply curve shifts out far enough).

Fiscal Policy & Economic Growth

We shall not cover this in detail. It is sufficient to know that fiscal policy (taxes on income, capital gains, & profits) can influence growth by changing the incentive to save, invest, and develop new technologies. These incentives work the same way as seen in the labor market. For higher income & profits taxes, the incentive to save and invest goes down. So does the incentive to invest in new technology, since the gains of such technology would be taxed away. These factors, in turn, would slow down economic growth.

Also, fiscal policy that relies excessively on taxation can influence economic growth and the well being of future generations by reducing private investment in the economy. There might also be an increase in foreign debt (with accompanying higher interest payments over time to foreign lenders), as domestic savings might fall (as the incentive to savings goes down due to higher taxes on capital gains).

A digression: Long-term growth is crucially dependent on the savings rate of the economy. If funds are saved and invested today, then they bring higher returns tomorrow. Of course, if you are facing a depression in the economy today, then the Keynesian prescription would be consume more today: so essentially you will have to trade-off between increased spending and output today (which would cure the current depression
in the economy) versus higher output tomorrow (for which you would need to save rather than spend more, which might not be useful in raising the current RGDP level).

**Macroeconomic Policy Challenges, Parkin, Chapter 16**

We started this course by describing the government as the ‘single largest macroeconomic player’ and one that has a unique role as the ‘manager of the economy’. We shall now finally study the policy goals of the government, and how it might seek to achieve these goals, in the light of all that we have learnt in the course thus far.

*The four main domestic policy goals of the government are:*  
1. Achieve the highest sustainable rate of potential GDP growth  
2. Smooth out avoidable business cycle fluctuations.  
3. Maintain low unemployment  
4. Maintain low inflation

At its disposal the government has *fiscal & monetary policy* tools that we have seen in the earlier lectures.

Other than these, the government may adopt *structural policies* that affect the long-term growth of the economy. Structural policies influence the **long-term growth of the economy** by:

a). Increasing national saving: By introducing policy measures that provide proper incentives to save (for example, by reducing very high capital-gains taxes, etc.).

b). Building up human capital: By adopting effective education & training policies for the population (for example, by improving the public school system).

c). Creation of new technology: Introduce incentives in the economy that encourage more investment on R&D by private firms (perhaps by giving them tax breaks on investment on R&D, or by introducing favorable patent policies).

**Let us now look at an example of how the government might use one of its policy tools, namely monetary policy, to resolve an economic crisis that it might be facing.**

(You will find the following analysis in Parkin, Ch. 13, pages 322-23)

**Fighting Inflation Through Monetary Stabilization**

(See Fig. 13.12, Parkin, page 322)

Suppose we are in an economy that is in an over-employment equilibrium, which is inflationary in nature (since we know that if the economy were left alone, money wages
would rise in this economy, shifting the short run supply curve backwards in the goods market, leading to a price rise). The Fed now conducts an open market sale of securities, which reduces money supply in the economy, and increases the interest rate. But this higher interest rate will lead to a movement along the investment demand curve in the financial market: since the cost of investment has gone up, investment spending in the economy declines. Due to this decline, the aggregate demand curve shifts inwards in the goods market. This initial decrease in investment spending in the economy has further negative multiplier effects, and the aggregate demand curve shifts further inwards, until the economy comes to rest in a long run equilibrium. We notice that due to this stabilization policy the Fed is able to make the economy settle into a long run equilibrium that has lower prices, compared to the long run equilibrium the economy would settle into itself through automatic adjustment (where the supply curve in the goods market would have shifted backwards due to an increase in money wages).

Avoiding Recession Through Monetary Stabilization

(See Fig. 13.13, Parkin, page 323)

Suppose we are in an economy that is in recession, and there is an under-employment equilibrium. The government wants to solve the unemployment problem. The Fed now conducts an open market purchase of securities, which increases money supply in the economy, and decreases the interest rate in the money market. But this lower interest rate will lead to a movement along the investment demand curve in the financial market: since the cost of investment has gone down, investment spending in the economy increases. Due to this increase, the aggregate demand curve shifts outwards in the goods market. This initial increase in investment spending in the economy has further positive multiplier effects, and the aggregate demand curve shifts further outwards, until the economy comes to rest in a long run equilibrium. The short run supply curve stays fixed in this economy since we started from a position of underemployment (so firms are able to hire more people without having to pay them higher money wages).¹ We notice that by adopting this stabilization policy the Fed is able to make the economy settle into a long run equilibrium where there is full employment.

¹ Note that if you can employ more people without paying them higher money wages, it automatically implies (where the price level is not falling) that you do not need to pay higher real wages to hire more people.