

## Lecture 24: Government Purchases

### I. OVERVIEW

- In today's lecture, we will look in more detail at all government spending, not just government purchases. Recall that only government spending on goods and services is counted as  $G$  in the IS-LM model. However, many of the interesting issues involving fiscal policy involve discussion of the entire government budget and not just the spending on goods and services.
- We will also discuss the interplay between taxing and spending decisions. In particular we will talk about budget deficits and the distinctions between deficits and the debt.

### II. COMPOSITION OF THE FEDERAL BUDGET

- Before we talk about the consequences of deficits and the impact of government spending, it is important to realize what the government spends its money on.
- In 2004 the budgetary allocations were as follows:
  1. Social Security 21%
  2. National Defense 20%
  3. Medicare 13%
  4. Income Security 8%
  5. Medicaid 8%
  6. Interest on Debt 7%
  7. Retirement 6%
  8. Education 3%
  9. Transportation 3%
  10. Housing 2%
  11. Justice 2%
  12. Health 2%
  13. Veterans Affairs 1%
  14. Environment 1%
  15. International Affairs 1%
  16. Agriculture 1%
  17. Research 1%
- The breakdown of government revenue was as follows:
  1. Personal Taxes: 43%
  2. Social Security and Medicare Taxes: 39%
  3. Corporate Taxes 10%
  4. Excise Taxes 4%
  5. Estate Taxes 1%
  6. Customs 1%

7. Federal Reserve 1%

8. Miscellaneous 1%

- The budget balance in 1998 was \$69 billion, in 1999 \$124 billion, in 2000 \$236 billion, in 2001 \$127.1 billion, in 2002 -\$157 billion, in 2003 -\$375.3 billion, in 2004 -\$412 billion. In 2005, the budget deficit is forecast to be -\$365 billion. We are back to a world of deficits again.
- If we exclude social security, the budget balance in 2003 (also called the on-budget balance) was -\$567 billion (i.e. a deficit of \$567 billion). The balance on social security (social security tax receipts - payments), sometimes referred to as the off-budget surplus, is \$155 billion.
- We can see that a large part of government spending is on entitlement programs and social programs and not on the purchase of goods and services which is what we count as part of GDP. An increase in spending on social security payments or food stamps for example does not increase  $G$  and shift out the IS-curve.
- Government purchases are not a major part of government spending, in fact there is evidence that government purchases are not actively used to stabilize the business cycle. However, there are automatic stabilizers like unemployment insurance, income taxes, AFDC and other welfare programs that are useful in stabilizing the economy.

### III. DEFICITS AND DEBT

- The difference between deficits and debt is important to keep in mind. **Deficits** are a flow variable: the excess of expenditure over revenue in any given year. **Debt** is a stock variable: the total outstanding amount of money owed by the government.
- Basically if  $D_t$  is the debt at time  $t$  then  $D_{t+1} = (1 + i_t)D_t + \gamma_t - \tau_t$  where  $i_t$  is the interest rate on the debt. Note that  $\gamma_t$  is ALL government spending, not just government purchases  $G$ .  $\tau$  is ALL tax revenue.
- $\gamma_t - \tau_t$  is what is known as the primary deficit, the excess of government expenditure over receipts, ignoring interest payments. Accumulated debt in the U.S is about 36% of GDP, which is actually small in percentage terms compared to a lot of countries.
- Deficits are financed in 3 ways, by using marketable securities: treasury bills, notes and bonds (distinguished by duration) and by non-marketable securities such as savings bonds. Surpluses in various trust funds like social security are also used occasionally. In some countries, deficits are financed by printing money.

#### Why Do We Care About Deficits

1. An increase in government purchases or a cut in taxes can shift out the IS curve and increase  $Y$  in the short run. Even though this is helpful in a recession, in an economy that is already at potential, this expansionary policy will also raise  $r$ , crowd out  $I$  and may have adverse long-run consequences for the economy.
2. Going beyond our traditional IS/LM analysis, as the government issues more bonds the price of bonds will fall, increasing the yield. Higher expected yields raise long-term interest rates today and can stifle growth.

3. Furthermore, as the debt/GDP ratio rises the risk of default will become high. This in turn will require that the government run budget surpluses in the future to repay the debt - could lead to higher future taxes: lower Consumption today
4. Unfair to future generations. Transferring the burden to your children and grandchildren and leaving them with the responsibility of paying off the debt.

#### IV. PROJECTIONS OF BUDGET SURPLUSES OVER THE NEXT DECADE

- The Congressional Budget Office (CBO) provides projections of budget surpluses for the next decade. These numbers can be found on the web at [www.cbo.gov](http://www.cbo.gov)

2000 Projections	'05	'06	'07	'08	'09	'10	'11	'12	'13	'14	'15
On-Bud Surp	-539	-487	-477	-473	-463	-461	-370	-229	-226	-203	-183
Off-Bud Surp	175	189	209	227	244	260	275	286	295	302	305
Tot Surp	-365	-298	-268	-246	-219	-201	-95	57	69	99	122
Debt	4,656	4,965	5,246	5,506	5,737	5,949	6,054	6,004	5,941	5,847	5,726
Balance/GDP(%)	-3	-2.3	-2	-1.7	-1.5	-1.3	-0.6	0.3	0.4	0.5	0.6
Debt/GDP(%)	38.1	38.5	38.6	38.5	38.2	37.8	36.7	34.8	33.0	31.1	29.1

- The CBO is mandated to produce budget forecasts using certain assumptions. These assumptions are important to understand in evaluating the accuracy of the forecasts.
- The assumptions used by the CBO are:
  1. The CBO assumes real GDP growth of 3.0% a year for the next 10 years.
  2. According to the CBO 'the projections start with the Congress's most recent budgetary decisions and show what would happen to the federal budget if no policy changes were made over the projection period.'
  3. According to the CBO 'For revenues and entitlement programs, such as Social Security or Medicare, the baseline projections generally assume that current laws will continue without change'.
  4. For discretionary spending, CBO, as directed by the Deficit Control Act, assumes that budget authority for discretionary programs grows at the rate of inflation each year after 2001.
- So in using these projections, one has to be careful about the potential for substantial changes given the current combination of economic woes, proposals for tax reform and proposals for social security reform. Politicians often manipulate these numbers for the purposes of making policy changes but these numbers are often very misleading.
- In the very long run, the real issue is the cost of entitlement programs like Social Security and Medicare. Even though Social Security receipts will exceed expenditures in the next 10 years this will change over the next 30 years as the demographics of the U.S. population changes.

- For example, the number of 65+ year olds will increase from 13% to 20% while the working age population will fall from 60% to 56%. So current primary surpluses are a little misleading; avoiding entitlement cutbacks for political gain can not go on for ever. Current predictions of Medicare, Medicaid and Social Security growth show that these programs will grow from 8% of GDP to 16% in the next 30 years.
- Attempts to address the issue of spiraling growth in entitlements include
  - Means testing : Restrict benefits to low income elderly
  - Control medical costs: How? The billion dollar question
  - Increase retirement age: Currently popular, citing the improvements in health and longevity.