Chapter 19: Government Debt and Budget Deficits

Key points:

- Measurement of US Debt
- Traditional vs. Ricardian View of debt
- Costs and benefits of a balanced budget

The Size of Government Debt:

- Show figure 19-1
- Show CBO forecast for debt
- Show Table 19-1

Problems with measurement:

1. Inflation
   - Because the deficit is reported in nominal terms, it overstates the amount by $\pi D$ where $D =$ size of the debt
   - e.g., assume deficit$_{2000} = 0$, let $D_{2000}$ be the debt on Jan 1, 2000 in year 2000 dollars
   - $D_{2001} = D_{2000}(1 + \pi) + \text{deficit}_{2000}$
   - $\Rightarrow D_{2001} = D_{2000} + \pi D_{2000}$
   - $\Rightarrow \frac{D_{2001} - D_{2000}}{\pi D_{2000}} = \frac{\pi D_{2000}}{\pi D_{2000}} = 1$
   - So even though no deficit, inflation makes it look like there is one since the debt grows due to inflation

2. Capital assets
   - Debt includes liabilities, but not assets
   - Solution: capital budgeting (e.g., include loan to buy road on liabilities side, but put the road on the assets side)
   - Problem - what is capital? How much is it worth?

3. Uncounted liabilities
   - Debt is really more like $200$ trillion - if we including promised Medicare and Social Security, etc
   - Think about all the government guarantees on assets... should count these too
   - This idea of counting these promises to future generations is called “generational accounting”

4. The business cycle
• Debt increase during bad times because tax receipts fall
• SHOW graph of tax receipts over time
• This makes it difficult to determine source of deficits - was it a bad economy or policy (an increase in spending/decrease in taxes)?
• Solution, the cyclically adjusted budget deficit
  – Evaluate deficit as if economy were operating at it’s natural level of output
  – SHOW cyclically adjusted budget deficit
  – See this:
    – DRAW Tax receipts as function of GDP. Assume 10% income tax - meaning tax receipts, T, 10% of GDP.
    – Deficit = Gov’t spend - Revenue = G - T
    – DRAW deficits using graph above, but adding horizontal line for constant G. Note how deficit decreases (surplus increase) as GDP increases
    – If GDP less, move left along deficit curve and get large deficit
    – If G ↑, shift deficit curve and get larger deficits for all levels of GDP
    – The Cyclically adjusted budget deficit evaluates the budget deficit at potential GDP
    – DRAW deficit curve and note two points on curve - actual GDP and potential GDP

The traditional view of government debt:
• We saw this in Chapters 3, 8, 11, 12
• Short run (Chapters 11 and 12)
  – ↑ G shifts the IS curve out
    * ⇒ shift AD out
    * b/c prices as sticky, ⇒↑ Y, in the short run
    * over time, prices adjust and the economy returns to it’s natural level of output with higher prices
• Long Run (Chapter 3)
  – ↑ G stimulates spending and reduces public and national savings
    * ↓ S ⇒↑ r ⇒↓ I(r)
    * less savings leads to a higher r, which leads to less investment
    * i.e., Gov’t spending crowds out investment, no change in Y
• Very Long Run (Chapter 8)
  – Lower investment leads to a lower steady state capital stock and a lower level of output
  – If the economy has less capital than the Golden Rule capital stock, consumption will be lower

Ricardian View of Gov’t Debt:
• Consumers are forward looking
• Without an offsetting change in spending/taxes today, an increase in G or decrease in T now, means an increase in taxes later.
• b/c consumers are forward looking, they base consumption decisions on lifetime income, NOT present income
• So if debt increases (due to increases spending or less taxes), no change in lifetime income and thus no change in consumption
  – e.g., if my $600 stimulus check this year, paid for my $600 increase in taxes next year. Does this affect spending?
  – 2008 stimulus checks... people spend only about 30% of the money

• This idea is called Ricardian Equivalence: the idea that financing gov’t spending by debt or taxes is equivalent.
  – This means that it’s the amount of spending that matters - not how it is financed (whether through increases in taxes today or by borrowing today)

Why the Ricardian View might not hold in reality:
• Myopia: people aren’t forward looking enough to consider future taxes
• Borrowing constraints: It is difficult for people to move income around over time
  – e.g., want to borrow from your future earnings, but can’t. So you would spend some of tax cut, even if temporary.
• Altruism towards future: if care about future generations less than yourself, and some of debt burden falls on them, cutting taxes now can increase spending
• Income mobility and progressive taxes: Taxing now or in the future may affect your lifetime income because you pay different taxes at these times

Should the government run a balanced budget?:
• Pros:
  – Limits politicians who might have a short time horizon and poor incentives
  – Reduces pressure on monetary authority to print money and thus cause inflation
  – Risk of international problems related to debt are reduced:
    1. Capital flight (fear gov’t defaults, so sell of bonds → lower prices → higher interest rates, big problems)
    2. Lost political clout
• Cons:
  – Limits stabilization policy
  – Limits ability to tax smooth
    * Taxes case economics distortions, which means efficiency losses
    * This efficiency losses are proportional to the square of the tax rate
    * That means that higher tax rates cause much larger welfare losses, so you’d rather collect a given amount of revenue with lower rates over a longer period of time
  – Limits intergenerational redistribution (e.g. Soc Security)