Chapter 30
Fiscal Policy, Deficits, and Debt

CHAPTER OVERVIEW

• This chapter explores the tools of government stabilization policy in terms of the aggregate demand-aggregate (AD-AS) model.

• Next, the chapter examines fiscal policy measures that automatically adjust government expenditures and tax revenues when the economy moves through the business cycle phases.

• The recent use and resurgence of fiscal policy as a tool are discussed, as are problems, criticism, and complications of fiscal policy.

• The material on the public debt is designed to explode two popular misconceptions as to the character and problems associated with a large public debt:
1. the debt will force the U.S. into bankruptcy; and

2. the debt imposes a burden on future generations.

- The debt discussion, however, also entails a look at substantive economic issues.

- Potential problems of a large public debt include greater income inequality, reduced economic incentives, and crowding out of private investment.

- The chapter concludes with a Last Word on the leading economic indicators, identifying the specific components of the index and explaining how they combine to help forecast the future direction of the economy.
Objectives

- Define and explain the role of the CEA.
- Distinguish between discretionary and nondiscretionary fiscal policy.
- Differentiate between expansionary and contractionary fiscal policy.
- Recognize the conditions for recommending an expansionary or contractionary fiscal policy.
- Explain expansionary fiscal policy and its effects on the economy and Federal budget.
- Explain contractionary fiscal policy and its effects on the economy and Federal budget.
- Give two examples of how built in stabilizers help eliminate recession or inflation.
- Explain the differential impacts of progressive, proportional, and regressive taxes in terms of stabilization policy.
- Explain the significance of the ”standardized budget” concept.
- Describe recent U.S. fiscal policy actions and the motivation behind them.
- List three timing problems encountered with fiscal policy.
• State political problems that limit effective fiscal policy.

• Identify actions by households, and by state and local governments that can frustrate fiscal policy.

• Differentiate between deficit and debt.

• State the relative size of the debt as a percentage of GDP and describe how that has changed in recent years.

• Describe the annual interest charges on the debt, who holds the debt, and the impact of inflation on the debt.

• Explain why the debt can also be considered public credit.

• Identify and discuss two widely held myths about the public debt.

• Explain the real or potential effect of the debt on income distribution, economic incentives, fiscal policy, and private investment.

• Explain and recognize graphically how crowding out is a concern caused by a large public debt.

• Explain the purpose and structure of the Leading Economic Indicators (Last Word).

• Define and identify terms and concepts at the end of the chapter.
Introduction

• Learning objectives

– The purposes, tools, and limitations of fiscal policy.
– The role of built-in stabilizers in moderating business cycles.
– How the standardized budget reveals the status of U.S. fiscal policy.
– About the size, composition, and consequences of the U.S. public debt.

• One major function of the government is to stabilize the economy
  – prevent unemployment or inflation.

• Stabilization can be achieved in part by manipulating the public budget—government spending and tax collections
  – to increase output and employment or to reduce inflation.

• This chapter will examine a number of topics.
  – It explores the tools of government fiscal stabilization policy using AD-AS model.
  – Both discretionary and automatic fiscal adjustments are examined.
  – The problems, criticisms, and complications of fiscal policy are addressed.
  – The size of and concerns about the public debt are identified and explored.
Fiscal Policy and the AD/AS Model

• **Discretionary fiscal policy**
  
  – Discretionary fiscal policy refers to the deliberate manipulation of taxes and government spending by Congress to alter real domestic output and employment, control inflation, and stimulate economic growth.
  
  – “Discretionary” (“active”) means the changes are at the option of the Federal government.
  
  – Discretionary fiscal policy changes are often initiated by the President, on the advice of the Council of Economic Advisers (CEA).
  
  – Eliminate recessionary or inflationary gap
  
  – Countercyclical

• **Nondiscretionary fiscal policy**
  
  – it is “passive” or “automatic”
  
  – Changes not directly resulting from congressional action
  
  – Passive or automatic
Expansionary fiscal policy

• refer to PPT 30-5 or Figure 30.1

• is used to combat a recession
  – The cause of the recession maybe that profit expectations on investment projects have dimmed,
  – curtailing investment spending and reducing AD.

• a decline in investment has decreased $AD$ from $AD_1$ to $AD_2$
  – Suppose the economy’s potential or full-employment output is $510$ billion.
  – If the price level is inflexible downward at $P_1$, the broken horizontal line because the relevant AS curve.
  – so real GDP has fallen to $490$ billion.
  – A negative GDP gap of $20$ billion arises.
  – so employment declined and the economy suffers both recession and cyclical unemployment.

• Possible fiscal policy solutions follow:

  1. An increase in government spending
     – shifts AD to right by more than change in G due to multiplier
     – Suppose the government initiate $5$ billion of new spending on highways, education, etc.
If the economy’s MPC is .75, then the multiplier is 4 and the real GDP moves back to $510 billion.

Unemployment falls as firms increase their employment.

2. **A decrease in taxes**

- raises income, and consumption rises by \( \text{MPC} \times \text{the change in income} \);
- AD shifts to right by a multiple of the change in consumption).
- Suppose the government cuts personal income taxes by $6.67 billion.
- Consumption will rise by $5 billion \((= \text{MPC} \times 6.67 \text{ billion})\) and
- Saving will go up by $1.67 billion \((= \text{MPS} \times 6.67 \text{ billion})\).
- the real GDP moves rises by $20 billion \((= 4 \times 5 \text{ billion})\)
- A tax cut must be larger than government spending because part of a tax reduction increases saving, rather than consumption.

3. **A combination**

- e.g., the government may increase its spending $1.25 billion and reduce taxes by $5 billion.
- this will produce the targeted $5 billion initial increase in new spending.

- If the budget was initially balanced, expansionary fiscal policy creates a budget deficit.
Contractionary fiscal policy

- Prefer to PPT 30-6 or Figure 30.2.
  - Suppose the economy’s potential or full-employment output is $510 billion and the economy starts at equilibrium at point a.

- When demand pull inflation occurs as illustrated by a shift from $AD_3$ to $AD_4$ up the short-run aggregate supply curve.
  - Suppose a $5 billion initial increase in investment and net export spending shifts the AD curve to the right by $20 billion.
  - Given the upward-sloping AD curve, the equilibrium GDP only rises by $12 billion, to $522 billion,
  - Creating an inflationary GDP gap of $12 billion ($522 billion - $510 billion).
  - Some of the rightward movement of the AD curve ends up causing demand pull inflation rather than increased output.
  - The price level rises from $P_1$ to $P_2$ and the equilibrium moves to point b.

- Without a government response, the inflationary GDP gap will cause further inflation.
  - as input prices rise in the long run to meet the increase in output prices.
• **Budget surplus**
  
  – When the economy faces demand pull-inflation, fiscal policy should move toward a government budget surplus – tax revenues in excess of government spending.
  
  – While increase in AD that expand real output beyond the full-employment level tend to ratchet the price level upward,
  
  – decrease in AD do not seem to push the price downward.

• Then, **contractionary policy is the remedy.**

1. **Lower spending**
  
  – Should government reduce spending by $5 billion which is expected to shift the AD curve leftward by $20 billion, putting it back at $AD_3$?
  
  * This works well if there were no ratchet effect and if prices were flexible.
  
  * The ratchet effect implies that the price level is stuck at $P_2$.
  
  * So that the broken horizontal line at price level $P_2$ becomes the relevant AS curve.
  
  * Thus, when government reduces spending by $5 billion and shift the AD back to $AD_3$ will cause recession!
  
  * The new equilibrium point will be at point d instead.
  
  * The new equilibrium point will be at point d instead, with real GDP to be $502$ billion, $8$ billion below the full-employment level of $510$ billion.
* By not taking the ratcher effect into account, the government has overdone the decrease in government spending, replacing a $12 billion inflationary GDP gap with an $8 billion recessionary GDP gap.

To avoid this scenario,

(i) Take account the size of the inflationary GDP gap is $12 billion, not $20 billion.
(ii) With the price level fixed, AS will be horizontal so that the multiplier will be in full effect.

* Any decline in government spending will be multiplied by a factor of 4.

– government spending will have to decline $3 billion, instead of $5 billion.

* $3 billion initial decline in government spending will creating a $12 billion (=4 \times $3) billion decline in AD.

– Once the multiplier process is complete, the spending cut will shift the AD curve from $AD_4$ to $AD_5$.

* The economy will come to equilibrium at point c.
* The inflationary GDP gap will be eliminated.
* The economy will operate at its potential output of $510 billion.

2. higher taxes

– Government can use tax increases to reduce consumption spending.

– If the economy has an MPC of .75, the Government must raise taxes by $4 billion
* Reduce saving by $1 billion (= the MPS of \(0.25 \times $4\)) billion
* Reduce consumption by $3 billion (= the MPC of \(0.75 \times $4\)) billion

– Once the multiplier process is complete, the initial $3 billion decline in consumption will cause AD to shift leftward by $12 billion (= \(4 \times $4\)) billion

3. both

– e.g., the government may reduce $1.5 billion in spending with a $2 billion increase in taxes would shift the AD curve from \(AD_4\) to \(AD_5\).

• **Policy options: G or T?**

– Economists tend to favor higher G during recessions and higher taxes during inflationary times if they are concerned about unmet social needs or infrastructure.
  * Both actions either expand or preserve the size of government.

– Others tend to favor lower T for recessions and lower G during inflationary periods when they think government is too large and inefficient.
  * Both actions either restrain the growth of government or reduce its size.
Built-In Stability

• Built in stability arises because net taxes change with GDP.
  – net taxes = taxes minus transfers and subsidies
  – recall that taxes reduce incomes and therefore, spending.

• It is desirable for spending to rise when the economy is slumping and vice versa when the economy is becoming inflationary.

• Figure 30.3 and PPT 30-11 illustrate how the built-in stability system behaves.
  – Taxes automatically rise with GDP because incomes rise and * tax revenues fall when GDP falls.
  – Transfers and subsidies rise when GDP falls; when these government payments (welfare, unemployment, etc.) rise, net tax revenues fall along with GDP.

• The size of automatic stability depends on responsiveness of changes in taxes to changes in GDP:
  – The more progressive the tax system, the greater the economy’s built in stability.
  – In Figure 11.3 line T is steepest with a progressive tax system.
  – The U.S. tax system reduces business fluctuations by as much as 8 to 10 percent of the change in GDP that would otherwise occur.
  – Automatic stability reduces instability, but does not eliminate economic instability.
Evaluating Fiscal Policy

• How can we determine whether a government’s discretionary fiscal policy is expansionary, neutral, or contractionary?

• We cannot simply examine the actual budget deficits or surpluses Because
  
  – they will include the automatic changes in tax revenues that accompany every change in GDP.
  
  – The expansionary or contractionary strength depends on how large it is relative to the size of the economy.

• Standardized budget (Full-employment budget)
  
  – measures what the Federal budget deficit or surplus would have been under existing tax rates and government spending levels if the economy had achieved its full-employment level of GDP.
  
  – Refer to Figure 30.4(a) and PPT 30-10 where line $G$ represents government expenditures and line $T$ represents tax revenues.
  
  – in Year 1, budget revenues = Expenditures = $500 billion when full employment exists at $GDP_1$ and point a.
    
    * A standardized budget in Year 1 is zero.
    
    * The government’s discretionary fiscal policy is neutral.
  
  – Now suppose that a recession occurs and GDP falls from $GDP_1$ to $GDP_2$ in year 2.
At $GDP_2$ there is unemployment and assume no discretionary government action, so lines G and T remain as shown.

* Tax revenues fall to $450 billion at point c.

* Government spending remains unaltered at $500 billion at point b.

* Because of built in stability, the actual budget deficit will rise with decline of GDP; therefore, actual budget varies with GDP.

* This $50 billion **cyclical deficit** is a by-product of the economy’s slide into recession,

* not the result of discretionary fiscal actions by the government.

* The government’s discretionary fiscal policy is still neutral.

• We now consider the standardized budget in this situation.

  – The standardized budget measures what the Federal budget deficit or surplus would be with existing taxes and government spending if the economy is at full employment.

  – Government spending is $500 billion at point b on line G.

  – Tax revenues would be $500 billion at point a on line T if the economy is at full employment.

  – A standardized budget is zero.

  – Actual budget deficit (or surplus) may differ greatly from standardized budget deficit (or surplus) estimates.
– The government is not engaging in expansionary policy since budget is balanced at full-employment output.
– The government’s discretionary fiscal policy is still neutral,
– even though a recession occurred and an actual deficit of $50 billion resulted.

• Refer to Figure 30.4(b) and PPT 30-11, the government reduced tax rates from $T_1$ to $T_2$, now there is a standardized deficit.

  – a recession occurs and GDP falls from $GDP_3$ to $GDP_4$.
  – Government expenditures are $500$ billion, as shown by point e on line G.
  – Tax revenues would be $475$ billion at point h on line T if the economy is at full employment.
  – standardized budget deficit = $25$ billion ($=\$500$ billion - $\$475$ billion).
  – standardized budget deficit has increased from zero to $25$ billion/$GDP_3 \times 100$.
  – Structural deficits occur when there is a deficit in the standardized budget as well as the actual budget.
  – This increase in the relative size of the full employment deficit between the two years reveals that the new fiscal policy is expansionary.
This is expansionary policy because true expansionary policy occurs when the standardized budget has a deficit.

- If the standardized deficit of zero in one year, followed by a standardized budget surplus in next year, fiscal policy has changed from being neutral to being contractionary.
  - the standardized budget adjusts for automatic change in tax revenues,
  - the increase in the standardized budget surplus reveals that government either decreased it spending (G) or increased tax rates to get higher tax revenues (T).
  - fiscal policy becomes contractionary.

- **Recent U.S. fiscal policy**
  - Observe that standardized deficits are less than actual deficits.
    - This is because the actual deficit include cyclical deficit, whereas the standardized deficits do not.
    - In 1993, the Clinton administration and Congress increases personal income and corporate income tax rates.
    - Thus, the standardized deficits shank each year and eventually gave way to surpluses in 1999-2001.
    - The 2001-2003 Bush tax cut increased the standardized budget deficit as a percentage of potential GDP (to -2.3
percent in 2003).

- **Budget deficits and projections**
  - Refer to Figure 30.5 and PPT 30-14
  - It shows the absolute size of the deficit or surplus.
  - It also shows the future deficit or surplus.
  - Federal budget deficits are expected to persist at least until 2012.

- **Social security considerations**
  - Surpluses and deficits shown in Figure 30.5 and PPT 30-14 include payroll tax revenues obligated for future Social Security payments.
  - Some economists believe that because these revenues are committed to future Social Security payments, they should not be included in calculating current deficits or surpluses.

- Global Perspectives 30.1 and PPT 30-13 give a fiscal policy snapshot for selected countries.
Problems, Criticisms and Complications

- Government may encounter problems in enacting and applying fiscal policy.

- **Problems of timing**
  - **Recognition Lag**
    * Recognition lag is the elapsed time between the beginning of recession or inflation and awareness of this occurrence.
    * This lag arises because the economy does not move smoothly through the business cycle.
    * As a result, the economy is often 4 and 6 months into recession or inflation before the situation is clearly discernible in the relevant statistics.
    * the economy downslide or inflation may become more serious when identified.
  - **Administrative Lag**
    * Administrative lag is the difficulty in changing policy once the problem has been recognized.
    * The wheels of democratic government turn slowly.
    * Following the 9-11 attacks, The U.S. Congress was stalemated for 5 months before passing a compromise economic stimulus law in March 2002.
- **Operational Lag**

  * Operational lag is the time elapsed between change in policy and its impact on the economy to affect output, employment, or the price level.

  * Changes in tax rates can be put into effect relatively quickly.

  * Government spending on public works, e.g. highways, requires long planning periods and even longer periods of construction.

  * Discretionary fiscal policy has increasingly relied on tax changes rather than on changes in spending as its main tool.

- **Political considerations:**

  - Government has other goals besides economic stability, and these may conflict with stabilization policy.

  - A political business cycle may destabilize the economy:

    * Election years have been characterized by more expansionary policies (tax cut and increase spending) regardless of economic conditions.

    * Elected officials and political parties might collectively “hijack” fiscal policy for political purposes.

    * Before an election, they may try to stimulate the economy to improve their reelection hopes.

    * After the election, they may try to use contractionary fiscal policy to dampen the excessive AD that they caused with their preelection stimulus – Political business cycles.
• **Future policy reversals**
  
  – Fiscal policy may fail to achieve its intended objectives if households expect future reversals of policy.
  
  – e.g., if taxpayers believe the tax reduction is temporary, they may save a large portion of their tax cut.
  
  – if taxpayers believe the tax increase is temporary, they may reduce their saving to pay tax while maintaining their present consumption.
  
  – consumption smoothing occurs over time, fiscal policy will lose some of its strength.
  
  – Tax-rate changes that households view as permanent are more likely to alter consumption and AD than tax changes they view as temporary.

• **Offsetting state and local finance**

  – State and local finance policies may offset federal stabilization policies.
  
  – They are often procyclical, because balanced-budget requirements cause states and local governments to raise taxes in a recession or cut spending making the recession possibly worse.
  
  – In an inflationary period, they may increase spending or cut taxes as their budgets head for surplus.
  
  – During the Great Depression of the 1930s, most of the increase in Federal spending was offset by decreases in state and local spending.
– During the recession of 2001, many state and local government had to offset lower tax revenues resulting from the reduced personal income and spending of their citizen.

* They raise tax rates, impose new taxes, and reduce spending.

**Crowding-out effect**

– The crowding out effect may be caused by fiscal policy.

– “Crowding out” may occur with government deficit spending. It may increase the interest rate and reduce private spending which weakens or cancels the stimulus of fiscal policy.

– Some economists argue that little crowding out will occur during a recession.

– Economists argue that monetary authorities could counteract the crowding out by increasing the money supply to accommodate the expansionary fiscal policy.

**Current thinking on fiscal policy**

– Some economists oppose the use of fiscal policy, believing that monetary policy is more effective or that the economy is sufficiently self-correcting.

– Most economists support the use of fiscal policy to help “push the economy” in a desired direction, and using monetary policy more for “fine tuning.”

– Economists agree that the potential impacts (positive and negative) of fiscal policy on long-term productivity growth should be evaluated and considered in the decision-making process, along with the short-run cyclical effects.
The Public Debt

- The national or public debt is the total accumulation of the Federal government’s total deficits and surpluses that have occurred through time.

- Deficits (and by extension the debt) are the result of war financing, recessions, and lack of political will to reduce or avoid them.

- The public debt was $9.01 trillion in 2007.

- You can find the size of the public debt at www.treasurydirect.gov/NP/BPDLogin?application=np

- **Ownership of the public debt**
  
  - refer to Figure 30.6 and PPT 30-17.
  
  - 47 percent held by the public and 53 percent by Federal government agencies, including the Federal Reserve.
  
  - Foreigners held about 25 percent of the public debt in 2007.
  
  - The Federal debt held by the public was 31.6 percent of GDP in 2007, higher than in 2001 (27.7%) but less than in the 1990s. (Figure 30.7 and PPT 30-18)
• **Public debt as a percentage of GDP**

  - Public debt as a percentage of GDP in 2005 for a number of countries can be seen in Global Perspective 30.2 and PPT 30-19.
  
  - Although the U.S. has the highest public debt in absolute terms, a number of countries owe more relative to their ability to support it (through income, or GDP).

• **Interest charges**

  - Interest charges are the main burden imposed by the debt.
  
  - Interest on the debt was $237 billion in 2007, and is the fourth largest item in the Federal budget.
  
  - Interest payments were 1.7 percent of GDP in 2007. The percentage is important because it represents the average tax rate necessary just to cover annual interest on the debt. Low interest rates brought the percentage down from the 1990s.

  * 3.2% in 1990 and 2.3% in 2000.
False Concerns

False concerns about the federal debt include several popular misconceptions:

• **Can the federal government go bankrupt?** There are reasons why it cannot.
  
  – **Refinancing**
    
    * The government does not need to raise taxes to pay back the debt, and it can borrow more (i.e. sell new bonds) to refinance bonds when they mature.
    
    * Corporations use similar methods—they almost always have outstanding debt.
    
    * The T-bills are in strong demand because lenders can obtain a relatively good interest return with no risk of default by the Federal government.
  
  – **Taxation**
    
    * The government has the power to tax, which businesses and individuals do not have when they are in debt.

• **Does the debt impose a burden on future generations?**
  
  – In 2007 the per capita federal debt in U.S. was $29,987. But the public debt is a public credit—your grandmother may own the bonds on which taxpayers are paying interest.
  
  – Some day you may inherit those bonds that are assets to those who have them. The true burden is borne by those who pay
taxes or loan government money today to finance government spending.

- If the spending is for productive purposes, it will enhance future earning power and the size of the debt relative to future GDP and population could actually decline.
- Borrowing allows growth to occur when it is invested in productive capital.
- The U.S. owns a substantial portion of the public debt to itself.
- the U.S. citizens and institutions own 75% of the government securities.

* Taxpayers would pay higher taxes and holders of the debt would receive an equal amount for their U.S. securities. Purchasing power in the U.S. would not change.
- Only the repayment of the 25% of the public debt owned by foreigners would negatively impact U.S. purchasing power.

• **The public debt increased sharply during the Second World War.**

- The civilian goods society had to forgo in shifting scarce resources to war goods production.
- The next generation inherited the debt from the war but also an equal amount of government bonds.
- Those outcomes enhanced postwar U.S. economic growth and helped raise the standard of living of future generations of Americans.
Substantive Issues

• **Income Distribution**
  
  – Repayment of the debt affects income distribution.
  
  – If working taxpayers will be paying interest to the mainly wealthier groups who hold the bonds, this probably increases income inequality.

• **Incentives**
  
  – Since interest must be paid out of government revenues, a large debt and high interest can increase tax burden and may decrease incentives to work, save, and invest for taxpayers.

• **Foreign-owned public debt**
  
  – A higher proportion of the debt is owed to foreigners (about 25 percent) than in the past, and this can increase the burden since payments leave the country.
  
  – But Americans also own foreign bonds and this offsets the concern.

• **Crowding-out effect revisited**
  
  – Some economists believe that public borrowing crowds out private investment,
    
    * but the extent of this effect is not clear
    
    * see Figure 30.8 and PPT 30-22.
There are some positive aspects of borrowing even with crowding out.

* **Public Investment**
  - If borrowing is for public investment that causes the economy to grow more in the future, the burden on future generations will be less than if the government had not borrowed for this purpose.

* **Public-Private Complementarities**
  - Public investment makes private investment more attractive.
  - For example, new federal buildings generate private business; good highways help private shipping, etc.
LAST WORD: The Leading Indicators

- This index comprises 10 variables that have indicated forthcoming changes in real GDP in the past.
- The variables are the foundation of this index consisting of a weighted average of ten economic measurements. A rise in the index predicts a rise in the GDP; a fall predicts declining GDP.
- **Ten components comprise the index:**
  - Average workweek: A decrease signals future GDP decline.
  - Initial claims for unemployment insurance: An increase signals future GDP decline.
  - New orders for consumer goods: A decrease signals GDP decline.
  - Vendor performance: Better performance by suppliers in meeting business demand indicates decline in GDP.
  - New orders for capital goods: A decrease signals GDP decline.
  - Building permits for houses: A decrease signals GDP decline.
  - Stock market prices: Declines signal GDP decline.
  - Money supply: A decrease is associated with falling GDP.
  - Interest-rate spread: when short-term rates rise, there is a smaller spread between short-term and long-term rates which
are usually higher. This indicates restrictive monetary policy.

- Index of consumer expectations: Declines in consumer confidence foreshadow declining GDP.

- None of these factors alone is sufficient to predict changes in GDP, but the composite index has correctly predicted business fluctuations many times (although not perfectly). The index is a useful signal, but not totally reliable.