Learning Objectives

- Understanding the federal budget process and the recent history of outlays, revenues, deficits, and debt
- Supply-side effects of fiscal policy
- Fiscal stimulus to fight a recession
In 2010, the federal government spent 16.5 cents of every dollar that Canadians earned. It raised 14 of those cents in taxes and borrowed the other 2.5 cents.

The government had a budget deficit.

Does it matter if the government doesn’t balance its books?

What are the effects of taxes and government spending on the economy?

Does a dollar spent by the government have the same effect as a dollar spent by someone else? Does it create jobs, or does it destroy them?
The Federal Budget

The federal budget is the annual statement of the federal government’s outlays and revenues.

The federal budget has two purposes:

a) To finance the activities of the federal government

b) To achieve macroeconomic objectives

Fiscal policy is the use of the federal budget to achieve macroeconomic objectives, such as full employment, sustained economic growth, and price level stability.
The Federal Budget

Budget Making

The federal government and Parliament make fiscal policy.

After a long, draw-out process of consultations, the Minister of Finance presents a budget plan to Parliament.

Parliament debates the plan and enacts the laws necessary to implement it.
Highlights of the 2011 Budget

The projected fiscal 2011 federal budget has revenues of $249 billion, outlays of $281 billion, and a projected deficit of $32 billion.

Revenues come from personal income taxes, corporate income taxes, indirect taxes, and investment income.

Personal income taxes are the largest revenue source.

Outlays are transfer payments, expenditure on goods and services, and debt interest.

Transfer payments are the largest item of outlays.
The Federal Budget

Budget Balance

The federal government’s budget balance equals revenues minus outlays.

- **Budget surplus** → Revenues > Outlays
- **Budget deficit** → Revenues < Outlays
- **Balanced budget** → Revenues = Outlays

The projected budget deficit in 2011 is $32 billion.
The Federal Budget

The Budget in Historical Perspective

- During the 1960s, outlays and revenues increased.
- During the late 1970s and through the 1980s, outlays continued to rise but revenues fell and then remained steady. A large budget deficit arose.
- During the 1990s, expenditure cuts eliminated the budget deficit, and after 1997, the budget returned to surplus.
- A deficit re-emerged during the 2008–2009 recession.
The Federal Budget

Figure 29.1: Government’s revenues, outlays, and budget balance for the period 1961 to 2010
The Federal Budget

Revenues as a percentage of GDP
The Federal Budget

Outlays as a percentage of GDP
The Federal Budget

Deficit and Debt

Government debt is the total amount that the government borrowing.

It is the sum of past deficits minus past surpluses.

Figure 29.4 shows the federal government’s debt as a percentage of GDP.
Supply-Side Effects of Fiscal Policy

Fiscal policy has important effects on employment, potential GDP, and aggregate supply—called supply-side effects.

An income tax changes full employment and potential GDP.
The Supply-Side Effects of Fiscal Policy

Full Employment and Potential GDP

Effects of an income tax in the labour market.

The supply of labour decreases because the tax decreases the after-tax wage rate.
The Supply-Side Effects of Fiscal Policy

The before-tax real wage rate rises but the after-tax real wage rate falls.

The gap created between the before-tax and after-tax wage rates is called the tax wedge.

The quantity of labour employed decreases.
When the quantity of labour employed decreases, … potential GDP decreases.

The supply-side effect of a rise in the income tax decreases potential GDP and decreases aggregate supply.
Supply-Side Effects of Fiscal Policy

Taxes on Expenditure and the Tax Wedge

- Taxes on consumption expenditure add to the tax wedge.
- The reason is that a tax on consumption raises the prices paid for consumption goods and services and is equivalent to a cut in the real wage rate.
- If the income tax rate is 25 percent and the tax rate on consumption expenditure is 10 percent, a dollar earned buys only 65 cents worth of goods and services.
- The tax wedge is 35 percent.
Supply-Side Effects of Fiscal Policy

Taxes and the Incentive to Save and Invest

- A tax on capital income lowers the quantity of saving and investment and *slows the growth rate of real GDP*.
- The interest rate that influence saving and investment is the *real after-tax interest rate*.
- The real after-tax interest rate subtracts the income tax paid on interest income from the real interest.
- Taxes depend on the nominal interest rate. So the true tax on interest income depends on the inflation rate.
Supply-Side Effects of Fiscal Policy

Illustrates of the effects of a tax on capital income.

A tax decreases the supply of loanable funds …

a tax wedge is driven between the real interest rate and the real after-tax interest rate.

Investment and saving decrease.
Supply-Side Effects of Fiscal Policy

Tax Revenues and the Laffer Curve

The relationship between the tax rate and the amount of tax revenue collected is called the **Laffer curve**.

At the tax rate $T^*$, tax revenue is maximized.
Supply-Side Effects of Fiscal Policy

For a tax rate below $T^*$, a rise in the tax rate increases tax revenue.

For a tax rate above $T^*$, a rise in the tax rate decreases tax revenue.
Fiscal Stimulus

A fiscal stimulus is the use of fiscal policy to increase production and employment.

Fiscal stimulus can be either

- **Automatic**
- **Discretionary**

**Automatic fiscal policy** is a fiscal policy action triggered by the state of the economy with no government action.

**Discretionary fiscal policy** is a policy action that is initiated by an act of Parliament.
Fiscal Stimulus

Automatic Fiscal Policy and Cyclical and Structural Budget Balances

Two items in the government budget change automatically in response to the state of the economy.

- Tax revenues
- Transfer payments
Cyclical and Structural Balances

- The **structural surplus or deficit** is the budget balance that would occur if the economy were at full employment and real GDP were equal to potential GDP.

- The **cyclical surplus or deficit** is the actual surplus or deficit minus the structural surplus or deficit.

- That is, a cyclical surplus or deficit is the surplus or deficit that occurs purely because real GDP does *not* equal potential GDP.
Fiscal Stimulus

The distinction between a structural and cyclical surplus and deficit.

In part (a), potential GDP is $1,200 billion.

As real GDP fluctuates around potential GDP, a cyclical deficit or cyclical surplus arises.
Fiscal Stimulus

In part (b), if real GDP and potential GDP are $1,100 billion, the budget deficit is a structural deficit.

If real GDP and potential GDP are $1,200 billion, the budget is balanced.

If real GDP and potential GDP are $1,300 billion, the budget surplus is a structural surplus.
Fiscal Stimulus

Canadian Structural Budget Balance in 2011

The figure shows the budget deficit and the output gap.

In 2011, the budget deficit was $32 billion.

With a recessionary gap of $10 billion, how much of the deficit was a cyclical deficit?

How much was structural?
In 2011, potential GDP in was $1,360 billion.

The figure shows that if real GDP had also been $1,360 billion, the budget deficit would have been a structural deficit.

But with real GDP in 2011 of $1,350 billion, the actual budget deficit was both a structural deficit and a cyclical deficit.
Discretionary Fiscal Stimulus

Most discretionary fiscal stimulus focuses on its effects on aggregate demand.

Fiscal Stimulus and Aggregate Demand

Changes in government expenditure and taxes change aggregate demand and have multiplier effects.

Two main fiscal multipliers are

- Government expenditure multiplier
- Tax multiplier
Fiscal Stimulus

The *government expenditure multiplier* is the quantity effect of a change in government expenditure on real GDP.

Because government expenditure is a component of aggregate expenditure, an increase in government expenditure increases real GDP.

When real GDP increases, incomes rise and consumption expenditure increases. Aggregate demand increases.

If this were the only consequence of the increase in government expenditure, the multiplier would be >1.
Fiscal Stimulus

But an increase in government expenditure increases government borrowing and raises the real interest rate.

With the higher cost of borrowing, investment decreases, which partly offsets the increase in government expenditure.

If this were the only consequence of the increase in government expenditure, the multiplier would be < 1.

Which effect is stronger?

The consensus is that the crowding-out effect dominates and the multiplier is <1.
Fiscal Stimulus

The **tax multiplier** is the quantity effect a change in taxes on aggregate demand.

The demand-side effects of a tax cut are likely to be smaller than an equivalent increase in government expenditure.
Fiscal Stimulus

Graphical Illustration of Fiscal Stimulus

Fiscal policy to work to close a recessionary gap.

An increase in government expenditure or a tax cut increases aggregate expenditure.

The multiplier process increases aggregate demand.
Fiscal Stimulus

Fiscal Stimulus and Aggregate Supply

Taxes drive a wedge between the cost of labour and the take-home pay and between the cost of borrowing and the return on lending.

Taxes decrease employment, saving, and investment and decrease real GDP and its growth rate.

A tax cut decreases these negative effects and increases real GDP and its growth rate.

The supply-side effects of a tax cut probably dominate the demand-side effects and make the multiplier larger than the government expenditure multiplier.
Fiscal Stimulus

Time Lags

The use of discretionary fiscal policy is seriously hampered by three time lags:

- Recognition lag—the time it takes to figure out that fiscal policy action is needed.
- Law-making lag—the time it takes Parliament to pass the laws needed to change taxes or spending.
- Impact lag—the time it takes from passing a tax or spending change to its effect on real GDP being felt.