14 Fiscal Policy

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principles of macroeconomics

seventh edition

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Introduction

- The 2000s have been a decade of fiscal policy:
- The Economic Stimulus Act of 2008 cost $152 billion.
- The American Recovery and Reinvestment Act of 2009 was a $789 billion package of tax cuts and spending increases.
- These fiscal policy packages generated substantial policy disagreements and controversy.

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Introduction

In this chapter, we will examine the economic theories and facts that bear on the controversies over short-term countercyclical fiscal policy and the problem of long-term debt.

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Setting the Annual Budget

Federal budget: a summary of the federal government's proposals for spending, taxes, and the deficit.

Balanced budget: a budget in which tax revenues equal government spending.

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Setting the Annual Budget

Budget surplus: the amount by which tax revenues exceed government spending.

Budget deficit: the amount by which government spending exceeds tax revenues.

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Setting the Annual Budget

Tax rate ≠ Tax Revenues

For the income tax, if the tax rate is 20 percent and income is $3,000 billion, then tax revenues are $600 billion.

Higher rates may reduce revenue since higher rates discourage work and investment.

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Setting the Annual Budget

The fiscal year runs from October to October. For example, the *Budget of the United States: Fiscal Year 2009* is applied from October 1, 2008, to September 30, 2009.

Figure 14-1 illustrates the typical budget cycle.

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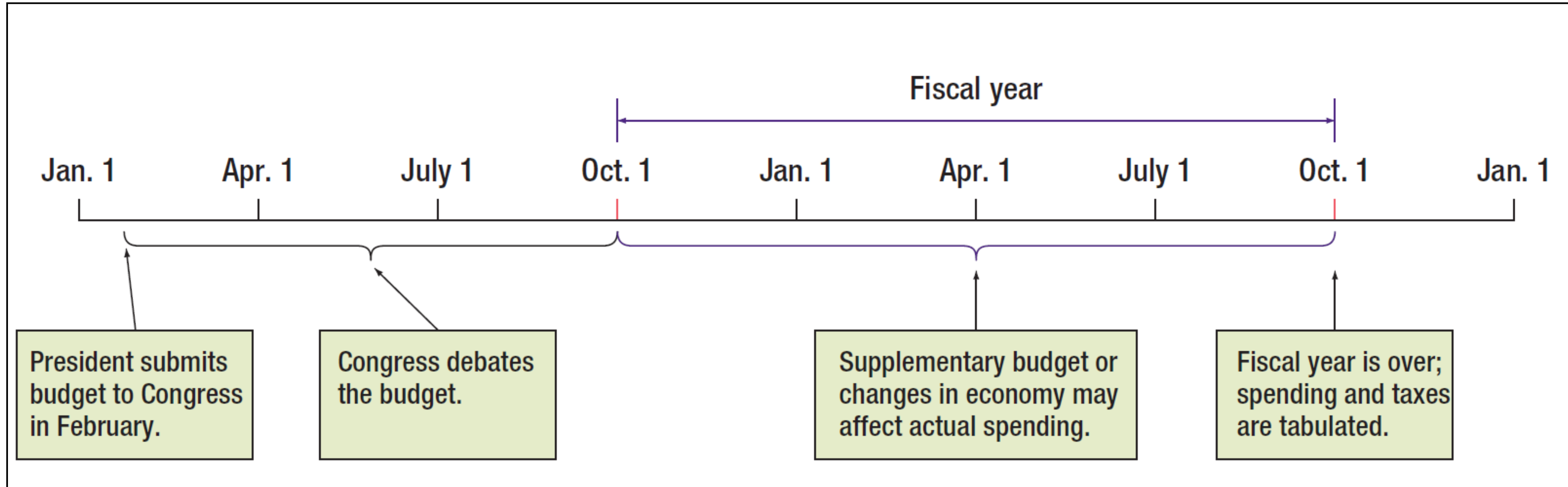
Figure 14-1

A Typical Budget Cycle



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Setting the Annual Budget

Each year, the president will send the proposed budget to Congress. This budget will be debated and revised by Congress. After modifications, it will be passed by Congress and sent back to the president to sign and enact as law. The enacted budget is usually slightly different from the proposed budget.

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Setting the Annual Budget

While the president typically devotes a significant part of the State of the Union address to proposing spending programs that fit into an overall philosophy of what the government should be doing, the president can, in fact, change only a small part of the budget.

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Proposed vs. Actual Budget

The proposed budget may differ from actual spending and tax revenues received for two reasons:

- Congress modifies the budget, adding some programs and deleting others.
- Unanticipated events such as wars and natural disasters may change the budget for a given year.

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Proposed vs. Actual Budget

After the fiscal year has begun, and the budget has been enacted, various ***supplementals*** are proposed and passed.

Supplemental*:* a change in the spending program or a change in the tax law that affects the budget in the current fiscal year.

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A Look at the Federal Budget

Table 14-1 summarizes the federal budget for fiscal year 2011. The full budget, which is more than 2000 pages long, gives much more detail.

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FY11 Federal Tax Revenues and Expenditures (billions of dollars)

Table 14-1

Tax revenues	2,228	
Personal income		998
Corporate income		201
Payroll		819
Other		210
Expenditures	3,708	
Social security		727
Medicare and Medicaid		846
Defense		712
Interest		225
Other		1,198
Deficit	1,480	

Source: Office of Management and Budget.

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A Look at the Federal Budget

Table 14-1 shows that expenditures exceed tax revenues, so the budget is in a $1,480 billion deficit.

Since 1970, the U.S. government has managed to have a budget surplus only from 1998 to 2001. All other years brought a deficit.

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A Look at the Federal Budget

As shown in **Table 14-1**, the largest source of federal tax revenues is personal income taxes, followed by payroll taxes and corporate income taxes. Sales taxes (under the category "Other") are the smallest component of tax revenues for the federal government.

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A Look at the Federal Budget

The expenditure side of the budget can be broken into three categories:

- Purchases of goods and services (e.g., defense)
- Transfer payments (e.g., Medicare and social security)
- Interest payments

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A Look at the Federal Budget

Only purchases are included in the government spending (*G*) component of GDP.

Purchases of goods and services: The part of government expenditures that involves new production.

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A Look at the Federal Budget

Transfer payments: The part of government expenditures that does not involve new production, but rather involves transfers of funds from the government to individuals, for which the government does not receive anything in exchange.

Interest payments: What the federal government pays every year on its debt.

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A Look at the Federal Budget

A very large part of federal expenditures (nearly 50 percent of the budget) consists of payments under the Medicare, Medicaid, and social security programs.

If Congress and the president do not change the law, the federal deficit could will grow much larger in the future.

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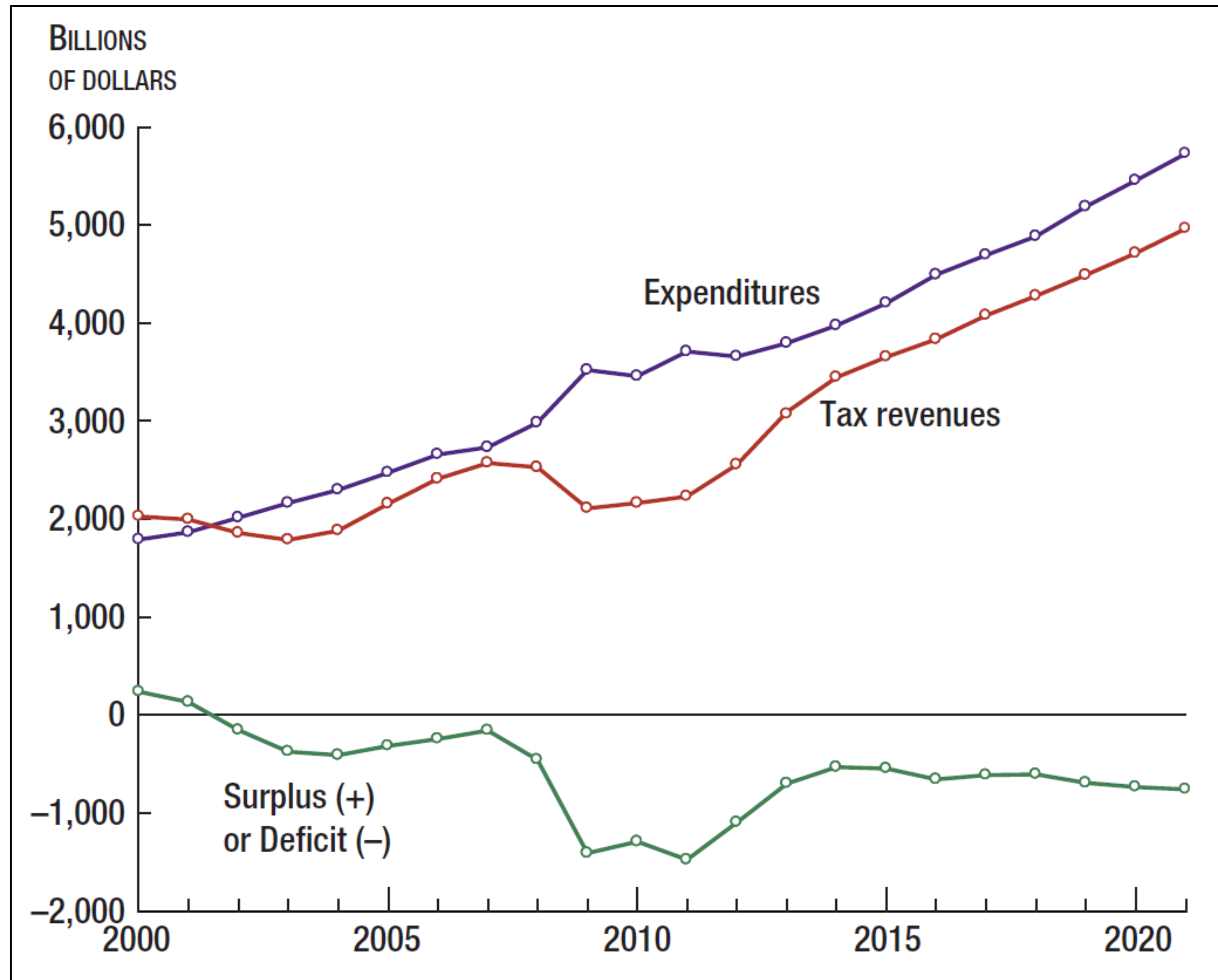
Federal Tax Revenues, Expenditures, and the Surplus or Deficit 2000- 2021

Figure 14-2



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The Federal Debt

Federal debt: the total amount of outstanding loans owed by the federal government.

- If the government incurs a surplus, the federal debt decreases by the amount of the surplus.
- If the government incurs a deficit, the federal debt increases by the amount of the deficit.

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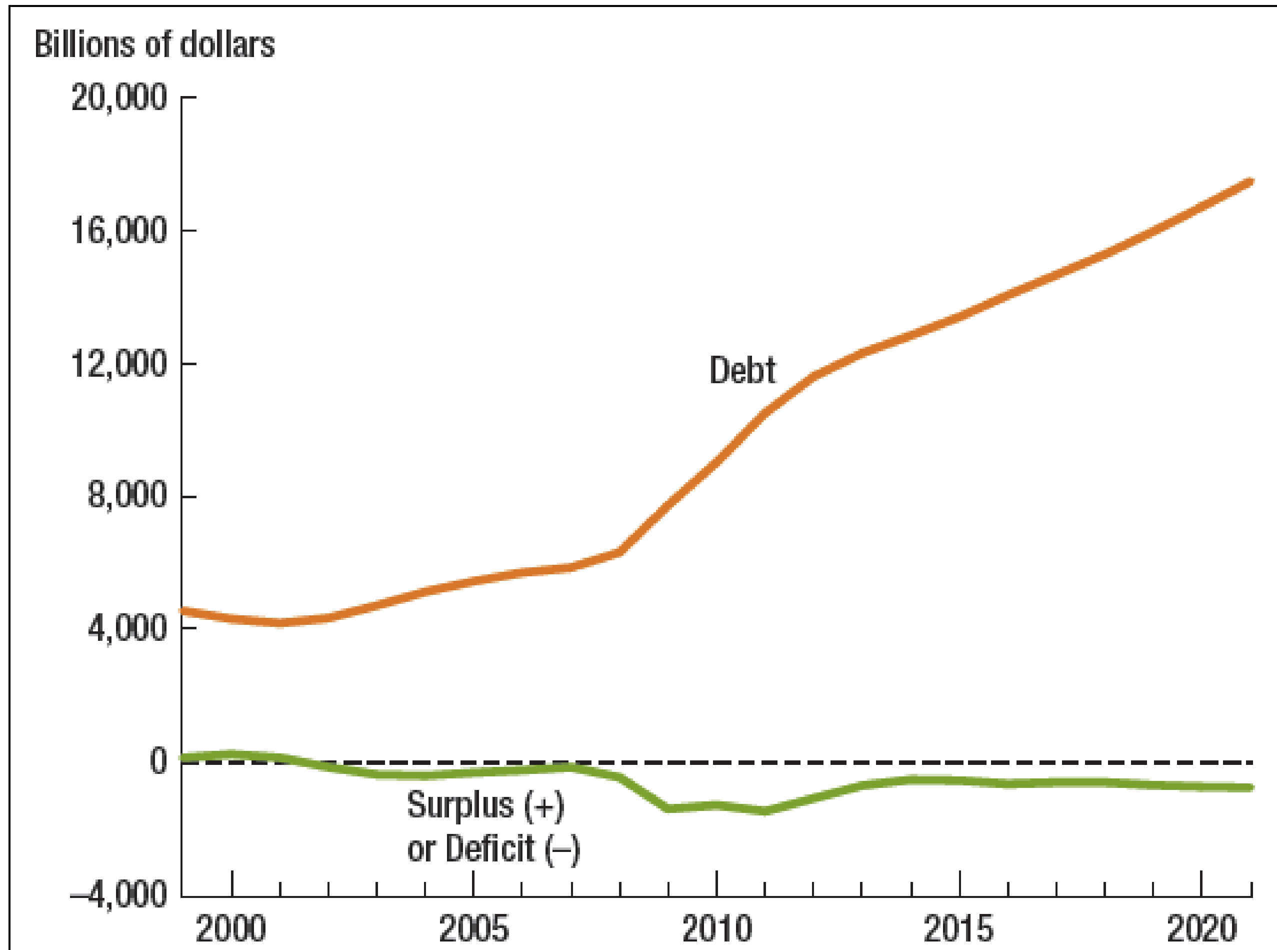
The Government Debt and Deficit

Figure 14-3



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The Federal Debt

Debt to GDP ratio: the total amount of outstanding loans the federal government owes divided by nominal GDP.

Figure 14-4 illustrates the debt to GDP ratio of the United States from 1950 to the present. While the total debt of the government is at its highest level ever, the debt to GDP ratio is still lower now than it was in 1995.

The debt to GDP ratio in 2009 is about 40 percent.

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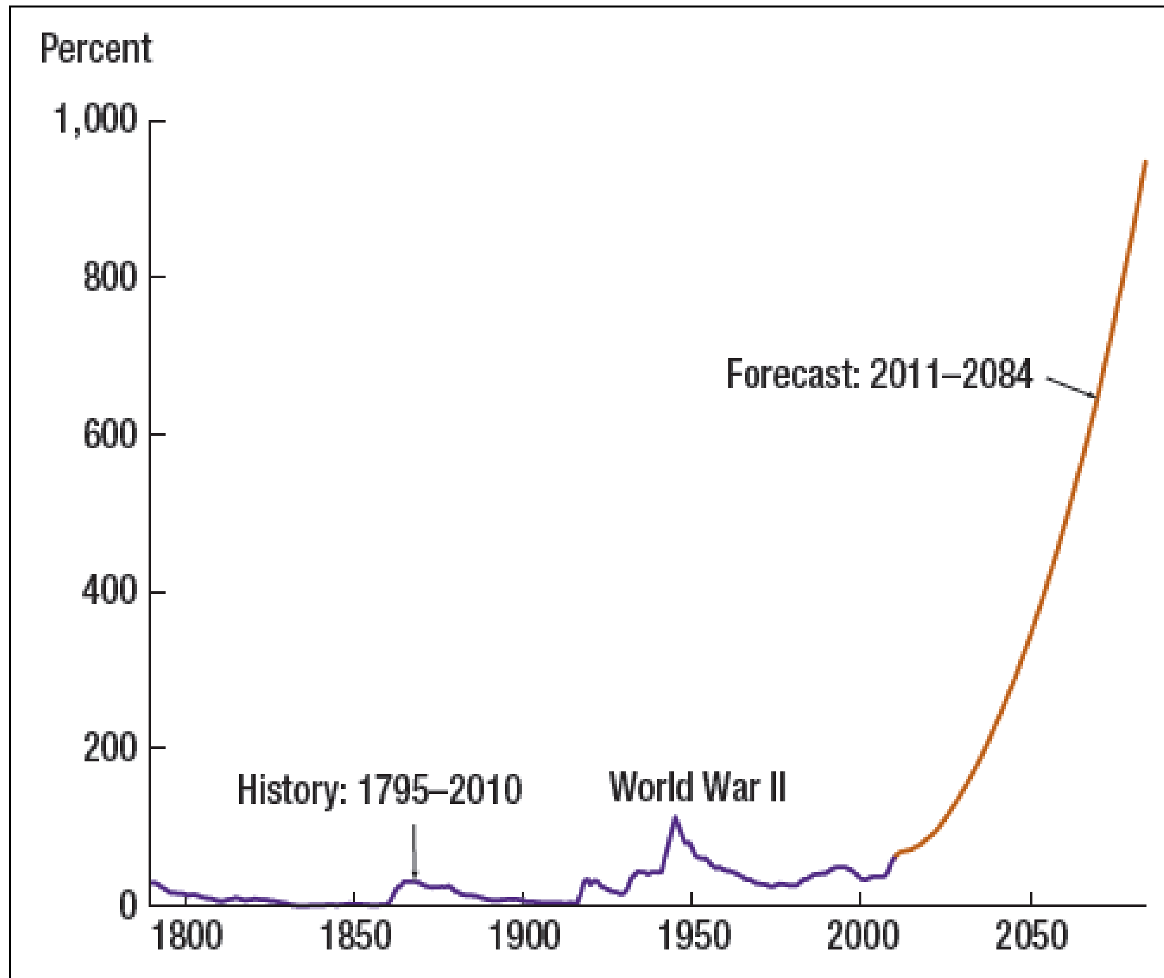
Debt as a Percentage of GDP

Figure 14-4



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State and Local Government Budgets

As a whole, state and local governments are a large force in the economy. In 2004, state and local government expenditures were about two-thirds of federal government expenditures.

Most of the state and local government expenditures are on schools, local police, fire services, and roads.

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State and Local Government Budgets

Like the federal government, state and local governments, on the average have, been running deficits after a few years of surpluses in the 1990’s.

These deficits worsened dramatically during the 2008 recession.

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Impacts of the Instruments of Fiscal Policy: Spending Policy

The objective of fiscal policy is to get the economy back to potential GDP.

Fiscal policy requires spending to:

- Increase when the economy is below the potential GDP.
- Decrease when the economy is above the potential GDP.

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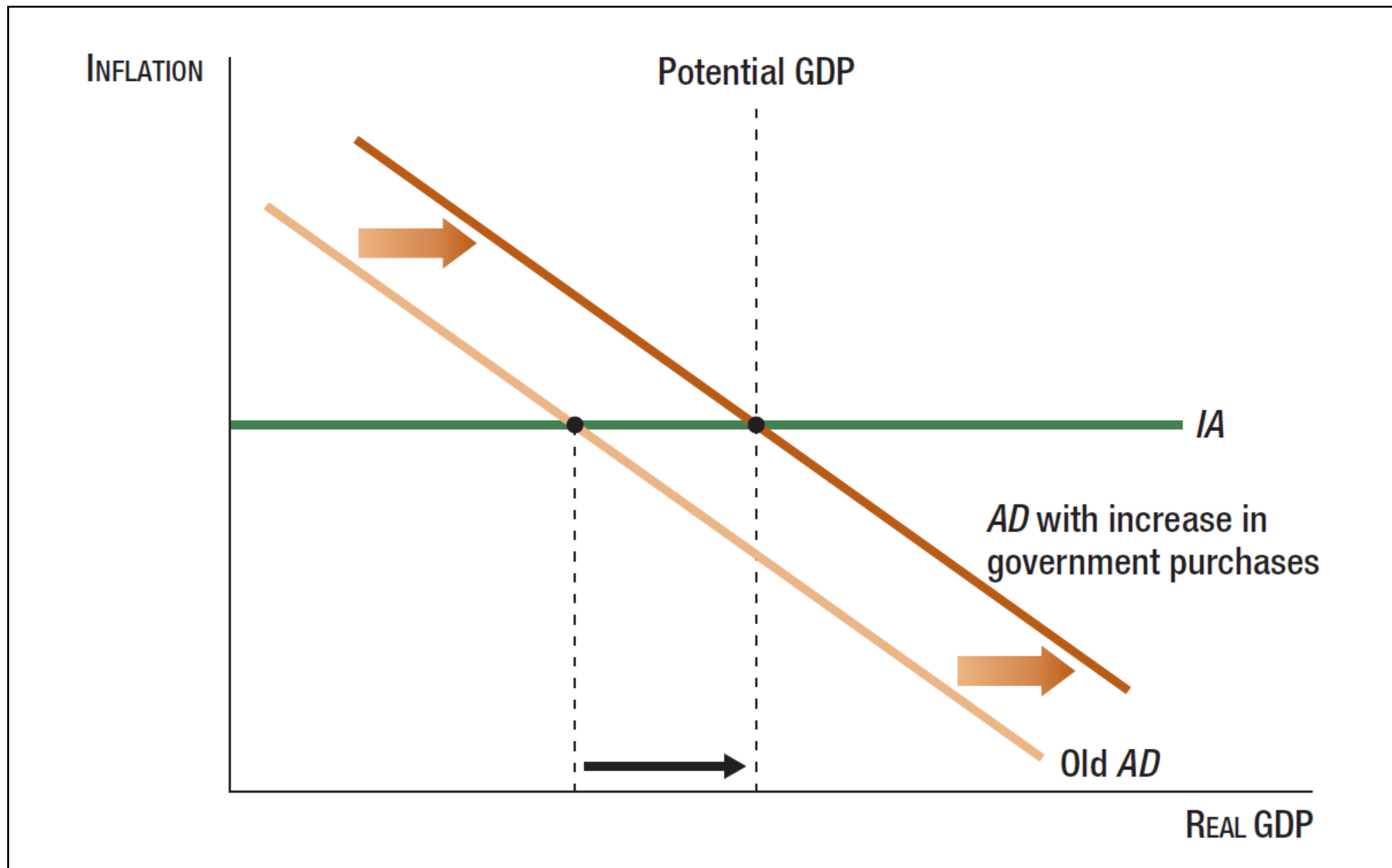
Effect of a Change in Government Purchases

Figure 14-5



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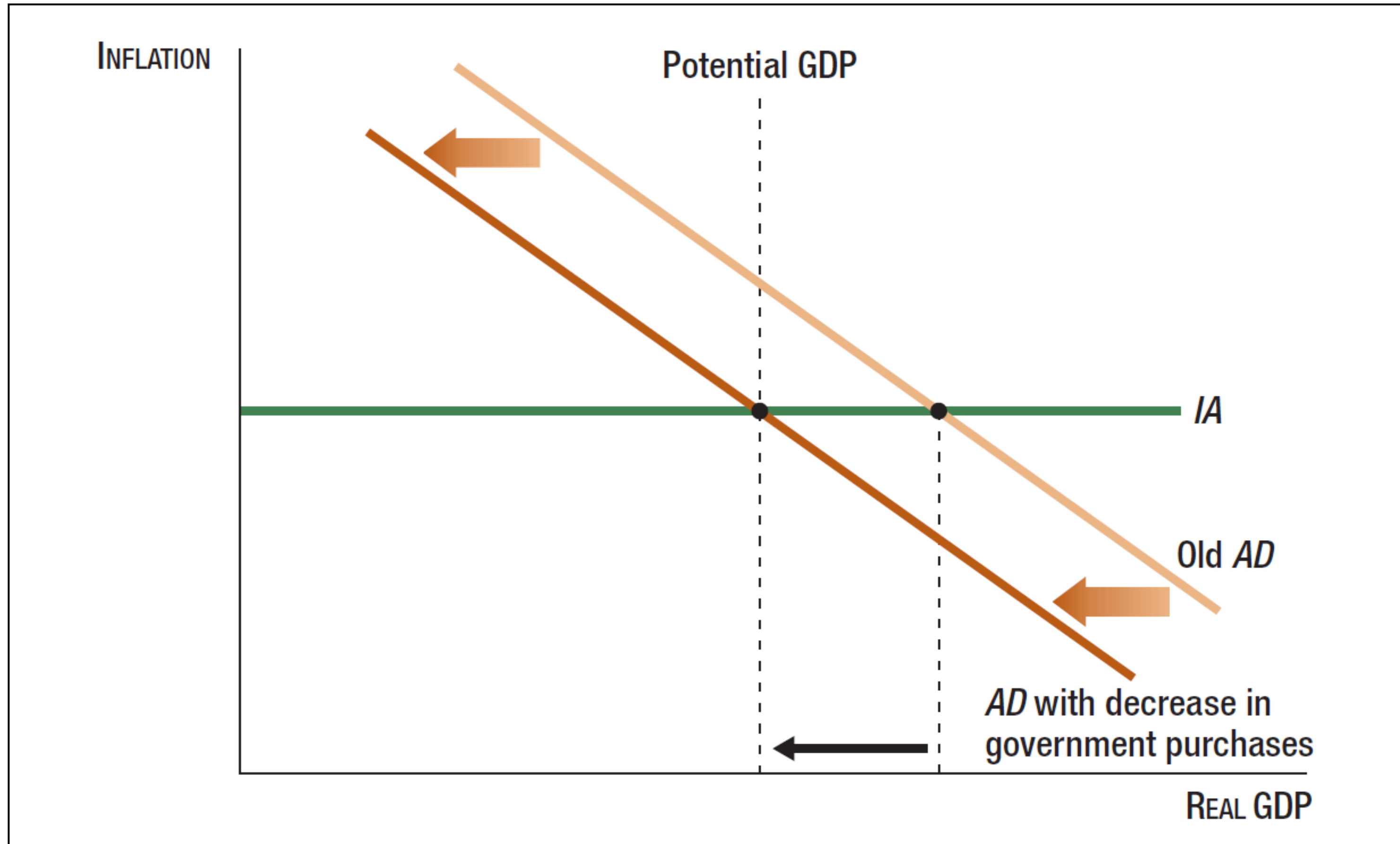
Effect of a Change in Government Purchases

Figure 14-5



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Impacts of the Instruments of Fiscal Policy: Spending Policy

In the top graph in **Figure 14-5**, real GDP is below potential GDP. An increase in government purchases will shift the *AD* curve to the right, bringing the GDP toward the potential.

In the bottom graph in **Figure 14-5**, real GDP is above potential GDP. A decrease in government purchases will shift the *AD* curve to the left, bringing the GDP toward the potential.

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Impacts of the Instruments of Fiscal Policy: Tax Policy

Tax policy requires that taxes:

- Be decreased when the economy is below the potential GDP.
- Be increased when the economy is above the potential GDP.

Figure 14-6 illustrates tax policy.

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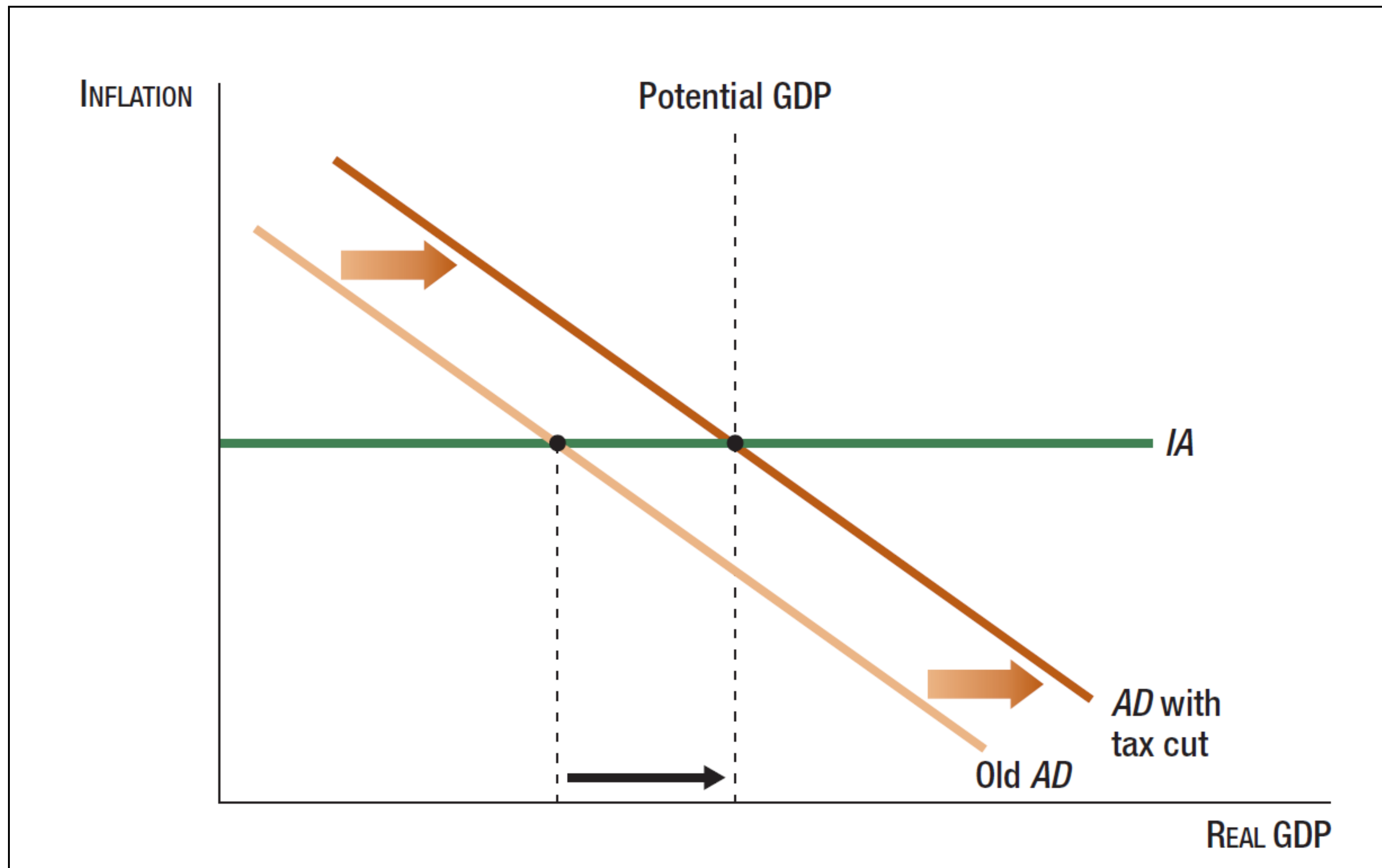
Effects of a Change in Taxes

Figure 14-6



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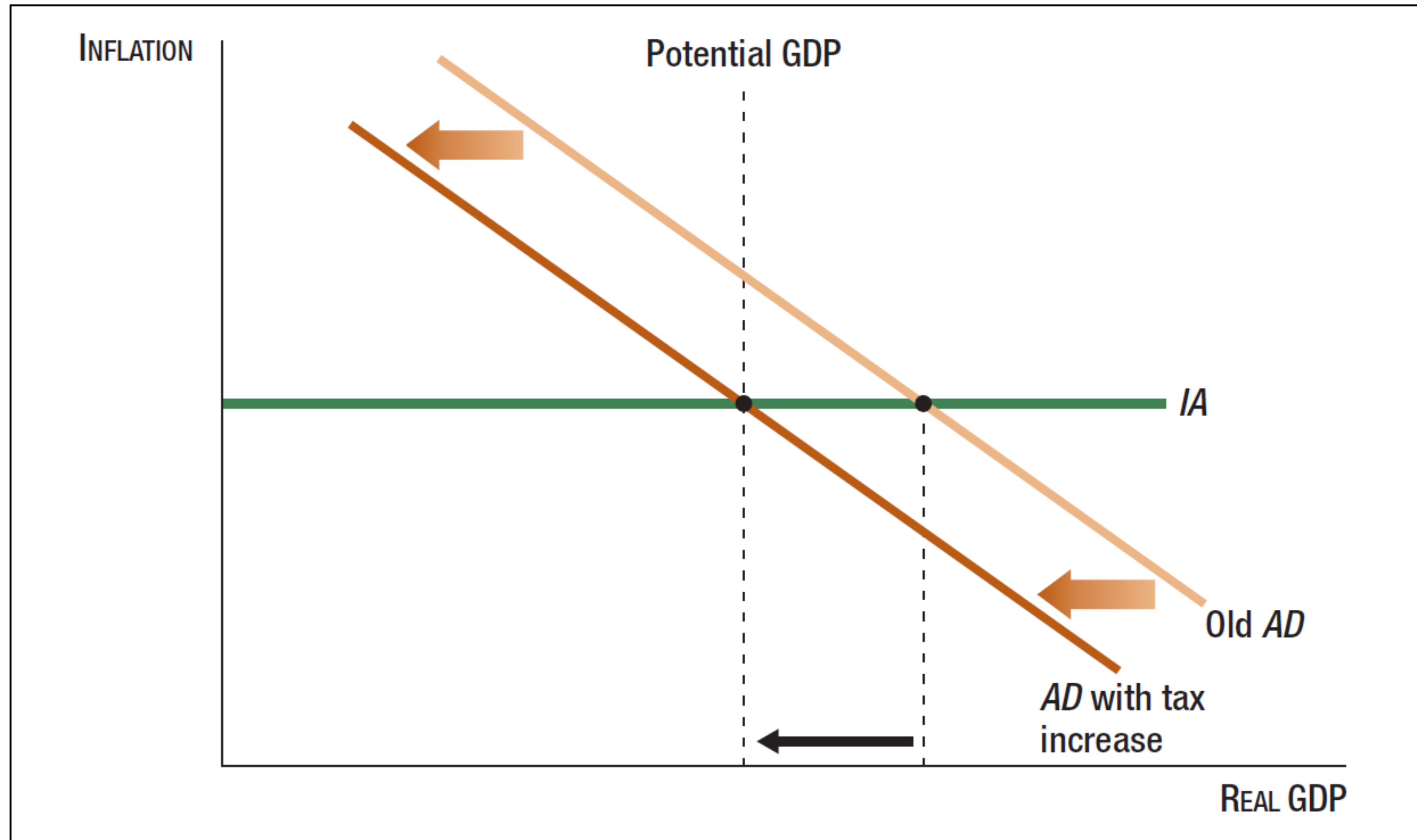
Effects of a Change in Taxes

Figure 14-6



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Impacts of the Instruments of Fiscal Policy: Tax Policy

In the top panel of **Figure 14-6**, real GDP is below potential GDP. A decrease in taxes will shift the *AD* curve to the right, bringing the GDP toward the potential.

In the bottom panel of **Figure 14-6**, real GDP is above potential GDP. An increase in taxes will shift the *AD* curve to the left, bringing the GDP down and toward the potential.

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Countercyclical Fiscal Policy

Countercyclical policy: a policy designed to offset the fluctuations in the business cycle.

- Recessions can be countered with tax cuts and increased spending.
- Over-expansion can be countered with tax hikes and decreased spending.

Figures 14-7 and **14-8** illustrate what a fiscal policy should ideally do.

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Countercyclical Fiscal Policy

Figure 14-7 illustrates what a stimulus package would ideally do. In the figure, if the economy is expected to experience a recession, a well-timed countercyclical policy will reduce the size of the fluctuation and bring the economy back to potential GDP faster.

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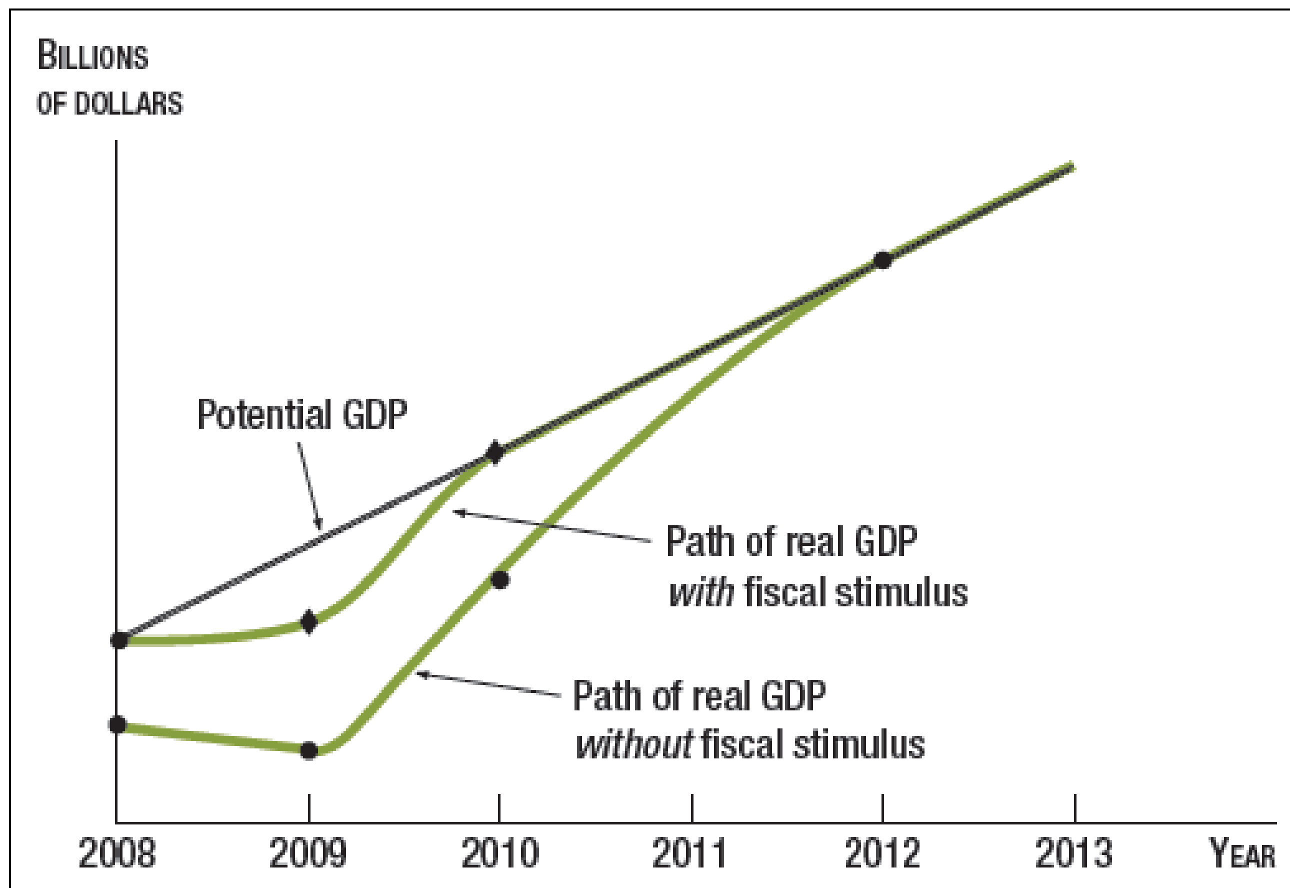
Effect of a Well-Timed Countercyclical Fiscal Policy

Figure 14-7



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Countercyclical Fiscal Policy

The stimulus package of 2009 is a good example of countercyclical policy. The $789 billion package of government spending increases and tax cuts aims to help the U.S. economy recover from its deep recession by increasing GDP and moving the economy closer towards potential.

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Countercyclical Fiscal Policy

The support for the $789 billion Stimulus Package is neither unanimous nor free from controversy:

- Only 3 Republican senators and no Republican member of the House of Representatives voted for the bill.

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Countercyclical Fiscal Policy

- Paul Krugman, a well-known economist supported the bill, saying it was exactly what the economy needed.
- Other well-known economists like Eugene Fama and Robert Barro believed that the bill would do little for the economy relative to the long-term budgetary costs it would impose.

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Countercyclical Fiscal Policy

In **Figure 14-8**, a well-timed countercyclical policy will shift the *AD* curve to the right, or the opposite of the effect of a negative trade shock on the *AD* line. The countercyclical policy will cause a smaller decline in real GDP and a quicker return to potential GDP.

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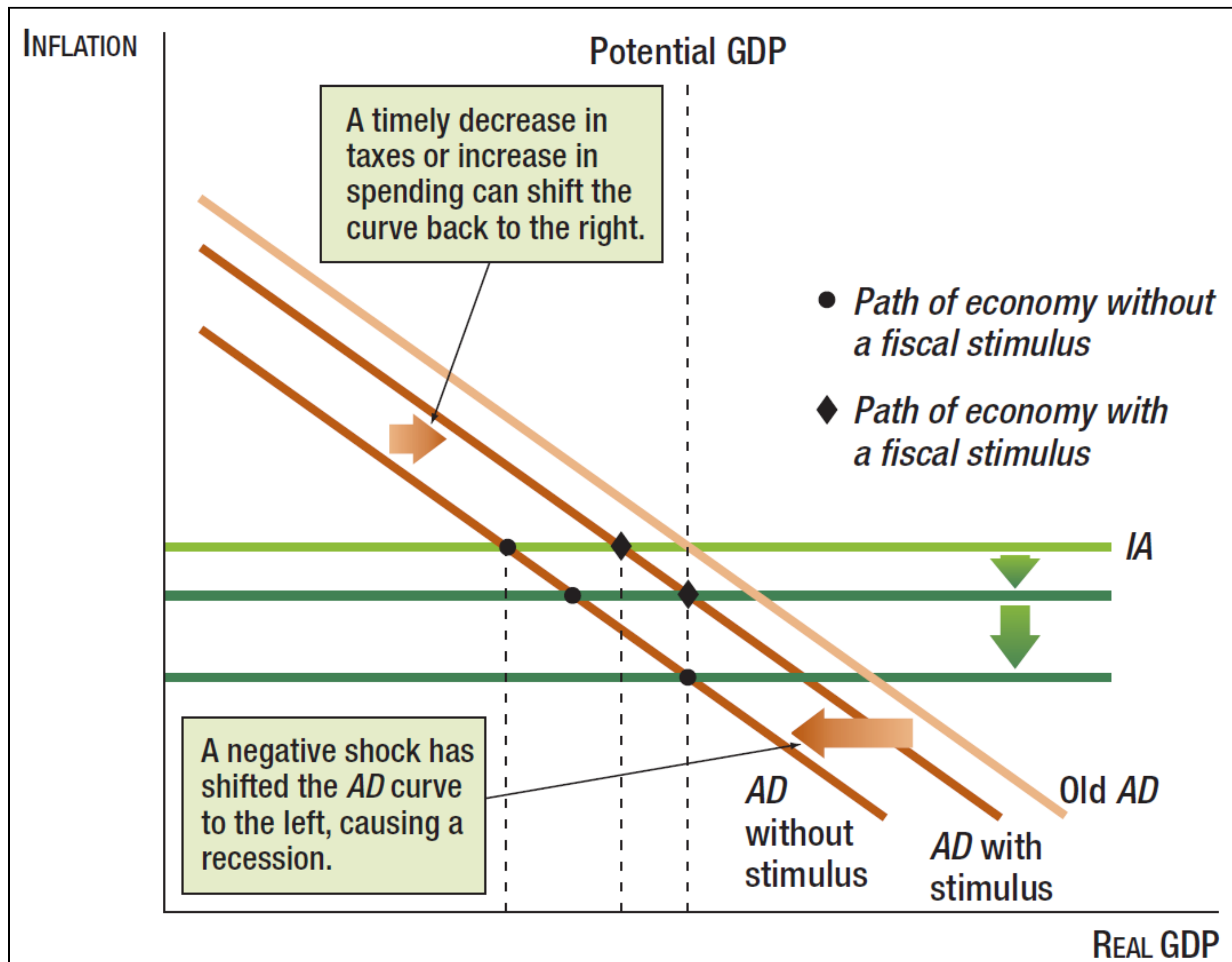
Figure 14-8 Analysis of a Well-Timed Countercyclical Fiscal Policy



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Countercyclical Fiscal Policy

Figure 14-9 illustrates the effect of a poorly timed countercyclical policy. In the figure, if the fiscal stimulus is enacted while the economy is on its way to recovery, the fiscal policy will increase the size of the fluctuation and may send the economy into another recession before it eventually heads back to potential GDP.

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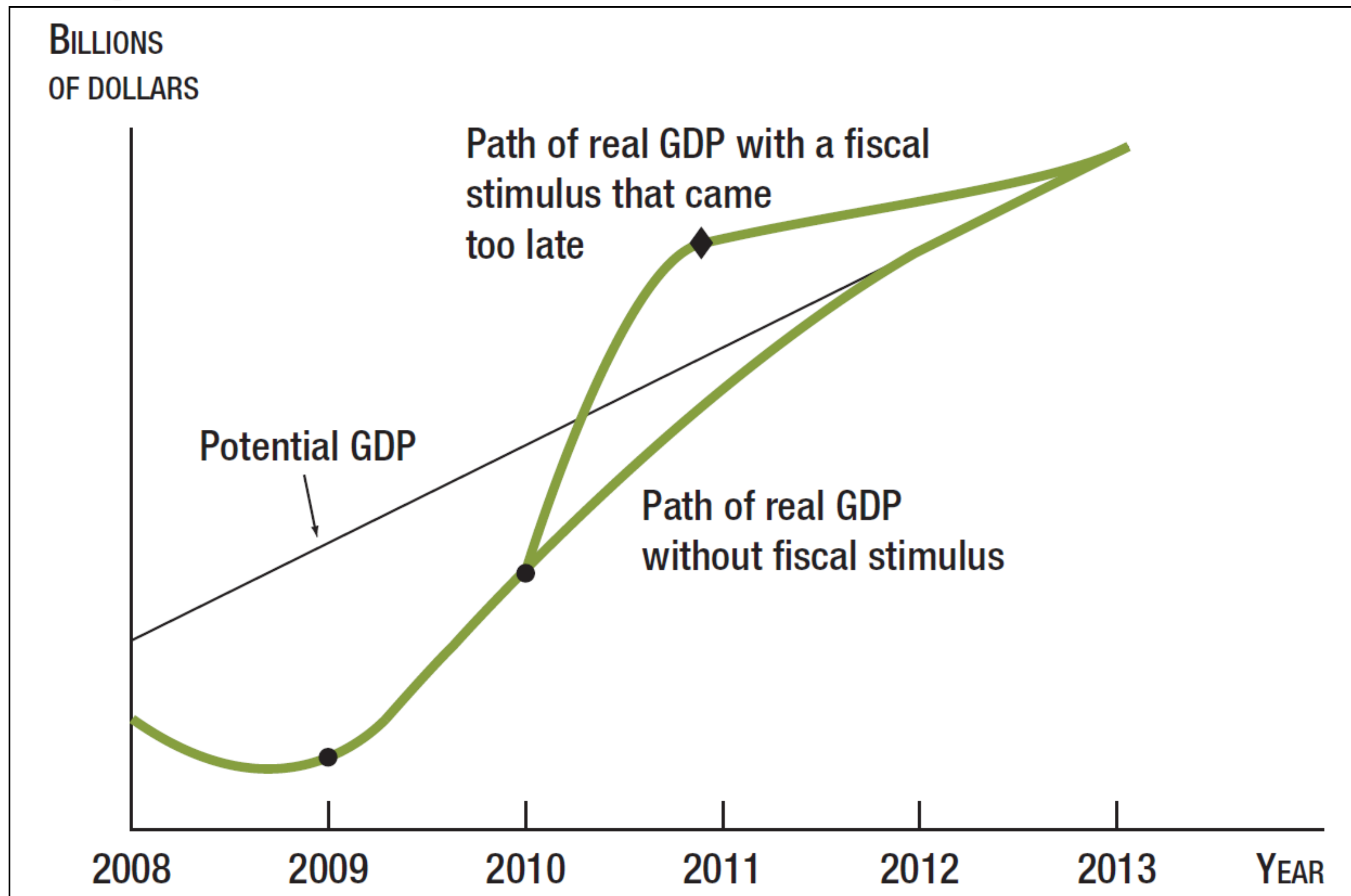
Effect of a Poorly-Timed Fiscal Policy

Figure 14-9



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Discretionary Fiscal Policy

Discretionary fiscal policy: changes in taxes or spending policy requiring legislative or administrative action by the president or Congress.

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Discretionary Fiscal Policy

Examples of discretionary fiscal policies:

- The tax cut proposed by President John F. Kennedy in 1963.
- The Economic Growth and Tax Relief Reconciliation Act of 2001, which included rebate checks mailed to eligible taxpayers.
- The American Recovery and Reinvestment Act of 2009.

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Discretionary Fiscal Policy

The American Recovery and Reinvestment Act of 2009, signed by President Obama, is a larger scale version of the stimulus package signed one year earlier by President Bush.

Figure 14-10 shows that the 2008 stimulus bill did little to stimulate consumption. If the 2009 stimulus package would have any effect on the economy, it needs to be more substantial than the 2008 package.

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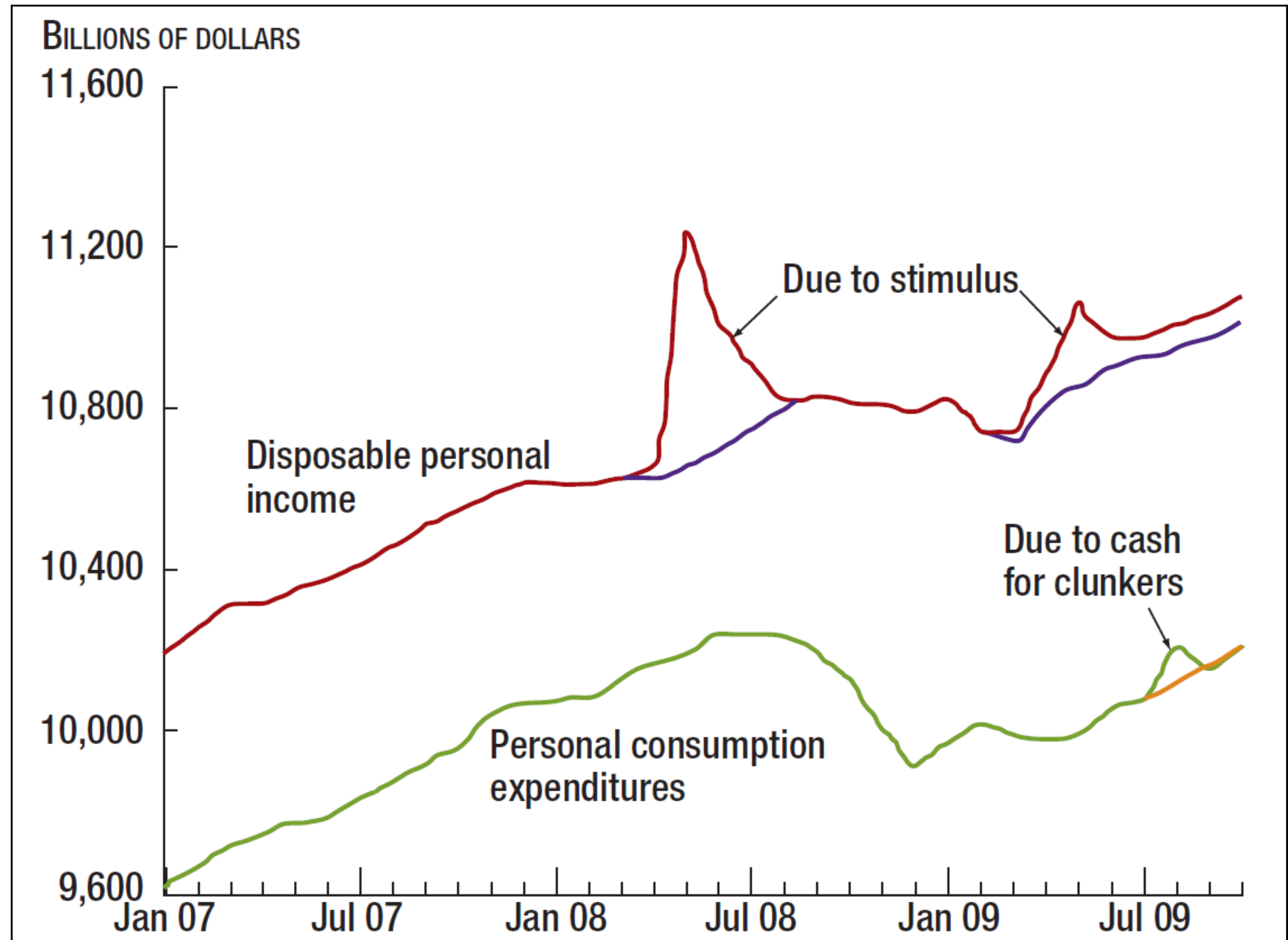
Income and Consumption during the Two Discretionary Stimulus Programs

Figure 14-10



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Automatic Changes in the Instruments of Fiscal Policy

Automatic stabilizer: automatic tax spending that occurs over the course of the business cycle and tends to stabilize fluctuations in real GDP.

A tax on income is an automatic stabilizer:

- When the economy is in recession, the tax receipts that the government collects will decrease.
- In a growing economy, the tax receipts will increase.

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Automatic Changes in the Instruments of Fiscal Policy

The automatic stabilizer is even larger with a ***progressive income tax system***.

- a tax system where individual tax payments as a proportion of income rises as incomes increase.

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Rules vs. Discretion Debate for Fiscal Policy

There is debate among economists on the usefulness of automatic and discretionary fiscal policy.

Proponents argue that the automatic stabilizers will not be large enough or well timed enough to bring about the desired effect.

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Rules vs. Discretion Debate for Fiscal Policy

Critics of discretionary fiscal policy argue that the effects of policy are uncertain and lags are long. Three types of lags occur in the economy, making a discretionary policy harmful:

- Recognition lag
- Implementation lag
- Impact lag

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Rules vs. Discretion Debate for Fiscal Policy

Recognition lag: the time between the need for a policy and the recognition of the need.

Implementation lag: the time between the recognition of the need for a policy and when the policy is implemented.

Impact lag: the time between the implementation of a policy and when its impacts are seen in the real GDP.

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The Structural vs. the Cyclical Surplus

Structural surplus: the level of the government budget surplus under the scenario where real GDP is equal to potential GDP; also called the full employment surplus.

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The Structural vs. the Cyclical Surplus

Figure 14-11 illustrates the effects of the level of real GDP and the level of the government budget surplus/deficit.

The upward-sloping line shows the effect of automatic stabilizers. Higher real GDP results in higher revenues, lower spending, and a larger surplus.

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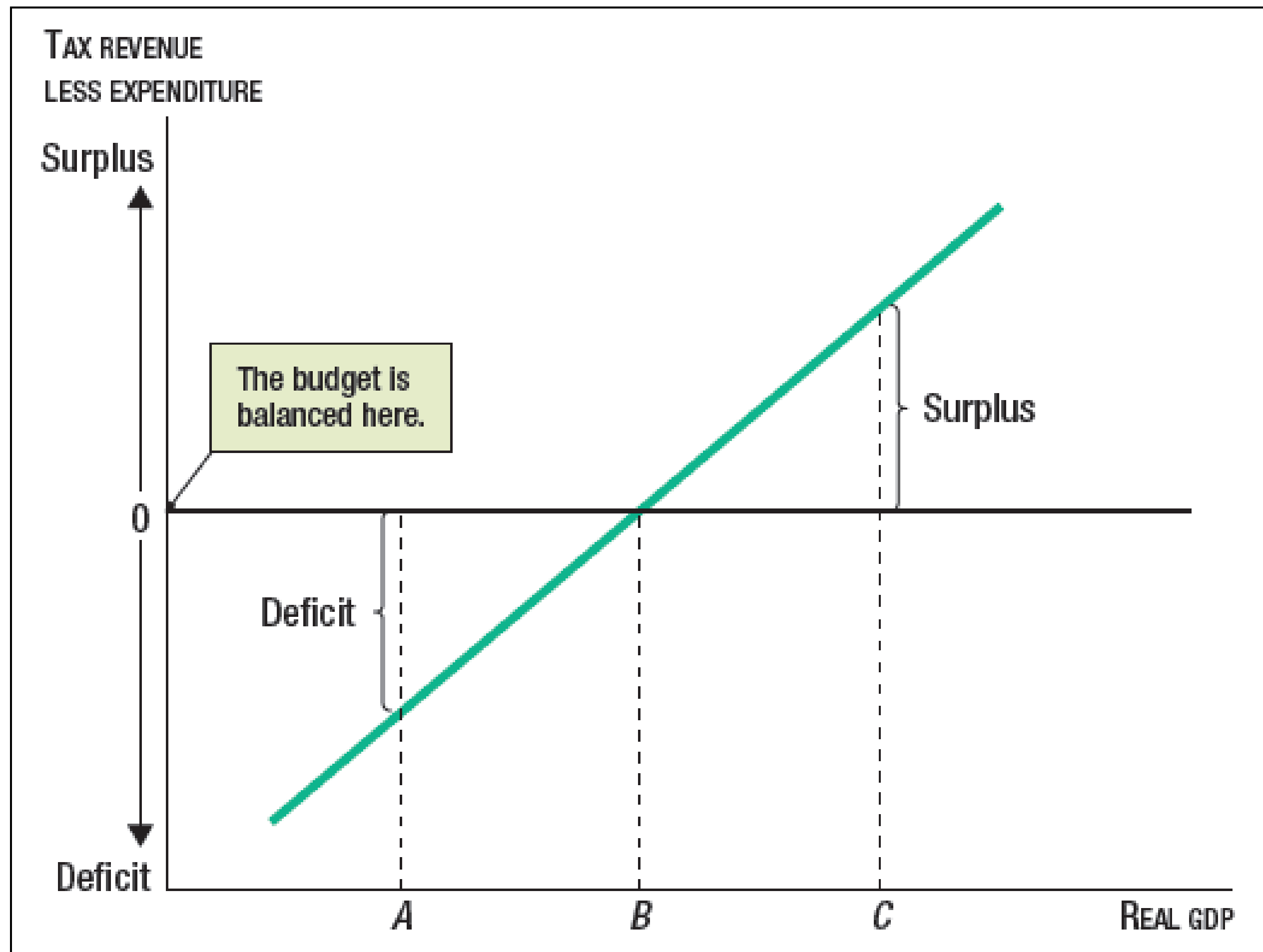
The Effect of Real GDP on the Budget

Figure 14-11



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The Structural vs. the Cyclical Surplus

Figure 14-12 illustrates how the structural surplus is determined. The structural surplus is the surplus that would occur when the economy is at potential GDP.

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The Structural vs. the Cyclical Surplus

Figure 14-12 also illustrates the difference between the structural surplus and the actual surplus in a given year. A structural surplus can occur in a recession year even though the economy is experiencing an actual deficit.

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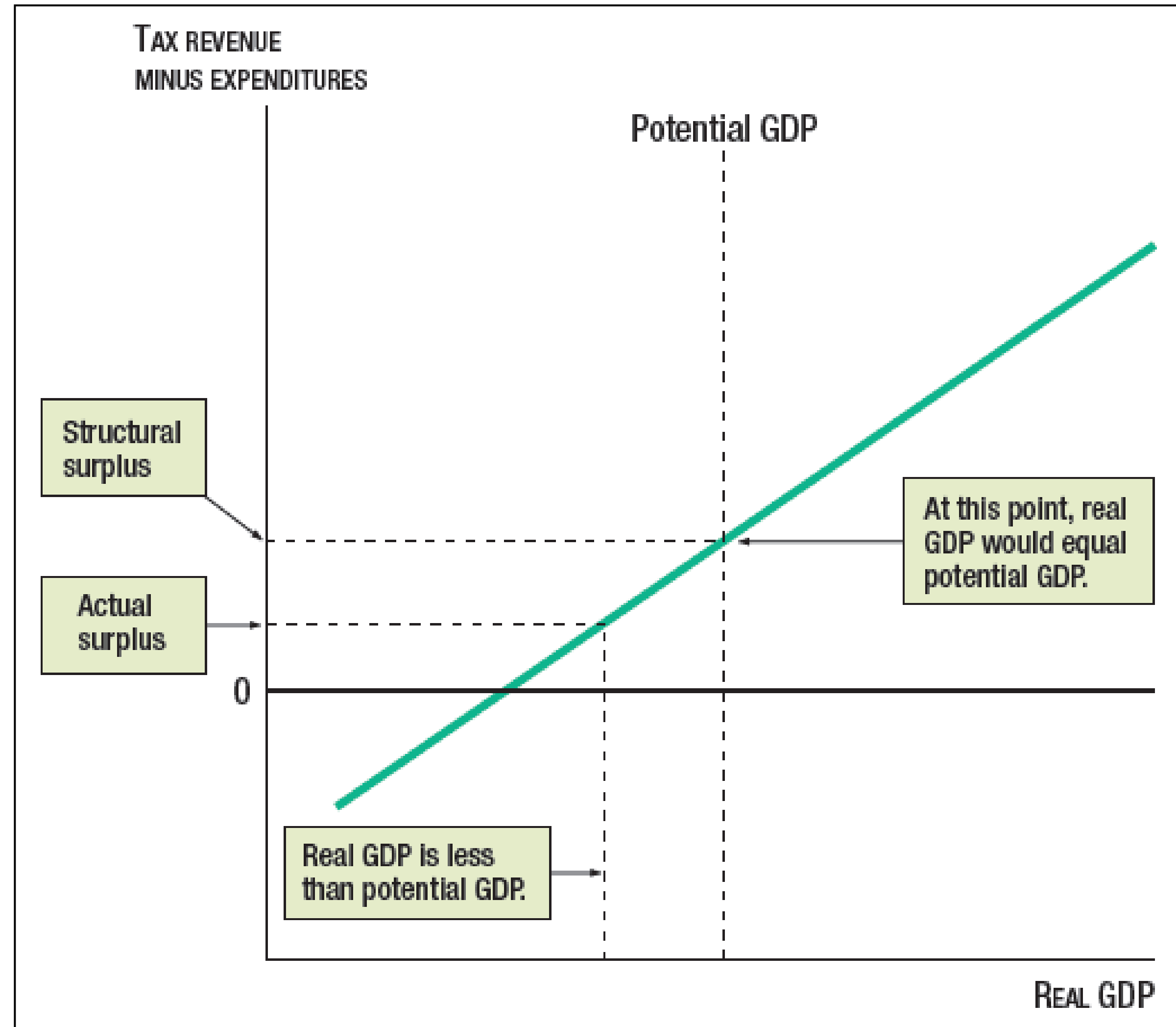
The Structural Surplus versus the Actual Surplus in a Recession Year

Figure 14-12



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