SPECIAL TOPIC 7

Lessons from Japan and Canada

FOCUS

- How was the Japanese economic crisis of the 1990s similar to that of the United States in 2008? How did Japanese policy-makers respond to this crisis? Were their actions effective?
- How were the economic problems of Canada during the mid-1990s similar to those of the United States today? How did Canada respond? Was the policy response effective?
- What can U.S. policy-makers learn from the experiences of Japan and Canada?

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The causes of the Japanese asset bubble and American housing bubble are eerily similar.

—Anthony Randazzo, Michael Flynn, and Adam B. Summers[1]

The story of how a classic economic basket case transformed into a top global performer has implications beyond Canada. Every one of the tools Canada used to extricate itself from its parlous position is available to the United States.

—Brian Lee Crowley, Jason Clemens, and Niels Veldhuis[2]

[1]Anthony Randazzo, Michael Flynn and Adam B. Summers, "Avoiding an American 'Lost Decade': Lessons from Japan's Bubble and Recession" (Policy Study No. 373, Reason Foundation, Los Angeles, 2009), http://reason.org/files/091666ffae057ae322adac5dc0f65caa.pdf.

[2]Brian Lee Crowley, Jason Clemens, and Niels Veldhuis, "The Canadian Century: What the United States Could Learn from Its Northern Neighbor," *Foreign Policy*, June 25, 2010 (accessed September 1, 2011), www.foreignpolicy.com/articles/2010/06/25/the_canadian_century.

There are a number of almost eerie parallels between the conditions present in Japan during the early 1990s and the recent economic troubles of the United States. The same is true for the Canadian economy in the mid-1990s and the U.S. economy in 2011–2012. During the late 1980s and early 1990s, Japan experienced a boom and bust in real estate markets, much like that of the United States during the first decade of this century. Similarly, Canada confronted rapidly growing government expenditures, large budget deficits, and a dangerously high level of government debt in the mid-1990s just as the United States does today. Interestingly, Japan and Canada responded to these situations in dramatically different ways. This special topic considers the experiences of both Japan and Canada and what the United States might learn from them.

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THE EXPERIENCE OF THE JAPANESE ECONOMY

The growth rate of the Japanese economy during 1960–1990 was stunning. During that 30-year period, the real GDP of Japan grew at an annual rate of 6.2 percent. Some of this remarkable growth was the result of what is sometimes called the "catch-up phenomenon," the ability of lower income countries to grow rapidly because they can emulate the successful practices and technology of their higher-income counterparts. By 1990, this growth had propelled Japan to a per capita income similar to that of the high-income countries of Western Europe and about 80 percent the level of the United States. Within a relatively short time frame, Japan had moved from a poor country recovering from the devastation of World War II to one of the world's most prosperous nations.

By the latter half of the 1980s, the strong growth and rising incomes had created a wave of optimism about the future of the Japanese economy. This generated a strong demand for both commercial real estate and shares of business firms in Japan. The Bank of Japan lowered its discount rate from 5 percent in January 1986 to 2.5 percent in February 1987. This reduced the cost of buying and holding both real estate and business assets. Fueled by persistently strong growth, optimism, and easy credit, asset prices in Japan soared. By the late 1980s, Japanese investors anticipated that real estate and stock prices would continue to rise, just as many American homebuyers thought that housing prices would keep going up during the early part of the twenty-first century. Moreover, Japanese banks and other lenders also expected the rising prices to continue. Therefore, they were willing to extend loans to borrowers, including many who had very little equity in the purchased asset.

Japanese real estate and stock prices soared during the 1980s, just as housing prices soared in the United States during 2001–2005. But the bubble burst in 1990. **Exhibit 1** illustrates the boom and bust in the Japanese stock market. These data are for the Nikkei 225, the Japanese equivalent of the Standard & Poor's 500 index in the United States. Note how the Nikkei index soared from 13,024 in January 1986 to 38,916 at year-end 1989, an increase of nearly 200 percent over a four-year period.

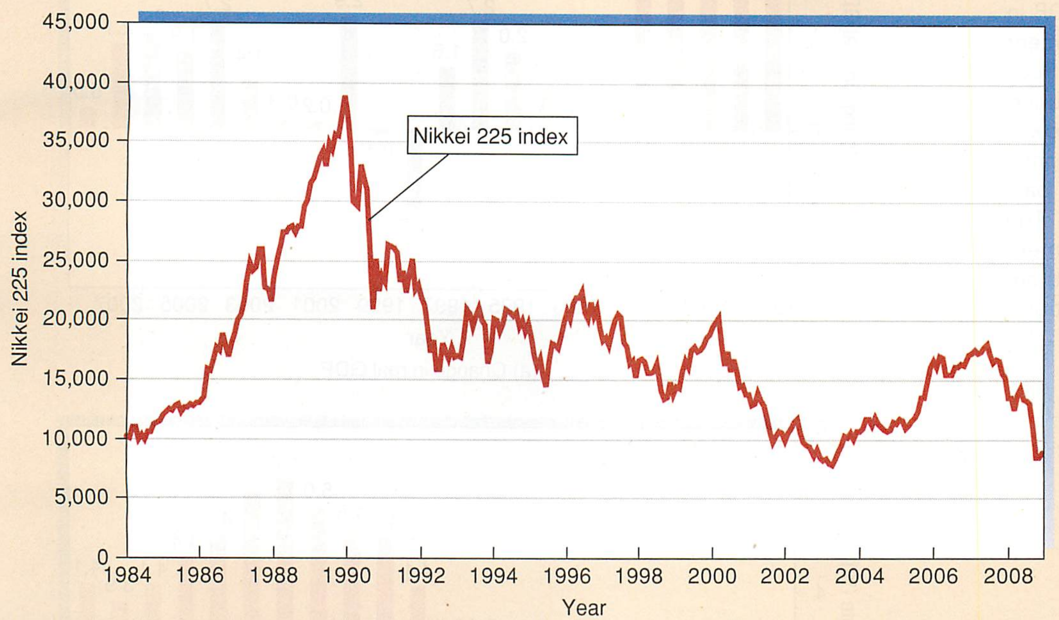
But there was a dramatic change in 1990. By September of 1990, the Nikkei 225 had fallen to 20,984, down 46 percent from the beginning of the year. The index fluctuated in the 22,000–26,000 range during 1991, but it plunged once again to 15,010 in July 1992. Over the next eight years, it was mostly in the 13,000–20,000 range.

The boom–bust pattern of real estate prices was similar. When the prices of both stock and real estate assets collapsed, they took down not only the asset purchasers but also the highly leveraged banking and financial institutions that funded their loans. The asset bust soon spread to the rest of the economy and led to a sharp downturn in economic growth.

Exhibit 1

Japanese Stock Market (Nikkei 225), 1984–2008

The stock prices of Japanese firms tripled during 1986–1989, and the Nikkei 225 soared to nearly 39,000 at year-end 1989. During the first nine months of 1990, however, the Nikkei 225 fell by 46 percent, and it never recovered from this plunge during the rest of the decade. By January 2002, it had fallen below 10,000, approximately one-quarter the level achieved in 1989. At year-end 2008, the index stood at 8860.



Source: finance.yahoo.com (accessed July 2011).

As **Exhibit 2** part (a) shows, the growth rate of real GDP fell from the 5 percent range the Japanese had come to expect to 3.4 percent in 1991 and less than 1 percent during 1992–1993. Moreover, during the decade that followed, Japanese real growth averaged only 1 percent, far below the expectations of the late 1980s. Today, that downturn and the persistently weak growth are often referred to as Japan's "lost decade."

Exhibit 2 part (b) presents data on the Japanese unemployment rate. Historically, the unemployment rate in Japan has been low, and it continued at a relatively low rate even during the initial phase of the downturn. During the early 1990s, Japan's rate of unemployment was only 2 percent. The rate trended upward during the decade, reaching 5 percent in 2001. But even this higher rate is well below the figures of most other high-income market economies.

Japan's low unemployment rate reflects a less dynamic business environment and lower labor mobility. For example, the start-up and business failure rates in Japan have been about half those of the United States over the past several decades. Further, the Japanese labor market is characterized by lifetime employment contracts, a promise by the employer to retain the employee until age 55. In order to make this system viable, the Japanese government has often propped up struggling businesses rather than allowing them to fail. This results in less shifting of employees among employers and a lower rate of unemployment. But it also slows the shift of resources from low to high productivity areas.

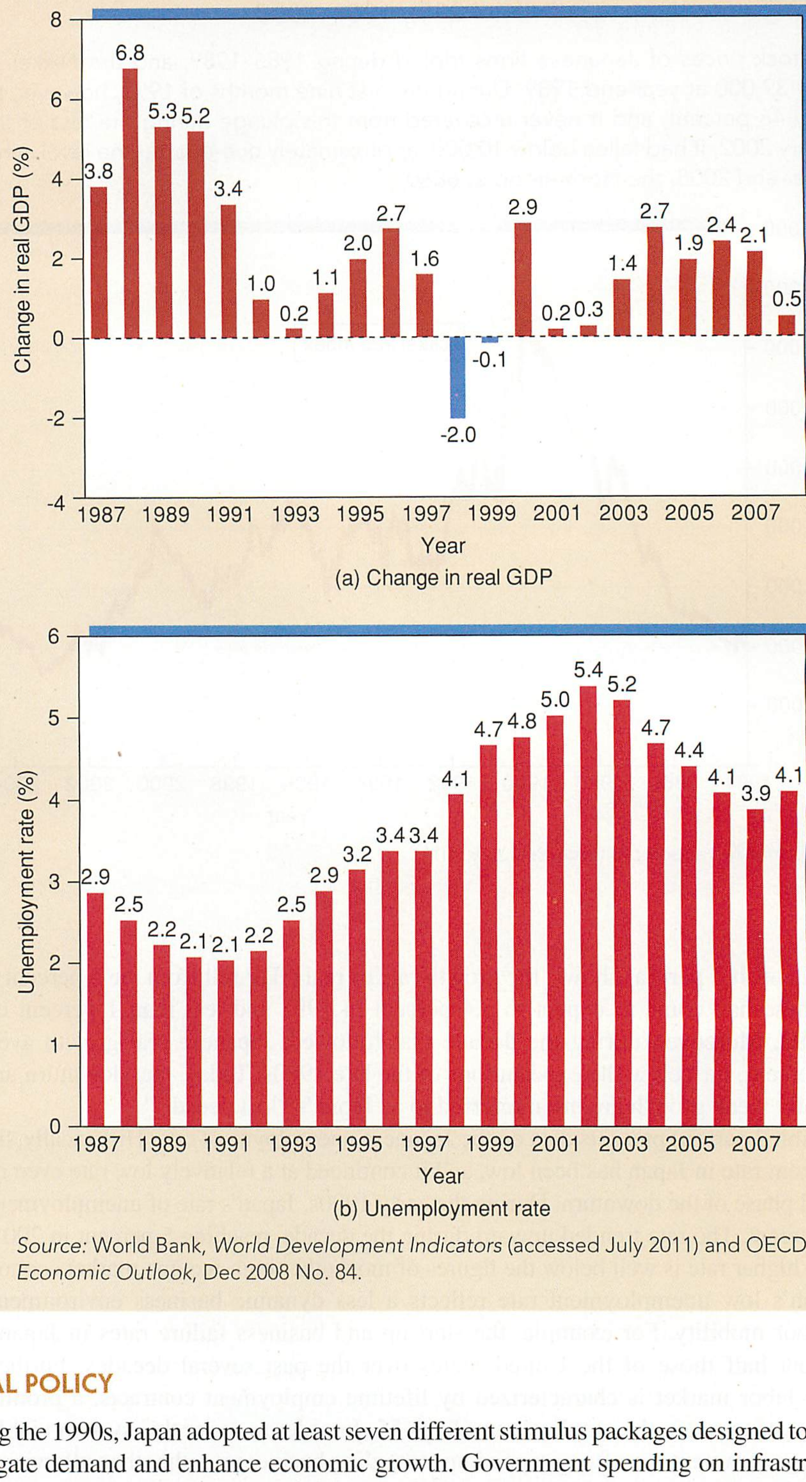
JAPANESE POLICY RESPONSES DURING THE 1990S

As growth remained low in the aftermath of the collapse of asset prices, Japan searched for a way to jump-start its economy. We will now take a closer look at its conduct of fiscal and monetary policy during this era.

Exhibit 2

Japanese Real GDP and Rate of Unemployment, 1987–2008

The growth of real GDP in Japan averaged 5 percent annually during the 1980s but only 1 percent during 1992–2001, and growth has been only slightly higher during the past seven years [part (a)]. The Japanese unemployment rate is quite low, but there has been an upward trend since 1992 [part (b)].



(a) Change in real GDP

(b) Unemployment rate

Source: World Bank, *World Development Indicators* (accessed July 2011) and OECD *Economic Outlook*, Dec 2008 No. 84.

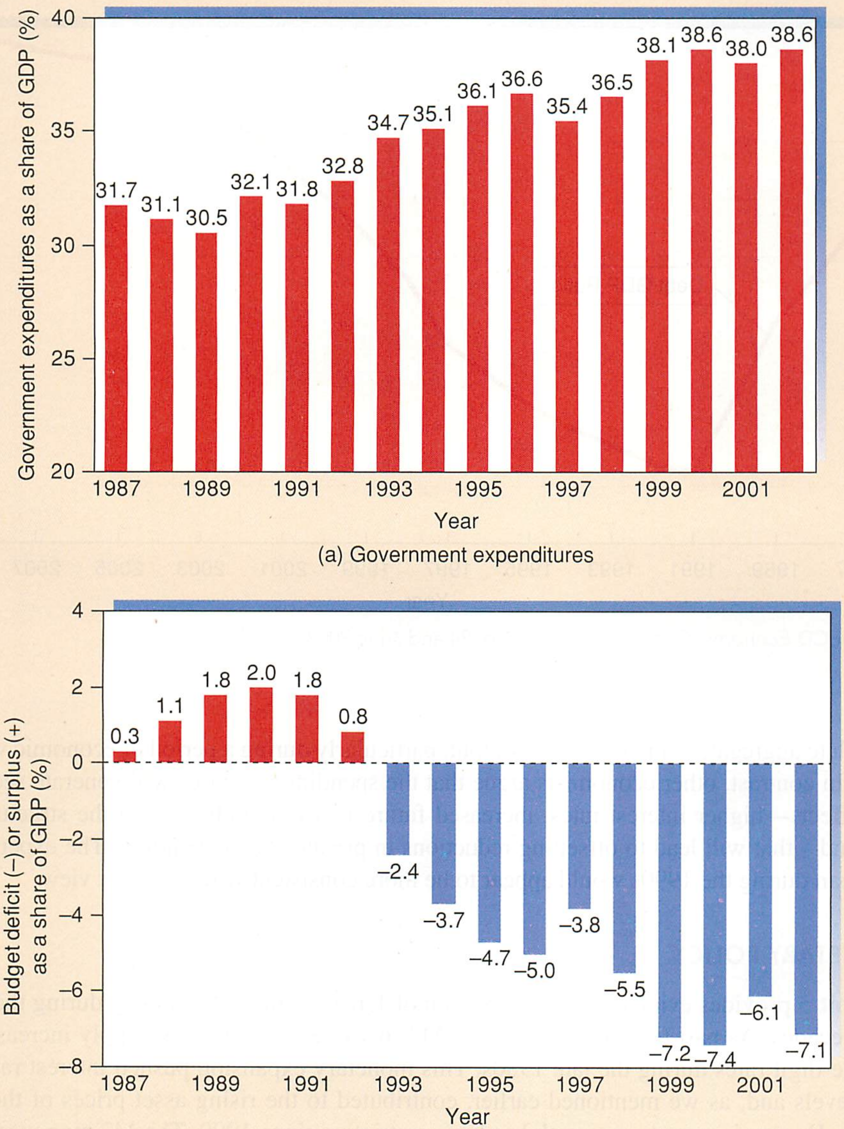
FISCAL POLICY

During the 1990s, Japan adopted at least seven different stimulus packages designed to increase aggregate demand and enhance economic growth. Government spending on infrastructure—roads, bridges, and airports—was increased substantially. Taxes were cut in both 1994 and 1998, but both of these tax cuts were temporary, weakening their impact on aggregate demand. These fiscal policy changes were financed with budget deficits and increased borrowing.

Exhibit 3 presents data on the Japanese fiscal record: both government spending and the budget deficit as a share of the economy. As part (a) shows, government expenditures comprised a little more than 30 percent of GDP during the late 1980s and early 1990s. By 1999–2002, government spending had risen to nearly 40 percent of GDP. Thus, government spending rose by approximately 7 percent of GDP during the 1990s.

The increased spending was financed with borrowing. As Exhibit 3 part (b) illustrates, the budget deficits rose throughout the 1990s. At the beginning of the decade, the Japanese

Exhibit 3



(a) Government expenditures

(b) Budget deficit or surplus

Source: OECD *Economic Outlook*, June 2003 No. 73.

Japanese Government Expenditures and Budget Deficits as a Share of GDP, 1987–2002

As part (a) shows, government spending increased from a little more than 30 percent of GDP in 1987–1991 to nearly 40 percent of GDP during 1999–2002. As part (b) shows, this increase in government spending was largely financed through borrowing. Japan began running budget deficits in 1993, and they became larger and larger during the decade that followed.

government was running a budget surplus, but it soon dissipated, and budget deficits in the range of 4–5 percent of GDP were present during 1994–1997. The deficits were still larger—between 6 percent and 8 percent of GDP—during 1999–2002. By way of comparison, the budget deficits of the United States were generally only 1 or 2 percent during the Great Depression (see Exhibit 6, Special Topic 6). Many economists, particularly Keynesians, argue that the Great Depression deficits were not very effective because they were too small. This argument is less applicable in the case of Japan, because the Japanese budget deficits were large.

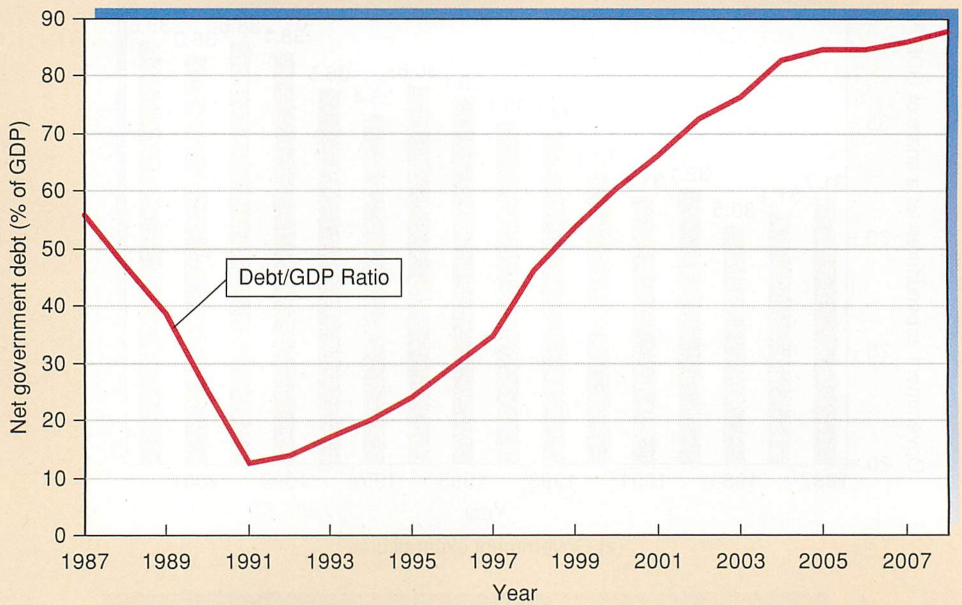
Persistently large budget deficits will increase government debt as a share of the economy. As **Exhibit 4** shows, this was indeed the case in Japan. Measured as a share of GDP, the net debt of the Japanese central government rose from 14 percent in 1992 to 60 percent in 2000 and 88 percent in 2008. Thus, the data indicate that fiscal policy was highly expansionary in Japan during the decade following the asset price meltdown. Government spending was increased substantially as a share of the economy, and virtually all of this increase was financed through debt.

As our analysis of fiscal policy explained, there are alternative views regarding the stimulus effects of fiscal policy. Keynesians argue that expansionary fiscal policy will

Exhibit 4

Net Debt of Japanese Central Government as a Share of GDP, 1987–2008

Measured as a share of GDP, the net debt of the Japanese central government was 14 percent in 1992, but it rose to 60 percent in 2000 and 88 percent in 2008.



Source: OECD *Economic Outlook*, Dec 2008 No. 84 and June 2003 No. 73.

stimulate aggregate demand and real output, particularly during a period of economic weakness. In contrast, other economists argue that the spending increases will generate secondary effects—higher interest rates, increased future taxes, and changes in the structure of demand—that will lead to offsetting reductions in private-sector spending. The experience of Japan during the 1990s would appear to be more consistent with the latter view.

MONETARY POLICY

Exhibit 5 provides evidence on the direction of Japanese monetary policy during the past two decades. As part (a) shows, the broad M2 measure of the money supply increased at double-digit rates during the late 1980s. This monetary expansion pushed interest rates to low levels and, as we mentioned earlier, contributed to the rising asset prices of the late 1980s. However, monetary growth has been restrictive since 1990. The M2 money supply expanded at an average annual rate of only 2.5 percent during 1991–2002.[3]

Exhibit 5 part (b) provides data on the Japanese inflation rate. These figures also indicate that monetary policy was highly restrictive during the 1990s. The Japanese inflation rate was exceedingly low throughout the decade. Moreover, the general level of prices actually fell during five of the eight years between 1995 and 2002.

Why was Japan's monetary policy so restrictive during the 1990s at a time when fiscal policy-makers were obviously trying to stimulate the economy? Historically, many have thought that low interest rates were indicative of an expansionary monetary policy, but this is not always true. Nominal interest rates are influenced by the expected rate of inflation. When people expect deflation—a decline in the general level of prices—nominal interest rates will be low. They might even approach zero. But far from indicating that monetary policy is expansionary, under these circumstances, the low interest rates are indicative of highly restrictive monetary policy and the expectation of future deflation.

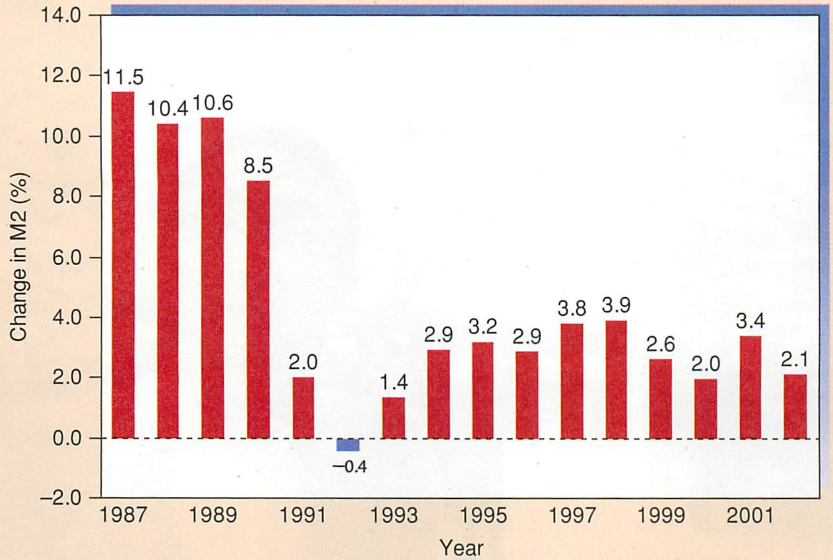
Japanese policy-makers may have been misled into thinking that their low nominal interest rates were reflective of expansionary rather than highly restrictive monetary policy. This

[3]The growth rate of the M1 money supply was a little higher—7.8 percent during the 1990s. During the decade, many Japanese transferred funds from their bank savings accounts into government postal deposit accounts for safety reasons. The postal accounts are included in M1, but the bank savings deposits are not. Thus, these transfers inflated the growth rate of the M1 money supply. The postal deposits are used almost exclusively to purchase government bonds. Thus, they did not provide financial capital for the private sector.

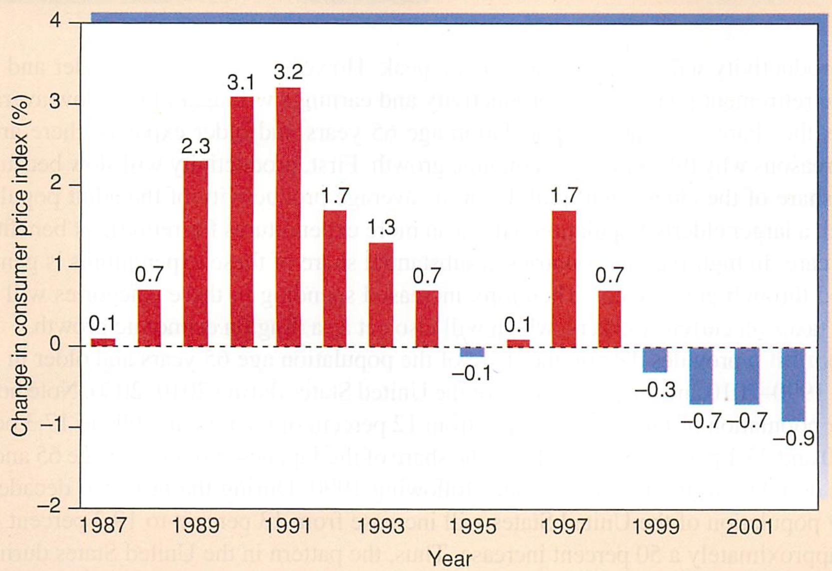
Exhibit 5

Japanese Monetary Policy and Inflation, 1987–2002

The broad measure of the money supply (M2) increased at double-digit rates during the late 1980s, but it grew at an average rate of only 2.5 percent during 1991–2002 [part (a)]. The inflation rate has been quite low, and the general level of prices actually fell during five of the eight years between 1995 and 2002 [part (b)].



(a) Change in money supply (M2)



(b) Inflation rate

Source: The monetary measures are from www.econstats.com (accessed December 2009), and the inflation data are from OECD *Economic Outlook*, June 2003 No. 73.

happened in the United States during the 1930s. Many thought that the low interest rates of the Great Depression were reflective of an expansionary monetary policy. However, this was not the case, and the 33 percent reduction in the money supply between 1929 and 1933 vividly illustrates this point. The same thing may have happened in Japan during the 1990s.

THE AGING POPULATION OF JAPAN IN THE 1990S AND THE UNITED STATES TODAY

The age composition of a nation's population influences productivity and income. The labor force of high-income countries like Japan and the United States is highly educated and skilled. But, even well educated younger workers lack experience. Therefore, their productivity and earnings tend to be below average during this phase of life. As workers acquire additional experience and move into the prime age categories, usually age 35–59,

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The elderly population of Japan rose sharply during the "lost decade" of the 1990s.

their productivity will increase and reach a peak. However, as they grow older and move into the retirement phase of life, productivity and earnings will again fall below average.

As the share of a nation's population age 65 years and older expands, there are two major reasons why this will slow economic growth. First, productivity will slow because the rising share of the elderly will pull down the average productivity of the adult population. Second, a larger elderly population will mean more expenditures for retirement benefits and health care. In high-income countries, a substantial share of these expenditures is generally handled through government. Therefore, increased spending in these categories will mean higher taxes on current workers, which will also act as a drag on economic growth.

Exhibit 6 provides data on the share of the population age 65 years and older in Japan during 1990–2010 and the projections for the United States during 2010–2030. Note how the elderly population of Japan rose sharply from 12 percent of the total in 1990 to 17.3 percent in 2000 and 23.1 percent in 2010. Thus, the share of the Japanese population age 65 and over almost doubled during the two decades following 1990. During the next two decades, the elderly population of the United States will increase from 13 percent to 19.3 percent of the total, approximately a 50 percent increase. Thus, the pattern in the United States during the next two decades will be the same as that for Japan during 1990–2010, although the growth of the elderly population in the United States will be somewhat less rapid.

These demographic changes have adversely affected the growth of the Japanese economy since 1990, although it is difficult to quantify their precise importance. Predictably, they will also slow the growth of productivity and income in the United States in the years immediately ahead.

LESSONS FROM THE JAPANESE EXPERIENCE

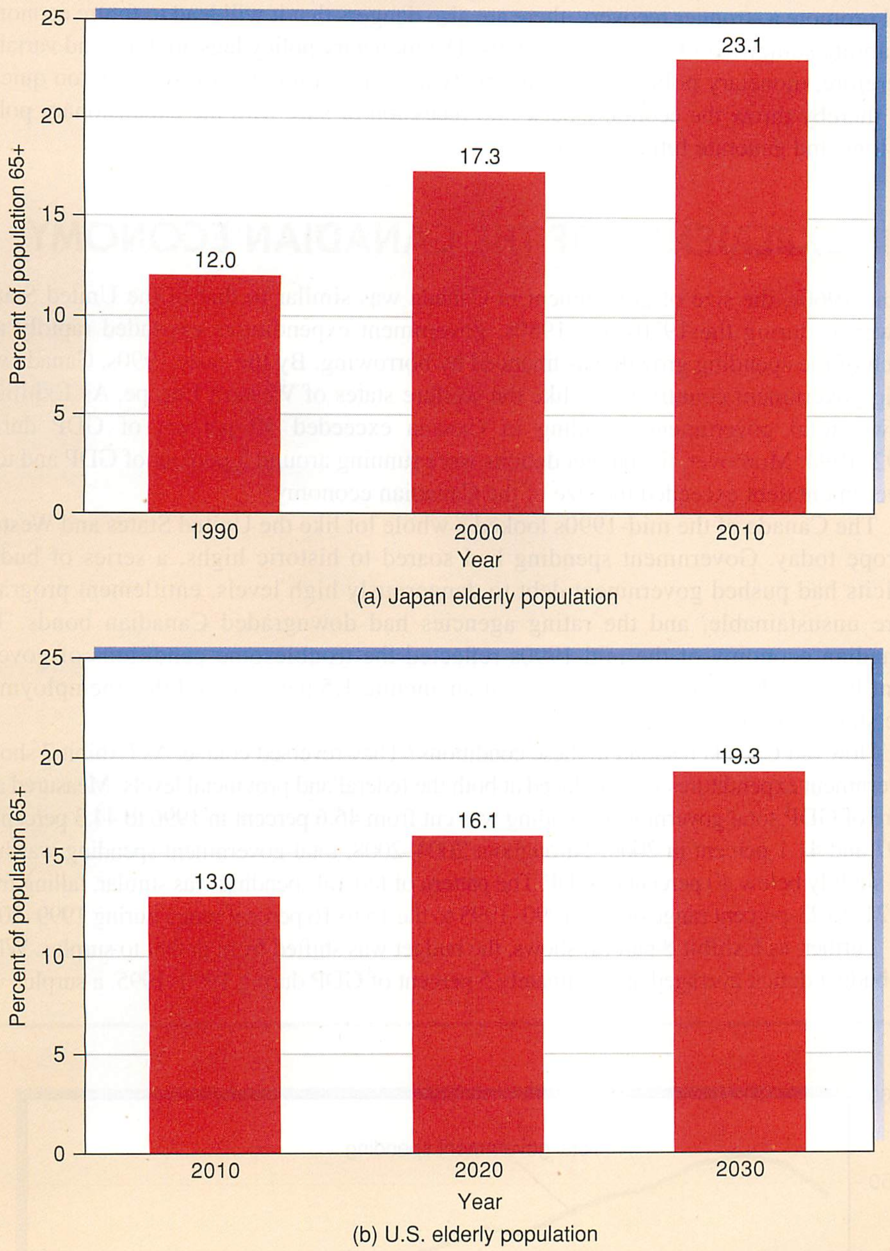
There are a number of similarities between conditions in Japan in the early 1990s and those of the United States today. In both cases, an asset price boom followed by a bust led to an unexpected reduction in wealth, a surge in bad loans, troubles in the banking and financial sector, and widespread pessimism about the future. The fiscal policy response of both has been similar: increased government spending, large budget deficits, and a surge in government debt as a share of the economy. The demographics are also similar: The elderly population increased substantially in Japan during the 1990s, and the same thing will happen in the United States in the decade ahead.

But there is one huge difference in the policy response between the two. Whereas the monetary policy of Japan was restrictive during the 1990s, that has not been the case in the United States. In fact, the Federal Reserve has injected a huge quantity of reserves

Exhibit 6

The Aging of the Japanese and U.S. Populations

As part (a) shows, the share of the Japanese population age 65 and over rose sharply during 1990–2010. Part (b) illustrates that there will be a similar trend in the United States during 2010–2030, although the growth of the elderly population will be a little slower in the United States.



Source: the Statistical Survey Department of Japan, Statistics Bureau, Ministry of Internal Affairs and Communications, National Institute of Population and Social Security Research, www.ipss.go.jp/index-e.html (accessed December 2009); and the U.S. Census Bureau. The 2020 and 2030 figures for the United States are projections.

into the banking system, and monetary policy in the United States has been far more expansionary than that of Japan during the 1990s. If monetary policy exerts a strong impact on the economy, this could mean that the U.S. experience in the decade ahead will be substantially different from that of Japan during the 1990s.

The Japanese experience should provide some caution for Americans in at least three important areas. First, the run-up in housing prices generated malinvestment and excess capacity. It will take time to correct these conditions. Asset prices did not rebound quickly in Japan during the 1990s, and neither are they likely to do so in the United States in the years immediately ahead. Second, fiscal stimulus is unlikely to generate a quick and sustainable recovery, even in a low interest rate environment. The Japanese budget deficits were large, but they still did not exert a strong impact on aggregate demand and real output. Third, although the more expansionary monetary policy of the United States may well promote a stronger recovery, there are also dangers that it will lead to future economic instability somewhat like that of the 1970s. The monetary policy lags are long and variable. Therefore, monetary policy-makers are likely to either turn toward restriction too quickly and thereby throw the economy back into recession or stay with the expansionary policy too long and generate future inflation.

THE EXPERIENCE OF THE CANADIAN ECONOMY

In the 1960s, the size of government in Canada was similar to that of the United States. However, during the 1970s and 1980s, government expenditures expanded rapidly and much of the spending growth was financed by borrowing. By the early 1990s, Canada was a big government country much like the welfare states of Western Europe. As **Exhibit 7** shows, total government spending in Canada exceeded 50 percent of GDP during 1992–1994. Moreover, the budget deficits were running around 5 percent of GDP and total government debt exceeded the size of the Canadian economy.

The Canada of the mid-1990s looked a whole lot like the United States and Western Europe today. Government spending had soared to historic highs, a series of budget deficits had pushed government debt to dangerously high levels, entitlement programs were unsustainable, and the rating agencies had downgraded Canadian bonds. The Canadian economy of the mid-1990s reflected the troublesome conditions of government finance. Real GDP was growing at an anemic 1.5 percent, and the unemployment rate stood at double-digit levels.

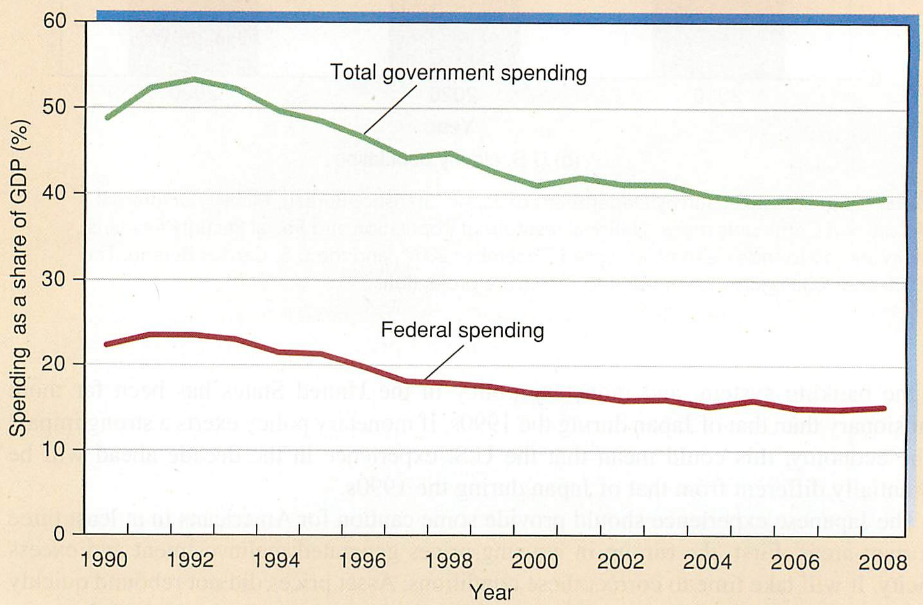
How did Canada respond to these conditions? They reversed course. As Exhibit 7 shows, government expenditures were reduced at both the federal and provincial levels. Measured as a share of GDP, total government spending was cut from 46.6 percent in 1996 to 44.3 percent in 1997 and 41.1 percent in 2000. Throughout 2004–2008, total government spending was held just slightly below 40 percent of GDP. The pattern of federal spending was similar, falling from the 21- to 23-percent range during 1990–1995 to the 15 to 16 percent range during 1999–2008.

Further, as **Exhibit 8** part (a) shows, the budget was shifted from deficit to surplus. While the budget deficit averaged approximately 5 percent of GDP during 1990–1995, a surplus was

Exhibit 7

The Canadian Total and Federal Government Spending as a Share of GDP, 1990–2008

As a share of GDP, total government spending of Canada was well above 50 percent in the mid-1990s, but it was sliced to 44 percent in 1997 and to 41 percent in 2000. Total spending remained around 40 percent in the years that followed. Federal spending followed a similar pattern.



Source: Statistics Canada, National Economic and Financial Accounts, CANSIM tables 380-0007 and 384-0001.

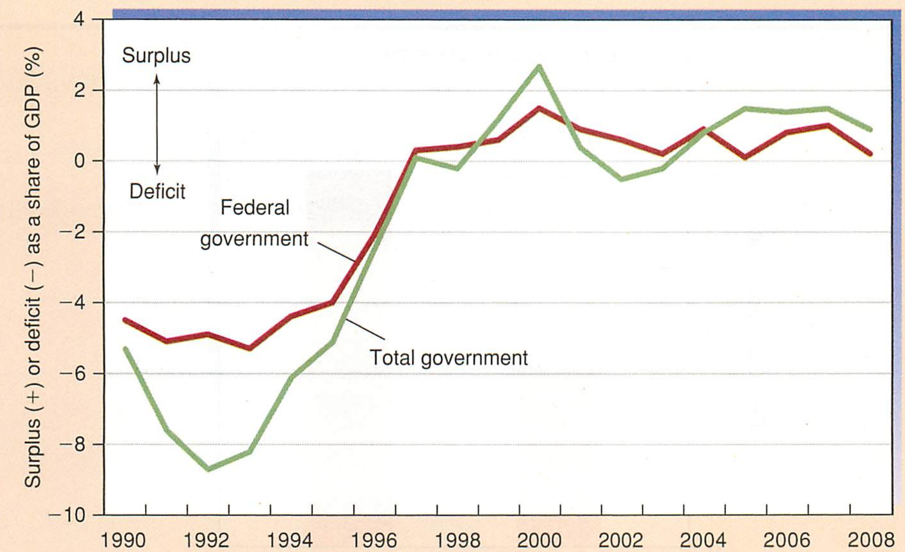
achieved in 1997 and maintained every year through 2008. The provincial governments in Canada are both larger and have greater discretionary powers than state governments in the United States. Following the path of the central government, the provincial governments also shifted their budgets from persistent deficits during 1990–1995 to approximate balance during 1998–2008. Interestingly, the spending cuts and shifts toward budget surpluses were undertaken by the left of center Liberal Party, the same political party that presided over the growth of spending and large budget deficits throughout most of the 1970s and 1980s.

Of course, the shift from deficits to surpluses reversed the growth of government debt. As Exhibit 8 part (b) shows, the federal and total government debt had risen to 119 percent and 70 percent of GDP, respectively. But the shift to budget surpluses in 1997 halted the upward trend and by 2000 the total debt had fallen to 91.8 percent of GDP and the federal debt to 46.2 percent of the economy. As of 2008, the total government debt had declined to

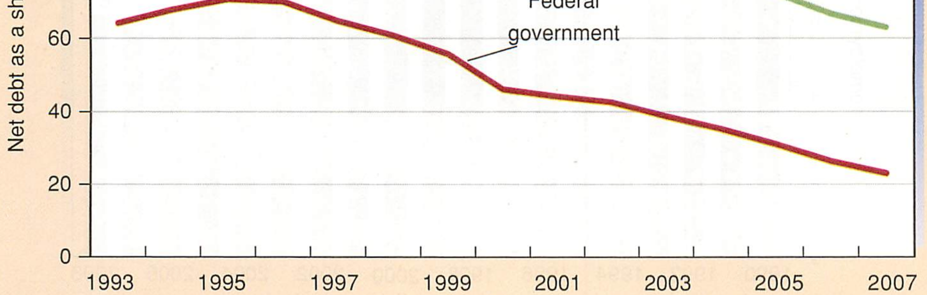
Exhibit 8

The Budget Balance and Outstanding Debt of Canadian Governments, 1990–2008

The budget deficit or surplus as a share of GDP for the total and federal governments of Canada are presented here (top frame). Note how both the total and federal government budgets shifted sharply from deficit to surplus beginning in 1997. Correspondingly, both the total and federal debt, which had risen to dangerously high levels, declined steadily in the decade following the shift in fiscal policy (bottom frame).



(a) Federal and total government surplus (+) or deficit (−) as a share of GDP for Canada, 1990–2008



(b) Federal and total government debt as a share of GDP for Canada, 1993–2007

Source: Statistics Canada, National Economic and Financial Accounts, CANSIM tables 380-0007, 385-0010, and 384-0001; and OECD *Economic Outlook*, various issues.

about 60 percent of GDP, half the level of 1996. Correspondingly, the federal debt was only 22 percent of GDP, less than a third of the 1996 level.

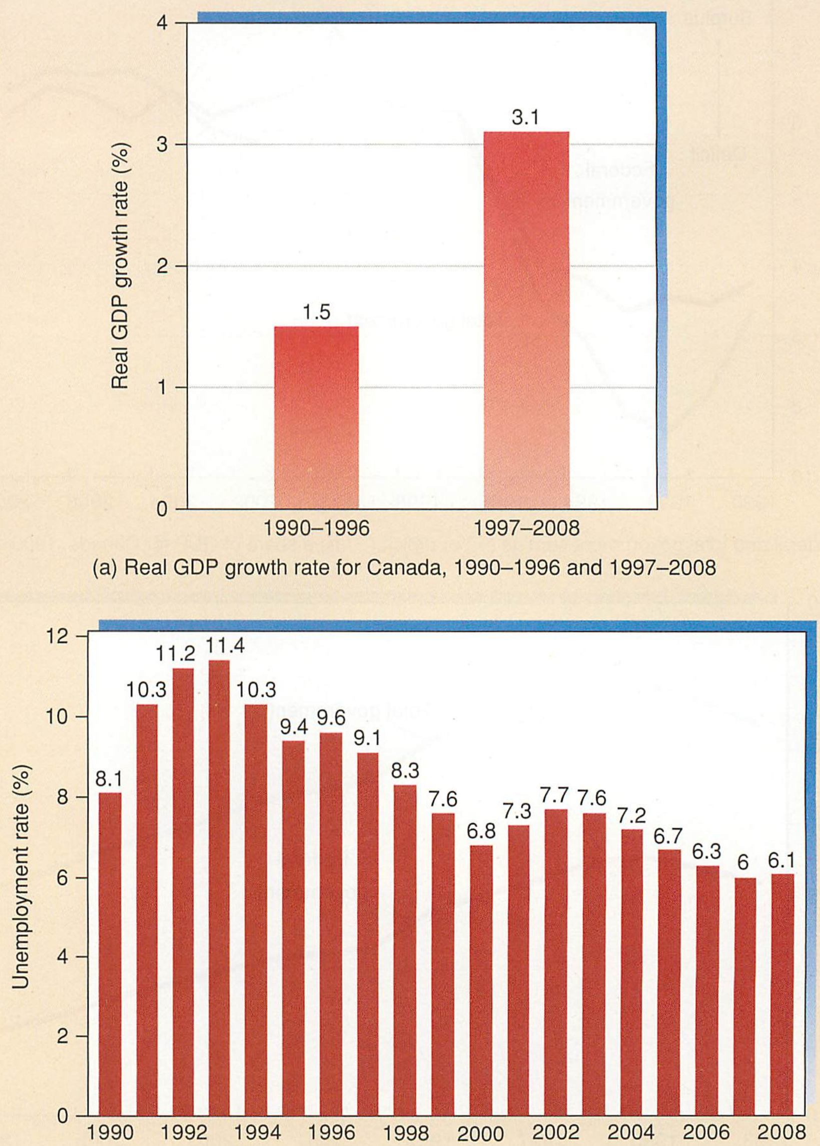
The Canadian budget cuts were broad and included reform of both the welfare and pension systems. The reforms to the Canadian Pension Plan, a program similar to Social Security in the United States, included a slight increase in the payroll tax, a modest reduction in benefits, and investment of surpluses into equities. The pension reforms assured the solvency of the system even as the baby-boom generation moves into the retirement phase of life in the years immediately ahead.

What impact did this budget cutting and shift from budget deficits to surpluses have on the Canadian economy? Did it result in a catastrophic decline in aggregate demand and soaring unemployment as the Keynesian model predicts? **Exhibit 9** provides the answer. The real GDP of Canada grew at an annual rate of 3.1 percent during 1997–2008,

Exhibit 9

The Growth of Real GDP and the Rate of Unemployment of Canada, 1990–2008

The Canadian real GDP grew at an annual rate of 3.1 percent during 1997–2008, compared to only 1.5 percent during 1990–1996 (top frame). The unemployment rate of Canada fell from the double digit levels of 1991–1994 to 7.6 percent in 1999 and eventually to 6 percent in 2007–2008 (bottom frame).



(a) Real GDP growth rate for Canada, 1990–1996 and 1997–2008

(b) Canadian unemployment rate

Source: The unemployment data are from OECD *Economic Outlook*, May 2004 no. 1 and May 2011 no. 1; the real GDP data are from World Bank, *World Development Indicators*.

compared to only 1.5 percent during 1990–1996. During the decade following its budgetary shift, the growth rate of the Canadian economy was the fastest among the large high-income industrial economies.

As Exhibit 9 part (b) shows, the rate of unemployment, which had soared to double-digit levels during 1991–1994, began to recede in 1996. The unemployment rate fell from 9.6 percent in 1996 to 7.6 percent in 1999. It remained in the 7-percent range during 2000 to 2004, before declining to 6 percent in 2007–2008. Canada's growth of total employment was also impressive. During 1997–2008, Canadian employment increased at an annual rate of 2.1 percent, twice that of the United States and higher than the corresponding figure of other G-7 countries.[4]

LESSONS FROM THE CANADIAN EXPERIENCE

The experience of Canada stands in stark contrast with that of Japan. Japan chose the Keynesian prescription of growth in government spending financed by borrowing. In contrast, after two decades of government growth financed with budget deficits, Canada shifted away from Keynesian fiscal policy during the latter half of the 1990s. The results were also dramatically different. In contrast with the anemic growth of Japan during the 1990s, the Canadian economy achieved solid growth during the decade following its shift to a more restrictive fiscal policy. Moreover, Canada weathered the financial crisis of 2008 far better than the United States and most other high-income industrial economies.

The initial response of the United States to the 2008 financial crisis has been much like that of Japan during the 1990s. Both the Bush and Obama administrations responded to the recession of 2008–2009 with fiscal stimulus programs. Federal expenditures increased sharply and the federal deficits soared to nearly 10 percent of GDP during 2009–2011. (See Exhibit 1 of Special Topic 8.) To date, the results of the Keynesian stimulus policies in the United States have also been quite similar to their impact in Japan. This suggests that as policy-makers choose the future direction of the United States, they would do well to consider the Canadian experience more seriously.

KEY POINTS

- In the late 1980s, real estate and stock prices in Japan soared, much like housing prices in the United States during 2001–2005. But like the housing boom in the United States, a bust followed Japan's stock and real estate price boom in the early 1990s. This price collapse led to a surge in loan defaults, troubles in the banking sector, and a sharp slowdown in the growth of the Japanese economy in the early 1990s. The sluggishness persisted, and the 1990s are now known as Japan's "lost decade."
- Japan responded to the economic downturn with several "stimulus programs" that substantially increased spending on roads, bridges, and other infrastructure. Government spending rose from a little more than 30 percent of GDP in the early 1990s to nearly 40 percent of GDP in the latter part of the decade. This increased spending was financed through large budget deficits. Even though fiscal policy was highly expansionary, the Japanese economy continued to stagnate.
- In contrast with fiscal policy, the monetary policy of Japan was restrictive during the 1990s. The broad M2 money supply expanded at an annual rate of only 2.5 percent during 1991–2002. The general level of prices changed little during the 1990s, and deflation was present during five of the eight years between 1995 and 2002.
- The share of the population age 65 and over in Japan nearly doubled during 1990–2010. The United States will experience a similar change in the composition of the population during the next two decades. This will tend to reduce productivity and lead to higher taxes on current workers for the finance of retirement benefits and health care for the elderly.
- In the mid-1990s, Canada confronted rising government expenditures, large budget deficits, and government debt that was dangerously high relative to GDP. The Canadian situation of the mid-1990s was quite similar to the current conditions of the United States.

[4]For additional information and analysis of the economic problems and policy response of Canada during the past several decades, see Brian Lee Crowley, Jason Clemens, and Niels Veldhuis, *The Canadian Century: Moving Out of America's Shadow* (Toronto: Key Porter Books, 2010).

- Canada responded with broad reductions in government spending, reform of welfare and entitlement programs, and a shift from budget deficits to surpluses. The result was more rapid economic growth, expansion in employment, and a reduction in the rate of unemployment.
- The experience of both Japan and Canada is inconsistent with the view that increases in government spending financed by debt will direct an economy toward a solid recovery and sustainable growth.

CRITICAL ANALYSIS QUESTIONS

1. How was the economic experience of Japan prior to and after 1990 similar to that of the United States prior to and after 2008?
2. *Describe the fiscal policy of Japan during the 1990s. Did the Japanese fiscal policy help promote recovery? Why or why not?
3. Describe the conditions of government finance, growth of real GDP, and unemployment rate of Canada in the mid-1990s. How does the situation in the United States in 2011–2012 compare with that of Canada during the mid-1990s? How did Canadians respond to their troublesome economic conditions and how effective was their response?
4. *What happened to the share of the Japanese population age 65 and over during the 1990s? How did this change affect economic growth? What are the implications of this for the United States? Why?
5. What are the most important lessons Americans can learn from the experiences of Japan and Canada during the 1990s? Do you believe we have learned them?
6. Several well known Keynesian economists argue that the weak recovery of the U.S. economy from the 2008–2009 recession is because the spending increases and budget deficits have been too small. Do you think they are correct? Why or why not? If we continue running large deficits and the economy remains weak, do you think Keynesian economists will alter their views? Discuss.

*Asterisk denotes questions for which answers are given in Appendix B.