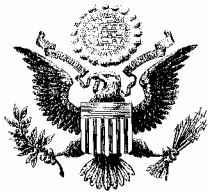
INTERNATIONAL ECONOMIC PERFORMANCE SINCE THE STOCK MARKET BUBBLE

A JOINT ECONOMIC COMMITTEE STUDY



Vice Chairman Jim Saxton (R-NJ)

Joint Economic Committee
United States Congress

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Executive Summary

In the 1990s, a worldwide stock market bubble ignited a rush among firms not only in the United States, but also in other major developed economies (the European Union, Japan, and Canada) to invest in new equipment, software, and nonresidential structures. After the bubble burst, it became apparent that many investments in these major developed economies were not economically viable. This overhang of bad investments has taken years to liquidate, retarding new investment in each of these economies. Consequently, every major developed economy has suffered from at least one quarter of zero or negative real GDP growth since 2000. Declining investment rates have disproportionately affected the manufacturing sectors in each of these major developed economies, causing significant losses of manufacturing output and jobs.

Despite a stock market crash, economic slowdown and recession, terrorist attacks, wars, and other adverse shocks, the United States has outperformed, on balance, the other major developed economies in three key measures – real GDP growth, industrial production, and the decline in its unemployment rate after it had peaked – in recent years. The United States has had the largest cumulative increase in its real GDP after its downturn had ended. Although unemployment rates have increased in all major developed economies, the United States has had the largest post-peak decline in its unemployment rate of 0.8 percentage points. The most recent U.S. unemployment rate of 5.6 percent is significantly below the most recent unemployment rates of 8.0 percent in the European Union or 7.4 percent in Canada. Moreover, the average duration of unemployment is much shorter for jobless workers in the United States than in either the European Union or Japan.

In every major developed country, the bursting of the bubble slowed economic growth. Corporate profits withered, capital gains evaporated, and the growth in other sources of income decelerated, causing income tax collections to fall as a percent of GDP from 2000 to 2003. Consequently, government budget balances deteriorated as a percent of GDP, whether or not countries tried to revive economic growth through tax reductions. Indeed, the size of the deterioration in the general government budget balances appears more closely related to higher general government outlays rather than lower general government receipts.

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I. INTRODUCTION

A previous Joint Economic Committee (JEC) study, *Economic Repercussions of the Stock Market Bubble*, examined the effects of the bursting of the U.S. stock market bubble in the first quarter of 2000 on the subsequent performance of the U.S. economy. This JEC study shows that the stock market bubble was a worldwide phenomenon. Many of the sudden and unexpected favorable developments that fueled optimism among stock market participants about the future returns from purchasing shares were general to all major developed economies rather than specific to the United States. Given the mobility of financial capital among major developed economies, it is not surprising that stock market participants bid share prices higher in stock exchanges around the world.

Optimism about future stock returns fed optimism among entrepreneurs and firm managers not only in the United States but also in other major developed economies specifically the European Union (EU)[1], Japan, and Canada. Entrepreneurs and firm managers expected that new investments in **capital assets** (*i.e*., equipment, software, and structures used by firms to produce goods and services) would be highly profitable. Rising share prices made it easy for firms to borrow or to issue new shares to finance such investments. Swelling optimism and easy finance ignited capital asset investment booms in each of these major developed economies.

Share prices peaked globally between December 1999 and September 2000. After the bubble burst, it became apparent that many investments in capital assets in these major developed economies were not economically viable. This overhang of bad investments has taken years to liquidate, retarding new investment in capital assets in each of these economies. Consequently, every major developed economy has suffered from at least one quarter of zero or negative real GDP growth since 2000. Since capital assets are generally composed of manufactured goods, declining investment rates have disproportionately affected the manufacturing sectors in each of these major developed economies, causing significant losses of manufacturing output and jobs.

Despite a stock market crash, economic slowdown and recession, terrorist attacks, wars, and other adverse shocks, the United States has outperformed, on balance, the other major developed economies in three key measures – real GDP growth, industrial production, and the decline in its unemployment rate after it had peaked – in recent years.[2] Among the major developed economies, the United States has had the largest increase in its real GDP of 7.8 percent after its downturn had ended.[3] The United States had the second smallest high-to-low

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[1] Economic data for the European Union incorporates economic data from all 15 member-states of the European Union (*i.e*, Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, and the United Kingdom).

[2] Unless otherwised indicated herein, economic data regarding Canada is from Statistics Canada; the European Union, Eurostat; Japan, Ministry of Public Management, Home Affairs, Posts and Telecommunications, Statistics Bureau; and the United States, U.S. Department of Commerce, Bureau of Economic Analysis.

[3] Unless otherwise indicated herein, GDP growth rates are seasonally adjusted annualized rates.

contraction in industrial production amounting to 6.7 percent.[4] Since its low, U.S. industrial production has climbed by 5.0 percent. Although unemployment rates have increased in all major developed economies,[5] the United States has had the largest post-recession decline in its unemployment rate of 0.8 percentage points. The most recent U.S. unemployment rate of 5.6 percent remains significantly below the most recent unemployment rates of 8.0 percent in the European Union or 7.4 percent in Canada.[6] Moreover, the average duration of unemployment is much shorter for jobless workers in the United States than in either the European Union or Japan.[7]

In every major developed country,[8] the bursting of the bubble slowed economic growth. Withering corporate profits, evaporating capital gains, and decelerating growth in other sources of income caused income tax collections to fall as a percent of GDP from 2000 to 2003. Consequently, general government budget balances deteriorated as a percent of GDP, whether or not countries tried to revive economic growth through tax reductions.[9] Indeed, the size of the deterioration in the general government budget balances appears more closely related to a trend toward higher general government outlays rather than lower general government receipts.

II. WORLDWIDE STOCK MARKET BUBBLE

Stock market bubbles begin when sudden and unexpected favorable developments cause stock market participants to become more optimistic about the future returns from purchasing stock. Many of the sudden and unexpected favorable developments (*e.g.*, victory in the Cold War and the invention of the World Wide Web and the Internet browser) that inflated a stock market bubble in the United States during second half of 1990s were general rather than specific to the United States. Given the mobility of financial capital among major developed economies, it is not surprising that stock market participants bid share prices higher in stock exchanges around the world. Table 1 shows extraordinarily large gains in share price indices in every major developed economy during the 1990s with the exception of Japan.

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[4] Unless otherwise indicated herein, industrial production indices are seasonally adjusted.

[5] Unless otherwise indicated herein, unemployment rates are seasonally adjusted.

[6] This study incorporates economic data available on or before March 16, 2004.

[7] OECD website at http://www1.oecd.org/scripts/cde/queryScreen.asp?DSET=CDELFS_C1T15I&SETNAME=Distribution+of+unemployment+by+duration&DBASE=LFS_INDICATORS&EMAIL=&DBNAME=Labour+Market+Statistics+%2D+INDICATORS.

[8] The major developed countries (which are also known as the G-7) are: Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States. This study uses individual member-state data rather than European Union data for general government budget balance comparisons because government spending and tax decisions remain the primary responsibility of the member-states rather than the European Union. In 2002, the combined GDP of France, Germany, Italy, and the United Kingdom was 70.8 percent of the GDP of the entire European Union.

[9] For consistency among cross-country comparisons, this study adopts Organization for Economic Cooperation and Development (OECD) accounting practices for government finance. OECD practices differ from the practices of the Congressional Budget Office (CBO) or the Office of Management and Budget (OMB). First, years are calendar years rather than fiscal years. Second, receipts, outlays, and government net lending of all levels of government (federal or national, state or provincial, and local) within a country are consolidated into a single general government account. CBO and OMB typically report financial data for the federal government (without consolidating federal data with state and local government data). Data for calendar year 2003 are based on actual data for the first, second, and third quarters of 2003 and OECD projections for the fourth quarter of 2003 dated December 2003.

Table 1 – Global Stock Market Bubble									
Major Developed Country	**Stock Index**	**Trough Date**	**Trough**	**Peak Date**	**Peak**	**Percent Increase Trough to Peak**	**Trough Date**	**Trough**	**Percent Decline Peak to Trough**
Canada	Toronto 300 Composite	October 16, 1990	3,010	September 1, 2000	11,389	278.4%	October 9, 2002	5,695	50.0%
France	Paris CAC 40	January 14, 1991	3,168	September 4, 2000	6,922	118.5%	March 12, 2003	2,403	65.3%
Germany	Frankfort Xetra Dax	January 16, 1991	1,323	March 7, 2000	8,065	509.7%	March 12, 2003	2,203	72.7%
Italy	Milan Mibtel General	November 23, 1993	9,044	March 6, 2000	34,819	285.0%	March 12, 2003	15,125	56.6%
Japan	Nikkei 225 Average	September 16, 1992	14,309	April 12, 2000	20,833	45.6%	April 28, 2003	7,608	63.5%
United Kingdom	Financial Times 100	September 28, 1990	1,990	December 31, 1999	6,930	248.2%	March 12, 2003	3,287	52.6%
United States	Dow Jones Industrial	October 11, 1990	2,365	January 14, 2000	11,723	395.7%	October 9, 2002	7,286	37.8%
United States	S&P 500	October 11, 1990	295	March 24, 2000	1,527	417.1%	October 9, 2002	777	49.1%
United States	NASDAQ Composite	October 16, 1990	325	March 10, 2000	5,049	1451.5%	October 9, 2002	1,114	77.9%

Stock market bubbles affect non-financial sectors of the economy. Optimism among stock market participants about the future returns from shares causes entrepreneurs and firm managers to become more optimistic about the future returns from investments in new capital assets. Simultaneously, rising share prices increase the market value of firms. These higher market values make it easier for firms to borrow or issue shares to finance such investments. Thus, swelling optimism and easy finance prompt firms to increase their investment in new capital assets.

As a result, stock market bubbles cause business investment (*i.e.*, private fixed non-residential investment) to increase. Even in Japan, whose economy still suffered throughout the 1990s from the bursting of a Japan-specific stock market bubble in 1989, optimism about the future profitability of investing in capital assets for producing goods and services for international markets, if not for the Japanese market, accelerated Japan's investment rate.

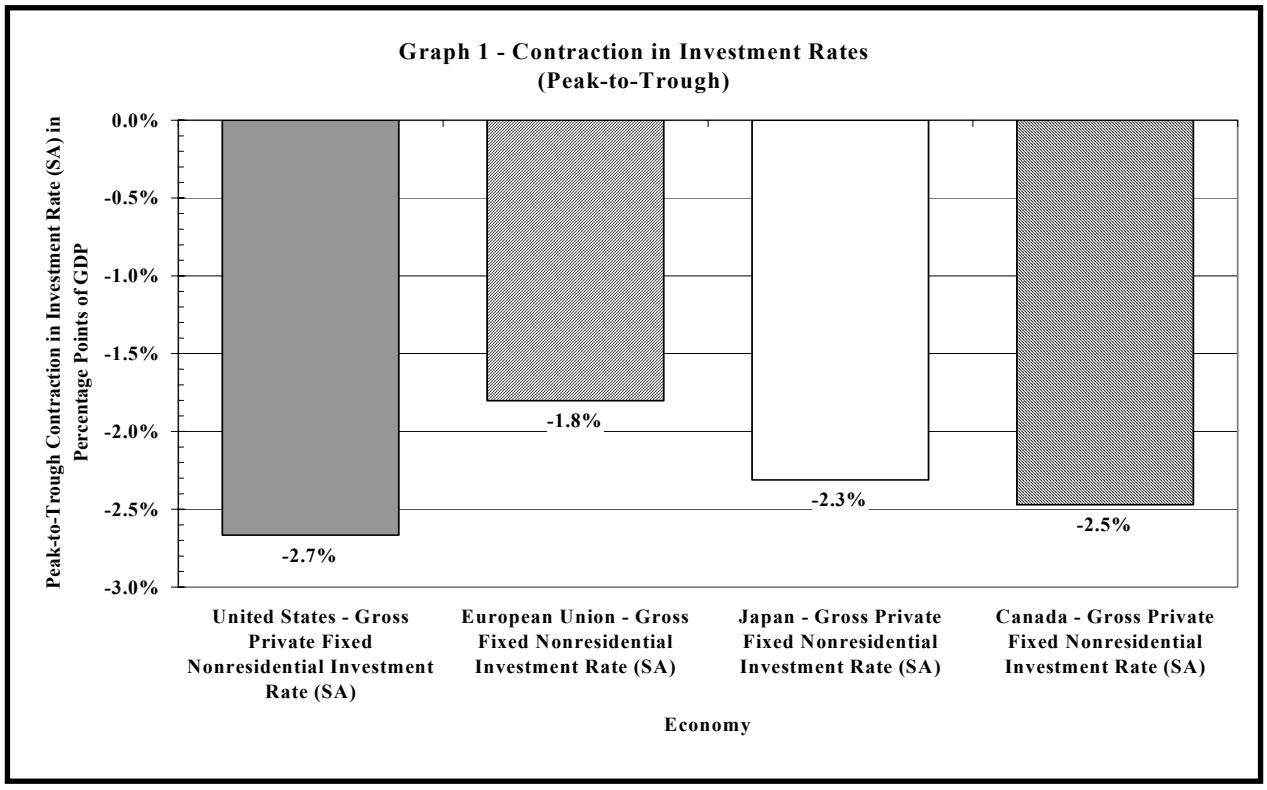
This impact of the stock market bubble on investment was visible in all major developed economies. The U.S. gross private fixed nonresidential investment rate peaked at 12.6 percent of GDP during the last three quarters of 2000. The European Union's gross fixed nonresidential investment rate peaked at 15.9 percent of GDP during the fourth quarter of 2000.[10] Japan's gross private fixed nonresidential investment rate peaked at 16.5 percent of GDP during the fourth quarter of 2000. Canada's gross private fixed nonresidential investment rate peaked at 13.1 percent of GDP during the fourth quarter of 1998 and then remained relatively high through the third quarter of 2001.

[10] Gross private fixed nonresidential investment data are not available for the European Union. Because of this data limitation, this study uses gross fixed nonresidential investment data, which include gross government fixed nonresidential investment, instead of gross private fixed nonresidential investment data for the European Union. Since quarterly changes in gross government fixed nonresidential investment tend to be very small relative to quarterly changes in gross private fixed nonresidential investment, trends in gross fixed nonresidential investment are indicative of trends in gross private fixed nonresidential investment.

III. DECLINING INVESTMENT RATES CAUSE WORLDWIDE ECONOMIC CONTRACTION

The rush to invest caused some firms to acquire too many capital assets to produce goods and services to meet demand. This is known as **overinvestment**. Moreover, other firms acquired the wrong capital assets to produce goods and services to meet demand. This is known as **malinvestment**. Consequently, overinvestment and malinvestment became widespread during the late 1990s in all major developed economies.

After the stock market bubble burst, overinvestment and malinvestment caused firms in affected industries to slash new investment. The U.S. gross private fixed nonresidential investment rate contracted by 2.7 percentage points to a low of 10.0 percent of GDP during the first and second quarters of 2003. The European Union's gross fixed nonresidential investment rate slipped by 1.8 percentage points to a low of 14.1 percent of GDP during the third quarter of 2003. Japan's gross private fixed nonresidential investment rate dropped by 2.3 percent to a low of 14.2 percent during the second and third quarters of 2002. Canada's gross private fixed nonresidential investment rate fell by 2.5 percentage points to a low of 10.7 percent of GDP during the second quarter of 2003 (see Graph 1).



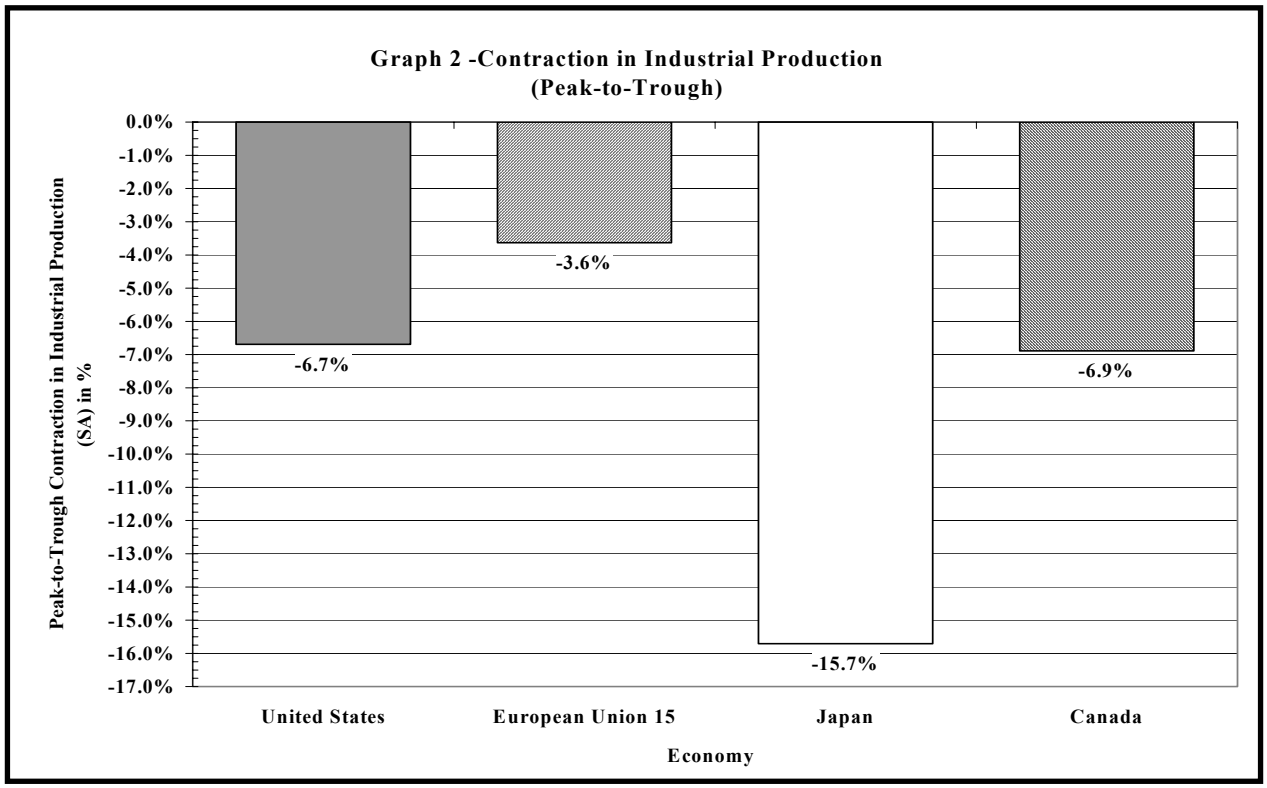
⇒ **Real GDP growth**. Declining investment rates have inhibited economic growth. Since 2000, every major developed economy has suffered from at least two quarters of zero or negative real GDP growth. Among the major developed economies, Japan had the largest peak-to-trough contraction in real GDP.

- **United States**. U.S. real GDP contracted by 0.1 percent from the third quarter of 2000 to the third quarter of 2001.

- **European Union**. The EU's real GDP contracted by 0.1 percent during the fourth quarter of 2001.
- **Japan**. Japan's real GDP contracted by 2.0 percent from the second quarter of 2001 to the second quarter of 2002.
- **Canada**. Canada's real GDP contracted by 0.7 percent during the third quarter of 2001 and again by 0.7 percent during the second quarter of 2003.

⇒ **Industrial production**. Since many capital assets are manufactured goods, declining investment rates among the major developed economies have disproportionately affected their manufacturing sectors. Consequently, the percentage high-to-low decline in industrial production was significantly larger than the percentage peak-to-trough decline in real GDP in each of the major developed economies. Among the major developed economies, Japan had the largest high-to-low contraction in industrial production (see Graph 2).

- **United States**. U.S. industrial production contracted by 6.7 percent from a high during June 2000 to a low during December 2001.
- **European Union**. The EU's industrial production contracted by 3.6 percent from a high during December 2000 to a low during November 2001.
- **Japan**. Japan's industrial production contracted by 15.7 percent from a high during December 2000 to a low during November 2001.**Canada**. Canada's industrial production contracted by 6.9 percent from a high during December 2000 to a low during December 2001.



⇒ **Unemployment Rate**. Among the major developed economies, Japan suffered the largest increase in its unemployment rate, while Canada and the European Union tied for the highest peak unemployment rate (see Graph 3). In 2002, the last year in which complete data are available, the average duration of unemployment is much shorter for unemployed workers in United States than in either the European Union or Japan (see Table 2).

- **United States**. The U.S. unemployment rate rose from a low of 3.8 percent in April 2000 to a high of 6.4 percent in June 2003.[11] In 2002, 65.3 percent of unemployed American workers found new jobs within three months, while 18.3 percent of unemployed American workers remained jobless for six months or longer.[12]
- **European Union**. The EU's unemployment rate rose from twin lows of 7.3 percent in March through May 2001 and again in July 2003 to a high of 8.0 percent from February 2003 through December 2003. In 2002, only 23.6 percent of unemployed European workers found new jobs within three months, while 59.0 percent of unemployed European workers remained jobless for six months or longer.[13]
- **Japan**. Japan's unemployment rate rose steadily from a low of 2.0 percent in February 1992 to triple highs of 5.5 percent in August 2002, October 2002, and January 2003. In 2002, 33.7 percent of unemployed Japanese workers found new jobs within three months, while 49.0 percent of unemployed Japanese workers remained jobless for six months or longer.[14]
- **Canada**. Canada's unemployment rate rose from a low of 6.7 percent in June 2000 to twin highs of 8.0 percent in December 2001 and again in August and September 2003. In 2002, 65.1 percent of unemployed Canadian workers found new jobs within three months, while 18.7 percent of unemployed Canadian workers remained jobless for six months or longer.[15]

Table 2 – Duration of Unemployment in 2002[16]

	< 1 Month	> 1 Month & < 3 Months	> 3 Months & < 6 Months	> 6 Months & < 1 Year	> 1 Year
Canada	25.8 %	39.3 %	16.2 %	9.0 %	9.7 %
European Union	7.2 %	16.4 %	17.5 %	17.6 %	41.4 %
Japan	14.1 %	19.6 %	17.3 %	18.2 %	30.8 %
United States	34.5 %	30.8 %	16.3 %	9.8 %	8.5 %

[11] U.S. Department of Labor, Bureau of Labor Statistics.

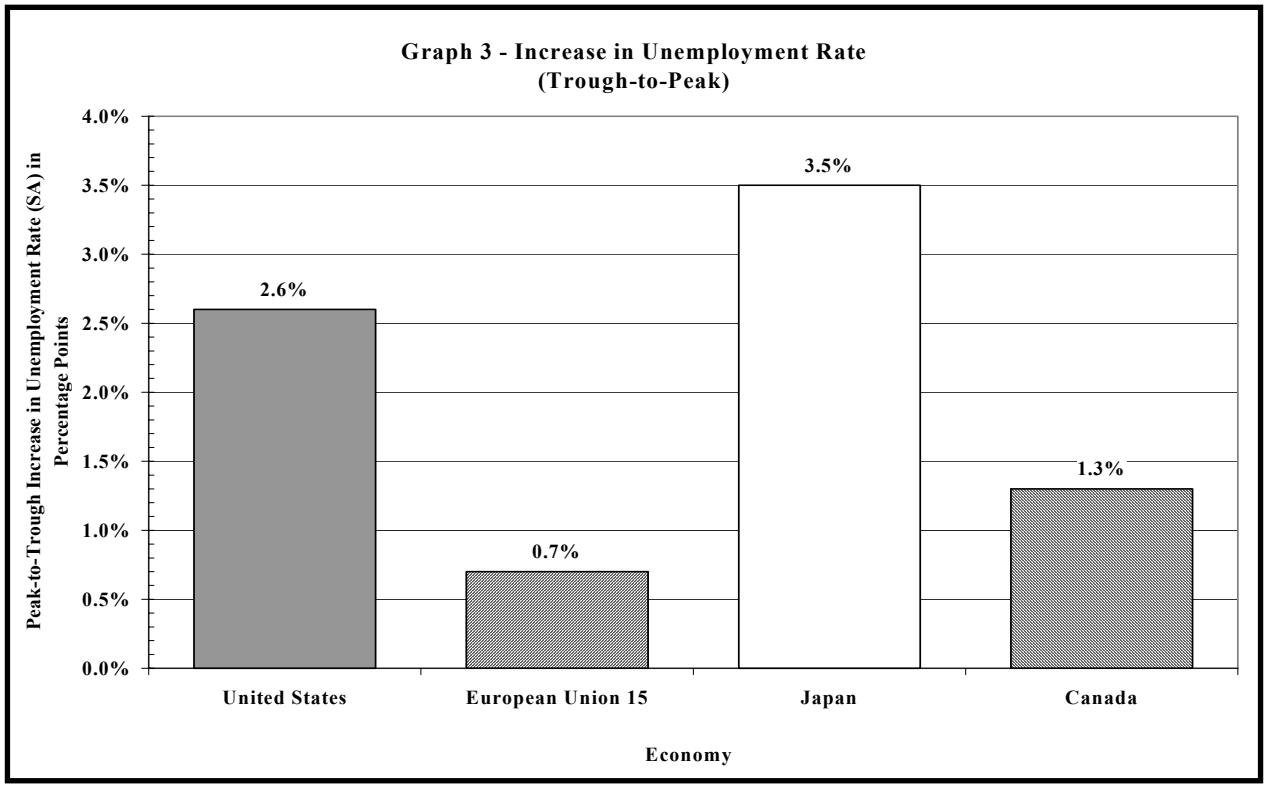
[12] OECD.

[13] OECD.

[14] OECD.

[15] OECD.

[16] OECD.



IV. RECOVERY AND EXPANSION

Among the major developed economies, the United States was the first to recover and has had the most vigorous expansion after the worldwide, stock market bubble-induced recession ended. The United States has also enjoyed the largest decline in its unemployment rate.

⇒ **Real GDP Growth** (see Graph 4)

- **United States**. Since its trough in the third quarter of 2001 through the fourth quarter of 2003, U.S. real GDP has grown 7.8 percent cumulatively.
- **European Union**. Since its trough in the fourth quarter of 2001 through the fourth quarter of 2003, the EU's real GDP has grown 2.2 percent cumulatively.
- **Japan**. Since its trough in the fourth quarter of 2001 through the fourth quarter of 2003, Japan's real GDP has grown 5.9 percent cumulatively.
- **Canada**. Since its second trough in the second quarter of 2003 through the fourth quarter of 2003, Canada's real GDP has grown 1.0 percent cumulatively.

Since the troughs of the most recent business cycle occurred at different times in each of these major developed economies, Table 3 provides an alternative fixed-time comparison of the average annual GDP growth rates in these economies from 2001 to 2003. In either comparison, however, the United States registered the best performance among all major developed economies in terms of real GDP growth.

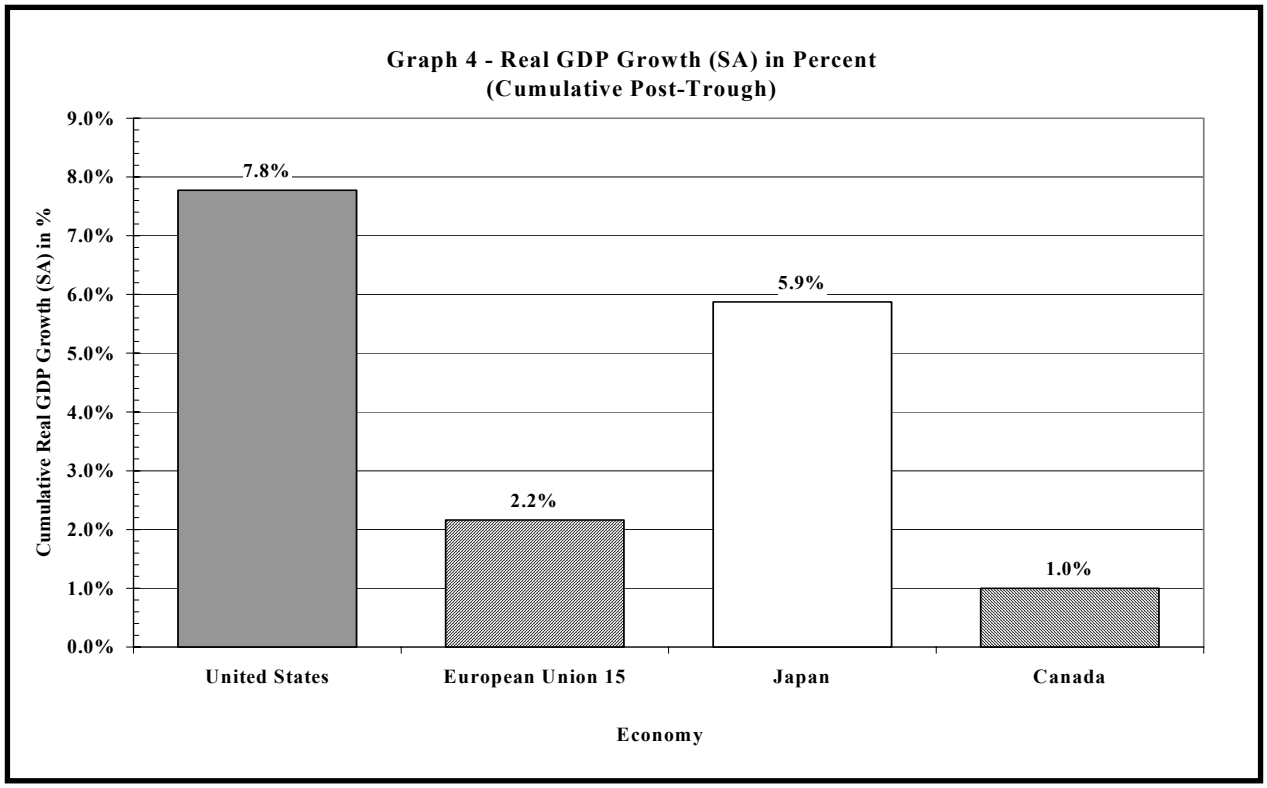
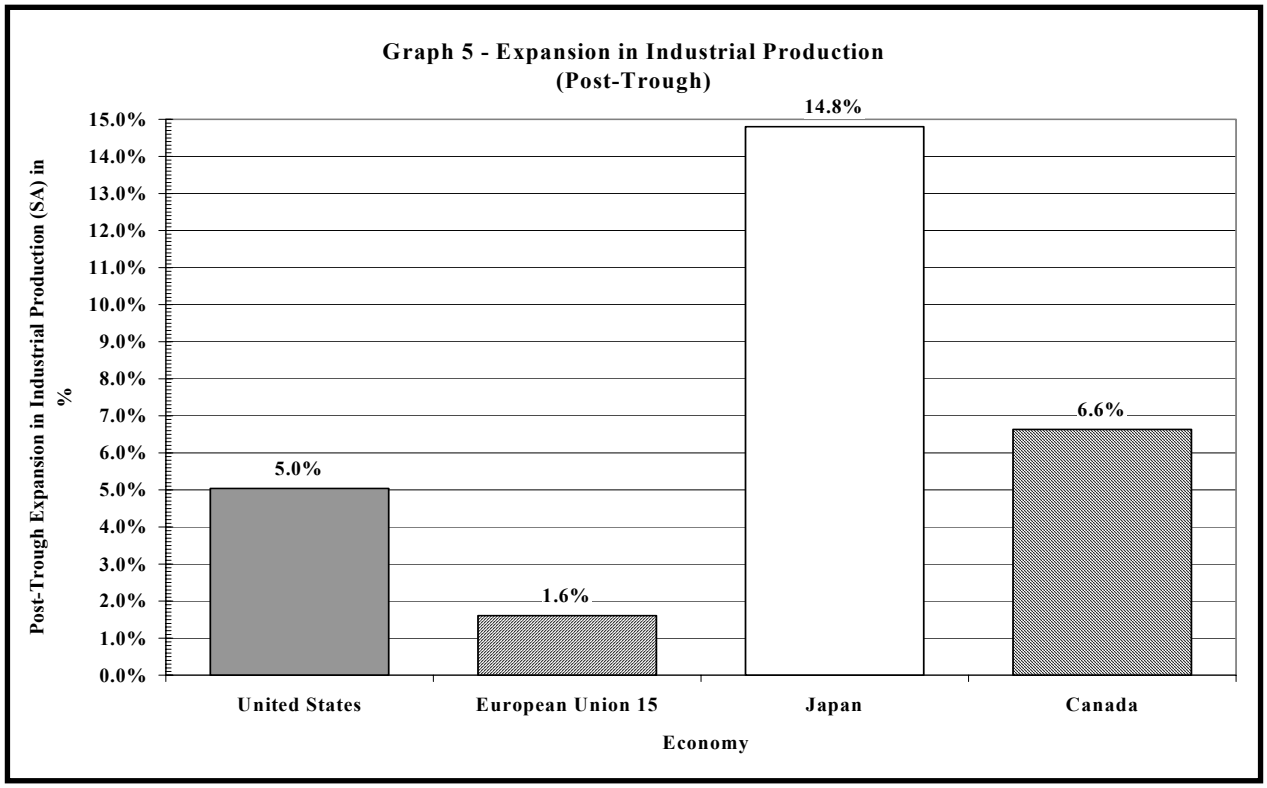


Table 3 - Average Annual GDP Growth Rates in Major Developed Economies: 2001-2003				
	United States	**European Union 15**	**Japan**	**Canada**
Average Annual GDP Growth Rate	2.3%	1.0%	1.1%	2.1%

⇒ **Industrial Production**. After suffering the sharpest decline, Japan has enjoyed the largest post-trough increase in industrial production among the major developed economies. Canada and the United States have experienced moderate post-trough growth in their industrial production, while industrial production in the European Union has barely increased from its trough (see Graph 5).

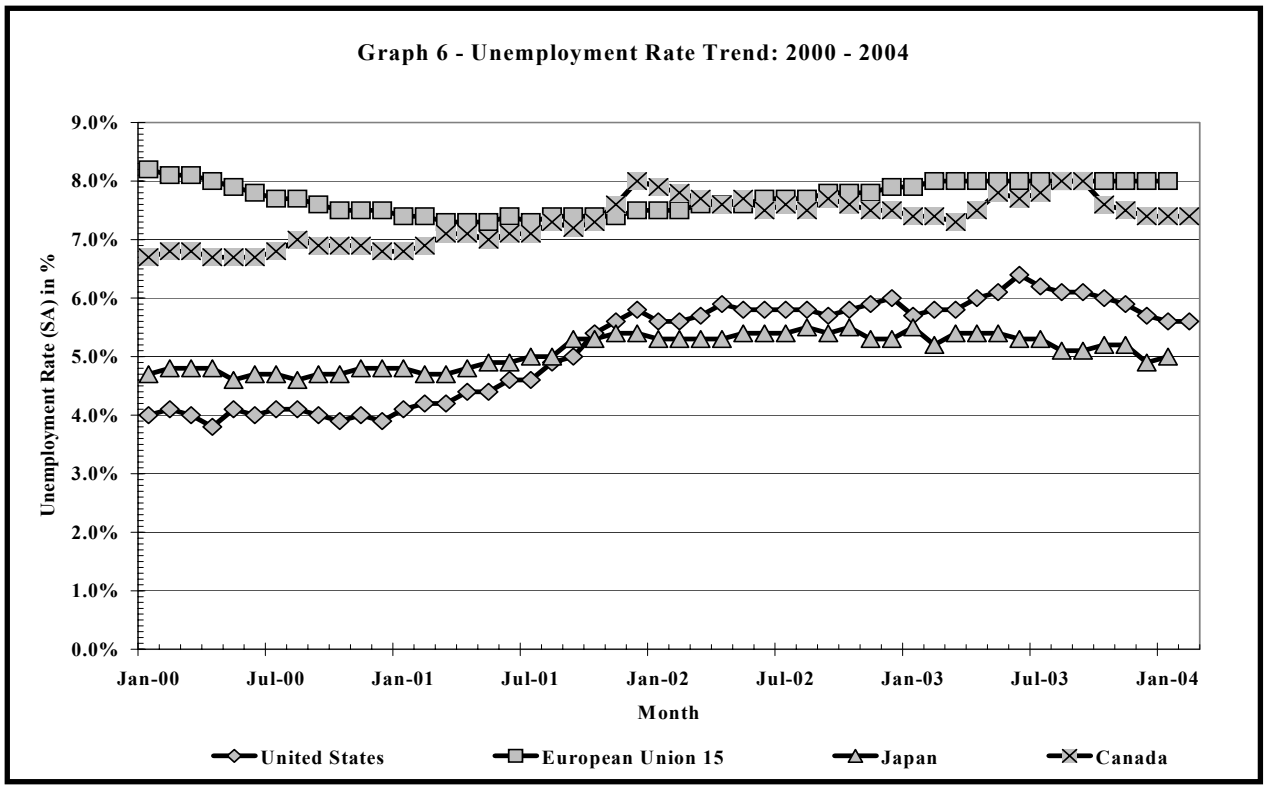
- **United States**. Since its low in December 2001 to February 2004, industrial production has expanded by 5.0 percent in the United States.
- **European Union**. Since its low in November 2001 to December 2003, industrial production has expanded by 1.6 percent in the European Union.
- **Japan**. Since its low in November 2001 to January 2004, industrial production has expanded by 14.8 percent in Japan.
- **Canada**. Since its low in December 2001 to December 2003, industrial production has expanded by 6.6 percent in Canada.

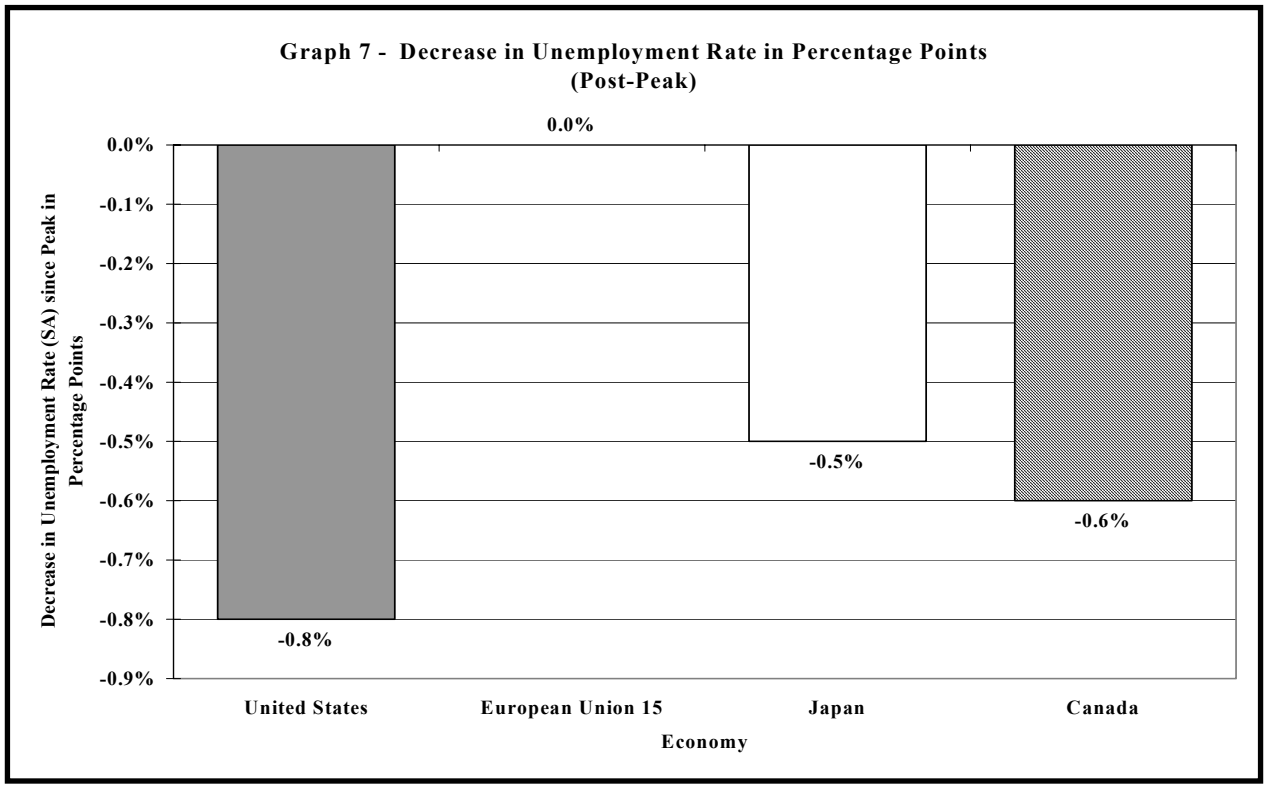


⇒ **Unemployment Rate.** Unemployment rates have fallen from their post-recession high in all of the major developed economies except the European Union (see Graphs 6 and 7). The fall in unemployment rates has been slower during this recover than many would have hoped because of a significant reduction in the number of manufacturing jobs that began during the 1990s in most developed economies.[17]

- **United States**. Since its high in June 2003, the unemployment rate in the United States has fallen by 0.8 percentage points to 5.6 percent in February 2004.
- **European Union**. The unemployment rate in the European Union remained at its peak of 8.0 percent in January 2004.
- **Japan**. Since its last high in January 2003, the unemployment rate in Japan has fallen by 0.5 percentage points to 5.0 percent in January 2004.
- **Canada**. Since its last high during August and September 2003, the unemployment rate in Canada has fallen by 0.6 percentage points to 7.4 percent in February 2004.

[17] All of these economies have suffered long-term losses in manufacturing jobs. Beginning in January 1990, manufacturing employment has declined by 27.8 percent since its peak in Japan, 25.8 percent since its peak in the European Union, 20.0 percent since its peak in the United States, and 4.1 percent since its peak in Canada.





V. EFFECT ON GOVERNMENT BUDGET BALANCES

Falling income tax collections have caused government budget balances (*i.e.*, surpluses or deficits) to deteriorate. After the stock market bubble burst in 2000, economic growth slowed in

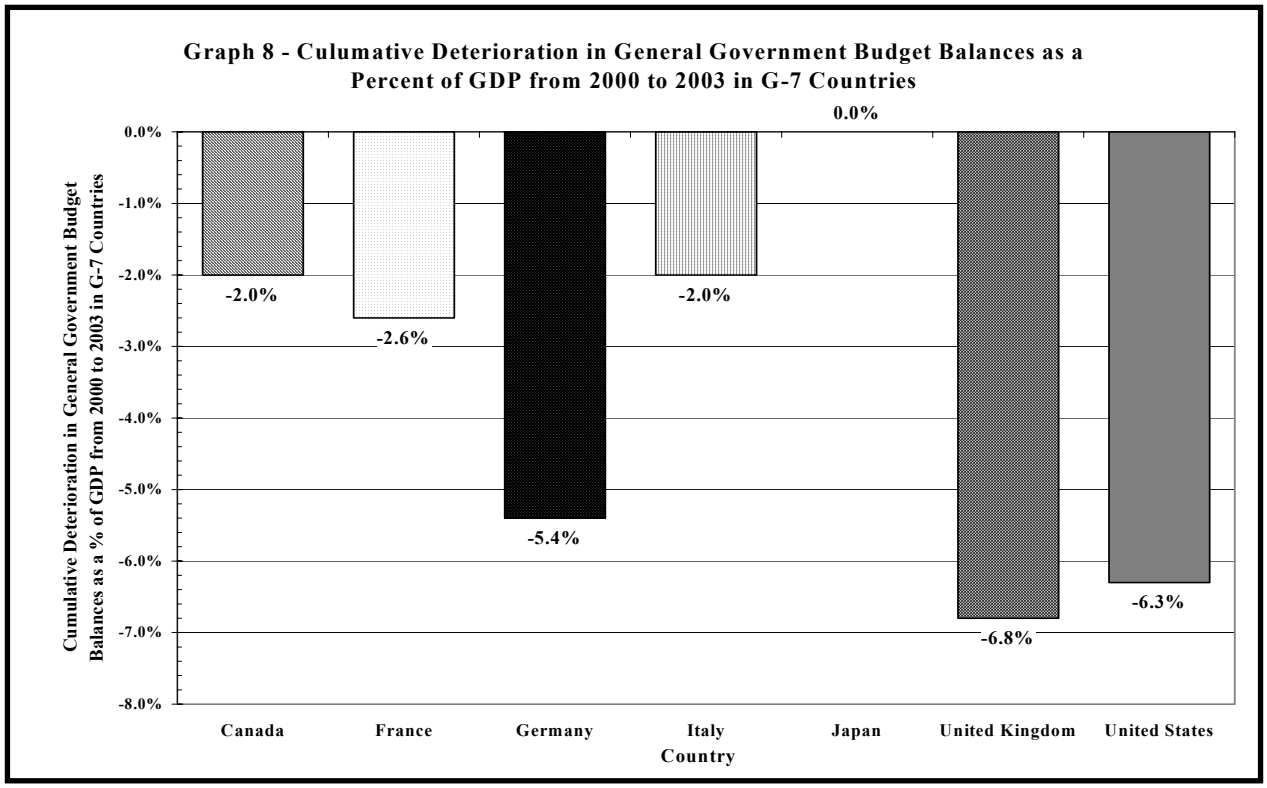
all of the major developed countries (*i.e.*, Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States). As a result, corporate profits declined, individual capital gains disappeared, and the growth of other sources of income decelerated. The OECD reported that general government receipts as a percent of GDP fell significantly from 2000 to 2003 in all major developed countries. Most of this reduction was due to lower income tax receipts from businesses and households as a percent of GDP. Other types of tax receipts as a percent of GDP were largely unchanged.

From 2000 to 2003, general government outlays as a percent of GDP rose significantly in all major developed countries except Canada and Japan. Additional costs for defense and homeland security following the terrorist attack of September 11 caused general government outlays in the United States to increase by 2.3 percentage points to 35.9 percent of GDP in 2003. However, other countries had even larger increases in general government outlays as a percent of GDP between 2000 and 2003 than the United States. In Germany, general government outlays rose by 3.7 percentage points of GDP, while in the United Kingdom, general government outlays soared by 5.8 percentage points of GDP.

Because of diminished general government income tax receipts and higher general government outlays, general government budget balances as a percent of GDP deteriorated significantly from 2000 to 2003 in all major developed countries except Japan. As seen in Graph 7, the largest deterioration in general government budget balances occurred in the United Kingdom (6.8 percentage points of GDP) followed closely by the United States (6.3 percentage points of GDP) and Germany (5.4 percentage points of GDP). The general government budget balances deteriorated by 2.6 percentage points of GDP in France and by 2.0 percentage points of GDP in Canada and Italy. Although Japan's general government budget balance did not deteriorate as a percentage of GDP, it remained far higher at -7.4 percent of GDP than any other major developed country.

Tax reductions played at most a minor role in the deterioration of general government budget balances from 2000 to 2003. Two of the countries that did not significantly reduce their tax burdens – Germany and the United Kingdom – suffered two of the largest deteriorations in their government budget balances. Instead, these deteriorations in general government budget balances were due to significantly higher general government outlays as a percent of GDP.

Countries that did enact significant tax reductions to stimulate their economies had differing results regarding general government budget balances. Four major developed countries enacted and began to implement significant tax reductions between 2000 and 2003. In 2000, Canada enacted a five-year phased reduction in federal income taxes. In 2001, the United States enacted a ten-year phased reduction in federal income and estate taxes. In 2002, France implemented significant income and payroll tax reductions. In 2003, the United States accelerated the individual income tax rate reductions enacted in 2001, reduced the tax rates applied to dividends and capital gains to 15 percent for most individuals, and increased the amount of new investments that firms may expense immediately. In 2003, Italy simplified its individual and corporate income taxes, slashing the top marginal rate on both to 33 percent.



Both Canada and Italy had a relatively small decline in their general government budget balances of 2.0 percentage points of GDP. France had a somewhat larger decline of 2.6 percentage points of GDP, while the United States had a significantly larger decline of 6.3 percentage points of GDP. The larger deterioration in the United States compared to Canada, France, or Italy is mainly attributable to higher general government outlays as a percent of GDP. From 2000 to 2003, general government outlays rose by 2.3 percentage points of GDP in the United States while general government outlays increased more slowly in France (1.9 percentage points of GDP) and Italy (1.6 percentage points of GDP) and actually fell in Canada (-0.9 percentage points of GDP).

VI. CONCLUSION

A worldwide stock market bubble ignited a rush among firms to invest in capital assets not only in the United States, but also in the other major developed economies – the European Union, Japan, and Canada. The bursting of bubble revealed massive overinvestment and malinvestment that has taken years to liquidate in all major developed economies. The resulting collapse in investment rates has caused each of these major economies to suffer at least one quarter of zero or negative real GDP growth since 2000. Declining investment rates have disproportionately affected the manufacturing sectors in each of the major developed economies, causing significant losses of manufacturing output and jobs.

After the bubble burst, the United States has outperformed, on balance, other major developed economies in recent years in terms of real GDP growth, industrial production, and the decline in its unemployment rate after its post-recession high. The United States has had the largest increase in its real GDP of 7.8 percent after its downturn had ended. Although unemployment rates have increased in all major developed economies, the United States has had

the largest post-recession decrease in its unemployment rate of 0.8 percentage points. The most recent U.S. unemployment rate of 5.6 percent is significantly lower than the most recent unemployment rates in either Canada or the European Union. The average duration of unemployment is much shorter for jobless workers in the United States than in either the European Union or Japan.

In every major developed country, the bursting of the bubble slowed economic growth. Withering corporate profits, evaporating capital gains, and decelerating growth in other sources of income caused income tax collections to fall as a percent of GDP. Consequently, general government budget balances deteriorated as a percent of GDP, whether or not countries tried to revive economic growth through tax reductions. Indeed, the size of the deterioration in the general government budget balances appears more closely related to higher general government outlays rather than lower general government receipts.

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