Does Japan Offer Any Lessons for the United States?

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Note: This article was written before the events of September 11, 2001, and some of the analysis will seem dated. Policy lessons from Japan's experience may still be pertinent.

In the late 1990s, some observers began to make comparisons between the rapid rise in stock prices then taking place in the United States and the escalation in asset values in Japan in the late 1980s. Did Japan's experience, which was followed by more than a decade of stagnation, contain any cautionary lessons for the United States? *The Economist*, in particular, warned that the United States might be experiencing an asset price bubble.[1] More frequently, the question was posed rhetorically and was quickly followed by a resounding "No." The United States is not like Japan. Its economic fundamentals are much sounder, and its policymakers will not make the same mistakes.

With the recent slowing in the pace of U.S. economic activity, the question has been asked more earnestly; and while the prevailing view remains that the United States is not Japan, the denials have been less forceful.[2] Commentators have become less optimistic about the U.S. outlook, even as they recall that Japanese fundamentals appeared very good in the late 1980s.

This article compares Japan's experience during the 1980s with U.S. prosperity in the 1990s, trying to discern the extent of similarities and differences. It then provides an overview of how Japanese policymakers responded once economic conditions began to deteriorate. Japanese policy has been harshly criticized by U.S. economists; so Japan's mistakes may provide lessons for policymakers here and elsewhere. The article does not attempt to break new ground in this regard; so those familiar with Japan's circumstances will find little that is new, although possibly some differences of interpretation.

On balance, the conclusion is reassuring. Although similarities exist between Japan's economic performance in the 1980s and U.S. experience in the late 1990s, land values, as well as stock prices, rose very rapidly in Japan. Bank lending backed by land also rose very rapidly. This is a critical difference, as the subsequent decline in Japanese land values crippled the Japanese banking system and economic activity generally.

On the policy front, U.S. economists have criticized Japan for moving too slowly and too timidly to address its problems. To this author, the criticisms seem harsh. Knowing how much is enough is a difficult challenge, and the external environment that Japan faced at key junctures in the 1990s was unfavorable. Nevertheless, after a decade of economic stagnation, no one can dispute that policy was inadequate. If nothing else, Japan's experience shows that time does not heal all economic wounds.

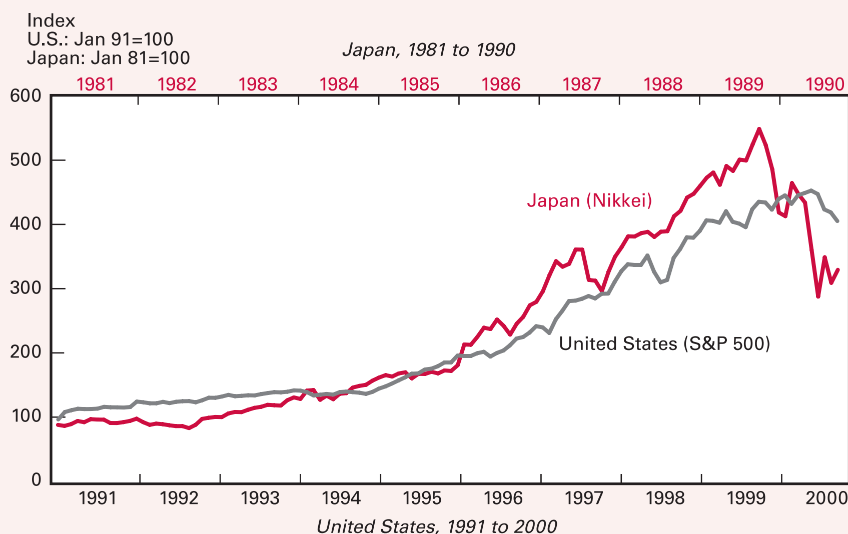
I. Japan in the 1980s versus the United States in the 1990s

The broad outlines of Japan's story are familiar. Japan grew vigorously in the 1980s, faster than any other industrialized country. The stock market soared; land prices also increased rapidly. This increase in asset prices is now viewed as a bubble. In the early 1990s, both stock prices and land values collapsed; they remained depressed through the rest of the decade. Economic growth sputtered almost to a halt and then failed to reignite. The Japanese economy has stagnated for over ten years.

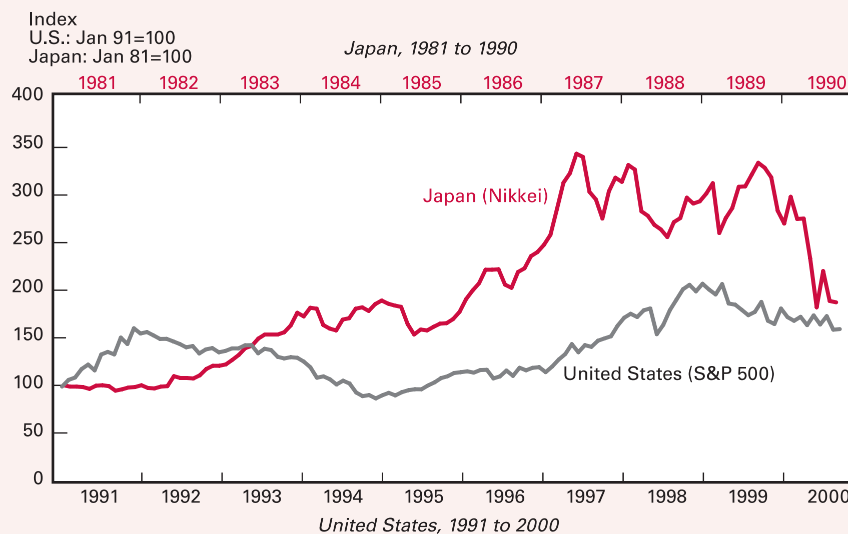
During the 1990s, the United States experienced a period of vigorous growth combined with a rapid escalation in stock prices. While people have debated for some time whether the run-up in stocks reflected economic fundamentals or a bubble psychology, the collapse of the technology-oriented Nasdaq index over the course of 2000 has emboldened those who argued for a bubble and has fostered more comparisons with Japan's experience in the 1980s.

Figure 1

a. Stock Prices Rose Rapidly



b. Price/Earnings Ratios



Note: Monthly data.
Source: Nikkei Macroeconomics Statistics; Standard & Poor's DRI; *Wall Street Journal*/Haver Analytics; Federal Reserve Board/FAME database.

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[1] "America bubbles over," from *The Economist* print version as found in *Economist.com*, April 16, 1998.

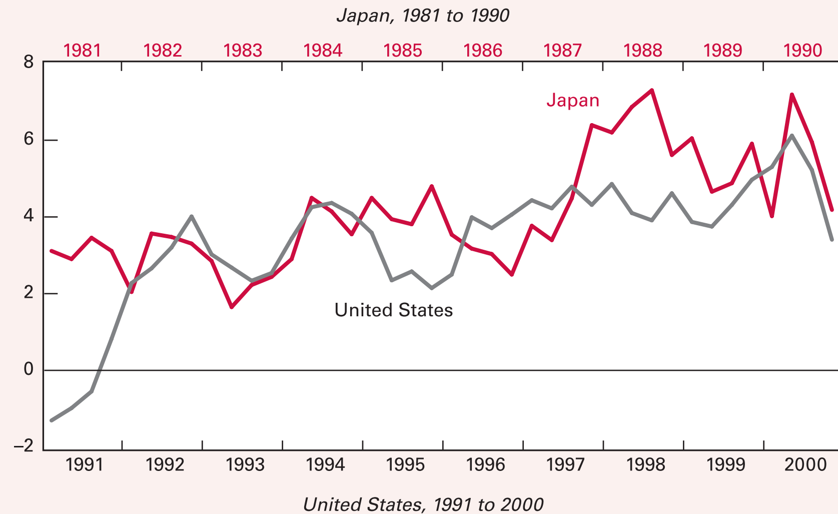
[2] See Martin Wolf in the *Financial Times*, March 7, 2001 and *The Economist*, March 3, 2001.

Financial Conditions

Figure 2

Real GDP Growth Was Strong Late in the Decade

Year-Over-Year Percent Growth



Note: Quarterly data.
Source: U.S. Bureau of Economic Analysis and OECD Main Economic Indicators/Haver Analytics.

The most obvious similarity between Japan in the 1980s and the United States in the 1990s is rapidly rising stock prices (Figure 1a). Between the beginning of 1981 and the beginning of 1990, the Nikkei index of stock prices increased fivefold, or roughly 20 percent per year. In the United States, the S&P 500 index quadrupled from the beginning of 1991 to the beginning of 2000; and from early 1996 to early 2000, the index increased more than 20 percent per year. In both cases, stock prices rose more rapidly than earnings, resulting in price-earnings ratios far above historical averages (Figure 1b). Again, the increase was somewhat sharper in Japan, with the Nikkei price-earnings ratio more than tripling during the 1980s while the price-earnings ratio of the S&P 500 doubled.[3]

The run-up in stock prices in Japan was accompanied by rapid increases in real estate values, while in the United States, real estate values were relatively quiescent through much of the 1990s. Comparable figures on real estate are hard to come by. However, calculations by the Bank for International Settlements indicate that real house values in Japan about doubled in the 1980s, but were relatively constant in the United States in the 1990s.[4] The nominal price of urban land in Japan rose about 7 percent per year in the 1980s, 10 percent per year in the last four years of the decade.[5] Commercial land prices and prices of land in large cities, especially Tokyo, rose more rapidly. In the United States, the total value of residential real estate, *including structures*, rose an average of 5 percent per year in the 1990s, although about 9 percent per year in the last four years. The value of corporate real estate rose a little more slowly over the entire decade, a little faster in the last four years.[6]

As part of a review of Japan's financial crisis undertaken by the Institute for International Economics, Shimizu (2000) emphasizes the degree to which Japan's stock market bubble and the rise in real estate prices fed on each other. The buoyant stock market allowed corporations to raise large sums at low cost. Corporations took advantage of this opportunity to raise more funds than their ongoing operations could absorb and invested the excess in real estate,

[3] During the late 1980s, the Nikkei price-earnings ratios surpassed 60 on occasion, while the high for the S&P 500 was 35. However, French and Poterba (1991) point out that Japanese price-earnings ratios tend to be higher than price-earnings ratios in the United States because of extensive cross-holdings by corporations of one another's shares and, to a lesser degree, because of certain accounting differences. According to their estimates, a price-earnings ratio of 60 in Japan in the late 1980s was equivalent to a ratio of between 35 and 40 in the United States. The starting dates of 1981 and 1991 also tend to present the United States in a more favorable light relative to Japan. In both cases, price-earnings ratios were already relatively high by historic standards, but more so in the case of the United States.

[4] Source: Bank for International Settlements data as presented in the *OECD Economic Outlook*, No. 68, December 2000, p. 170.

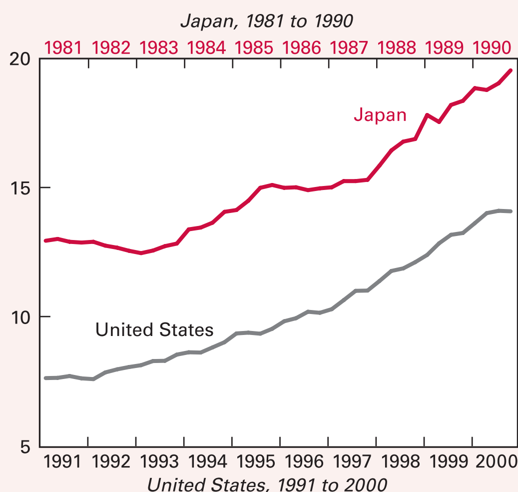
[5] Source: Urban Land Price Index, Japan Real Estate Institute.

[6] Source: Total real estate holdings of households (includes nonprofit organizations) and nonfarm nonfinancial corporate businesses from the Federal Reserve, Flow of Funds Accounts of the United States, as found in Haver Analytics. If one interprets changes in the value of real estate less changes in the replacement value of structures as changes in land prices, residential land prices in the United States rose an average of 3 percent per year in the 1990s and 13 percent per year in the last four years.

Figure 3

Business Investment Increased as Share of Real GDP

Percent of Real GDP

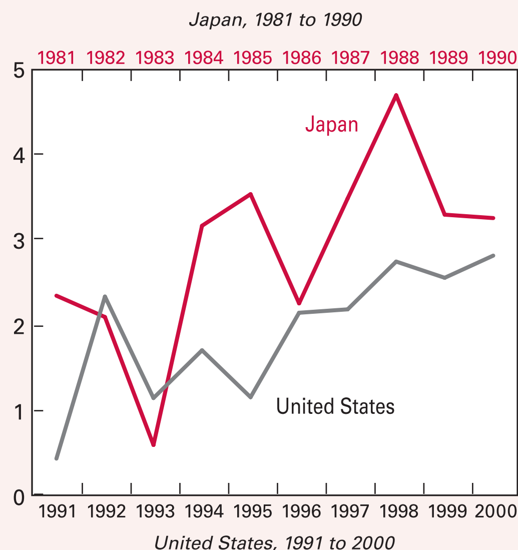


Note: Quarterly data. Investment is defined as investment in machinery and equipment, as calculated by the OECD.
Source: OECD Main Economic Indicators/Haver Analytics.

Figure 4

Productivity Growth Strengthened

Year-Over-Year Percent Change



Note: Annual data. Productivity growth is calculated as the growth in real GDP relative to the growth in employment.
Source: OECD *Economic Outlook*, June 1988, December 2000.

helping to drive up land values. Meanwhile, banks were losing large corporate borrowers to the equity market, even as their own equity holdings, which counted in their capital base, rose in value. Banks reacted by increasing their lending to smaller companies, individuals, the real estate industry, and nonbank financial institutions. In many cases, the collateral for these loans was real estate.

The Real Economy

In terms of economic performance, there are, again, similarities between U.S. experience in the 1990s and Japan's experience in the 1980s. In both cases, growth was stronger in the second half of the decade (Figure 2). Real GDP in Japan grew 5 percent per year from 1985 to 1990 compared to 3 percent in the first half of the decade. Real GDP in the United States grew 4 percent per year in the second half of the 1990s, compared to 2 percent in the first. In both cases, business investment was a key driver, accounting for an increasing share of economic activity (Figure 3). And in both cases, productivity growth strengthened over the course of the decade (Figure 4), helping to hold down inflation (Figure 5), even as unemployment rates declined (Figure 6).

Inflation rates in both countries were also shaped in similar fashion by fluctuations in oil prices. Sharply declining oil prices contributed to the very low rates of inflation in Japan in 1986 and 1987 and in the United States in 1998. Rising exchange rates may have damped inflationary pressures as well.[7] By the end of each decade, however, oil prices were rising rapidly and boosting inflation rates.

The strong economic performances of Japan in the late 1980s and the United States in the late 1990s attracted much admiration from observers in other countries. Japanese management techniques were widely emulated in the United States and a number of books were written by U.S. academics and others in the late 1980s and early 1990s stressing the competitive threat posed by Japan.[8]

[7] Browne, Hellerstein, and Little (1998) note that a rising exchange rate may reinforce speculative tendencies as global investors are drawn by the prospect of currency gains as well as appreciation in stock or property prices.

[8] For example, *Power Japan* by Ziemba and Schwartz and *Head to Head* by Lester Thurow.

Monetary Policy

Monetary policy also exhibited some similarities. In both countries, concerns over sluggish growth at mid decade led policymakers to cut interest rates. Later, as growth picked up, policymakers expressed some anxiety about the implications of rapidly rising asset prices; but these concerns were allayed by low rates of inflation and strong productivity growth. When sentiment to tighten did develop, international considerations intervened. And in both countries, when interest rates were increased at the end of the decade, the stock market declined.

In 1986, the Bank of Japan (BOJ) cut interest rates, fearing that an appreciating yen would slow the economy and responding to external pressure to stimulate domestic demand and reduce its trade surplus (Figure 7a). With inflation receding, real rates did not fall for another year (Figure 7b); however, the growth of the money supply accelerated (Figure 8). Stock prices began to rise more rapidly and were followed soon after by land values.

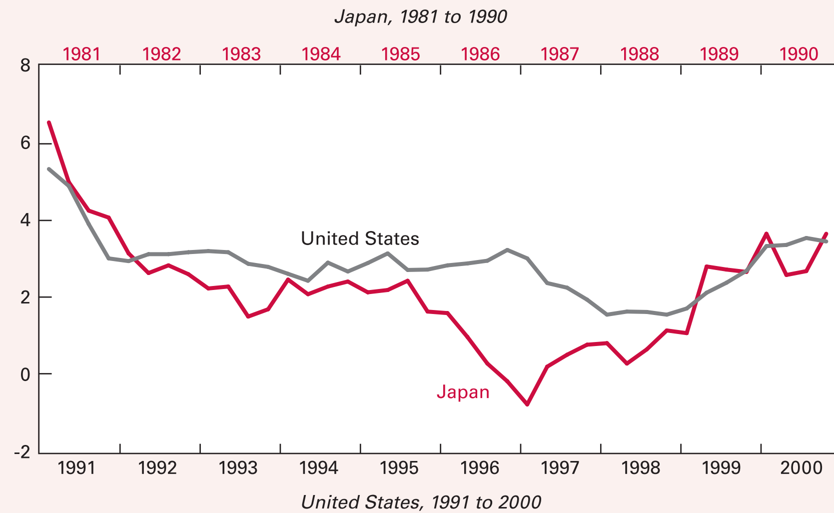
The BOJ expressed concern in 1987 about the rapid growth in the money supply and the appreciation in asset prices, but the combination of international agreements calling for Japan to maintain a stimulative policy and the stock market crash of October stayed its hand.[9] In 1988, however, anxieties about rising asset prices and rapid money growth seem to have receded. Although the United States increased interest rates that year, Japan did not.

The explanation for not raising rates seems to be that inflation was so low. Consumer prices in Japan rose just 0.7 percent in 1988. Jinushi, Kuoki, and Miyao (JKM 2000), also writing in the review of Japan's financial crisis by the Institute for International Economics, hypothesize that a

Figure 5

Consumer Price Inflation Was Moderate

Year-Over-Year Percent Change

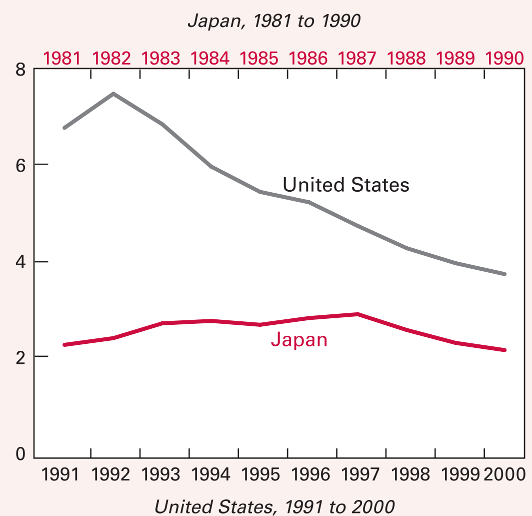


Note: Quarterly data. Data for Japan are not seasonally adjusted.
Source: U.S. Bureau of Labor Statistics and OECD Main Economic Indicators/Haver Analytics.

Figure 6

Unemployment Rates Declined

Percent



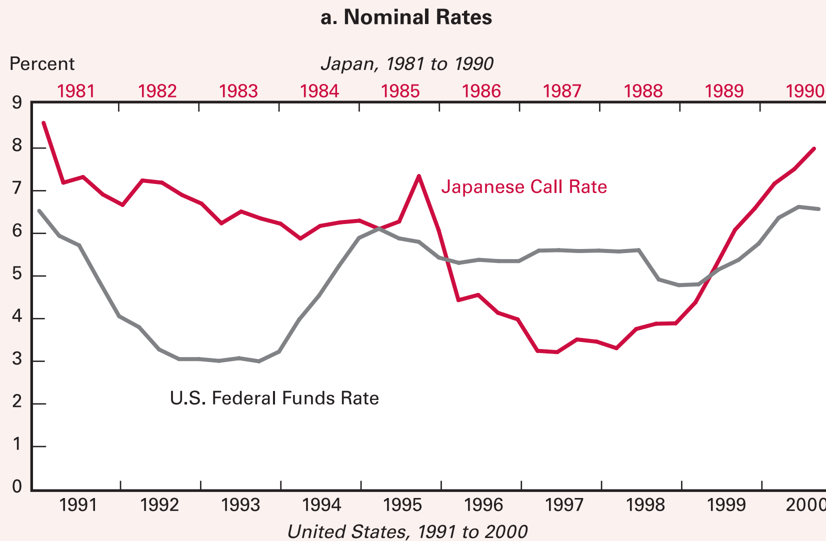
Note: Annual data. Japanese rate is the total unemployment rate; the U.S. rate is the civilian unemployment rate.
Source: OECD Main Economic Indicators/Haver Analytics.

[9] Under the Plaza Agreement in 1985 and the Lourvre Accord in 1987, Japan agreed to follow a stimulative monetary policy.

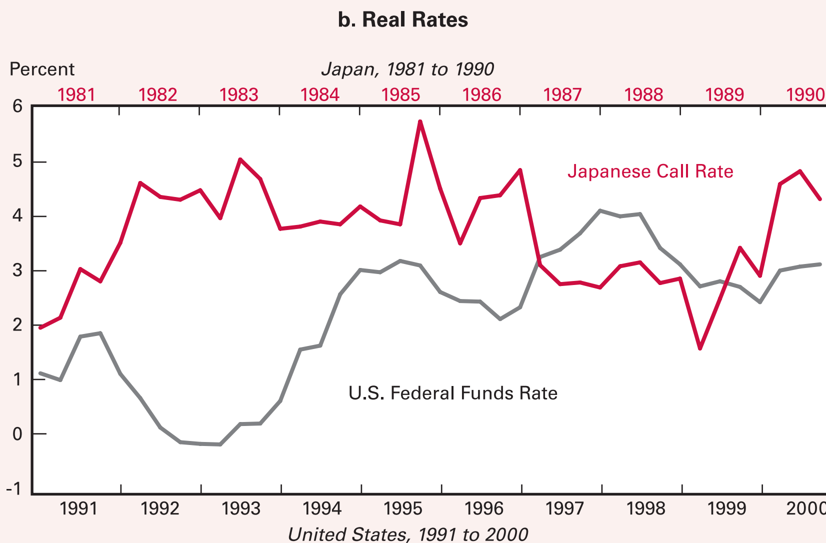
Figure 7

Japanese Call Rate and U.S. Federal Funds Rate

a. Nominal Rates



b. Real Rates



Note: Quarterly data. Real interest rates are calculated by subtracting year-over-year percent changes in CPI from nominal rates.
Source: Federal Reserve Board/FAME; U.S. Bureau of Labor Statistics and OECD Main Economic Indicators/Haver Analytics.

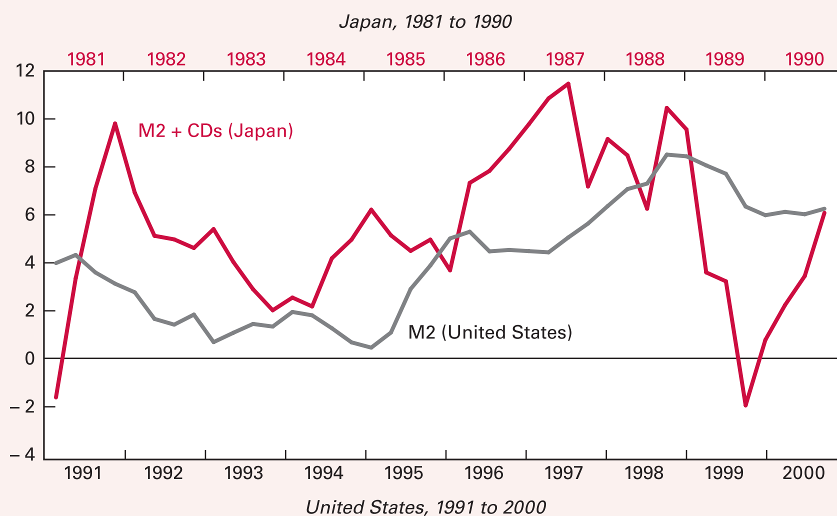
regime shift occurred in 1988, with the Bank of Japan (BOJ) systematically placing more weight on inflation, which was very low, than it had previously.[10]

According to Okina, Shirakawa, and Shiratsuka (OSS 2000), the BOJ continued to warn that the economy was growing excessively rapidly; but with inflation so low, these warnings were not "sufficiently convincing." They also say "there existed the prevailing recognition that productivity and the growth potential of Japan's economy had increased" (p. 24). In effect, several years of vigorous growth without the dire consequences of which the BOJ had warned had persuaded people, and perhaps the BOJ itself, that the good times would continue.

In the United States, the comparatively anemic recovery from the 1990–91 recession caused the Fed to lower interest rates and maintain them at relatively low levels until it was clear that the expansion was solidly grounded. Rates were increased over the course of 1994 and the first months of 1995, but then reduced when growth slowed in 1995. Over the next two years, economic growth picked up and the unemployment rate fell to levels historically associated with rising inflation. Stock prices rose rapidly, leading Federal Reserve Chairman Greenspan to warn against "irrational exuberance." However, the Fed did not increase interest rates. Inflation remained subdued, despite the low unemployment rate. Productivity growth increased. Not only did higher productivity growth reduce inflationary pressures, at least in the near term; but it also provided a rationale for rising stock prices—an improvement in earnings prospects. Moreover, with business investment growing strongly, expectations of continued high rates of productivity growth seemed reasonable.

[10] They employ a framework of analysis in which the central bank adjusts interest rates in response to deviations of inflation from a target rate and the gap between actual and potential GDP, and they compare how the Bank of Japan responded to these variables prior to the late 1980s with the subsequent response pattern.

Figure 8



Note: Quarterly data.
Source: OECD Main Economic Indicators and Federal Reserve Board/Haver Analytics.

By early 1997, sentiments at the Fed were shifting, and in March the federal funds rate was increased slightly. However, no further increases followed, as a financial crisis erupted in East Asia and subsequently spread to Latin America and the emerging market countries of the former Soviet Union. The financial and economic turmoil persisted into 1998. Financial markets in the developed countries became more volatile. By late summer, following the collapse of the Russian ruble and the near failure of the giant U.S. hedge fund, Long-Term Capital Management, murmurings grew about the possibility of a global recession. In the fall of 1998, the Fed lowered interest rates.

Financial market volatility subsided and world growth picked up. In the United States, labor markets tightened further and inflation began to creep up. From mid 1999 to mid 2000, the Fed raised interest rates. The stock market peaked in the first half of 2000. Economic growth slowed in the second half of the year. In January 2001, the Fed began to cut interest rates.

Differences

While the experience of Japan in the 1980s and that of the United States in the 1990s exhibit some similarities, there were also very important differences. In particular, the rise in asset values in Japan involved land as well as stock prices and as a consequence was much larger, relative to GDP, than in the United States. OSS (2000) present estimates that the cumulative capital gains on stocks in Japan amounted to about 150 percent of GDP over the four years 1986 through 1989, while capital gains on land were 300 percent. In the United States, the increase in the market value of equities, including mutual fund shares, from the end of 1995 to the peak in the first quarter of 2000 amounted to 165 percent of GDP (excluding mutual fund shares, 130 percent).[11] However, the increase in the value of real estate, including structures, between 1995 and 2000 was less than 100 percent of GDP and was simply not the factor in the United States that it was in Japan.[12, 13]

Another key difference is the greater role played by banks in Japan. According to Wood (1992), bank loans amounted to 90 percent of GDP in Japan in 1991 compared to less than 40 percent in the United States.[14] Banks in Japan were central to the price movements in both the stock and real estate markets and they served as a conduit between them.

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[11] Flow of Funds Accounts of the United States, June 8, 2001. The change in value is calculated for each year or period and expressed as a percent of GDP for that period. The cumulative gain is the sum of the shares over the relevant years or periods.

[12] Flow of Funds balance sheets through Haver Analytics. Only data for households (including nonprofit organizations) and nonfinancial corporations are available. For these sectors the increase in value over the five years amounted to about 60 percent of GDP. If one assumes that the value of real estate held by unincorporated businesses and financial corporations rose at the same rate, then the increase would be about 80 percent of GDP, as unincorporated businesses and financial institutions accounted for one-quarter of the value of all real estate in 1994, the last year for which this figure was available.

[13] Much of the U.S. increase reflects new construction. However, Christopher Wood (1992) observes that structures account for relatively little of the value of real estate in Japan and are commonly torn down and rebuilt.

[14] Wood (1992), p. 25. Flow of funds data show loans by the U.S. commercial banking sector, including U.S. offices of foreign banks, amounting to 40 percent of GDP in 2000:II (Flow of Funds, June 8, 2001).

Banks became more aggressive lenders in property markets in response to their large corporate customers turning to the stock market to raise funds. However, banks also benefited from the rising market, as they were large shareholders and they used capital gains to boost their profit performance.[15] A portion of unrealized gains counted toward capital for regulatory purposes; so the rising market supported rapid growth in lending. In addition, banks' own stocks made up a significant portion of the market index.

The decline in stock prices reduced bank capital, forcing banks to grow more slowly in order to meet international capital requirements. However, lending backed by property had fueled much economic activity. Moreover, since loans were commonly based upon (extremely high) property values, rather than the borrowers' cash flow, some borrowers' ability to service their debt depended upon continued borrowing—or failing that, raising funds by selling property. Land prices began to fall, reducing the value of the collateral underlying many loans and making banks more reluctant to lend.[16] An exception to the slowing in loan growth was lending to some of the East Asian countries. Loans to borrowers in Thailand, Indonesia, and the Philippines grew rapidly in the early 1990s (Peek and Rosengren 1998).

Although banks are less important in the United States than in Japan, the interrelationships between banks and rising land values have created difficulties in this country as well. The best known example of such problems is the savings and loan crisis in the 1980s. However, the author is more familiar with the experience of New England banks with commercial real estate and condominiums in the late 1980s and early 1990s. A market where everyone had wanted to buy became a market where everyone wanted to sell. Real estate values collapsed and a significant number of New England banks failed, including the region's largest. Regional businesses complained of a credit crunch and regional employment fell sharply.[17]

[15] Wood (1992) describes how banks would sell stocks and record the capital gains at the end of the accounting period, and then subsequently buy them back (at a higher price) in order to maintain the cross-shareholdings that were used to cement business relationships.

[16] Wood (1992) predicted what would happen to land prices and the banks' financial position, while Shimuzu (2000) provides a description of what did happen. Wood stressed the illiquidity of Japanese real estate markets even in good times and predicted that this would intensify the downward pressure on land prices.

[17] For descriptions of the New England situation, see Browne (1992), (1993); Browne and Case (1992); Peek and Rosengren (1992); Jordan (1998).

II. Problems in Japan: The Early 1990s

Japanese stock prices peaked at the end of 1989 and over the course of the next year fell roughly 40 percent.[18] Initially, however, the economy continued to perform well. Real GDP grew more than 5 percent in 1990. Business investment in machinery and equipment was very strong, rising more than 10 percent.

By early 1991, the economy was slowing. Growth in consumption and business investment slowed and residential investment declined. The stock market continued to fall and land prices began to decline as well. The Bank of Japan began to cut interest rates. The cuts continued in 1992 as growth remained sluggish. Consumption growth slowed further and business investment fell sharply. Increased public investment helped to sustain GDP growth of just 1 percent.

Japan was not alone in experiencing an economic slowdown during this period. The United States slipped into recession in 1990. Growth slowed dramatically in the European Union in 1991. Japan's economic performance actually surpassed that of most industrial countries until 1992. However, the weakness dragged on. The next two years, 1993 and 1994, brought more of the same: sluggish consumption growth and declining business investment. The government continued to spend heavily on public works projects, although total government spending grew at a relatively modest pace.[19] Equity prices increased slightly, although land prices continued to slide. A new worry emerged in the form of an increase in the value of the yen, which depressed export growth.

The BOJ continued to cut interest rates through the summer of 1993, but then halted for the next year and a half. This pause is now viewed by many macroeconomists as a mistake.

The BOJ continued to cut interest rates through the summer of 1993, but then halted for the next year and a half. This pause is now viewed by many macro-

[18] The TSE TOPIX fell 39 percent from December 1989 to December 1990. The Nikkei fell by a third over the same period.

[19] Total government expenditures increased about 3 percent in each year. While faster than the growth in private sector spending, this rate of expansion was actually slower than that in the late 1980s.

economists as a mistake. For example, Jinushi, Kuroki, and Miyao (JKM 2000), using a "Taylor" rule analysis, show that had the BOJ followed the "good" approach to monetary policy that existed before the late 1980s, it would have cut interest rates more aggressively in this period. In the BOJ's defense, the nominal discount rate of 1.75 percent was the lowest in more than 40 years. However, because inflation was declining, the real rate did not decline as much as the nominal rate and, while low, was not remarkably so.[20] In addition, growth in the money supply slowed dramatically starting in 1991, providing another indication that policy was not as expansionary as nominal rates might suggest.

Japanese authorities seem to have been aware of the dangers of declining asset prices. *The Economic Survey of Japan 1990–91* released by the Economic Planning Agency (EPA) in mid 1991 devoted extensive attention to the implications of falling asset prices. The Japanese were clearly watching the U.S. experience at that time with falling real estate prices in New England and elsewhere, and they took comfort from the fact that rental rates for office space in Japan were still rising. The EPA survey concluded, "So the unwillingness of banks to lend to the degree seen in the U.S. is not likely to happen in Japan" (1991, p. 9). This optimism proved to be unfounded.

Subsequent analyses by the EPA focused on the overhang from excessive investment during the buoyant 1980s, especially in office buildings, and the adverse consequences of a strong yen on the manufacturing sector. Competitive pressures, particularly from other Asian countries with currencies tied to the dollar, were intense and low rates of capacity utilization discouraged investment. While it was recognized that declining asset prices had impaired the balance sheets of both borrowers and lenders, the problems of the banking sector were not, at least in these public documents, seen as paramount. Concern was expressed about deflationary tendencies but more in the context of the strong yen.

With the economy continuing to languish in 1995, the discount rate was cut to 0.5 percent. Fiscal policy was also more expansionary. Taxes had been cut in 1994. Public works spending was stepped up again. Finally, in 1996, with the yen now declining, the economy began to grow at a healthy rate.

The government decided to take advantage of the strengthening economy to improve its fiscal situation, which had deteriorated because of the prolonged period of stagnation and elevated rates of public investment. In 1990, Japan had a fiscal surplus amounting to almost 3 percent of GDP; by 1996 it had a deficit of over 4 percent.[21] Japanese authorities were also very conscious of the rapid aging of their population and the fiscal strains that this would impose in the future. Taxes were increased and public investment was curtailed.

The financial and economic crisis in East Asia coincided with tighter Japanese fiscal policy.

The timing was unfortunate. The financial and economic crisis in East Asia coincided with tighter fiscal policy. Japan, with close banking, investment, and trade ties to its neighbors, was severely affected by the crisis, while slower growth in Japan exacerbated the problems of the other Asian countries. In 1998, real GDP in Japan declined on a year-over-year basis for the first time in two decades. A financial crisis threatened in the fall of 1998 and was averted, but growth remained sluggish through the end of the decade and into 2001. As of mid 2001, Japan had experienced 10 years of growth averaging less than 1.5 percent.

Similarities and Differences with the United States

At the onset, Japan's economic woes exhibited some similarities to the current economic slowdown in the United States. However, they also differed in important and, from a U.S. perspective, reassuring ways. One similarity, of course, is the starting point. In both cases, recent economic performance had been very good, but inflation was inching up. In both cases, the view of policymakers and many analysts seemed to be that some slowing was inevitable but that a recession was not.

The brunt of the early slowing in both cases was felt by the manufacturing sector. Figure 9 shows industrial production in the United States and Japan

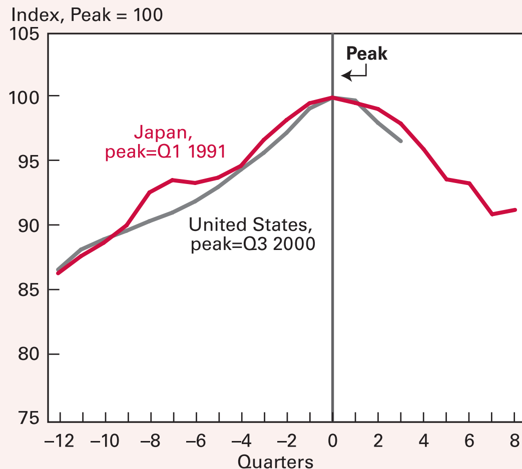
[20] As can be seen in Figure 14b, the real rate in 1993 and 1994 was relatively low by the standard of the 1980s, but not extraordinarily so. Critics make comparisons with Fed policy in the 1990 recession, when real rates were reduced to zero. Inflation rates were higher in the United States, however; so a historically low nominal rate produced a lower real rate than an even lower nominal rate in Japan.

[21] *OECD Economic Outlook,* No. 68, December 2000, Annex Table 30. General government financial balances.

Figure 9

Industrial Production

Indexed to Peak of Industrial Production

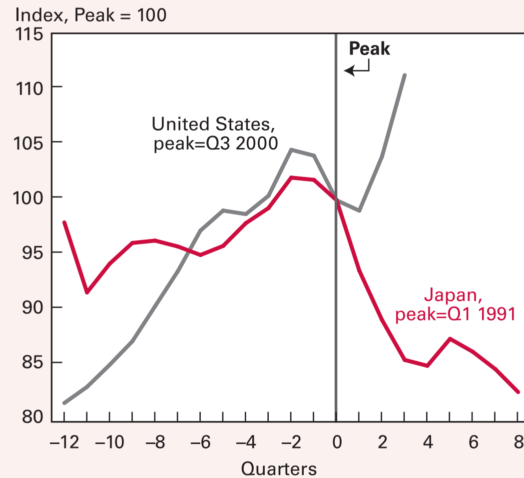


Note: U.S. data through Q2 2001.
Source: OECD Main Economic Indicators and Federal Reserve Board/Haver Analytics.

Figure 10

Real Residential Investment

Indexed to Peak of Industrial Production



Note: U.S. data through Q2 2001.
Source: OECD Main Economic Indicators/Haver Analytics.

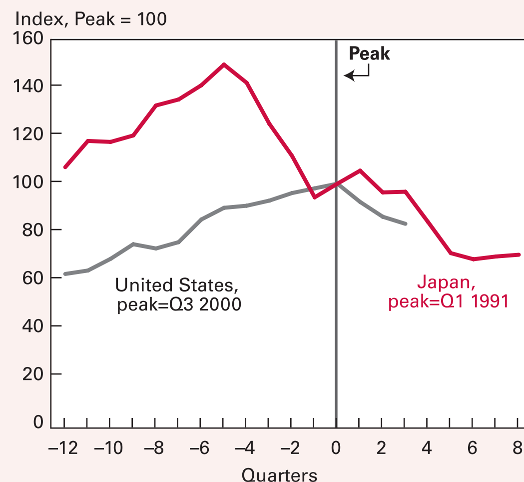
indexed to the peaks in industrial production before each country's slowdown. The recent falloff in the United States is comparable to that initially suffered in Japan. Business investment flattened out in both cases, while consumption and government spending continued to grow. A major difference between the two countries is construction spending, which plummeted in Japan but bounced back in the United States (Figure 10). The behavior of exports and imports also differed but in offsetting ways, with exports and imports both declining in the United States and increasing in Japan. However, neither country could look to the rest of the world to offset domestic weakness. The pace of world growth averaged just over 2 percent in 1991 and 1992, compared to roughly 3.5 percent in the 1980s and the rest of the 1990s.[22] As of midyear, world growth in 2001 was expected to be about 2 percent.[23]

Financial indicators present a more reassuring picture for the United States. The decline in the stock market in Japan preceded the decline in industrial production by roughly a year (Figure 11). With economic growth still vigorous in this period and inflation ris-

Figure 11

Stock Prices (TOPIX and S&P 500)

Indexed to Peak of Industrial Production



Note: U.S. data through Q2 2001.
Source: OECD Main Economic Indicators and *Wall Street Journal*/Haver Analytics.

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[22] *Economic Report of the President*, February 2000, Table B-110.

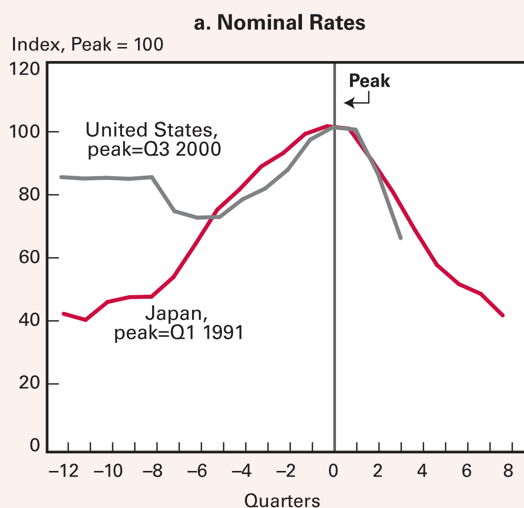
[23] Consensus Forecasts, July 2001, Consensus Economics, Inc. 2001.

Figure 12

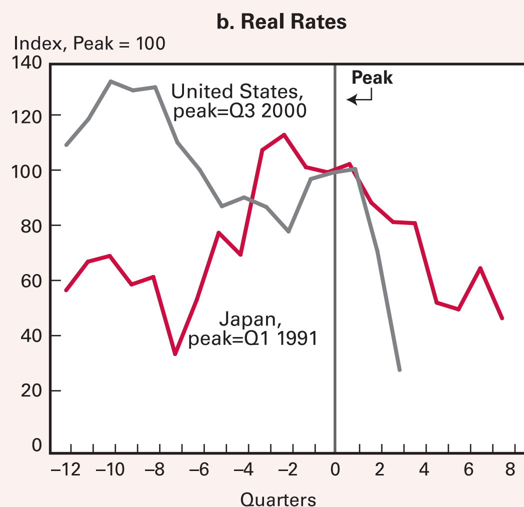
Japanese Call Rate and U.S. Federal Funds Rate

Indexed to Peak of Industrial Production

a. Nominal Rates



b. Real Rates



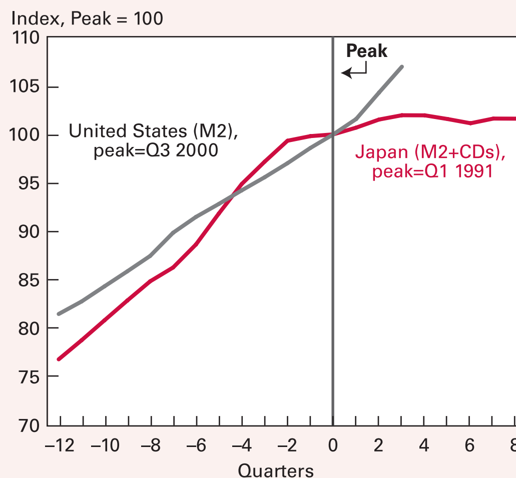
Note: U.S. data through Q2 2001. Real rates are calculated by subtracting year-over-year percent change in CPI from nominal rates.
Source: OECD Main Economic Indicators and *Wall Street Journal*/Haver Analytics.

ing, the Bank of Japan continued to raise interest rates. When industrial production did weaken and the Bank of Japan began to cut rates, the stock market had already fallen by roughly 40 percent. In the United States, the market and industrial production peaked in the same quarter, and the Federal Open Market Committee began to reduce rates shortly thereafter.

Figure 13

Money Supply

Indexed to Peak of Industrial Production



Note: U.S. data through Q2 2001.
Source: OECD Main Economic Indicators and Federal Reserve Board/Haver Analytics.

While U.S. policymakers have repeatedly stressed that their focus is the real economy, not the stock market, the actions appropriate for the real economy in this instance may also have supported the market—in contrast to the situation facing their Japanese counterparts in 1990. Moreover, while the reductions in nominal interest rates in the United States paralleled the initial cuts in Japan (Figure 12a), the decline in inflation-adjusted rates in the United States started before the peak in industrial production and was considerably larger by three quarters after the peak (Figure 12b). The money supply also continued to grow rapidly following the peak in industrial production, rather than flattening out as in Japan (Figure 13).

Thus, there are some very important differences between the early stages of Japan's economic stagnation and the recent U.S. economic situation—notably, the smaller scale of the decline in the U.S. stock market and a more expansionary monetary policy. Most important, perhaps, nothing comparable to Japan's huge run-up in land prices and the concentration of bank lending backed by real estate seems to lurk in the wings. With respect to the latter, U.S. supervisory agencies, learning from their mistakes in the savings and loan crisis, made a practice in the 1990s of moving more promptly to address potential problems in such areas as consumer

debt and syndicated loans. Nevertheless, sources of risk are always more visible with the benefit of hindsight. Thus, it is worth looking at what Japan is alleged to have done wrong in responding to its problems and what it might have done differently.

III. Lessons from Japan's Mistakes

U.S. economists are critical of most aspects of Japanese economic policy in the 1990s. The criticism is generally the same, whether the subject is monetary policy, fiscal policy, financial supervision, or structural reform—Japanese policymakers were too tentative, too indecisive. The notable exception was the tightening in fiscal policy in 1997. Here, the Japanese are said to have moved too aggressively, before the nascent recovery was firmly established.

Monetary Policy

In the case of monetary policy, nominal interest rates were lowered when the economy started to weaken in 1991. In comparison with past practice and also with contemporary U.S. interest rate moves, the reductions do not seem especially small (Figure 14a). However, analyses by Bernanke and Gertler (BG 1999) and by Jinushi, Kuroki, and Miyao (JKM 2000) indicate that the Bank of Japan should have cut much more aggressively in the period 1992 to 1996. Both sets of authors suggest that Japanese monetary authorities changed their policy approach in the late 1980s and that interest rates would have been lower, indeed negative if that were possible, had the earlier, presumably superior approach been followed. The interpretation of BG is that the Bank of Japan did not place sufficient weight on emerging deflationary tendencies, whereas JKM hypothesize that the Bank increased its emphasis on inflation relative to output, and with inflation low and stable, failed to support output sufficiently.[24]

In terms of lessons for the United States, the Japanese experience reinforces—in reverse—one of the primary lessons taken from the inflation of the 1970s: The stance of monetary policy cannot be determined simply by looking at nominal interest rates. In the 1970s, although the United States raised nominal rates to unprecedentedly high levels, it is now judged to have been "behind the curve" (until a shift in operating procedures in 1979) because it did not give sufficient recognition to the effect of rising inflation expectations on real rates. In Japan in the early 1990s, nominal rates were reduced to historically low levels, but decreasing inflation meant that real rates fell less (Figure 14b).

One rather disturbing implication of the analyses by BG and JKM is that "good" policy may require unacceptably or infeasibly large swings in interest rates. JKM's analysis indicates that the Bank of Japan should have increased real interest rates to 10 percent in 1990 and then reduced them to negative 3 percent and lower in 1994 and 1995. Apart from the magnitude of the swing, real rates can only fall to such low levels with inflation at rates that many macroeconomists, and perhaps the public, would consider excessive.

Japan's experience also suggests that the money supply can have a role to play in monetary policy. Even though the relationship between the money supply and economic activity is much less stable than once believed, marked deviations from the past should be carefully scrutinized. The slowing in the growth of the money supply in the early 1990s proved to be, at a minimum, symptomatic of serious weakness; and with the benefit of hindsight, it should have signaled that monetary policy was not as expansionary as nominal interest rates might suggest. In recent years, Paul Krugman and some other macroeconomists have urged the BOJ to expand the money supply aggressively. While theoretical reasons can be advanced for why such a policy might stimulate the economy, the dominant argument seems to be "What have you got to lose?"

Fiscal Policy

In terms of fiscal policy, the Japanese government announced a succession of programs designed to stimulate the economy. According to Posen (1998), these packages did not live up to the rhetoric surrounding them; the net stimulus offered was less than the headline numbers announcing the packages implied. Nevertheless, the government did step up the pace of public investment quite sharply in 1992 and 1993 and again in 1996; and in 1994 it enacted a significant cut in income taxes. Posen attributes the pickup in growth in 1996 to the more stimulative policy.

[24] The ways in which the Bank of Japan is hypothesized to have changed are rather different. Bernanke and Gertler's calculations suggest that the BOJ paid less attention to inflation in the 1990s than it had previously and, thus, failed to resist deflationary tendencies. In contrast, Jinushi, Kuroki, and Miyao suggest that greater weight was given to inflation and less weight given to output. The common intuition in both arguments, however, is that the BOJ was not sufficiently concerned about the implications of low/declining rates of inflation in the early 1990s.

The government then made a decisive policy move that proved to be a serious mistake, at least given subsequent events. It had started scaling back public investment. It then increased taxes substantially. The government's rationale was the deterioration in its fiscal position caused by the long period of sluggish growth and its efforts at stimulus, plus the future prospect of supporting an increasing elderly population. However, what ensued was the opposite of what was intended. The economy started to sputter. With the onset of the East Asian crisis, Japan suffered its most severe recession in many years and the government found itself back in the position of devising stimulus packages, but starting from a much worse fiscal position.

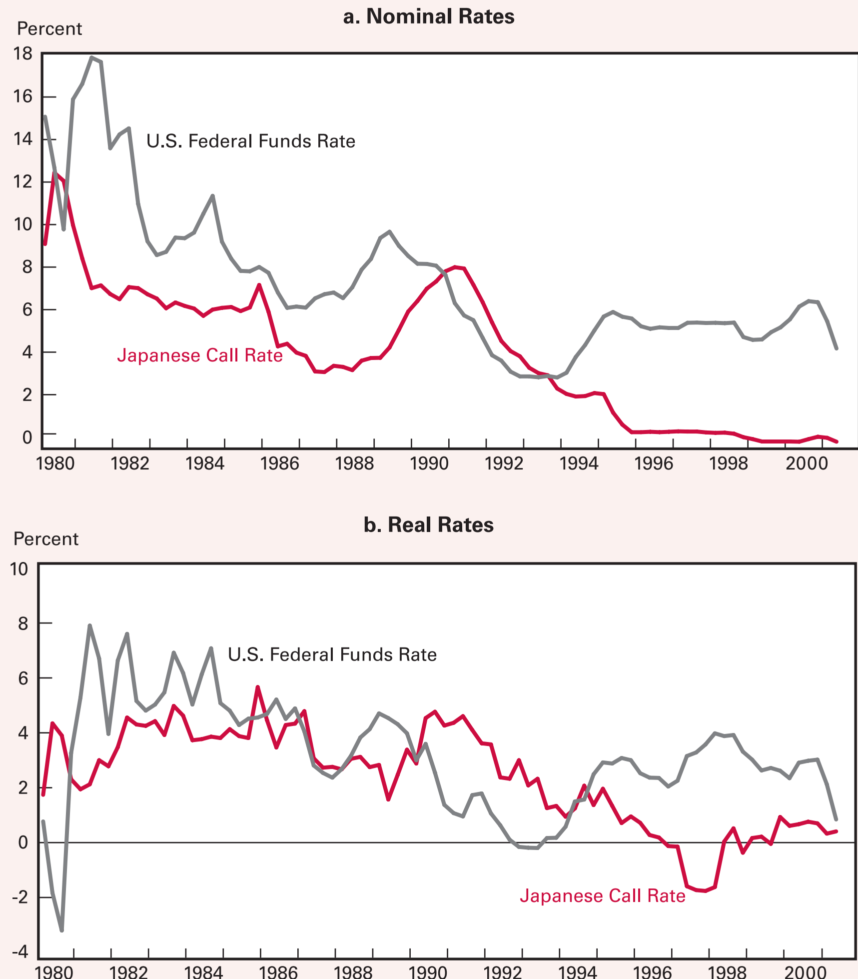
In terms of lessons, Japan's experience has been interpreted by Posen (1998) and others as indicating that tentative fiscal measures are ineffective. By implication, attempts at stimulus should be large enough to get the job done. The revival in growth will do more to reduce the fiscal deficit than the savings from adopting more modest stimulus policies. Of course, the difficulty lies in knowing what is large enough. A bold move that fails will leave the fiscal position weaker than a timid one. Nevertheless, it seems reasonable to conclude that a series of small stimulus packages is unlikely to have much effect but may still add up to something costly in terms of the fiscal deficit.

It also seems that more research attention should be devoted to countercyclical fiscal policy. For some years, monetary policy has held center stage, both at the operative level and in research agendas. Japan's experience suggests that some circumstances may require strong application of the fiscal as well as the monetary policy tool.

Figure 14

Japanese Call Rate and U.S. Federal Funds Rate

1980 to Q2 2001



Note: Quarterly data. Real rates are calculated by subtracting year-over-year percent changes in the CPI from nominal figures.
Source: Federal Reserve Board/ FAME, U.S. Bureau of Labor Statistics, and OECD Main Economic Indicators/Haver Analytics.

Supervisory Policy

One hopes that Japan's banking problems do not contain any lessons for the United States. First, it does not appear that U.S. banks were critical actors in the run-up in stock prices and they do not appear unusually vulnerable to the current slowdown. Second, should cir-

cumstances prove otherwise, one hopes that, having suffered through the savings and loan crisis in the 1980s, U.S. policymakers and regulators have already learned their lessons. Indeed, U.S. economists and others have drawn on those experiences to offer advice to Japan.

This advice has three elements: increased transparency, consolidation of the banking sector, and the recognition of nonperforming loans and the disposal of the underlying assets.[25] The objective of all three is to restore the banking system to functioning—at least its viable portions. Increased transparency, or clear and revealing financial statements that conform to international norms, has many virtues; but in the Japanese banking situation, it would facilitate distinguishing between banks that have reasonable prospects for the future and those that do not. Without transparency, all banks may be tarred with the same brush and the stronger performers face the same penalties as the weak.[26]

Similarly, the argument for consolidation is largely an argument for eliminating weak banks so that the stronger institutions' prospects for recovery are improved. The presence of many economically wounded banks competing for the same, slow-growing base of business means that profit opportunities for all are dim. Weak banks also pose moral hazard problems.[27] While a number of Japanese banks have merged, American critics believe that these mergers have kept management in place and sustained weak operations rather than shrinking and energizing the industry.

Bad loans must be recognized and removed from bank balance sheets and the underlying assets sold. Recognition helps distinguish between weak and viable banks. And by removing bad loans from bank balance sheets, viable banks may be created. Much academic attention has been given to the moral hazard dangers arising from weak banks, but other responses to financial weakness can also present problems. Paralysis is one. Through self-doubt or fear of regulators and investors, banks may be too indecisive to perform their intermediation function effectively. Reducing assets in order to raise capital-asset ratios can also be problematic. For an individual bank, this is an appropriate response. But when many banks follow the same path and when it involves failing to renew or even calling loans, the economy may face a severe constriction of credit.[28]

Lastly, bad loans must be resolved in some fashion. In particular, U.S. critics argue, the real estate, which backed up most of these loans in Japan, must be sold. Until then, the possibility of future sales that will drive down prices is a cloud over all transactions involving land. Of course, selling the land now may cause prices to fall now. However, the removal of the uncertainty, it is argued, will help the economy break out of its paralysis. New building projects can be undertaken without fear that real estate values will collapse in the future. Indeed, lower land prices, to the extent that they are reflected in rents, may spur demand for space and provide some stimulus to economic activity to offset adverse wealth effects.

Why have Japanese policymakers, who follow closely developments in the United States, not taken these lessons to heart? In some respects they have. They have merged banks; they have moved some bad loans out of the banks. However, they have not been aggressive in forcing banks to recognize losses and in disposing of the underlying assets. The likely explanation is that this is a painful process—and not just for the banking sector. The problems of the banking sector arise from a large loss of wealth to society. Forcing the banking sector to recognize its problem loans means acknowledging that this loss has occurred. The financial weakness of borrowers as well as lenders will be made explicit. This poses especially delicate issues in Japan, where borrowers and lenders may own shares in one another. Moreover, disposing of real estate will drive down prices across the board, adversely affecting all landowners, not just those who had engaged in speculative activities.[29]

The Japanese have not been aggressive in forcing banks to recognize losses and in disposing of the underlying assets. This is a painful process.

[25] See Friedman (2000) and Glauber and Kashyap (2000) for lessons from a comparison of Japan's problems with the U.S. savings and loan crisis.

[26] These may include lower stock prices, higher international borrowing costs, and the reluctance of good loan customers to do business.

[27] Weak banks may be tempted to engage in high-risk activities in the hopes of realizing high returns that might save them.

[28] While the best loans will not be called, neither will the worst. The borrowers whose prospects have dimmed, but who are still sufficiently viable that they can repay, are the ones most vulnerable to having loans called.

[29] Even if they were not active participants in the bubble in land prices, most landowners would have seen their wealth increase and are likely to be reluctant to see land values fall.

Within the United States, New England provides perhaps the clearest instance of the forceful application of this brand of medicine. During the 1980s, New England experienced a real estate boom, and banks' concentrations in real estate rose sharply. Loan quality deteriorated. Upon recognizing these problems, federal banking regulators forced New England banks to acknowledge and resolve their credit problems. Banks were merged and the industry shrank in size. The real estate underlying bad loans was sold. The adjustment was painful. The 1990–91 recession was more severe in New England than the nation and the initial recovery was slow. By the end of the 1990s, however, New England was once again one of the most prosperous regions of the country, with some of the most vibrant property markets.

IV. Summary and Conclusions

A number of commentators have noted the similarities between the rise in stock prices in the United States in the 1990s and in Japan in the 1980s. Since the rise in Japan was followed by a precipitous decline and a decade of economic stagnation, a natural question was whether anything similar could befall the United States. Now that stock prices have declined in the United States and growth has slowed, the question has taken on greater urgency.

This article has reviewed the U.S. and Japanese experiences and finds that the similarities go beyond the rise in stock values. In particular, just as the late 1990s was a period of very strong growth, very high rates of investment spending, and excellent productivity performance in the United States, so too was the late 1980s in Japan. In both episodes, inflation remained surprisingly quiescent. Moreover, in both, monetary policy was somewhat more stimulative than it might otherwise have been because of international considerations.

Despite such similarities, the U.S. experience differs in a crucially important respect. The rise in stock prices in Japan was accompanied by a rise in land values that has no parallel in the United States. Moreover, when asset prices subsequently fell in Japan, it was the decline in land prices that proved most problematic, as land served as collateral for much bank lending. The Asian crisis also affected the Japanese economy severely. Banks were again adversely affected, as they were heavy lenders to firms operating in these countries. Japanese authorities have been slow to resolve the problems in their banking sector, and these have weighed heavily on the economy.

In terms of lessons that U.S. policymakers can draw from the Japanese experience, the message that most economists have taken is the importance of acting decisively. Japan has been criticized for moving too gradually with respect to monetary policy, fiscal policy, and resolution of problems in the banking sector. Ironically, Japan's most decisive move was the adoption of tighter fiscal policy in late 1996. Given subsequent events, this was too much too soon.

While Japanese policy has been roundly criticized in the United States, this author was struck by the magnitude of the problems that Japan confronted. While banks are less important in the United States than in Japan, the interaction between banks and real estate has created booms and busts here as well. These episodes were regional rather than national; so the national numbers show only a modest effect. For the individual regions, however, the economic impact was severe. Nor was the external environment favorable to Japan. When growth first slowed in Japan, growth also slowed in most of the other industrial countries. The early 1990s were a period of generally weak growth worldwide. Then, the 1997–98 crisis in East Asia had particularly adverse consequences for Japan. While Japanese policymakers have made mistakes, they have also had more than their share of bad luck.

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