Will the U.S. Economy Catch the Japanese Disease?

Alan C. Stockman
University of Rochester and NBER
alan@stockman.net

Prepared for the November 2002 meeting of the Shadow Open Market Committee

1. Japanese Economic Problems

Do worries never cease? Now that the Federal Reserve has reduced the federal funds rate to a four-decade low, responding to economic weakness that continued longer than most economists predicted, a new villain has appeared. Sometimes identified as deflation, sometimes as a liquidity trap, the new concern is that the U.S. economy will become like Japan's. After rapid growth for most of the second half of the twentieth century, Japanese GDP growth over the past decade has averaged only about one percent annually. With more than a decade of slow growth, Japan's economy since around 1990 is not one that many countries would choose to emulate. Consequently, some apparent similarities between economic conditions in the United States and Japan have raised widespread concerns. Interest rates in Japan are essentially zero; interest rates have fallen dramatically in the United States. Japan has had deflation since the mid 1990s: by October 2002 the Japanese wholesale price index stood half a percentage point below its level twelve months earlier, and almost six percent below its average level in 1995, and over the past year, consumer prices in Japan have fallen about one percent. The United States does not yet have deflation, but it has relatively low inflation – at least before the most recent statistics for October. Japan has slow growth and high unemployment; the United States has recently had slow growth and still has relatively high unemployment. Just over a decade ago, at the onset of Japan's long slump, Japan experienced the bursting of a bubble in real-estate prices; a similar decline in U.S. stock prices has taken place in recent years. While business gurus once urged the U.S. to adopt Japanese-style business models and economic policies, no one now wants to mimic the performance of an economy in a decade-long slump.

The near-zero level of nominal interest rates in Japan has prompted claims that Japanese monetary policy has become impotent to alleviate its economic woes, as the Bank of Japan cannot further reduce interest rates. Many analysts characterize the Japanese situation as a classic Keynesian liquidity trap.

Does the United States risk catching this Japanese disease? Does the United States risk a long economic slump? A problem of deflation? Impotency of monetary policy as interest rates approach zero? A liquidity trap? A banking system in deep trouble? And will it happen here? Do U.S. economic conditions resemble the factors that led to the Japanese problems?

2. Deflation

Perhaps the most widespread fear, with the greatest misunderstanding, involves deflation. When the President of a Federal Reserve Bank says that the essence of deflation is that business firms lack pricing power, one should not be surprised if economic columnists, let alone ordinary citizens, are confused about deflation.

Deflation is simply negative inflation. The overall price level, as measured by the Consumer Price Index or some other index, declines over a period of time. Just as fully anticipated inflation need not change relative prices, production, and employment, so fully anticipated deflation need not affect relative prices, GDP, or unemployment. Just as inflation is essentially unrelated to the pricing power of individual business firms, or competitive conditions in particular markets or economic sectors, so deflation is essentially unrelated to these kinds of microeconomic conditions.

Just as nominal interest rates rise to compensate for fully anticipated inflation, nominal interest rates fall to compensate for fully anticipated deflation. Neither inflation nor deflation, when fully anticipated, need affect real interest rates, which play important roles in investment and saving decisions. Just as unanticipated inflation reduces the real value of outstanding nominal debts, so

unanticipated deflation raises the real value of predetermined nominal debts. The only essential wrinkle in the comparison of inflation and deflation emerges from the fact that, under normal conditions, nominal interest rates cannot become negative. Once the nominal interest rate falls to zero, the quantity of loans supplied falls to zero: no one would lend money at a negative nominal interest rate when he can earn a higher nominal return – zero – simply by storing that money in his wallet. Consequently, the supply of loans can never intersect the demand for loans at a negative nominal interest rate. There is no limit to how high nominal interest rates can rise with inflation, but there is a limit on how they can go with deflation. This lower limit on nominal interest rates prompts concern that monetary policy becomes ineffective once nominal interest rates approach zero, as the Federal Reserve could not, as the Bank of Japan cannot today, further reduce interest rates. We return to this issue below.

3. Would Deflation be Bad?

Many of the fears of deflation are misplaced. Some analysts claim that deflation reduces aggregate demand because consumers, expecting prices to be lower in the future, postpone purchases.[1] However, this argument ignores the fact that deflation reduces nominal interest rates, cutting the interest income that consumers can obtain when they postpone their purchases. When deflation is fully anticipated, the fall in nominal interest rates fully offsets the benefit of lower nominal prices in the future, keeping the real interest rate unaffected and thereby eliminating the benefit to consumers of postponing spending.

The lower limit of zero on nominal interest rates, along with sluggish adjustment of nominal prices, introduces a possible complication. Because nominal interest rates cannot fall below zero, nominal interest rates cannot adjust fully to deflation that exceeds the equilibrium real interest rate. Consequently, sufficiently rapid deflation would raise real interest rates and thereby decrease aggregate demand. This could not happen if prices were fully flexible, because nominal prices would immediately fall to a level at which anticipated *additional* deflation becomes small

[1] Even prominent economists have made this claim.

enough that the real interest rate is unaffected. That is, because the nominal interest rate cannot fall below zero, expected deflation cannot exceed the real interest rate. If it did, then the price level would fall immediately to a lower level at which any *further* expected deflation was no larger than the equilibrium real interest rate. After that one-time fall in the price level, expected deflation would not prevent the real interest rate from reaching its equilibrium level. However, with sluggish short-run price adjustment, anticipated deflation can *temporarily* be sufficiently rapid that short-term real interest rates temporarily rise.

That situation does not apply to Japan today, nor is it ever likely to apply to the U.S. economy. With nominal interest rates at zero and deflation at one percent or less annually (depending upon the price index measuring it), real interest rates in Japan are one percent per year or less – a level well *below* (rather than above) historical levels in either Japan or the United States. While it is possible that the current equilibrium real interest rate would be below this level, it is doubtful. If the equilibrium rate were lower, so that deflation was artificially raising the real interest rate above its equilibrium level, the Japanese price level would already have fallen by *more* than it has, reducing expected future deflation to a rate at which the real interest rate returns to its equilibrium level. Sluggish nominal prices can prevent this adjustment in the short run, but Japan's nominal interest rate has been essentially zero since February 1999 (and has been close to zero since 1995). After nearly four (or eight) years, the *temporary* effects of nominal price sluggishness in keeping the real interest rate above its equilibrium level have almost certainly vanished.

More troubling is the effect of unanticipated deflation on balance sheets of business firms. Because unanticipated deflation raises the real value of predetermined nominal debts, it can force some indebted firms into bankruptcy, and prevent others from getting additional loans that would have financed production or new investment. Only unanticipated deflation, however, has these effects.

4. Preventing or stopping deflation

Because short-run price or wage adjustments are often sluggish, deflations have often been associated historically with slowing or falling output growth, rising unemployment, and other symptoms of recession. During the early 1930s, nations such as the United States that were on the gold standard experienced deflation and falling output growth, with rising unemployment. However, that did not happen in countries such as China and Spain that, for historical reasons, avoided deflation because they were on a silver standard or had flexible exchange rates. Nor did it continue to happen in countries, such as Sweden, that left the gold standard in 1931 and adopted monetary policies to prevent further deflation.

Fears that monetary policies become unable to stop deflation when nominal interest rates reach zero are misplaced. A central bank, such as the Bank of Japan, cannot reduce the nominal interest rate beyond this point. But that fact does *not* render monetary policy impotent. It does not prevent additional expansion of monetary aggregates, and the increased spending that would eventually result from sufficiently large increases in those aggregates.

In theory, that increased spending could fail to materialize only if the economy were in a liquidity trap. In that case, households would simply hold, without spending, any amount of additional money that central banks create. Even so, monetary policy is not rendered impotent. The Japanese economy has remained stalled not because monetary policy becomes ineffective when the nominal interest rate reaches zero, but because the Bank of Japan has simply not followed a sufficiently expansionary policy. Although it cannot reduce the interest rate, economists have made numerous suggestions for alternative methods of conducting an expansionary policy.[2] The central bank could, with cooperation of fiscal authorities, print money to finance tax cuts or new transfer payments. The central bank could conduct open market purchases of long-term

[2] The nominal interest rate could be reduced below zero if the government adopted measures to pay negative interest on money, by imposing carrying charges on bank reserves and currency, as suggested by Marvin Goodfriend.

government bonds (which are less substitutable for money in a liquidity trap than are short-term treasury bills), as Allen Meltzer has suggested.

Alternatively, the central bank could conduct open market purchases of foreign exchange, as Bennett McCallum has suggested. In addition to the effects on spending of increases in the quantity of money outstanding, depreciation of domestic currency on foreign exchange markets . immediately raises domestic prices of imports priced in foreign currencies, helping to reduce inflation, and raises aggregate demand for domestic products as higher relative prices of imported goods lead consumers and business firms to switch expenditures toward domestic products. Or the central bank could adopt the set of policies recommended by Lars Svensson. It could immediately peg the exchange rate at a depreciated level (with whatever monetary expansion – to purchase foreign currency – is necessary to achieve that new exchange rate), set a target path for the price level above its current level, and announce the eventual abandonment of the exchange-rate peg (replacing it with price-level or inflation targeting) once the price level reaches its target level. Nominal depreciation corresponds to real depreciation as long as the domestic price level is sticky (and otherwise would immediately create inflation!), and raises aggregate demand by inducing expenditure-switching from foreign to domestic products. In addition, if deflation along with sluggish price adjustment is keeping the real interest rate above its equilibrium level, this policy eliminates that barrier (by preventing the needed nominal-price reductions) and allows the real interest rate to fall immediately to its equilibrium level. Besides reducing deflation, this fall in the real interest rate raises aggregate demand. This policy need not be restricted to an economy with a large import sector, because the latter channel operates regardless of the size of that sector.

Another possibility is for the central bank, again with the cooperation of fiscal authorities, to subsidize *temporarily* reductions in nominal prices, with monetary expansion to finance the temporary subsidies. Temporary cuts in nominal prices induced by the subsidies would substitute for a lower real interest rate, raising aggregate demand and helping to create expected inflation (or reduced deflation) after the initial price cuts. The subsidy could take the form of a

reduced consumption tax, value added tax, or sales tax. In the United States, the federal government could, for example, temporarily replace sales-tax revenues for any states that reduced (temporarily) their sales tax rates.

5. The Banking System

The biggest problem facing the Japanese economy is probably not deflation but a severely impaired banking system. The problems with the banking system date to before the asset-price bubble burst around 1990 and reduced asset values on corporate balance sheets, reducing household wealth, and, more importantly, reducing collateral available for acquiring new loans and making some existing loans impossible to collect. Firms responded by borrowing less and investing less, and the growth of bank credit declined substantially, becoming negative before the end of the decade. Non-residential investment as a share of GDP fell by about five percentage points over the decade of the 1990s (from about 20 percent to about 15 percent). The bursting bubble, however, is not the whole story. Japanese banks invested heavily in lending for real-estate purchases in the 1980s, as real estate prices boomed. During that same decade, deregulation reduced the dependence of Japanese corporations on banks as a source of funds, while continuing to limit the options for households to acquire assets other than bank deposits. Banks therefore sought other options for lending the deposits they acquired. The main new option was lending to smaller firms, and banks prudently required collateral from these new customers. That collateral took the form, mainly, of real estate. Consequently, it was not simply the bursting of a financial bubble that led to Japan's financial crisis: it was the sudden fall in prices of assets that banks had extensively relied on as collateral for their loans. Until legal issues of property rights are fully sorted out, the banking-system problems will continue to distort incentives and hold down economic growth. However, there is no similar situation in the United States today.

Japan's banking-system problems probably do not reflect, as many have contended, an unwillingness of banks to lend. More likely, the decline in lending in the 1990s reflects a fall in the demand for loans that typically occurs along during recessions. After all, a large fraction of the

Japanese banking system is insolvent. In such circumstances, banks typically *increase* risky lending, as did Savings and Loan Associations prior to the S&L crisis in the United States in the 1980s. If good luck leads the risky investments to pay off well, the banks receive the gains. If bad luck leads them not to pay off, banks' losses are limited as deposit insurance (and perhaps government bailout policies) come into play. The fact that Japanese banks did not increase risky lending in the 1990s indicates that the fall in lending resulted from a fall in the demand for loans rather than a fall in the supply. That explanation is also consistent with the falling real rate of interest in Japan over this period.

6. Conclusions

The United States is *not* likely to fall into conditions facing the Japanese economy. Fears of deflation are misplaced, and the dangers of deflation misunderstood. While deflation tends to be associated with reduced economic growth in the short run, monetary policies do not become impotent even when the nominal interest rate reaches zero, and even if the economy were to fall into a liquidity trap.

Economic conditions in the United States differ substantially from those in Japan. Monetary policy in Japan has not been sufficiently expansionary, even though nothing prevents more expansionary policy. In fact, the *sustained* low-nominal-interest-rate policy of the Bank of Japan is almost *guaranteed* to produce deflation. An increase in the rate of monetary expansion reduces the nominal interest rate in the short run, but raises it in the long run as investors come to expect the higher inflation created by monetary expansion. Restated, a permanent reduction in the nominal interest rate requires monetary expansion in the short run, but reduced inflation – or deflation – in the long run. If the U.S. economy were to face a deflation and wanted to avoid it, any *sustained* monetary policies should produce higher, not lower, nominal interest rates. However, the U.S. economy is not currently in danger of catching the Japanese disease.

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