

DEFLATION WATCH

By Richard Katz

There's no deflationary spiral Deflating 'deflation'

Many in Japan these days have set out to slay a dragon that breathes little fire: the dreaded deflationary spiral.

No doubt, Japan is suffering a bout of deflation — a slow decline of prices — but not a deflationary spiral. The difference is the 1930s.

In America's Great Depression, weak demand and falling prices fed each other. The stock market crash led firms to slash investment to hoard cash. That pushed down demand, which in turn pushed down both commodity and asset prices even more. Falling prices made it harder for firms and people to pay their bills, so they cut spending even more. By 1933, prices were down 25%, real Gross Domestic Product (GDP) had plunged 35%, and one quarter of America's workers were out of work.

Nothing like this is happening in Japan, partly due to massive fiscal and monetary stimulus.

Japan's deflation is quite mild. The GDP deflator has been falling about 1.5% to 2% since 1999. The consumer price index is falling at an even milder, 0.5% rate (see chart). In the US, incidentally, wholesale prices fell 2.6% last year, yet the economy is in recovery.

The key point: while weak demand is causing prices to fall in Japan, those falling prices are not, in turn, causing demand to weaken further. (There is also a bit of 'good deflation' — a drop in monopolistic prices in a few products, such as food, clothing and long-distance phone calls.)

Deflation is a symptom of Japan's problems not their cause. Deflation does have some side-effects, but these are marginal in the overall picture. Excessive focus on deflation is like trying to cure a fever by putting ice on your thermometer.

Weak demand, weak prices

Monetarist economists say that inflation is a purely monetary phenomenon. It's just not so. Otherwise, why would Federal Reserve

Chairman Alan Greenspan pore so carefully over figures like productivity growth, unemployment, and the price of oil, in trying to predict inflationary pressures?

During the past decade in Japan, the single best predictor of price trends was not the money supply, but the gap between demand and supply in the real economy. Also known as the "output gap," this is the difference between full-capacity output, known as potential GDP, and actual output — the GDP numbers published every quarter. When actual GDP (demand) is close to, or even above, full capacity, inflation accelerates. When GDP is significantly below potential GDP, prices weaken.

At present, actual GDP in Japan is 5 to 6% below full-capacity. Demand is very slack.

From 1992 through 2001, there was an extremely high — 94% correlation — between the ups and downs of the demand-supply gap in one year and the ups and downs of inflation/deflation a year later (see top panel of chart on pg. 9). The cause and effect goes from weak demand to weak prices.

In a true deflationary spiral, cause and effect would work the other way as well.

Deflation in one year would lead to weak demand a year or so later. But this is not the case in Japan today. There is no significant statistical correlation between deflation today and demand tomorrow.

That's very good news for Japan.

Deflation and NPLs

Some economists fear that deflation makes it harder for companies to pay their debts, thus worsening the non-performing loan (NPL) problem at Japan's banks. Suppose prices, and thus a company's sales, fall 5%. Still, its debt remains the same. Hence, the ratio of revenue to debt has fallen 5%.

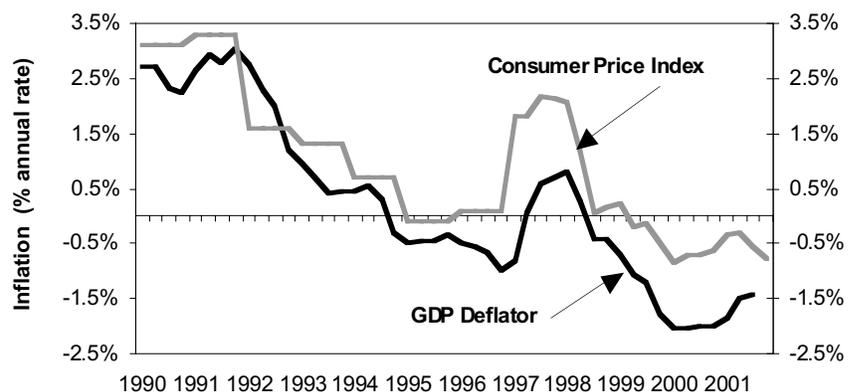
True enough. But this argument ignores the fact that deflation means a firm's input costs for machinery, supplies, and labor are also falling.

A firm's ability to pay debt depends on the ratio of its operating profits to debt. Suppose a firm's debt and its sales revenue both equal ¥100 and its operating costs are ¥95. Thus, operating profits (revenue minus operating costs) are ¥5 and they equal 5% of its debt. If interest rates are 3%, it can easily pay its debts.

Suppose prices fall 10%. Then, both sales revenue and costs fall by 10%. Revenue drops to ¥90 and costs drop to ¥85.5. Consequently, operating profits also drop 10% from ¥5 to ¥4.5. As a result, operating profits now equal 4.5% of debt. With interest rates still at 3%, it can still easily pay its interest bill.

Of course, some costs are fixed and are set in contracts from the past. Deflation does hurt profits that way. But this is small potatoes compared to the biggest hit to profits:

Deflation is mild



Source: Cabinet Office at <http://www.esri.cao.go.jp/en/sna/menu.html> and Statistical Bureau at <http://www.stat.go.jp/english/data/cpi/1581.htm>

Note: Year-to-year changes in a two-quarter moving average for the GDP deflator; for the CPI, annual rates for 1990-97, then a two-quarter moving average.

the weak economy. Deflation was actually milder in 2001 than in 2000. Yet, profits were up 25% in 2000 because the economy was growing, and down 11% in the first three quarters of 2001 because the economy was slowing. Deflation's role in the NPL problem is tertiary.

Can the BOJ cure deflation?

There are those who claim that the BOJ could cure deflation any time it wanted to—simply by creating more money.

They argue that money supply growth directly leads to faster inflation while tightening money directly slows inflation. But this cannot be the whole story. If it were, Fed Chairman Paul Volcker could have cured America's double-digit inflation in the early 1980s via tighter money without inflicting double-digit unemployment.

In reality, the data from Japan show that the ability of monetary ease to engender price hikes depends on the state of the real economy. In normal periods when Japan was operating around full capacity, such as 1977-90, faster money supply growth did indeed lead to faster inflation. That's because easy money stimulated demand beyond the capacity of the economy to respond. So, monetary stimulus accelerated both real growth and inflation.

Using statistical regressions, we can explain about half of the ups and downs of inflation in 1977-90 just by looking at money supply growth. However, if we also factor in real GDP growth and import prices, we can explain almost 90% of the variance in inflation.

The situation changed in the early 1990s, when the economy started operating far below capacity. From 1991 onward, once GDP growth is held constant, faster money growth had no independent power to accelerate inflation. What influenced inflation most was growth in real GDP. Holding other factors constant, each 1% rise or fall in GDP was followed eight quarters later by a 0.25% rise or fall in inflation/deflation. Money supply growth was statistically insignificant.

Contrary to the advocates of "inflation targeting," it was not inflation that produced growth, but growth that produced inflation. It did so because growth narrowed the demand-supply gap.

This does not mean that monetary policy was irrelevant. But to the extent that monetary ease promoted inflation in the last decade, it did so only via its power to raise

real GDP growth.

Unfortunately, the monetary arsenal is running out of bullets. Interest rates are already at zero. Besides, a company with 30% excess capacity is not going to build more just because interest rates are low or because of inflation. The BOJ's power to create inflation is most impotent just when the 'inflationists' say it is most needed.

The liquidity trap

Over the last three years, the BOJ has created new money, the so-called 'monetary base', at record rates. The problem is that neither the broader money supply nor prices are responding in the normal fashion (bottom chart).

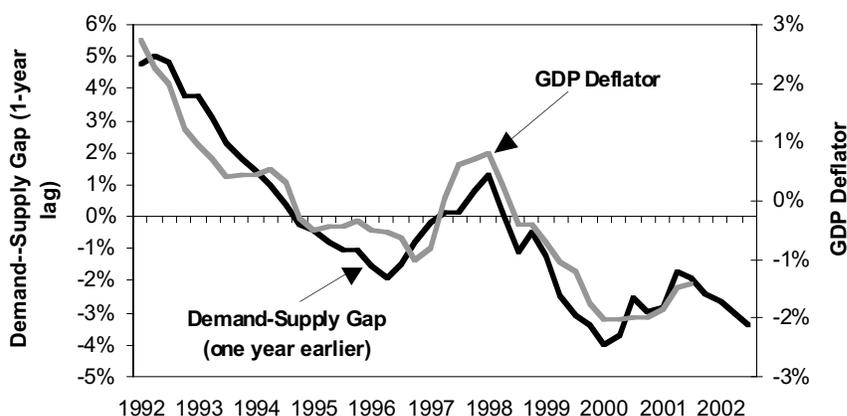
Like any Central Bank, the BOJ has direct control only over the monetary base. Normally, this base is 'multiplied' through

the banking system into the broader money supply known as M2 plus certificates of deposit. The latter reflects not just the BOJ's willingness to provide money, but the economy's need for it.

In the 1980s, as is normal, the monetary base and the broad money supply grew in tandem, and prices rose. But today, despite near-record money-printing by the BOJ, bank loans are falling, money supply is limping along, and prices are dropping.

If Tokyo wants to address weak demand, and its symptom, deflation, it needs to start with a combination of consumer tax cuts, continued monetary ease to finance those cuts, and resolute action on the bank debt front. Recent Japanese history has shown that, if you put money in people's pockets via tax cuts, they will spend.

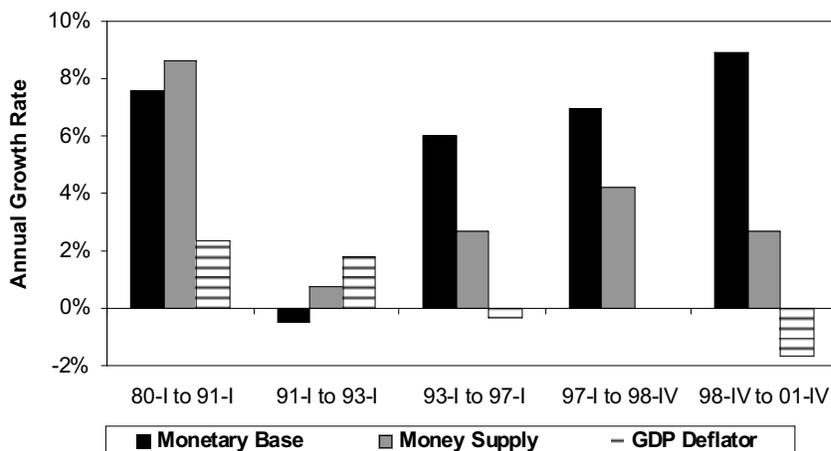
Weak demand leads to sagging prices



Source: Demand-Supply gap was calculated by author using data on potential GDP from the International Monetary Fund.

Note: The chart illustrates how changes in demand affect inflation/deflation a year later. Hence, the figures for 2000 show deflation in 2000 but the demand-supply gap a year earlier in 1999. Both lines use a two-quarter moving average.

BOJ money-printing gets little response



Source: "Money Stock" tables from Bank of Japan at http://www.boj.or.jp/en/siryo/siryo_f.htm.

Note: The monetary base and money supply data is available through Quarter IV of 2001, but GDP and deflator was only available through Quarter III.