

# Deflationary Lessons

*What Japanese deflation  
did and did not do.*

BY ADAM POSEN

When deflation hit Japan and persisted, it was quite a shock. The loss of the central bank's apparent capabilities to do anything about it with the Bank of Japan's instrument interest rate at zero made the situation even more interesting. So did Japan's bad loan problems shutting down the credit channel of monetary policy.

Monetary economists were captivated by the phenomenon, the concept of the liquidity trap was dusted off, and numerous remedies were proposed. Now that the Japanese economy has been in recovery, and deflation is ending—and the Bank of Japan is slowly (one hopes) readying itself for its first round of policy tightening since August 2000—it is a good time to take stock of what deflation did and did not do.

What have we learned from this natural experiment, if not natural disaster, in Japan? Do we better understand deflation and its impact? Do we have an improved assessment of the capabilities of central banks and their non-interest rate policy instruments? Can we design monetary policy frameworks so as to prevent it happening again? Or was it no big deal after all? I would suggest that there are a dozen lessons monetary economists and

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central bankers should take away from the Japanese experience with sustained deflation—some confirming the analyses of mainstream macroeconomics at the time, a few surprising to most or all observers.

**1 Deflation is very inertial.** Though many economies dip in and out of measured deflation for a couple of months at a time, sustained deflation is rare. Thus, no one could confidently predict the dynamics of prices once deflation set in in Japan during the mid-1990s. Contrary to some expectations (including my own), ongoing deflation was not only slow to start, but it was hard to stop, and it did not gain momentum. That is, once deflation took hold, it was sticky at a low level (between 0.5 and 1.5 percent a year) rather than accelerating.

**2 Deflation is bad but not disastrous.** Deflation in Japan proved less costly to the real economy than some feared. Best estimates of the drag on consumption directly from deflation were small, once growth and interest rates were taken into account; the feedback from deflation onto debt burdens and then back into deflation (via the sell-off of loans and collateral) was also limited in magnitude. Of course, this largely reflected the low level of deflation in Japan. That said, deflation did result in a drag on consumption, an increase in debt burdens, and uncertainties for investment, none of which was good for the economy.

**3 Deflation is not conducive to restructuring.** Some ideologues insisted that deflation would get the “rot” out of the Japanese economy by forcing out of business overly indebted or uncompetitive firms.

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Most mainstream economists recognized this as the liquidationist fallacy, disproved during the Great Depression. Recent developments in macroeconomics by Caballero and Hammour, Bernanke and Gertler, and others,

gave a better understanding of why this view was fallacious. Japan bore the mainstream view out. During the 1990s deflation, new businesses and those who

could pay off their loans were shut out from credit, while those firms that had borrowed more during the boom and were overstretched got their loans rolled over. Restructuring only picked up in Japan when deflationary expectations were contained and the banking system recapitalized.

**4 There is no such thing as “good deflation.”** Deflation, if it is to have any meaning, has to refer to a generalized fall in the price level (just as inflation refers to a general rise). Such a general shift can only distort economic decision-making at best. Former Bank of Japan Governor Masaru Hayami, among others, would point to specific price drops, like those prompted by new imports to Japan of cheap clothing, and say that this constituted “good deflation” and thus confuse the public. There are positive supply shocks, which can have a transitory deflationary impact on measures of aggregate price changes, but just as with negative supply shocks like an oil price hike, so long as it is a relative price shift, it is not the central bank’s concern. When there are second-round effects of the relative price shift (up or down) being passed on to the general price level, it is a problem.

**5 Reaching zero interest rate is not equivalent to running out of ammo.** This image was often invoked during the 1990s, suggesting that when the Bank of Japan’s nominal instrument interest rate neared zero, there was little left for the central bank to employ. Whether or not a central bank could be effective in fighting deflation with other than an interest rate instrument—especially when the banking system problems impeded the credit channel of monetary transmission—was the most substantive as well as the most practical dispute among monetary economists in response to Japan’s deflation. With the benefit of hindsight, it is now clear that hitting the zero lower bound on interest rates is equivalent to running out of ammo for the central bank’s biggest and most accurate gun. It does not empty out the armory completely, even if it throws

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the central bank back on to less dependable and lower firepower weapons.

6

**Even extreme monetary growth is not dependably inflationary.**

In their theoretical hearts, most monetary economists believe in some form of monetarism, that if a central bank prints enough money, ultimately prices must rise.

All sound empirical investigations over the past twenty-five years, however, suggest that in normal economic circumstances, monetary aggregates have no reliable predictive power for inflation. Under the

abnormal circumstances of Japan's deflation, the Bank of Japan printed a very large amount of money, to a chorus of understandable approval—this was the logical next weapon in the Bank of Japan's arsenal. Somewhat surprisingly to some, not so much to others, the amount of quantitative easing had no discernable effect on deflation or deflationary expectations.

7

**Monetary targeting can however signal commitment.**

Although the amount of yen printed in recent years does not appear to have mattered for changes in the Japanese price level, the fact of quantitative easing itself was significant. Whether grudging initially or tied to a clear commitment more recently, the Bank of Japan's quantitative easing policy told the markets and the public that the central bank recognized deflation as a problem (or early on at least was under pressure to make that recognition). In practical terms, this meant that it would be more difficult for the central bank to tighten policy, and that if the banks were ever fixed such that they wanted to lend again, there would be no constraint on the liquidity available to them. As with Paul Volcker in the United States in the early 1980s, monetary targeting was useful for the signal it gave, not for actually hitting the targets.

8

**Inflation expectations do matter.**

Over the last fifteen years, both the study and the practice of monetary policy have emphasized the critical role of private-sector inflation expectations. Inflation targeting regimes, for example, take into account the pass-through of shocks to inflation expectations to judge how much to respond to those shocks, and often rely on setting expecta-

tions as much as interest rates to affect the economy. Japan's deflation experience bears out the critical role of expectations. When Toshihiko Fukui, Kazumasa Iwata, and Toshiro Muto took over the leadership of the Bank of Japan in April 2003, and then made a forward-looking commitment in October 2003 not to raise rates until inflation was positive, private-sector expectations—both household surveys and bond market prices—responded. That response fed the recovery of consumption, investment, and even real estate prices, all of which were kept down by deflationary expectations under the prior BoJ regime.

9

**Exchange rate effects are overrated.**

There are economists who believe as a matter of principle that purchasing power parity must hold, even in the short-run, despite ample convincing empirical evidence to the contrary (as with monetary growth and inflation). So they proposed that Japan's deflation could be ended by pegging the yen at a low exchange rate—some went so far as to claim that deflation itself was caused by expectations of yen appreciation. That large and lasting swings in the yen-dollar exchange rate had no discernable impact on Japan's deflationary trend constitutes strong evidence against this position. The evident contradiction between Japan's years of relative deflation versus the inflation rates of the United States, Europe, and China, and the absence of Japanese expectations for sustained appreciation—or of any such appreciation over the course of several years of relative deflation—should finish off this excessive faith.

10

**Output gaps are underestimated under deflation.**

It is econometrically difficult to discern an output gap using usual methods when prices are falling and especially when nominal interest rates near zero. Assuming the deflationary period follows some years of declining growth, as it did in Japan and usually does, top-down statistical methods will automatically infer that potential growth has been falling (and thus inflationary risks for a given growth level rising), whether or not there is fundamental reason to do so. Therefore it appears challenging for a central bank facing deflation to determine monetary conditions, as it was for the Bank of Japan. Frustration in pursuit of precision using normal methods, however, masks the near certainty central banks facing deflation can have about the sign of the output gap, i.e., that the economy is growing significantly more slowly than potential (see Lesson 4, there's no good deflation). Moreover, since deflation is inertial (Lesson 1), it is not as though fine-tuning to make sure that monetary policy is too easy is necessary. Central banks facing deflation can

probably err on the thinking of there is still an output gap until inflation actually rises. Japan's last three-plus years of solid growth in excess of many observers' assessment of potential output (but not my own) with inflation only forecast to turn positive well into the fourth year of recovery bears this out.

# 11

## **Monetary discipline cannot substitute for financial discipline.**

Once the Japanese banking system became undercapitalized and started rolling over vast numbers of non-performing loans in the mid-1990s, the credit channel of monetary policy shut down. The point is not so much that monetary policy was left "pushing on a string" since the Bank of

Japan could still affect expectations in part through a commitment to quantitative easing (Lessons 7 and 8)—rather, the point is that the Bank of Japan could not encourage more responsible lending behavior by the banking system until the Financial Supervision Agency did its job and made the banks write off bad loans

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and recapitalize. Providing ample liquidity to the banking system probably prevented undesirable payments difficulties, but did nothing to make bank behavior worse. Despite the tendency for some central bankers at the BoJ and elsewhere to view low interest rates as a moral issue, they do not subsidize bad lending by providing liquidity. The bad lending comes when bank supervisors and markets fail to enforce discipline, and there is nothing that monetary policy alone can do about that once it happens.

# 12

## **People care about monetary policy goals and results, but not methods.**

A great deal of ink was spilled and emotion vented over whether the Bank of Japan would have "risked its credibility" had it undertaken more aggressive and atypical measures (such as buying JGBs directly or making an explicit pre-commitment limiting future interest rate increases) during Japan's deflation. While there were legitimate intellectual grounds for debating the choice

and design of the best non-interest rate approaches to fighting inflation among central bankers and monetary economists, these concerned practicality not credibility. The markets and the broader public do not worry about whether what the central bank is doing can be labeled "unconventional," or the central bank merits self-proclamations of "bravery" in its approach. People quite sensibly do not care about the central bank's balance sheet at all, since ultimately the bank will get funded. The distinction between sterilized and unsterilized intervention, though much worried over by aficionados, becomes just a matter of semantics when money creation is great. And so on. Central banks should only worry about how they do things to the extent it affects policy outcomes, not how they would appear nor what they might do to their "credibility." Ending deflation would help credibility, failing to respond to deflation erodes it.

Putting these dozen lessons from Japan's deflation of the last decade together, what is the bottom line for monetary policymaking going forward? There is an asymmetry in the welfare effects of deflation and low levels of inflation, with deflation being worse, though it is not apocalyptic to fall into deflation. Still, there is nothing good about sustained deflation, not for restructuring or the banking system or for credibility, so central banks should go to great efforts to get out of it. Once a central bank is in a deflationary situation, it should show clear opposition to deflation, a willingness to use whatever means available (if the usual interest rate instrument is blocked) to reverse deflation, and a forward-looking commitment to being accommodative until inflation is solidly positive. Then the central bank will move expectations—and if it moves expectations, it will move outcomes in the desired direction.

Central banks under normal circumstances should get in place a commitment to a positive inflation definition of price stability, with a well-considered buffer zone between it and zero inflation. They should back that commitment with a promise that deviations from the practical definition of price stability will be symmetrically opposed. And at all times, central banks should keep the public focused on goals and outcomes, and not get hung up on the appearance of intermediate targets or policy instruments, which in the end the public and markets correctly discount as of little importance. No one reasonable fusses about what their plumber uses to stop a leak when their house is flooding, so long as the leak stops and stays stopped. You only fire the plumber if it keeps leaking. ♦