Deflation and Inventory Investment

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The Inventory Ratio in Decline

The level of inventories maintained by Japanese companies has fallen to an all-time low. Inventory stock, viewed by the System of National Accounting (SNA), has been in a trend of decline since peaking in 1991. The inventory ratio (inventory balance/GDP) was tracked at 16.0 percent in 2003, a decline of 6.3 points from the 22.3 percent in 1991 and less than half of the 33.7 percent charted two decades earlier in 1983 (see Chart 1).

In one aspect, the decline in the inventory balance may be hypothesized as stemming from improved corporate financial structure, and in a macroeconomic perspective from smaller swings in the inventory cycle to stabilize economic fluctuations. On the other hand, however, the process of inventory reduction functions to shrink aggregate demand. Moreover, in the event of excessive inventory decline, there is also the potential for obstacles to be created for smooth production activities and business transactions, sales promotion and the other essential functions that distinguish inventory.
Impacted by Decline in Anticipated Growth, Deflation

Pointed out as factors behind long-term decline trends in the macroeconomic inventory ratio are, (1) the increased market share for service industries and other sectors in which inventories fundamentally fail to exist; (2) advances in the “just-in-time system” and other production and inventory control technology; (3) improved efficiency in the distribution sector, and so forth. In addition to these dynamics, the decline in recent years is also believed to reflect the fall in anticipated growth rates and the drop in prices (deflation).

If we assume that proper inventory levels are determined in reaction to business scale, then the value of inventory investment will be swayed by the forecasts of future business scale. If predictions anticipate high growth rates and expanding sales in the future, then inventories can be expected to be increased. If the outlook is for slumping transactions, then inventories will likely shrink. There is a possibility that the slumping growth of the Japanese economy from the 1990s, as well as the chilling in demand from the fall of 1997, have distorted the growth anticipated by companies. Examining inventory by category, the decline in distribution inventory from 1999 was particularly large, under the impact of the slump in personal consumption from 1998 on.

In addition, when the economy is deflationary, commodity prices will decline during the period in review, with companies suffering inventory valuation losses. This causes corporation to reduce inventory to the greatest degree possible, in striving to diminish the declines in of their earnings. In this way, therefore, deflation functions to reduce inventory investment. Examining the past relationship between inventory investment and inventory valuation profits/losses, inventory investment is linked to evaluation profit and losses in a slightly delayed framework (see Chart 2). There is no doubt that the deflation in recent years, and particularly the fall in corporate goods prices, has acted to push down inventory investment.

For example, even in 2000, a year marked by rapid growth in information technology (IT) demand and the posting of real GDP growth of 2.4 percent, inventory
Investment (real base, chain-linked) declined by about 400 billion yen (2001 saw growth of approx. 60 billion yen as a result of “unintentional inventory increases” accompanying the business downturn). This means that no inventory increases have occurred since 1998, even during business upturns. To that extent, therefore, the impact of deflation can be said to be great indeed.

*Trend Shifting with Easing Deflation?*

From 2004, however, inventory investment shifted to an increase trend with each quarter, while the inventory ratio has also displayed rebound tendencies (see Chart 3). One factor behind this trend is the occurrence of unintentional inventory increases accompanying the stagnation of demand for electronic components and certain other industries through mid-2004. More so than this, however, is that against the backdrop of the solid overall advance in demand (2.7 percent growth in the real GDP in 2004), there is the possibility that corporate growth anticipations have bottomed out and shifted into an upward trend. In 2004, furthermore, domestic corporate goods prices rose by 1.3 percent, charting the first increase in 13 years (with the exception of the 1997 price increase under the impact of the national consumption tax hike that year). It is apparent, therefore, that the halt in the decline in corporate goods prices is providing an incentive for upbeat inventory investment.

It remains unclear what direction will be taken by the Japanese economy, which as of the spring of 2005 was considered to be at a virtual standstill. In the event of a renewed rise in business activity, however, it is predicted that inventory investment would be greater than conventional levels. Inventory investment, though small in scale, in the midst of an economic upturn phase can be anticipated to manifest major strength as an element of acceleration that serves to buoy the economy.