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National Economic Trends

THE FEDERAL RESERVE BANK of ST. LOUIS

Old Wine at New Prices

The real change in business inventories (CBI) in the first quarter of 1998 was a whopping $91.4 billion chain-weighted 1992 dollars at a seasonally adjusted annual rate. The increase contributed 1.2 percentage points to the spectacular 5.5 percent growth in real gross domestic product (GDP) for the quarter (see chart at the bottom of Page 4). However, the monthly changes in manufacturing and trade inventories did not appear to be as large; the chart on Page 5 shows that the monthly inventory-to-sales ratio did not rise significantly. The monthly increases in manufacturing and trade inventories in current dollar terms are less than they were in 1994-95. But the CBI component of GDP is larger—both in nominal *and* real terms.

GDP is supposed to measure the value of current quarter production, but since some firms use accounting practices that report inventory withdrawals at historical (book) cost, an inventory valuation adjustment (IVA) is necessary to calculate CBI. The IVA uses producer price indexes to adjust the value of inventory withdrawals to reflect profits or losses from price changes that took place since the inventory was produced. When producer prices rise, IVA is negative and reduces the change in the CBI. When producer prices fall, IVA becomes positive.

The accompanying chart shows the change in book value and the IVA for nonfarm inventories. During the 1994-95 inventory accumulation, producer prices were rising, and IVA deducted from the change in the book value of nonfarm inventories. In 1997 and the first quarter of 1998, however, falling producer prices made the inventory valuation adjustment positive and added to the increase in the book value of inventories. As a result, the CBI component of GDP was higher, even though the book value of inventories increased less during 1997 and the first quarter of 1998 than in 1994-95.

Both the real and nominal manufacturing and trade inventory-to-sales ratios have been low and steady for the past few quarters. This would lead us to conclude that inventory levels are not out of line. So, in one sense, we can argue that the IVA exaggerates the amount of the inventory buildup. But in a period of declining prices, there is an additional penalty for holding too much inventory. When prices are falling, firms want to minimize their stocks of inputs and finished goods, deferring purchases and production until needed. If producer prices continue to fall, firms might set lower-than-normal targets and reduce planned inventory levels.

Preliminary data indicate signs of a slowdown in inventory investment in the second quarter of 1998, but low inventory-to-sales ratios suggest that an inventory correction would be fairly mild, unless other forces combine to dampen consumption and investment.

—Donald S. Allen

Components of Nonfarm Business Inventory Investment