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Inventory Changes and the Business Cycle

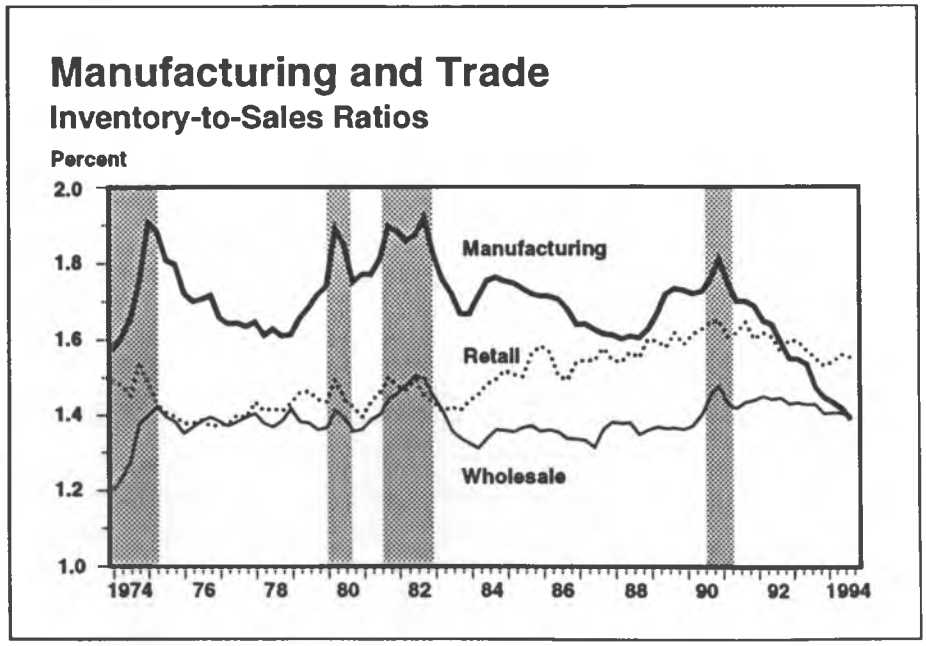
The robust growth of Gross Domestic Product (GDP) in 1994 was due in large part to a buildup of business inventory. The 1994 increase in business inventory was $47.8 billion in 1987 dollars, contributing 1 percentage point of the 4.1 percent increase in GDP, and following a $15.3 billion increase in 1993. Most post-war recessions have been preceded by a rise in inventory levels. Does the 1994 buildup of inventory portend another downturn? Not necessarily.

The impact of inventory increases on the business cycle depends on whether they are planned or unplanned. *Unplanned* increases in inventory are undesirable and are usually followed by scaled-back production or purchases until inventory levels return to normal. Such decreases in production can trigger layoffs and sluggish demand throughout the economy. *Planned* increases in inventory, on the other hand, contribute positively to economic expansions and do not lead to corrections.

Inventory increases before recessions usually coincide with *increases* in the business inventory-to-sales ratio, but the ratio is at its lowest level in 20 years. Low inventory-to-sales ratios in 1994 suggest that firms have been economizing by maintaining a minimum level of inventory. Last year's unexpectedly large increase in consumer spending caught some firms under-stocked. For example, automakers like Ford and GM experienced shortages of popular models. Such stock-outs would result in a *planned* attempt to raise inventory levels. The retail sector, however, may have experienced some unplanned increases in inventory due to lower than anticipated holiday sales. We would then expect some inventory decumulation in the retail sector during the first quarter of 1995.

Fundamental changes in inventory management methods may also have permanently changed the relationship between inventory and recessions. The accompanying chart shows the inventory-to-sales ratio (number of months' sales in stock) of the manufacturing, wholesale and retail trade sectors for the last 20 years, with recessions shaded. The manufacturing sector has adopted more efficient inventory management techniques and contributed heavily to the decline in the aggregate inventory-to-sales ratio. Innovations like just-in-time delivery allow production to respond faster to changes in demand, minimizing unplanned inventory accumulation. Some analysts believe this will reduce the severity of business cycles over the long run.

— Donald S. Allen



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