

Crash, Bang, Wallop

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Booms are not all alike. Nor slumps. Shocks and institutions are never exactly the same. Yet the late 1990s boom, the slide into slump and recent rebound has a striking similarity to the boom of the roaring 1920s, the deep decline in the early '30s and initial rebound. I see the two experiences as primarily driven by analogous forces and common mechanisms -- both non-monetary. And I believe that the rest of the present decade will tend, barring new shocks, to resemble the rest of the '30s -- a recovery with investment and employment below historical norms.

Causes aside, both experiences began with an investment boom, then a downturn in investment while consumption held up pretty well. Economic activity closely tracked investment: Employment and hours worked were elevated from 1925 to 1929 (unemployment at 3.2% in the odd years), then plunged till 1933 (hours worked falling 25%); they were again elevated from 1997 to 2000 (unemployment reaching 3.9%), then fell until mid-2003 (hours worked by about 8%).

Each boom was caused by the advent of a new general-purpose technology -- commercially available electric power in the '20s, the information and communication technologies in the '90s. By mid-decade there were high and rising expectations of profits to be earned in the decade ahead from applications of the new technology. In the boom years these expectations fueled a wave of preparatory investing -- much of it in infrastructure and employee training. The force of the expectations may be roughly gauged by the take-off of share prices. Take the S&P Composite stock price index adjusted for inflation -- the "real S&P." From pre-boom 1924 it rose 20% by 1925 and 104% by 1928; from the pre-boom 1996 level it rose 30% by 1997 and 98% by 1998.

The basic mechanisms are simple, though not widely understood: New visions of future profits raise the values (per unit) that entrepreneurs and CEOs put on new investments in business assets -- in job-ready employees, new customers, and plant and equipment -- without raising the cost of acquiring them; this prompts stepped-up investing in such assets. In addition, increases in these asset values sooner or later lead to a sympathetic rise in share prices, despite errors and distortions; and that raises both firms' financial power and financiers' power to fund new projects and new firms. These developments in turn have labor-demand effects pulling up wages, hours and employment. Of course, decreased profit expectations operate in reverse.

Entrepreneurs, financiers and investors had to be deeply uncertain, however, over exactly where profits from the developments of the new technology would emerge and how large they would be. With profit expectations resting more than usually on guesswork, business asset values and their reflection in share prices could easily lurch up, or down. (Markets may have been spooked by the slow rise of profits, which they did not understand would zoom later, when the big productivity gains were achieved.) When asset values weakened in mid-1929, climaxed by the October crash, investing of all kinds was cut back. The

resulting decline in output and employment led to an unexpected decline in profits and hence a further decline of asset values and share prices, thus also of investment. And so on in a vicious circle. The real S&P bottomed in 1932 -- 14% below its pre-boom 1924 level.

The markets' unnerving in 2000 and subsequent climbdown were broadly parallel, with the real S&P bottoming (October 2002) in pre-boom 1996 territory.

The saga of the "recovery," which began in 1933, is overdue for re-examination and is of special interest now in view of the recent rebound of stocks and jobs. Of course, recovery from the Depression never meant regaining the record investment and employment levels of the boom, since they rested on expectations of an extraordinary lift in productivity and profit ahead, not on expectations that might recur from decade to decade. But it could reasonably have been believed in 1933 that the economy would tend to recover at least to pre-boom investment and employment levels. The stock market seemed to be a believer. In 1933, a year after its low, the real S&P regained and passed its pre-boom 1924 level. In 1934 the real S&P average passed the 1925 level; in 1935 it reached the 1926 level. The latter level held up for the rest of the decade! These data are notable since the "unsustainable" share prices of the '20s boom were Exhibit A in the charge that the stock market was no way to run an economy. It is true that the market in late 1928 and early 1929 probed heights later proved too high to be justified. But one might as well say the market in 1925 set prices too low.

This soar of share prices might be thought to have galvanized the economy onto a course of rapid recovery toward normal activity. But, after four years of rebound, hours worked in 1937 was still 17% below its pre-boom 1924 level and unemployment, at 14.3%, was way above the 5% level of 1924 and 1920. There is a lesson in this for the present day, in which the recovery in the stock market and recovery of the economy are taken to be virtually the same thing. The '30s showed that recovery of real share prices is not sufficient for recovery of jobs.

What explains how in 1937, with seemingly great share prices for five years, employment was still depressed? Was it policy errors? Market mistakes? Or mostly something else? Part of the explanation is that it took four years for employment to hit bottom, so it should not be surprising that, even if share prices were indeed favorable, some of the recovery would still lie ahead as late as 1937. But most of the huge shortfall has deeper reasons.

Recovery from the Depression faced stiff headwinds from the cost-savings and spin-off innovations made possible by the '20s investments in the new general technology. The '30s, after all, marked the rise of the great industrial laboratories that so impressed Schumpeter.

For one thing, the surge of productivity reduced the incentive to invest. What ultimately determines the rate at which firms invest in new employees, new customers, etc. is the value put on such a business asset taken as a ratio to the cost of acquiring the asset. For

some important assets this cost is a matter of labor productivity: if the latter increases, the cost increases proportionally. This cost was not an unimportant detail, since productivity improved at a record clip during the Depression. By the mid-'30s the cumulative increase of real labor productivity was challenging the cumulative increase of the real S&P. In 1935, when the real S&P had grown 33% above its 1924 level, labor productivity had grown about 14%; in 1938, when the real S&P was 37% above (coming off its temporary highs in 1936 and 1937), productivity had grown 28%.

In my interpretation, these productivity gains had already been largely reflected in the real S&P levels reattained in the mid-'30s, so the realizations of these gains (especially in the second half of the decade) did not for the most part prompt a further rise of the stock market and of asset values; hence the gains operated to lower the ratio of value to cost on many or most assets. The gains thus whittled away the incentive to invest in new employees, new customers, etc. The ratio of real share prices to productivity, while a propellant early in the recovery, rapidly ran out of force by decade's end, when the recovery had far to go.

Furthermore, the productivity surge raised the investment rates that were required just to stand in the same place. A cascade of new products and methods meant a wave of obsolescence and thus dislocation of employees. The layoff rate ran about 3.5% per month on average in every year but two in the decade, a high rate by historical standards. Hence, hiring and asset accumulation generally would have to be higher than in the '20s if employment was not to fall.

Finally, the stock market, leaving aside the ebullience of 1937 and 1938, was flat from 1935 to 1940. Clearly there was no new vision of yet another breakthrough period to inspire it to dash ahead. But, more than that, something must have gone wrong that blocked the normal trend growth of share prices. It could be that share prices got ahead of themselves by 1935 and had to cool down. A good reason for the flattening, however, is that the tensions in Europe were beginning to cast dark shadows on most stock markets and the U.S. was not an exception.

The technological developments and overseas tensions that slowed and limited the '30s recovery have clear parallels in the economy's present situation. The 350,000 employees sent into the jobless pool every week is a significant hurdle on the way to getting unemployment back to the pre-boom rate of 1995-96 (5.5%), let alone the 5% level envisaged by some. Although the real S&P 500 climbed 19% between 1996 and third-quarter 2002, productivity climbed 13.5%, offsetting most of the stimulus from the former. It is only in the past year that share prices have spurted way ahead. But with hourly productivity now rising at 4% yearly, the real values put on business assets -- and their reflection, real share prices -- must now rise at 4% just to keep investment incentives from slipping. Finally, these times do not lack international tensions. We cannot be certain that these several influences will be the decisive forces in the years ahead. But if they are, investment and employment levels will be below historical norms for the decade -- unless new policies come to the rescue.

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