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INVESTMENT MANAGEMENT

As We See It

> "To a pretty close approximation, the rate of growth of our living standard equals the rate of growth of our domestic productivity."
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> - Economist Paul Krugman
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> - as quoted in *Prosperity: The Coming 20-Year Boom and What It Means to You*

Many economists are surprised that our economy has sustained such a strong and lengthy up cycle without incurring inflationary pressure. The U. S. economy has advanced at an above-average rate since 1991 and shows few signs of faltering. In recent years, the GDP has grown at a far faster rate than was conventionally viewed as compatible with stable inflation. Unemployment has fallen to 4.3%, a 30-year low, well below the level that many mainstream economists thought would put pressure on prices. Still, inflation is not only low, it is falling.

If this is an era in which economies can enjoy rapid growth and low unemployment with little risk of inflation, information technology gets much of the credit. Those who make this argument believe that faster computers and improved telecommunications have boosted the growth of productivity and thereby increased the speed at which the economy can grow before it triggers inflation. Yet, if official figures are to be believed, the computer revolution has not made the economy more efficient. Bob Davis and David Wessel, authors of *Prosperity: The Coming 20-Year Boom and What It Means to You*, state: "From World War II to 1973, productivity grew at a brisk 2.7% a year. . . . But, for reasons that remain unclear, productivity has grown only 1.0% a year since 1973. . . ."

A persuasive argument for why productivity gains do not show up in the official figures is mismeasurement. Three-quarters of all computers are used in the service sector, such as finance and healthcare, where output is notoriously hard to measure. Moreover, many of the benefits arrive not in increased output, but in the form of improvements in quality and convenience. For example, ATM machines give customers 24-hour-a-day access to their funds, but this convenience does not show up as an improvement in productivity.

There are those who argue that the economic benefits of computers may actually lie in the future. This is the position taken by Davis and Wessel. In their book, they relate that Paul David, a Stanford University economic historian, detailed the parallels between the electric and computer ages. The lesson he drew from the electric era: it takes decades for powerful innovations to boost an economy, but the delayed payoff can be immense.

Davis and Wessel use the example of Maytag Corporation which was operating four electric-powered factories in Newton, Iowa as early at 1907. In typical plants of the day, big electric motors turned a single steel shaft running the length of the building, suspended from the ceiling. Power was supplied to individual machines in the factory by leather belts connected to the steel shaft. Consequently, to turn on one machine, all machines had to be powered up. Only after the single shaft was replaced, in 1925, with machinery powered by individual electric motors were they able to efficiently step up production.

Maytag's production records tell the story. In 1923, the company annually produced an average of 149 machines per worker. By 1926, the production rate had increased by 48% to 221 machines per worker. Maytag's productivity gains were replicated elsewhere. Between 1922 and 1926, Henry Ford built a massive manufacturing complex using electric-motor technology. By 1925, this factory was turning out a Model T every 30 seconds. Nationwide, manufacturing productivity rose by five percentage points per year in the 1920s. Stanford's Mr. David attributes close to half that increase to the cumulative effects of electric technology.

In *Prosperity: The Coming 20-Year Boom and What It Means to You*, Davis and Wessel state:

> Paul David argues that computers will follow a path similar to electric motors, making the electric age a metaphor for the computer age. . . . But microcomputing's most important economic contribution will come over the next ten or twenty years, as more companies learn how to use the technology to improve their productivity. . . . Only now, for example, are companies beginning to understand the changes wrought by the Internet and other computer networks. . . ."

Thus far, our strong economy has not been translated into a comparable rise in the standard of living for the average citizen. The culprit has been lackluster productivity growth. However, that may be on the verge of change. If Davis and Wessel are correct in forecasting a significant rise in productivity as computers contribute to increased efficiency, a subsequent rise in the standard of living is in the offing.

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