The truth about the IT Revolution

Dr Woody Brock | SED | 04 September 2017

The US Federal Reserve Bank's latest estimate of US household net worth is $96 trillion. When I went to work in 1981, it was approximately $13 trillion. On an inflation adjusted basis, this period has witnessed the longest and most rapid growth of net worth in recorded US history. This wealth explosion followed the great destruction of real net worth in the period of 1966 to 1981.

Importantly, the growth of wealth in the last 35 years was not due to a bubble in asset valuations, even though there have been bubbles such as the stock market in 2000 and residential real estate in 2007. Yes, valuations of equities and real estate are high today, but not when adjusted for the low level of interest rates. As for ordinary bonds, the explosion of values has reflected the behavior of interest rates, and there has been no bubble at all.

There are two drivers underlying this story of wealth growth: the 35-year fall in interest rates from 16% to 2%, and the explosion of corporate earnings from 5% of GDP to 10%. Virtually no one predicted today's level of wealth to be as high as it is for the simple reason that no one could have dreamed three decades ago that interest rates and earnings could have performed as they have.

Astonishingly, the economics profession has done very little to explain how all this came about. To be sure, the decline in interest rates is well understood to have been driven by the collapse of inflation, so there is little mystery here. But what of the collapse of inflation itself?

The lack of meaningful analysis of inflation not only in the shorter run (eg. the disinflation during the current recovery), but also during the entire 35-year period since 1981 is astonishing. One reason for silence in this regard is that all of the standard stories about money growth, oil prices, and business-cycle dynamics fail individually and collectively to explain the disinflation which is now so "perplexing" to today's central bankers worldwide.

As for the explosion of earnings, we are currently being told that this is due to anti-competitive "consolidation" of industries and to ever greater rent-seeking behavior on the part of lobbyists in Washington. While these worrisome developments are true, it is forgotten that the excess profits reaped by those who are politically well organised come at the expense of those who lose out. In short, there is a zero-sum game here that invalidates the current theory of profit growth.

At the same time, economists do not even attempt to reconcile record profit growth in recent decades with the official statistics revealing a collapse in productivity growth - as officially

measured. These two realities are totally incompatible. No one doubts the growth in profits. This being true, the official productivity numbers must be highly suspect.

During the past few years, I have developed a microeconomics-based macro-model that resolves all these paradoxes and more. In this analysis, we have argued that the principal explanation for the behavior of the economy and inflation lies in a remarkably long-lived outward shift in the nation's private sector supply curve. This has been driven by the ongoing - indeed accelerating - penetration of the Digital Revolution into every interstice of the US economy. Accelerating? Yes. For all that the rise of Walmarts in the 1990s and beyond was cited as dis-inflationary, the rise of Amazon will have proven many times more dis-inflationary between 2000 to 2030. As regards our supply curve hypothesis, it is worth our repeating that the US government does not even attempt to measure shifts in the nation's supply curve at all, hard as this is to credit.

THE NEXT 10 YEARS

Looking forward, the great question is whether inflation will return and thus interest rates will rise. Investor returns will very largely be driven by inflation's behavior.

Once again, current discussions of the longer-run behavior of inflation are vacuous, and provide no guidance for nervous investors. But what about our own theory? What does this predict about inflation, not to mention productivity growth and profits? Until now, we have focused on explaining the past, and not in forecasting the future. But we now believe that the fallout from the digital revolution will continue for at least another 10 and probably 20 years. If this is the case, then inflation and interest rates should remain low by historical standards.

How did I come to this view? I did so by rediscovering a paper I wrote in November 1997 that addressed the long run implications of the Digital Revolution, where by long run, I mean a period of at least 30 years. Our analysis predicted:

1. that the impact of the onslaught of the Digital Revolution would take the form of a consistent 30- or 40-year outward shift of the Supply curve;
2. that productivity growth would accelerate and not decline; and,
3. that inflation and interest rates should fall (rather than rise slowly) for a very long period - a period which is not over.

This forecast was derived from first principles at a very deep level. We drew upon and synthesised three different bodies of research at MIT, Stanford University, and McKinsey and Company. What matters are not the findings of any one of these studies, but rather of the counter-intuitive implications of all three when unified.

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OUR 1997 REPORT

In rereading our 1997 report, I was captivated by the depth and originality of our findings, particularly as I did not recall ever having written the essay. Almost everything we predicted has come true for the counter-intuitive reasons we advanced.

The one prediction we made which on the surface was wrong is that productivity growth would be strong, not weak. Yet the official statistics show a decline in productivity growth, especially in the last eight years. Nonetheless, there is no decrease - rather an increase in productivity growth - if the official data are revised to correct the 2% upward bias in the BLS's measurement of inflation. [Recall that, if the inflation rate has been mis-measured by 2% on the upside, then both real GDP and productivity growth are in fact 2% higher than reported, to an order of approximation in the latter case.]

The growing belief that the official inflation numbers have been increasingly overstated reflects four different research results.

First, "economic growth" is no longer about the production of "more" goods and services, but rather about the introduction of ever "better" goods and services. When prices are adjusted to reflect quality improvements, then the rate of inflation is correspondingly lower. Harvard's Martin Feldstein has argued that US inflation would be at least 1.5% lower than it is were quality improvements fully taken into account.

Second, the BLS does not take into account the impact of the advent of new goods and services.

Third, the official statistics do not take into account the GDP growth due to myriad new free goods and services, e.g. mobile phone apps that cost the customer nothing.

Fourth, the inaccurate measurement of "creative destruction" has masked yet another source of disinflation, as recently documented by researchers at Stanford, MIT, and the London School of Economics.

We have discussed these four biases in recent reports, and believe that the official inflation rate is indeed upward-biased by 2% as a rough estimate. If so, then today's official 1% productivity rate is probably 3%, higher even than during the 1960 to 2000 period.

Above and beyond these mis-measurement issues, there is the argument that average living standards have grown by 40% since 1975, and have not stagnated. There is also the reality that profits have doubled as a share of GDP. These two developments cast still further doubt on the hypothesis of decreasing productivity growth.

In brief, we do not believe our prediction of rising productivity growth was wrong at all.

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The contents of this 1997 PROFILE are not dated at all. Our predictions have been supported by the data. Additionally, the logic giving rise to our predictions has been well vindicated. Finally, the analysis helps to make sense of future developments to come – developments central to future bets of investors. I strongly urge you to read this.

None of this is to suggest that other things cannot go wrong, causing both economic and wealth growth to drop sharply. But all in all, the implications for investors are positive.

Read "The truth about the IT Revolution"

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