ECONOMICS: US PERSPECTIVES

THE PRODUCTIVITY PARADOX: IS INNOVATION MISPRICED?

+ Joseph G. Carson, US Economist and Director—Global Economic Research, joe.carson@abglobal.com

Productivity in the private sector has been noticeably weak, rising less than 1% on average for the past several years. But improved economic efficiency (productivity) is readily apparent in relatively high operating profit margins even as job creation picks up. Questions about the true underlying trend in productivity (and the accuracy of productivity statistics) are more than academic: they have important implications for potential economic growth and monetary policy.

Productivity Trends

Productivity growth in the private business sector has averaged 0.7% since 2011—the longest string of years of subpar productivity growth since the early 1980s. The productivity weakness is largely concentrated in the service sector, while manufacturing productivity is running twice as fast as the overall economy (*Display 1*).

Issues surrounding the accuracy of productivity in the private service sector have been around for decades. Former Fed Chair Alan Greenspan commented on that in a 1996 speech: "Insofar as recent productivity growth is concerned, I have serious questions about the quality of the data that we employ to measure output in today's economy." Greenspan argued that the productivity numbers are "partially phony." According to his analysis, "measured productivity in noncorporate businesses—largely services—had displayed a negative trend for many years. This result was implausible and suggested considerable error in estimating output and prices for many services." To support his claim that productivity was being understated, Greenspan noted that companies were reporting ever-widening profit margins without accelerating rates of price increases.

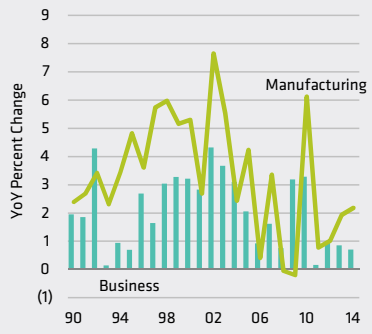
A similar picture has unfolded today. Real profit margins have stayed relatively high for the past four years—even higher than during the 1990s (*Display 2*). Yet productivity growth remains relatively low.

Questions on Service Sector Output

One anomaly in the current cycle curiously seems to indicate lackluster growth in private service sector output, despite a backdrop of steady and faster gains in private sector service jobs (*Display 3, next page*). In fact, since 2010, growth in private sector jobs has outpaced growth in private sector output in three of the past four years. That's an unusual development on its own—and not one that we would expect to see in an environment of both strong profits and near record-high profit margins.

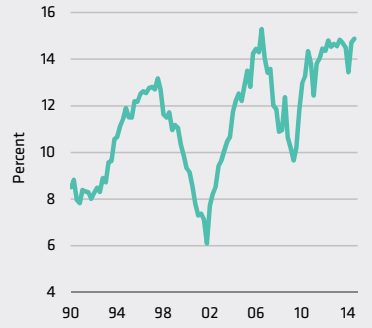
As an example of the difficulties gauging service sector output, let's look at the recent release of the new iPhone 6 and its wide-ranging functionality. It enables people to communicate in three major

Display 1
Dismal Trends in Productivity



Through December 31, 2014
Source: Haver Analytics and US Bureau of Labor Statistics (BLS)

Display 2
Yet Profit Margins Remain Near Record Highs



Through September 30, 2014
Source: Haver Analytics and US Bureau of Economic Analysis (BEA)

forums—telephone, email and texting—with other social media forums available as well. It also enables people to read newspapers and books, listen to music, watch a movie, stay connected to the financial markets, shop and bank at all hours, and it contains a rather high-quality camera, a clock, a calendar and a calculator, as well as many more applications not listed here.

We asked a senior official at the US Bureau of Economic Analysis (BEA) how is it possible to gauge the output of a new gadget that has so many different and unique functions. He stated that as a rule, technological innovation (quality change) has been captured by the BEA in the price indexes. For instance, every year when an automaker introduces a new model of car and it includes new technology (such as a navigation system), the government statisticians adjust the price down for quality changes in order to capture the added value of increased performance or capabilities. The same procedures would be used for the iPhone or any other product that changes its functions.

But here's the rub. The BEA official admitted that it is very difficult to adjust the price for a new gadget, since there are no previous products to measure it against, and especially for one that has so many functionalities. Moreover, to the extent new technologies change the way other businesses operate, or change the way they provide services to customers, it could take several years before it is incorporated into the framework of gross domestic product (GDP).

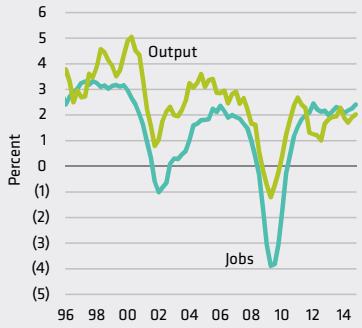
Time Lags in Tallying Innovation

For example, in the early 1990s, the financial service industry was one of the top five industries investing heavily into technology (computers). This enabled them to transform the banking services they offered to retail consumers. Innovations included the automated teller machine (ATM), which enabled people to conduct banking transactions around the clock without lengthy waiting times for a bank teller. ATMs also eliminated the need to carry travelers checks on trips overseas. However, ATM usage was not included in the output of the financial sector in the GDP accounts until 1999.

Today, with our multi-faceted modes of communication, we find it hard to believe the GDP's data on communication outlays for 2014. Consumer spending on communication only rose 1.5% in real terms (*Display 4*). This was the weakest annual gain since the data was first collected in 1960, other than the 1.7% decline of 2009 (during the worst of the recent recession). The weak gain last year was roughly 500 basis points below the average gain of the last 25 years. That's just one example of a possible understatement of output growth and attendant productivity gains.

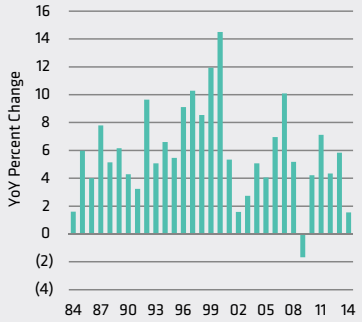
History clearly shows that it takes time for new innovations to work their way into the nation's infrastructure—even longer to be accurately captured in the nation's output figures. We would not go so far as Greenspan and claim that the current productivity figures are "phony," but there are plenty of questions surrounding their accuracy given the technology changes we see in the service sector. In the end, the proof of the pudding is in the eating—or should we say in company profits margins. ■

Display 3
Implied Productivity in Private Service Sector Is Negative



Through December 31, 2014
Source: BEA, BLS and Haver Analytics

Display 4
Unusual Slowdown in Era of Communication Boom



Through December 31, 2014
Source: BEA and Haver Analytics

The information contained herein reflects the views of AllianceBernstein L.P. or its affiliates and sources it believes are reliable as of the date of this publication. AllianceBernstein L.P. makes no representations or warranties concerning the accuracy of any data. There is no guarantee that any projection, forecast or opinion in this material will be realized. Past performance does not guarantee future results. The views expressed herein may change at any time after the date of this publication. This document is for informational purposes only and does not constitute investment advice. AllianceBernstein L.P. does not provide tax, legal or accounting advice. It does not take an investor's personal investment objectives or financial situation into account; investors should discuss their individual circumstances with appropriate professionals before making any decisions. This information should not be construed as sales or marketing material or an offer or solicitation for the purchase or sale of any financial instrument, product or service sponsored by AllianceBernstein or its affiliates.

Note to Canadian Readers: AllianceBernstein provides its investment management services in Canada through its affiliates Sanford C. Bernstein & Co., LLC and AllianceBernstein Canada, Inc.

Note to European Readers: European readers should note that this document has been issued by AllianceBernstein Limited, which is authorised and regulated in the UK by the Financial Conduct Authority. The registered office of the firm is: 50 Berkeley Street, London W1J 8HA.

Note to Australian Readers: This document has been issued by AllianceBernstein Australia Limited (ABN 53 095 022 718 and AFSL 230698). Information in this document is only intended for persons that qualify as "wholesale clients," as defined in the Corporations Act 2001 (Cth of Australia), and should not be construed as advice.

Note to New Zealand Readers: This document has been issued by AllianceBernstein New Zealand Limited (AK 980088, FSP17141). Information in this document is only intended for persons who qualify as "wholesale clients," as defined by the Financial Advisers Act 2008 (New Zealand), and should not be construed as advice.

Note to Readers in Vietnam, the Philippines, Brunei, Thailand, Indonesia, China, Taiwan and India: This document is provided solely for the informational purposes of institutional investors and is not investment advice, nor is it intended to be an offer or solicitation, and does not pertain to the specific investment objectives, financial situation or particular needs of any person to whom it is sent. This document is not an advertisement and is not intended for public use or additional distribution. AllianceBernstein is not licensed to, and does not purport to, conduct any business or offer any services in any of the above countries.

Note to Readers in Malaysia: Nothing in this document should be construed as an invitation or offer to subscribe to or purchase any securities, nor is it an offering of fund management services, advice, analysis or a report concerning securities. AllianceBernstein is not licensed to, and does not purport to, conduct any business or offer any services in Malaysia. Without prejudice to the generality of the foregoing, AllianceBernstein does not hold a capital markets services license under the Capital Markets & Services Act 2007 of Malaysia, and does not, nor does it purport to, deal in securities, trade in futures contracts, manage funds, offer corporate finance or investment advice, or provide financial planning services in Malaysia.

Note to Singapore Readers: This document has been issued by AllianceBernstein (Singapore) Ltd. ("ABSL", Company Registration No. 199703364C). ABSL is a holder of a Capital Markets Services Licence issued by the Monetary Authority of Singapore to conduct regulated activity in fund management and dealing in securities. AllianceBernstein (Luxembourg) S.à r.l. is the management company of the portfolio and has appointed ABSL as its agent for service of process and as its Singapore representative.

Note to Taiwan Readers: AllianceBernstein L.P. does not provide investment advice or portfolio-management services or deal in securities in Taiwan. The products/services illustrated here may not be available to Taiwan residents. Before proceeding with your investment decision, please consult your investment advisor.

Note to Hong Kong Readers: This document is issued in Hong Kong by AllianceBernstein Hong Kong Limited (聯博香港有限公司), a licensed entity regulated by the Hong Kong Securities and Futures Commission. This document has not been reviewed by the Hong Kong Securities and Futures Commission.