

Commentary: Macroeconomic Implications of the New Economy

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Introduction

1

Martin Baily's paper is an excellent survey of debates on new economy. It extends some of the issues dealt with in the Economic Report of the President (January 2001), which Martin oversaw the production as chairman of the Council of Economic Advisers.

The paper first reviews the excellent performance of the U.S. economy in the 1990s, especially from 1995 to 2000. The unemployment rate went down; the growth rate was high and, in fact, accelerated in the last five years; the inflation rate came down; and productivity increase became high. The combination of these economic variables implies that the NAIRU has been lowered and the short-term Phillips curve has shifted lower. Thus, the U.S. economy is now in the "new economy," which is defined as "the extraordinary gains in performance—including rapid productivity growth, rising incomes, low unemployment, and moderate inflation—that have resulted from this combination of mutually reinforcing advances in technologies, business practices, and economic policies." (*Economic Report of the President*, January 2001, p.23.)

What produced the new economy is a revolutionary progress in the information and technological (IT) industry. There are two routes that the IT revolution influences macroeconomic performances. First, the

boom in the IT sector itself contributes to macroeconomic productivity gains. Innovations in IT hardware made computers and other data-processing devices better and cheaper at a pace beyond forecasts of many experts. Internet, mobile phones, and other communication devices fundamentally changed how we do our businesses (and even how teenagers kill their time). Thus, increases in investment, employment, and output in the IT sector contributed to increases in the economy-wide investment, employment, and output. Second, traditional sectors are also benefiting from IT revolution. Financial services industry have changed ways they do businesses—e-banking and ATMs make for less dependence on tellers—and many financial products, such as derivatives, were not simply possible to be traded with high-powered computers. The distribution and retail industries are also benefiting from the Internet and computerized inventory control.

The advances in the IT sectors also blurred the boundaries of traditional sectors. For example, the broadcasting industry in the new economy—digital TV and CATV through optic fibers—will compete with the communication industry. Entertainment, broadcasting, communication, and retailing will increasingly become indistinguishable from each other.

All sound optimistic. However, there are signs of doubts about the durability of new economy driven by the IT sector. First, stock prices, especially “tech-stock” prices crashed from 2000 to 2001. The U.S. stock prices have had a long rally since the late 1980s. However, since the spring of 2000, the stock prices have declined. The Nasdaq especially rose sharply and fell dramatically between 1998 and 2001. Second, the U.S. economy has slowed down from the fall of 2000 to 2001. The growth rate of the second quarter of 2001 is virtually zero. The slowdown put some doubt on a notion that new economy will keep propelling the U.S. economy in the long run. Second, the new economy does not seem to be evident in Japan and Europe. Japan is suffering from a decade of low growth. Although Europe, in general, has been growing higher than Japan in the 1990s, the average EU growth rate is lower than the United States. There is little talk about new economy emerging in Japan or in Europe.

These developments prompt several questions:

(1) Is the new economy permanent, transitory, or cyclical? Is the current downturn the end of new economy? What is the potential growth rate in the medium run, once the current slowdown is over?

(2) Does the fall of tech stock prices (or Nasdaq in general) signal any problem (or the end of spectacular growth) in the future of the IT industry?

(3) Why is there no productivity increases in Japan and Europe?

(4) What are the macroeconomic implications, or, more specifically, monetary policy implications of a new economy phenomenon?

Baily answers them all. (DeLong and Summers also answer some of them.) Because Baily carefully surveyed debates that have been going on in the United States for the last few years, I have little to add as a discussant on these issues. Instead, I will concentrate on the evidence and implications of new economy from the rest of the world, in particular Japan and European countries.

International aspects of new economy

2

Of course, how IT sectors are doing in Japan, Europe, and other countries is interesting itself. But, in addition, understanding how new economy is changing, or, in some cases, not changing, the Japanese and European economies will contribute to debates on the U.S. economy, that are just mentioned. In particular, I will ask the following questions:

(1) Why have not the Japanese and EU economies become “new economy” when the U.S. economy excelled after 1995?

(2) Why was the bubble in the IT stock market commonly observed in Japan and EU, as well as in the United States?

(3) Will monetary policy be different in Japan and Europe when new economy comes to them?

Let me comment on these in turn. If new economy is permanent rather than transitory or cyclical, the effect of new economy should be felt in Japan and Europe, sooner than later. So far, little sign is observed of trend productivities in Japan and Europe. (It is hard to argue that the Japanese decade-long stagnation is something despite high growth in IT sectors.) Some European countries have benefited from IT booms. Ireland is such an example. However, the high economic growth in Ireland produced high inflation (under the unified monetary policy for Europe), presenting a traditional trade-off.¹ Of course, most innovations are taking place in the United States, but Japan and some European countries have their shares in discovery, production, and usage of high-tech industries. Why have not tsunami of new economy reached across the Pacific and the Atlantic Oceans? Does the lack of international spillover lend itself to a view that new economy is something uniquely American or that it is transitory? Japan and Europe are still waiting for “new economy.”

On the other hand, Japan and European countries had common experience of the IT stock price bubbles. Roughly speaking, the Nikkei rose from 13,000 in the fall of 1998 to 20,000 in February and March 2000, and then crashed to 11,000 at the end of August 2001.² The stock prices of high-tech companies are typically one-third to one-fifth of the peak value, and, in some cases, one-one hundredth of the peak in the spring of 2000. Similar rise and fall of IT stock prices was also observed in Europe and some emerging market economies. Although the timing of the rise in stock prices was much later in Japan and EU, compared with the Nasdaq, and the magnitude of fluctuation was more modest in Japan and EU. Baily and DeLong and Summers take a view that the rise and fall of stock prices in the United States was largely a bubble phenomenon. If so, why was the stock market bubble internationally common while the real economy IT revolution was not? Does this mean that financial markets are more internationally integrated than goods market?³

When the NAIRU is shifting downward, monetary policy can be more accommodating to employment and growth. Even when the unemployment rate is lower than the level previously thought NAIRU, monetary policy can be managed to stay put rather than go precautionary tightening. I believe that there were some occasions that the Federal Reserve might have tightened if it had been just looking at the unemployment rate and growth rate for fear of imminent overheating. However, new economy meant that more job opportunities, more productivity growth, and cost cutting for the same output. Inflation stayed low or even became lower. Another puzzle in Japan is that innovations in the IT sector seem to have contributed to deflation, thus damaging macroeconomic performance, rather than promoting more output. Some economists and policymakers in Japan believe that some of the price declines (CPI inflation rate at around -0.6 percent in the summer of 2001) are attributable to price declines caused by technological advance in the IT sector and its application to other sectors. Therefore, it is a “good deflation” not countered by unconventional monetary policy. Others hold a view that deflation is deflation. Deflation causes several problems in macroeconomic management. Thus, it should be cured by monetary policy. The same IT revolution is presenting two different pictures—one in the United States and another in Japan. The IT revolution is a good thing only when the rest of the economy is sound and strong like the United States, as it might aggravate deflation in a weak economy like Japan. Is this right?

Explanation

3

Baily explains why Japan and the EU did not benefit from IT as follows: First, per capita income of Japan and European countries have, in fact, declined in their respective ratio to the U.S.—divergence rather than convergence among G7. Second, compared with the United States, working hours in Japan are long, but labor productivity is low. Working hours in France are short, while labor productivity is only a little less than in the United States. In the end, neither of these countries comes even close to U.S. in per capita income. Third, Baily, citing the Bart van Ark study, comes to this conclusion:

“I will make the case that the interaction between IT and other factors is important. Specifically, barriers to the process of creative destruction, and particularly a lower level of competitive intensity in Europe and Japan, have prevented a more complete convergence. And since exploiting IT is encouraged by competition and requires change, the same barriers have also slowed the pace of adoption of new technologies.”

Baily goes on to explain that competition is less in Japan and Europe, citing evidence in McKinsey studies on competitive intensity, comparison in prices, comparing labor flexibility, and demand condition. His conclusion:

“The challenge for Europe and Japan in taking advantage of the new technologies is to allow economic evolution to take place. This is not a new challenge, but it has become of greater importance as the pace of technical change has quickened.”

My theory on why Japan and Europe have not caught on to new economy is similar to but slightly different from Baily's. First, let me say that I agree that the problem of Japan (and Europe) lies more in applying IT to other industries, rather than production and usage of IT products. This explains why IT bubbles emerge worldwide, including Japan and Europe, but macroeconomic growth was not observed in Japan. Simply put, Japan has done well in producing IT products but failed to utilize them to enhance productivity. In fact, mobile phones, computers, and other IT products made in Japan are as good as those made in America. When it comes to software—business applications—which utilized hardware, Japan starts to lag. Therefore, applications of new technology to business and management of old economies—that is more software than hardware—have been also lagging in Japan.

For the reason why Japan failed to take advantage of “new economy,” I would emphasize the difficulty in Japan to apply new technology to management system rather than regulatory “barrier.” It is more a self-inflicted problem of lacking incentive to innovate within the company management style.

Some people might point out high communication costs that have hindered Internet penetration in Japan. However, as communication costs have been lowered and technologies other than regular telephone lines have been made available, Internet at home has become extremely popular. More ADSL and CATV penetration will mean the increased use of the Internet at home. But the problem is how to apply the Internet to increase productivity.

I also put blame on labor practices and capital markets on why IT applications are slow in Japan. Development and application of IT requires innovative management that can transform organization. Promoting those who contributed to IT discovery and its application in manufacturing process or distribution process is essential. In the past, Japan has done well in training workers who accumulate human capital on the job, but not in bringing up innovative workers.

“Salary men” in Japanese companies are good at doing a manualized task, but do not think in an innovative way. In Japanese organizations, avoiding mistakes is more important than taking risks by experimenting with previously unknown innovations. It is difficult to fire workers in Japan, although job assignments are quite flexible. Taking risk is not rewarded properly in Japanese organizations.

A traditional system is most fit when the economy and firms are expanding—like the economy up to the 1980s. Redundant workers can be shifted to nonessential jobs in subsidiaries and affiliates. However, as the economy matures, so are many firms. It has become difficult to find growth opportunities. The new economy is only possible when taking risk is rewarded highly when successful. Similarly, funding for new venture capital has been very difficult in Japan. Japanese banking also relied on relationship banking, and not for innovative fee businesses, while a capital market for high-risk, high-return business has been slow to develop.

In sum, the Japanese organization is more fit for manufacturing than IT industries. It was more of the management problem than of regulatory barrier that explains lack of progress in new economy in Japan.

Concluding remarks**4**

Let me conclude my remarks from the Japanese perspective on new economy. There was a sense back in late 1999 that new economy would be just around the corner, as tech stock prices soared in Japan, lagging behind the Nasdaq. Just waiting for its arrival for a while, a decade-long recession in Japan would be over, many thought. However, optimism never materialized in year 2000, as tech stock prices tumbled.

So, new economy—high growth, high productivity, low inflation, and low unemployment—has not arrived in Japan or Europe. The Japanese and Europeans wonder why it has not come but wait for it patiently. The picture of a Japanese and a European waiting for new economy to come to their doorsteps reminds me of a play by Samuel Beckett, “Waiting for Godot” (read, Godot = new economy). I hope that the drama in the real world has a better ending than implied in the play.

Act I

Vladimir: We're waiting for Godot.

...

Estragon: And if he doesn't come?

Vladimir: We'll come back tomorrow.

Act II (next day)

...

Estragon: What do we do now?

Vladimir: Wait for Godot.

...

Vladimir: We'll hang ourselves tomorrow.

Unless Godot comes.

Estragon: And if he comes?

Vladimir: We'll be saved.

Samuel Beckett, *Waiting for Godot*

Endnotes

¹ Monetary policy for EU-12 by ECB is designed to stabilize the EU-12-wide average inflation rate. Since large economies are experiencing slow growth and low inflation, high inflation in Ireland is not countered by monetary tightening.

² Note that the composition of the Nikkei was changed in April 1999 to put more weights on technology stocks. Therefore, the index after April 1999 is not directly comparable to that before April 1999. If the old index composition had been maintained, the Nikkei would have been higher by 10 to 15 percent.

³ The Japanese stock market bubble of the late 1980s was not really copied in the United States and EU.