

## The new economy : fact or fiction ?

*Everyone is talking about the new economy, but what about the economics? Does the new economy really exist? Probably, though for economists, and indeed policymakers, more evidence may be needed.*

Ignazio Visco  
Economics Department

The US economy has been growing at a staggering pace for almost a decade, outstripping all expectations, to produce the longest expansion in a century. But could it have been forecast?

Ten years ago, the productivity paradox was well established: as Nobel laureate Robert Solow aptly put it, the computer age was everywhere except in the productivity statistics! In the last decade, those statistics have finally begun to come through. They show that the computer age has finally emerged and, with it, sustained high growth with minimal inflation, very low unemployment, rising real wages, and lots more besides – from stock options to biotechnology, from venture capital to the Internet.

None of this is strictly confined to the United States, though progress seems to be rather uneven across the OECD area. In any case, it is now fashionable to talk of the “new economy”, a term that defies precise definition but apparently summarises all the many changes, mostly for the good, that are currently taking place. These changes can be seen in communications, finance, trade and, more importantly, in the way businesses are run and how we organise our lives.

Three questions seem pertinent. What is the new economy about and, more importantly, what is it not about? What evidence has been gathered up to now on those fundamental changes in the United States and other OECD economies? And what key policy considerations, if any, might be derived from all this?

Before looking at what the new economy actually means, it has to be understood that we are going into uncharted waters. Ironically, despite the information revolution, economic information proper is in many cases sorely lacking. International comparisons often have to rely on very imprecise measures. However, there is probably enough evidence now to help economists build interesting hypotheses and draw some preliminary conclusions, as well as suggest possible lines of action.

The notion of a “new economy” is closely tied to the effects of technical progress on economic growth, and in the present debate the role played by information and communications technologies (ICT) on economic performance is key. A hotly debated issue is whether innovation in, and diffusion of, ICT can boost a country’s potential growth rate in economic output, allowing for larger increases in national income without stoking any major inflationary pressures. This does not necessarily mean the “death” of inflation, or indeed a permanent dampening of the business cycle, as sometimes is emphatically proclaimed, but simply that higher non-inflationary growth can be sustained over longer periods of time.

There are three channels by which ICT can lift potential growth rates. The first is that of the ICT-producing sectors themselves, which contribute directly to overall growth by virtue of their own (increasingly efficient) output. The second channel is higher ICT investment, which raises the capital intensity of production in the economy at large, reflecting sharp increases in quality and a fall in the prices of ICT equipment. The third is the so-called spill-over effects, like the spread of the Internet and the development of e-commerce.

This last channel might deliver significant cost reductions and organisational improvement to firms. In the aggregate economy, these savings and efficiency gains would show up in the form of faster expansion in that part of growth not accounted for by the increase in the quantity (and quality) of labour and physical capital used in the production process. This is what economists call multi-factor productivity (MFP) growth.

## WHEN NEW IS NOTHING NEW

The “new” in new economy should not be taken to mean that there have never been other new economies in the past. On the contrary, economic history, especially that of the last two centuries, is also the history of a succession of technological changes. There was the electrical revolution and the invention of the internal combustion engine. There have been communications breakthroughs before too, such as the invention of the telegraph, the telephone and, of course, radio and television, not to mention forms of transportation. All have transformed the way we live. But the question economists are asking is, did any of these earlier new economies produce a permanent rise in long-term growth?

It is not easy to say, even if they led to substantial improvements in our standards of living. In fact, the introduction of a new technology may initially cause a slowdown in productivity and a reduction in economic growth. The diffusion of a new technology, and the organisation and development of human capital around it, involve a lot of trial and error – this is learning-by-doing par excellence. It inevitably complicates the relationship between the beginning of the economic exploitation of a technology and its effects on productivity growth.

The effects eventually come through of course, which is when productivity growth pops up in the statistics. For the benefit to be sustained over time, impulses above those directly related to the accumulation of human and physical capital must also continue to be present, generating overall social benefits that outweigh the costs linked to innovation. Part of the problem is that while innovation can be quickly introduced, it sometimes takes a while for these wider benefits to show through. The productivity paradox – the slowdown observed in the 1970s and 1980s – can be explained this way. And, according to some, so can the new economy fad.

## LOOK AT THE EVIDENCE

Are they right? Is this the “something new” everyone has been talking about? After all, the evidence suggests something different is happening. Consider growth in per capita GDP. It has been rather uneven across the OECD in the 1990s, with a slowdown in most countries. The United States is one of the few notable exceptions.

The increase in US per capita growth stands out because it has been achieved through a combination of higher labour and multi-factor productivity growth rates in a context of increased labour utilisation. It is rather surprising that a country that is already at the world productivity frontier in many industries should be pulling away from the rest with such vigour. A large fraction of the productivity recovery in the United States is due to the diffusion of ICT, in part prompted by falling technology and communications prices. Recent estimates indicate that about a quarter of the overall US output growth in the last four to five years may have been due to ICT production and investment, much more than in any other G-7 country.

Besides the considerable direct impact on overall growth of investment in ICT equipment, a notable increase in multi-factor productivity growth has also become apparent in the United States in recent years. This certainly reflects activity in the ICT-producing sector itself. With respect to spill-over

effects, the macroeconomic evidence is still largely uncertain, even if microeconomic and anecdotal evidence indicates that businesses may be starting to achieve substantial productivity improvements thanks to network advantages of the Internet and e-commerce.

A few other countries, such as Australia, Canada, New Zealand and the Nordic European countries, have also experienced faster increases in their multi-factor productivity, though the contexts differ. In the case of Australia, Denmark and Norway, improvements in the growth rate of MFP have gone hand-in-hand with rising labour utilisation and rapid GDP growth. In contrast, in Sweden and especially Finland, increases in MFP growth rates have been accompanied by a slowdown in GDP per capita and significant cuts in employment.

What the different countries appear to have in common is an increase in business enterprise R&D intensity and an acceleration in productivity growth. While the direction of causality is not clear, as the diffusion and increase in efficiency of ICT must also play a role in fostering innovation in other sectors, the data nonetheless lends statistical support to the presumption that the social returns of R&D investment have begun to outweigh the costs.

## NEW POLICY?

No single policy lever holds the key to the new economic environment; rather, a constellation of mutually re-enforcing policies are required. Of particular importance are education and labour market policies to expand investment in human capital and encourage the swift reallocation of labour to the changing needs of the economy. Also, countries still have to promote frameworks that are conducive to entrepreneurship, innovation and open and competitive markets. Otherwise, the opportunities offered by new technologies might be delayed, or missed entirely.

At the same time, there seem to be some new factors at play, so a number of policy-relevant questions deserve a closer look. How important is venture capital in fostering innovation? Are administrative regulations affecting the start-up of new innovative enterprises? Is excessive employment protection legislation preventing the reallocation of labour to more productive activities?

The distributional aspects of the new economy also need to be better understood. On the one hand, the new “weightless” ways of creating wealth give the underprivileged, both in developed and developing countries, an opportunity to “get wired” and participate in the economy. On the other hand, the notion of a “digital divide” cannot be excluded, even if similar “divides” existed with the introduction of most technologies, from the car to the telephone.

It is still too early to say for sure how much of the recent pick-up in productivity really has to do with a new economy and how much is just due to a powerful cyclical effect. Could it be that we are simply living in a period of euphoria, confusing excessive market valuations of high-tech companies with perceived technical progress?

Unlikely. The importance of ICT is rising all the time and productivity growth is clearly picking up in several countries.

This does not necessarily mean that we should expect a permanently higher growth rate in the future: we might just be witnessing a sequence of important “level” shifts, which will eventually come to a halt after having delivered large increases in the level of income. When that will be is a question for the market, but there may be further shifts to come. Think of the possibilities on offer in communication networks that are still largely to be exploited, even in the United States.

Higher sustainable growth might not be that unrealistic after all. However, as has been the case for the computer, it may take a little time before we see the Internet and the dot.coms showing up in the productivity statistics. END

IGNAZIO VISCO IS CHIEF ECONOMIST AT OECD, [ECO.CONTACT@OECD.ORG](mailto:ECO.CONTACT@OECD.ORG)

©OECD Observer No 221-222, Summer 2000